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THESIS

A PROTOTYPE MODEL FOR AUTOMATING NURSING DIAGNOSIS,
NURSE CARE PLANNING AND PATIENT CLASSIFICATION

by

Gary R. Harmeyer

March 1986

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The program requires validation for access and patient admission capability. Doctor's orders and nurse's orders comprise major inputs for determining the elements of patient care. Patient care functions carry weighted qualifiers which input to calculate the patient classification.

The project uses dBase III to manage the database functions and Exsys to calculate patient classification.

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A Prototype Model for Automating Nursing Diagnosis, Nurse
Care Planning and Patient Classification

by

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March 1986

ABSTRACT

This project serves as a prototype of an automated nursing care system. The project contains three main components: nursing diagnosis, nursing care plans, and patient classification. The objective of this project is to marry the above three nursing elements into a single integrated system.

The program requires validation for access and patient admission capability. Doctor's orders and nurse's orders comprise major inputs for determining the elements of patient care. Patient care functions carry weighted qualifiers which input to calculate the patient classification.

The project uses dBase III to manage the database functions and Exsys to calculate patient classification.

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I. INTRODUCTION

The appropriate time to assess the nurse's automation
needs is when a hospital-wide system is being proposed.
The Navy Nurse Corps is currently in this unique position.
A Mission Element Needs Statement proposed the creation of
the Composite Health Care System in 1979. A formal Request
For Proposal allowed vendors to bid for the implementation
of the system in 1985. The Composite Health Care System
calls for a phased implementation process with phase one
scheduled to begin in 1986. Inpatient activities,
including the areas addressed in this project, occur in
phase two. The Navy Nurse Corps faces a system
implementation imminently. Timing dictates that the Nurse
Corps seek prototypes of automated systems that best serve
its needs.

This project serves as a prototype of an automated
nursing care system. The project contains three main
components: nursing diagnosis, nursing care plans, and
patient classification. The objective of this project is
to marry the above three nursing elements into a single
integrated system. Meeting the objective necessitates the
inclusion of the doctor's orders. The doctor's orders, in
combination with the nurses's orders, reflect the
independent, dependent and interdependent activities of

nursing. The combined orders serve as the foundation for the nursing care plan and the patient classification system. Departmental interfaces demand inclusion in the design of any nursing care software package.

To provide a realistic setting, the program requires validation for access and patient admission capability. The validation for entry is a necessity to safeguard patient information from unauthorized access and invasion of privacy. Patient admission capability allows for identifying and testing different patient scenarios.

This prototype project gives a partial operational solution to the planning model proposed by Rieder and Norton in "An Integrated Nursing Information System - A Planning Model." Reider and Norton state,

> the processing step of classifying patients could be fully automated. The computer could process patient information and determine each patient's acuity category from the Critical Indicator parameters stored within the system. As orders and plans of care change, the computer also will update each patient's acuity category and display the results on demand. [1:78]

This program plans to show one way of automating the patient classification system using nursing diagnosis and patient care plans.

II. PROJECT INITIATION ACTIVITIES AND BACKGROUND

This software project follows the outline presented by Pressman [2] and found in the GSA Office of Software Development publication "Establishing A Software Engineering Technology (SET)." In this publication, the Federal Software Testing Center describes SET as:

> Software engineering is sometimes referred to as the discipline that brings order to the software development process. [3:3]

This software development effort concentrates on the first three of six software life cycle stages outlined by SET. These steps are requirement definition and analysis, design, and programming. The final three stages of validation, operation and review remain for a follow-on project.

A. SCOPE

This software product limits its application to an in-hospital medical-surgical environment. The emphasis is on automating the nursing care plan activities driven by nursing diagnosis. The patient classification system uses an expert system for automation. Automating the nursing care plan activity holds potential for improving documentation, resulting in better patient care. Automating the patient classification system provides for consistency and accuracy in assigning points for all

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patient care parameters. This provides for easy, rapid classification of patients giving the decision makers necessary and timely information to make effective staffing assignments.

B. COMPUTER/COMPUTING CONSTRAINTS

  1. Hardware

  The computer hardware chosen for this project is the IBM-PC or IBM-compatible machine. Nurse Corps Officers testing the prototype model operate available Zenith-150 microcomputers located within the nursing service departments. These microcomputers are configured with two floppy disk drives. The capacity of floppy disks to hold data delineates the maximum size of the project.

  2. Software

  This project uses off-the-shelf software. However, no current product on the market provides for both the automation of a nursing care plan and for patient classification. A versatile, multipurpose programming software package adaptable to the project design provides the means to integrate the nursing activities.

  3. Intended User

  Navy Nurse Corps functions are currently not highly automated. It is a goal of the software product development to make the system user-friendly and understandable even to the novice nurse. The system designed is for use as a tool for the professional nurse.

Stringent programming measures reduce the understanding
required of the inner workings of a computer.

C. DEFINITIONS

1. The Nursing Care Plan

The nurse is a manager of time, energy and
resources. Conscientious planning occurs throughout the
many levels of a nurse's job. The nursing care plan is at
the heart of what a nurse should get accomplished for a
patient. The nursing care plan allows the nurse to
approach each patient with a documented plan of action.
The care plan needs to contain sufficient information on
the patient to make it pertinent without making it lengthy
and unwieldy.

Currently, the writing of nursing care plans is
not a popular activity. [4-6] Nurses agree that patient
care planning is necessary. They disagree on how best to
implement the documentation of nursing care plans.
Education and practice direct nurses to prioritize energies
on administering patient care. This is an admirable goal
to strive toward, but one often infringed upon by
non-patient care requirements. Animosity exists between
the need to provide the necessary nursing care and the time
spent documenting the care. Manual documentation currently
eats up 40 per cent of a nurse's time. [7:26]

Various approaches to encourage, enable and
persuade nurses to complete nursing care plans have been

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tried. The Joint Commission on Accreditation of Hospitals
[JCAH] requires a documented plan of care for every
patient. [8:98] Texts have been published to inform
nurses about suggested care planning methods. [9-10]
Many hospitals establish nursing committees to provide
standardized care plans. Standardized care plans attempt
to save nurses the time and energy necessary to develop
original care plans. They still allow individualization of
plans. These attempts to simplify care plan writing
activities have not succeeded. What often results is a
nursing care plan written precursory to assessing the true
needs of the patient. The plan rapidly outdates itself.
Plans frequently need updating. The care plans lack
consistency from one practitioner to another. Patient care
plans written to meet JCAH requirements, fall short of
matching the spirit behind them.

A possible solution to the above care planning
dilemma is beginning to appear in nursing literature. In
many instances that solution is a successfully implemented
automated nursing system. [11-12] Where a successful
automated system exists, more nurses actively develop care
plans for their patients. Nurses perceive the automated
plans as helpful and pertinent to the care delivered. The
speed and ease of entering care plans pays dividends of
better nursing care documentation. Their timely output
encourages active use of the plans.

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2. The Nursing Diagnosis

One accepted method for formulating a nursing care plan commences with a nursing diagnosis. A nursing diagnosis, as stated by Carpenito, is:

> a statement that describes a health state or an actual or potential alteration in one's life processes [physiological, psychological, sociocultural, developmental, and spiritual]. The nurse uses the nursing process to identify and synthesize clinical data and to order nursing interventions to reduce, eliminate, or prevent [health promotion] health alterations which are in the legal and educational domain of nursing. [13:4]

Automation was one of the catalysts behind the First National Conference on Classification of Nursing Diagnoses. Since the first conference, 52 of the most pertinent nursing diagnoses [through the Sixth National Conference of the North America Nursing Diagnosis Association], have been identified. Nursing diagnoses, along with delineating the etiology and interventions appropriate to each, has produced a national effort aimed at unifying activities in nursing. [14:xi] The nursing diagnosis approach has received broad support from the nursing community. The nursing diagnosis drives this computer project.

Numerous texts provide sample or generic statements initiated by nursing diagnosis. Many hospitals interested in implementing automated nursing care planning use standard texted plans. This program extracts examples from Doenges [15] and Crosley [16].

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A nursing diagnosis is multileveled. A nursing diagnosis can be any one of the 52 approved nursing diagnoses. Each diagnosis has an assessment level. Assessment levels are defining characteristics observed by the nurse or subjectively stated by the patient. The nurse's observation or the patient's statement is relational to some etiology or underlying cause. The underlying cause statement helps the nurse evaluate realistic goals for the patient to achieve. Goal setting is the fourth level of nursing diagnosis. The final level is selecting nursing actions or nurse's orders directed toward achieving the stated goal.

3. Patient Classification

    Patient classification is:

    the grouping of patients according to an assessment of
    their nursing care requirements over a specified period of
    time. [17:8]

A valid patient classification tool enables proper staffing evaluation. This program will adopt the Navy Nurse Corps' Workload Management System for Nursing. This method of classifying patients exists in all inpatient Navy facilities. The Nurse Corps has established solid criteria-based critical indicators which this program will exploit for deriving a classification level. The classification level equates an amount of nursing time required to give patient care.

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The Navy Nurse Corps is ahead of its civilian counterparts in its use of a sophisticated tool to measure patient classification level. The use of the Workload Management System worldwide has given the Nurse Corps excellent data to improve its system. The continual drawback that many manual tools have, including this one, is subjectivity and inconsistency across users. With inservice training and auditing, the Nurse Corps attempts to keep the reliability of its model high. Automating such an activity would enhance consistency and accuracy.

4. <u>Expert System</u>

This program will introduce an expert system limited to the patient classification documentation. Ryan defines an expert system as a system capable of operating with a large knowledge database, processing information on expert level. She continues with

> benefits of expert systems are that they can capture, replicate, and distribute expertise. [18:77]

As a large standardized nursing knowledge database accumulates, the application of expert systems will increase in importance.

For this project, patient classification adapts well to an expert system approach. The critical indicators and their associated value can easily fit the if-then format of most expert systems. The expert system will extract from a patient's orders the applicable critical indicator values and calculate a classification level.

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III. <u>REQUIREMENTS DEFINITION AND ANALYSIS STAGE</u>

The first stage of software development is the requirements definition and analysis stage. This stage defines the purpose of the system and examines the different components that ultimately make the whole. The prototype system provides the nurse with a tool to assist in the documentation of the nursing care plan and calculation of a patient classification level.

A. PATIENT ADMISSIONS

Nurses cannot exercise their skills without patients. The ability to bring patients into the system (admission), and have them exit the system (discharge) provides a realistic situation. The varying population number necessitates an expandable capacity for holding patient information.

B. NURSING CARE PLAN AND PATIENT ORDERS

A patient occupies a specific bed in a numbered room located on one of several nursing wards. After the patient arrives on the ward, doctors write orders. The nurse interviews the patient and develops a nursing care plan. The care plan consists of one or more nursing diagnoses. Each nursing diagnosis has one or more assessments, related factors, patient goals and nursing orders. The initial

doctor's and nurse's orders comprise the patient care requirements. The patient care requirements determine the patient classification level.

The orders determine the patient care requirements. Both doctor's and nurse's orders dictate nursing care activities. The calculation of a patient classification hinges on the analysis of the patient orders for relevant critical indicators.

A patient order consists of the date, the time, the order, the frequency of the order, and the practitioner initiating the order. Date and time dependency is critical for patient orders. An order's date and time determines whether the order is current or due for deletion. The order date is also important for patient classification determination. Patient orders prescribed for a specific number or repetitions [i.e. x 3 or x 12] are nonrecurring orders. Nonrecurring orders input to patient classification calculation only on the date they were issued.

The purpose of the critical indicators is to easily translate patient orders to a patient classification level in a manual system. Only those orders that closely parallel the critical indicators in the Nurse Corps' Workload Management System for Nursing need consideration.

A need exists for the user to identify a patient then move on to select patient orders. The indexing of orders to allow for logical progression aids the process.

Individual orders will need to be linked to a relevant critical indicator. Many critical indicators are time or frequency dependent. The program should tie these factors together. Patients frequently require several doctor's orders from the same section. The program would need to accommodate for some type of looping to handle multiple order entry for a single subcategory.

The practitioner is a doctor or a nurse qualified to enter patient orders. The program should have an internal check to assure that a practitioner has limited ordering access pertinent to their qualifications.

The patient's condition is dynamic. The program will need to provide an easy method to modify changes. Nursing care plans vary in length and content. Some patients have multiple nursing diagnoses, while others have only one. The program would have to accommodate for these variations.

Some method would need to be available for communicating modifications to staff members. This communication process is best if the output is in a printed format. Printed output allows for the information transmittal to staff members even when away from the computer location.

A number of nursing diagnoses in the system is desirable. Patient needs cannot be anticipated. A variety of diagnoses allows for specific selection. Because a nursing diagnosis requires documentation of assessments, related factors, goals and nurses' orders, these functions require inclusion.

C.   TRACKING USERS AND PROGRAM SAFEGUARDS

Some input information should distinguish for the system that the current user is either a doctor or a nurse. A doctor will want to choose a ward for patient admission, identify the patient and select orders. A nurse will want to select a ward and patient but then either select a nursing diagnosis or calculate a patient classification. The doctor/nurse functions, although related by patient selection are different in nature. When users enter the system the program should identify whether they are doctors or nurses, and direct their attention to the appropriate branch of the program.

The program selectively allows access to program information to eliminate unauthorized access. The program contains hypothetical patient information. Nevertheless, addressing the privacy of sensitive patient information is relevant even in a prototype setting. Safeguards built into the system reduce the chance of successful unauthorized entry.

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D. USING AN EXPERT SYSTEM FOR DETERMINING PATIENT CLASSIFICATION LEVEL

A self-imposed requirement of the system is to use an expert system to determine the patient classification level. This expert system should interpret the patient order as to which critical indicator applies and the frequency of its performance. The expert system then translates that information into patient care points which then calculates a patient classification level.

The use of an expert system would allow a user the option of reviewing rules used in calculating the patient classification. The patient classification tool is continually evolving. By monitoring rules and their underlying critical indicators, the user gets a visual output of the points and how they were derived.

IV. <u>DESIGN STAGE</u>

The design stage attempts to answer how the system will accomplish the requirements outlined in the requirements definition and analysis stage.

A. PATIENT ADMISSION CRITERIA

The need analysis pointed out the requirement for handling varying numbers of patients with set criteria on each patient. Two options to meet this requirement are an automated file system or a database system. Generalized patient data that would need to be included are: patient's first, middle and last names; their rate or rank; their family member prefix concatenated with their social security number giving a unique identifier; birthdate; age; sex; admission date; hospital registration number; medical diagnosis; physician; prognosis; allergies; as well as their nursing ward, room and bed assignments. [See Appendix A, Data Dictionary; Appendix B, Structure Chart; and Appendix C, User's Manual for additional information.]

B. NURSING CARE PLAN

A representative four of the 52 approved nursing diagnoses were selected due to the floppy disk capacity constraint. To some degree, every patient experiences self-care deficit when admitted to the hospital. Other diagnoses

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are more applicable to some specific area in nursing. The
three other nursing diagnoses reflect diagnoses frequently
seen in a military hospital setting. These diagnoses are:
comfort, alteration in: pain; communication, impaired:
verbal; and impaired physical mobility.

Critical indicators that fall under the independent and
interdependent roles of nursing need to be identified.
After identification, these indicators require
incorporation into the nursing order screens for selection.
These critical indicators need to be back-chained to one of
the four nursing diagnoses, to provide for their selection.

The critical indicators on the Patient Classification
Critical Indicators [19:10] list that were identified as
independent or interdependent nursing functions were: all
activities of daily living except turning frame; spoon
feeding adult and children patients; accompany patient off
ward, other activities requiring nurse's time and special
procedures; range of motion exercises; and all items listed
under teaching and emotional support. This is an initial
grouping, conservatively chosen.

Multiple nursing diagnoses, with their corresponding
assessments, related factors, goals and nursing orders, can
be handled with either a file system or a database system.

C. DOCTOR ORDER CRITERIA

The criteria to include doctor order categories will be
to meet critical indicator requirements and provide a

representative model of patient orders. An admission

section monitors the patient flow. This satisfies the

critical indicators of admitting and transferring patients.

An activity section captures the mobility level of a

patient. A diet section captures the dietary requirements

of a patient. A section provides selections of intravenous

and blood products that a patient might require.

Laboratory and pharmacy sections allow orders for lab tests

and medications. A monitoring section allows options for

monitor orders. A radiology section captures radiology

test orders. A respiratory therapy and vital sign section

allows orders that relate to those areas. Finally, a ward

routine section captures the nursing care activities

normally restricted to the ward setting.

These categories would allow for the dependent and

interdependent functions of nursing, which the critical

indicator list includes. Either a file or a database

implementation would satisfy these requirements.

D. PATIENT ORDERS

Microcomputers have the ability to maintain an internal

clock upon entry of the current date and time. The program

would need to pick up this data from the system's clock to

attach it to patient orders. The actual order length would

need limitation to a number that would best suit a screen

presentation format. The number of options for

time/frequency would need to include those commonly found in a medical environment.

The design should accomplish the looping for multiple orders in a single subcategory. Once selected, an order is activated and placed in an order file or database. The program returns for another order or to have the user select to move on.

E. USER INFORMATION

The use of a user chosen password to access the program would accommodate all of the identified requirements. Utilizing a user information database would provide for users to be added or deleted from the program. The database carries their status within the organization and provides an access level for legal entry into the program. A doctor or nurse, by signing on to the system and entering their valid password, would dictate which branch the program should route them through. The password would also limit those not authorized to use the system from entering the program.

To provide for a degree of user specialization, the design proposes four areas of access. The first is for admissions personnel. In a hospital, the admissions department is physically separate from the ward. Admissions personnel are responsible for the input of patient information. The second group is the nurses who develop the nursing care plan and determine the patient classification. The

third group is the physicians who select doctor's orders.
The fourth group is the information systems personnel. Their
role would be to add new users and delete obsolete ones.
Access level assignments occur during routine check-in
procedures of personnel. The actual assigned level would
depend upon the employing department and the job position.
Additionally a fifth group exists for the prototype model.
This is a group of users, with passwords allowing access
to all areas to aid in the testing and integration of the
software model.

F. EXPERT SYSTEM

    The expert system calls for special input
consideration. A patient order consists of the order and
the frequency. Major order headings [i.e. vital signs] can
be categorized as a qualifier. Listed under each qualifier
is its potential values [i.e. QID or less, q4h or x 6, q2h
or x 12, q1h or x 24]. From this system of qualifier and
value, rules can be derived [i.e. vital signs QID or less
receives a value of 1 patient point]. By splitting the
critical indicators into qualifiers and values, thus
setting up conditions, the formulated rules allow the
system to derive a patient classification level. [See
Appendix D.]

G.   SCREEN FORMAT

User friendliness is a goal many programs strive to achieve. This program will follow many of the suggestions of Monk's text on Fundamentals of Human-Computer Interaction. [20] The program will rely on consistent screen formats which locate user instructions in the same place on each screen. After patient identification, the patient information is put on every screen so the user has no question which patient he has selected. The program will provide the user with consistent input locations. Screens are uncluttered and easy to follow. The screen color is white lettering on blue background. Although speed is not a prime consideration for this model, it influences the selection of the method of screen projection. A software utility called Flashcode creates the screen projections. Where possible, the user returns to a previous screen, or to a home base to reorient themselves. A rudimentary help facility allows on-line assistance. The help facility demonstrates its function rather than providing indepth assistance with this prototype model. [See Appendix E and Appendix F.]

H.   SOFTWARE SELECTION

With hardware choice set by the constraints of the user, software compatibility is the remaining issue. Numerous software packages exist for IBM-compatible microcomputers. Information in a database format provides

increased data flexibility and maneuverability. Some
advanced programming tools provided by database software
producers simplify the task of programming. These are
major incentives to choose a database orientation. The
database language, dBase III, has user friendly features
and the capability for meeting most of the identified
requirements. An area for which dBase III can only provide
a partial solution is the expert system. The dBase III
program has the ability to calculate patient point totals
and derive a patient classification level. It lacks the
option of allowing the user to see why it calculated its
results in a specific way.

    The expert system chosen is Exsys. Exsys is an off-
the-shelf expert system that can accommodate the number of
critical indicators outlined in the Navy's Nurse Corps'
Workload Management System for Nursing. This software
product can also do the necessary calculations required to
arrive at a patient classification level.

    The information format coming into Exsys requires the
statement of qualifiers and values. The dBase III language
accommodates for this by including the qualifier and value
with each order selected. A salient feature of Exsys, that
makes it especially appropriate for this design, is its
ability to import data from an output file. Exsys operates
as an interactive independent program using the same
conditions and rules. This option is useful because of the

iterative nature of both the critical indicator development
and that envisioned for this system. In addition, Exsys
does allow the user to view rules used to derived a
classification. A visual check of the applied rules
against the individual patient order allows the achievement
of greater reliability. [See Appendix D.]

V. PROGRAMMING STAGE

The programming stage constructs a product for the
user. The software product incorporates details identified
in the analysis and design stages to produce a workable
solution. The product's overview is presented in Figure 1.
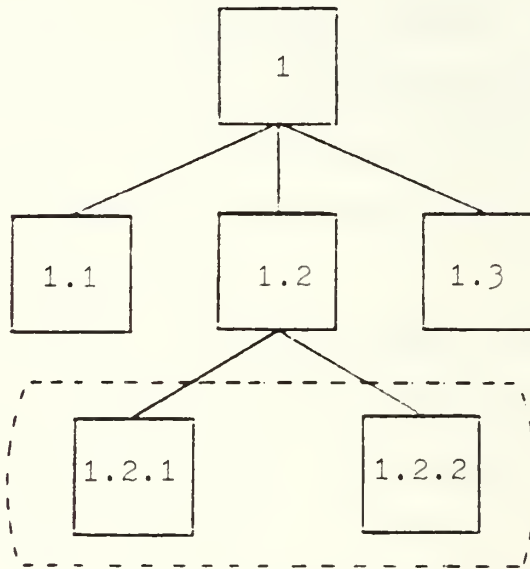
Figure 1   Nursing Prototype Product Overview

```
Box 1        Coordinating Module
Box 1.1      Patient Admissions
Box 1.2      Select Ward and Patient
Box 1.2.1    Select Doctor Orders
Box 1.2.2    Select Nursing Diagnosis, Nursing Orders and
             Patient Classification
Box 1.3      Patient Classification
(----)       Expert System (Exsys)
```

A modular approach was used for programming. Appendix
B displays the design modular structure of the prototype
system--a detailed version of Figure 1. This structure was
used as a guide in program development. Programming

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modularity allows the programmer to work with smaller more manageable units. This enables the programmer to easily test and debug a module before integrating it into the system. The use of comments throughout the programming effort attempts to improve the maintainability of the program. [See Appendix E for program listings.]

A. TRACKING USERS AND PROGRAM SAFEGUARDS

In programming modules the author has tried to minimize the number of steps required for the user to move between modules. Whenever possible, the system automatically advances the program to the next screen.

Screens are used in this chapter to demonstrate the method used to convert design details to workable solutions.

The program opens with an introductory screen [Figure 2]. The screen gives information on the organizations supporting the program and identifies the author. Depressing any key advances the program to a screen requesting a password [Figure 3]. Advancing beyond the second screen requires a valid password. The program compares the entered password against a database of user's passwords. If the password is a match, the user moves forward to the main branching module of the program. Incorrect passwords deny access with the opportunity to re-enter a password.

```
A    PROTOTYPE
                                        •
     PROJECT                         ••  ••
                                    •••   •••
       FOR                          •       •                    BY
                                   •••     •••
       THE                         •         •         GARY R. HARMEYER
                                  •••       •••            LCDR NC USN
  NAVY NURSE CORPS               •           •
                                •             •           MARCH  1986
                               ••••         ••••
                               •             •       NAVAL POSTGRADUATE SCHOOL
                               •             •
                                •           •           MONTEREY, CALIFORNIA
                                ••••     ••••
                                 •       •                  RELEASE 1
                                 ••••••
```
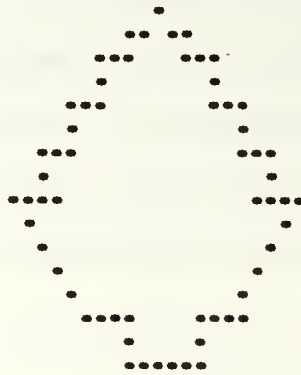
PRESS ANY KEY TO BEGIN

Figure 2   Introductory Screen

••• Please Sign On By Entering Password •••

•• Password :

Figure 3   Validation Screen

As a result of entering a valid password, the system now recognizes the user by name and access level [See Figure 4].

```
●● Prototype Master Screen ●●                        Date     Time

              ●●● Select the Desired Option ●●●
```

```
                    1) Admission's Department

                    2) Doctor's Master

                    3) Nursing Master

                    4) System Administration

                    0) Sign-Off
```

Current User:	
	Select one number (0-4) ----> ●

Figure 4   Prototype Master Screen

The four user access levels available in this program are admissions personnel, nurses, doctors, and administrative personnel. The current user's name appears in the bottom left corner of each screen. Since the system now recognizes a user by name and access level, the main branching module restricts the user's entry to a branch corresponding to that access level.

The main branching module provides five options for selection. The first option, which appears on essentially every screen, is to sign-off from the system. This ends the current user's session, and returns the program to the introductory module. The other four options relate to the main sections of the program.

B. PATIENT ADMISSIONS

The selection of admission's department advances the program to an admit/discharge option module. The admit option moves the user to a patient data input screen [Figures 5,6]. Admitting a patient requires the user to input patient data to a patient information database. [See Appendix C for the User's Manual.] From this database, the program uses the patient's name, family member prefix-social security number [fmp-ssn], ward, room and bed. After entering the patient data, the user returns to the admit/discharge module.

The selection of discharge a patient moves the user to the discharge module. The user reviews and selects patients for discharge. Upon leaving the discharge module,

---

••• SELECT ADMIT / DISCHARGE OPTION •••

1] Admit A Patient

2] Discharge A Patient

0] Sign-Off

Current User:
Select one number [0-2] ----> •

Figure 5   Admit/Discharge Screen

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```
                        Patient Admission Form

   Last Name:                    Registration No:

   First Name:                   Medical Diagnosis:

   Mid Initial:                  Physician:

   Rate/Rank:                    Prognosis:

   FMP-SSN:          -           Allergies:

   Birthdate:     /   /          Nursing Ward:

   Age:                          Room Number:

   Sex:                          Bed:

   Admit Date:    /   /
```

Figure 6   Patient Admission Screen

the program purges all patient records flagged for

discharge. The program also purges any patient data in

other databases with identical fmp-ssn identifiers. (See

Appendix G.)

   This module limits itself to handling primitive

admit/discharge situations. Although limited, this module

allows the nurse user to test a number of patient scenarios

while working with the prototype system.

C. DOCTOR ORDER SECTION

   The doctor option of the main branching module advances

the physician to the nursing ward selection module. The

doctor chooses between one of two nursing wards (Figure 7).

A surgical and medical ward option reflects the major

divisions of patients in a hospital. Options to return to

33

the main branching module or to sign-off the system are also provided.

A ward selection moves the program to one of two nursing wards containing six beds [Figure 8].

```
** Nurse's Station Selection **                          Date      Time

        *** Select Nursing Unit to Display Patients ***
```

```
                         1) 2E   Surgical Ward

                         2) 3E   Medical Ward

                              .



        0) Sign-Off                              3) Master Screen
```

```
Current User:    |
                 |        Select one number (0-3) ----> .
                 |
```

Figure 7   Nurse's Station Selection Screen

```
** Patient Selection **     Ward 2E  Surgical           Date      Time

                         *** Select Patient ***
```

```
                    RM BED              PATIENT
                 1) 1   A
                 2) 1   B

                 3) 2   A
                 4) 2   B

                 5) 3   A
                 6) 3   B

        0) Sign-Off                              7) Master Screen
```

```
Current User:    |
                 |        Select one number (0-7) ----> .
                 |
```

Figure 8   Patient Selection Screen

Patients' names, listed in the patient information
database, appear in their ward, room and bed assignments.
Valid options include: sign-off, return to main branching
module, and selection of a patient assigned to an occupied
bed.

A patient selection advances the physician to the
doctor's branching module [Figure 9].

Ward Room Bed	Patient	Reg #	Date	Time

```
                    ••• DOCTOR'S MASTER SCREEN •••
```

```
                    1) Order Entry
                    2) Admit / Transfer / Discharge Patient
                    3) Review Medical Orders
                    4) Print Medical Orders
                    5) Discontinue An Order


         0) Sign-Off                          6) Master Screen
```

```
Current User:
                          Select one number (0-6) ----> •
```

Figure 9   Doctor's Master Screen

The doctor's menu provides options for deciding on the
next activity. With the exception of output forms [i.e.
review of the doctor orders on screen or printed], any
selection results in menu modules for doctor's orders
[Figure 10]. Many orders request additional order
information moving the program to a time/frequency module.
The doctor's order with the frequency determines a
qualifier and value listing in the patient's order

```
Ward Room Bed        Patient                    Reg #         Date      Time

                        ••• SELECT WARD ROUTINE •••

   1) Ace Wrap Lower Ext  | 12) Lumbar Puncture     | 20) Simple Drsg Change
   2) Chest Tube Insertion| 13) N-G Insertion       | 21) Spec Gravity
   3) Circumcision Care   | 14) Parencentesis       | 22) Spin HCT
   4) Complex Drsg Change | 15) Phototherapy        | 23) Straignt Cath
   5) EKG Rhythm Strip    | 16) Range of Motion     | 24) Surgical
   6) Foley Cath Care     |     Exercises (Passive) |      Shave Prep
   7) Foley Cath Insertion|                         | 25) SS Enema
   8) Guiac Stools        | • Restraints            | 26) Tap Water Enema
   9) Isolation Respiratory| 17) 2-Point            | 27) Thoracentesis
  10)      "    Reverse   | 18) 4-Point            | 28) Tube Care (not trach)
  11)      "    Strict    | 19) Posey              | 29) Urine for S & A

     00) Sign-Off         30) Doctor's Order Screen      31) Master Screen

  Current User:
                          Select one number (00-31) --->
```

Figure 10   Ward Routine Screen

database. Qualifier and value information transfers to the

expert system. In addition, a patient point value appears

in the patient order database. This number provides the

option of dBase III calculating its own internal patient

classification level. (See Appendix G.)

D. NURSING CARE PLAN AND PATIENT CLASSIFICATION FUNCTION

    At the main branching module, the nursing option

advances the program to the nursing ward selection module

(Figure 6,7). This module, and the patient selection

modules are identical to those presented to the physician.

The program sets an internal flag to indicate the access

level of the user. After patient selection, the nurse

automatically tracks to the nursing branching module

(Figure 11).

```
 Ward Room Bed      Patient              Reg #        Date    Time
 _____

                   ••• NURSING MASTER SCREEN •••
 _____

  1) Enter/Inactivate Nursing Care Plan │ 5) Review Patient Care Requirements

  2) Review Nursing Care Plan           │ 6) Print Patient Care Requirements

  3) Print Nursing Care Plan            │ 7) Internal Patient Classification

  4) External Patient Classification    │

        0) Sign-Off                            8) Master Screen
 _____
  Current User:         │
                        │      Select one number (0-8) ----> •
 _____
```

Figure 11   Nursing Master Screen

The nurse branching module provides a menu for

direction for the user to proceed. Options include the

selection of a new nursing care plan, modifying an existing

care plan, reviewing or printing patient care requirements

(consisting of all active patient orders), reviewing or

printing the nursing care plan information, and determining

the patient classification system.

After the nursing care plan option selection, the

program advances to a module allowing for a new care plan

entry or a modification of an existing care plan. The

choice of a new nursing care plan provides the option of

the four selected care plans (Figure 12).

All patients require a minimum of one care plan (self-

care deficit). All diagnoses, assessments, goals and

nursing generated orders enter into a nursing care database
[Figure 13]. In addition to the nursing care database,
nurse generated orders are also placed in the patient order
database for inclusion in the calculation of the patient
classification. [See Appendix F for additional screens.]

Word Room Bed	Patient	Reg #	Date	Time

••• SELECT NURSING DIAGNOSIS •••

1) Comfort, Alteration In: Pain

2) Communication, Impaired: Verbal

3) Impaired Physical Mobility

4) Self-Care Deficit

0) Sign-Off	5) Nurse's Master Screen	6) Master Screen

Current User:	Select one number (0-6) ----> •

Figure 12   Nursing Diagnosis Screen

Word Room Bed	Patient	Reg #	Date	Time

•• SELECT A NURSING ORDER FOR A PATIENT WHOSE GOAL IS ••
•• COMMUNICATES: PAIN FREE, EXPERIENCES LESS/TOLERABLE PAIN OR OTHER GOAL ••

1) Assess Pain Factors   6) Offer PRN Medications

2) Assess & Evaluate Pain   7) Provide Emotional Support

3) Encour Pt to Use Coping Strategy 8) Schedule "Quiet Times"

4) Give Info & Explain Proc & Tests 9) Teach Alt Coping Strategies

5) Other Nursing Orders: 10) Utilize Diversional Activities
   [..............................]

Current User:	Select one number (01-10) --->

Figure 13   Nursing Order Screen

If the option selected inactivates a portion of the nursing care plan, the user moves to a module for review of existing care plan entries. If an entry is inactivated, the program purges all portions related to that specific entry including the order in the patient order database.

The selection to review or print the patient care requirements consists of all active patient orders. Active orders consist of previously selected orders, and those orders selected for a specific frequency (i.e. x 2) on the date of their selection. The same criteria applies when determining patient classification (Figure 14).

```
                Press -- Ctrl and S -- Keys To Pause The Scrolling If Necessary
Page No.     1
01/12/86


 Date     Time     Order                             Frequency        Practitioner


 01/11/86 10:06:20 Teach Alt Coping Strategies                        G. Harmeyer RN
 01/11/86 12:08:07 Assist Bed To Wheelchair          TID              N. Lyons MD
 01/11/86 13:10:15 Self/Minimum Care                                  G. Harmeyer RN
 01/11/86 13:10:53 Keep Commode @ Bedside            TID              G. Harmeyer RN
 01/11/86 14:13:47 Up in Chair w/ Assist             TID              N. Lyons MD
 01/11/86 14:14:23 Diabetic Diet                                      N. Lyons MD
 01/12/86 10:17:14 Cloride                           Daily @ 0600 T. Bui MD
 01/12/86 10:17:40 Sodium                                             T. Bui MD
 01/12/86 10:18:00 Amylase                                            T. Bui MD
 01/12/86 10:18:26 Potassium                         Daily @ 0600 T. Bui MD
 01/12/86 10:18:56 CO2                               Daily @ 0600 T. Bui MD
 01/12/86 10:19:26 CBC                               Daily @ 0600 T. Bui MD
 01/12/86 10:19:54 Platlets                          Daily @ 0600 T. Bui MD
 01/12/86 10:20:18 Glucose                           Daily @ 0600 T. Bui MD
 01/12/86 10:22:02 Intake & Output                   TID              T. Bui MD
```

Figure 14   Patient Requirement Screen

The nurse can also select to review only the nursing care plan portion of the patient record. This enables review of the nursing care plan to determine if modifications or updating is necessary.

Two options for determining patient classification exist. The first option keeps the user in the current program, and generates a number with a corresponding patient classification level [Figure 15].

Patient: Mary Miser

Is In: Category II

Point Value Is: 27

Figure 15   Patient Classification Screen

Each order receives a point value based upon the order selected and the frequency for that order. Then dBase III sums these points and assigns a patient classification level. The program does not explain how this number was calculated. A less user-friendly method results when selecting the second option--that of external calculation of the patient classification. The user exits the dBase program, changes floppy disks, and runs Exsys. The patient point value and level would not change, but the expert system program displays rules used to derive the classification level.

E. INFORMATION SYSTEM

The information system section of the program is a parallel development of the admission's department. User's of the program must have the appropriate access level to advance beyond the main branching module [Figure 3]. The program limits transactions to adding another user to the system or deleting a current user [Figures 16, 17].

●●● SELECT ADD / DELETE A USER ●●●

---

1) Add A User

2) Delete A User

0) Sign-Off

Current User:

Select one number [0-2] ----> ●

Figure 16   Add / Delete A User Screen

F. PROGRAM TESTING

Testing is an aspect of the programming stage. Testing criteria are three-fold. First, procedural testing of separate modules [white-box testing] takes place as modules are completed. Next, integration testing assures modular interfaces are smooth from one program to another [black-box testing]. Finally, independent use by a third party tests the program in a simulation performance. Where

testing uncovered mistakes, program modifications correct

the errors.

USER INFORMATION

••• THIS INFORMATION IS CONFIDENTIAL •••

First Initial: .

Middle Initial:

Last Name:

Category of
    Requestor:

Password:

Access Level:

Figure 17   User Information Screen

VI. <u>IMPLICATIONS FOR FUTURE STUDIES</u>

Creating a hospital information system model is a time-consuming methodical process. A program using nursing diagnosis to drive nursing care plans produces a logical product. The major implications of this program center on the automation of the patient classification system.

Tying critical indicators to patient orders is an arduous task that required many iterations. The program makes assumptions about orders. This program assumes the physician knows the difference between a simple and complex dressing change (see Figure 10). The distinction between a 15 minute dressing change and 30 minute dressing change can be very subjective. Frequency of patient orders relates to almost all the critical indicators. This program separates the time/frequency options into prn (as necessary), once a day, twice a day, 3, 4, 6, 12 and 24 times a day. The latter seven options divide further into recurring orders (i.e. twice a day) verses nonrecurring orders (x 12). Recurring orders continually count toward the patient classification level until discontinued. The nonrecurring orders count only on the day ordered. Nurses calculate classification levels daily at 1400. Many nonrecurring orders are completed by that time and should not be calculated. The program counts these orders.

Duplicate orders result in duplicate point calculations. For example, if a doctor and a nurse each order passive range of motion exercises for a patient TID, the patient point total would be 8 vice the correct total of 4. The program tallies 2 points for isolation precautions regardless of the number of gown and glove changes. The correct assignment gives 2 points for every eight gown and glove changes.

In the current manual system, doctors and nurses assume that new orders supersede previous orders. If doctors and nurses hold to that assumption, this program produces inaccurate results. For example, if a patient's condition improves, the doctor writes an order for vital signs Q4h (with a patient point value of 2) without deleting the original order of vital signs Q2h (patient point value of 4). The program totals vital signs points as 6 instead of 2.

Some critical indicators do not readily convert to a patient point value. The program accommodates for three of these critical indicator exceptions. The critical indicator for apnea monitor, temperature monitor, etc. is not additive and as such translates indirectly from patient orders. The critical indicator for specific gravity, Guiac, etc. is additive across orders resulting in a point total assignment. The classification listing limits emotional support to a maximum total point value of 10.

Assigning a patient point value to these patient orders
requires an intermediate variable. The calculation occurs
first for the intermediate variable. This amount then
feeds into the sum of other patient point values.

Medication and laboratory critical indicators presented
difficulty in program translation. The program assigns
points for medication and laboratory samples on a per order
basis rather than on a per trip basis. The intended
critical indicator for both factors assesses points on a per
trip basis. The nurse actually delivers all the medications
for a specific time in one trip. The nurse draws numerous
lab tests with one venipuncture. The program calculates
point values based on individual medication or laboratory
test order. Aggregating nonintravenous medications and
laboratory tests into time groups would provide accurate
results. However, the effort required to program in time
groups was counterproductive for this project.

The program overlooks patient situations requiring more
than one staff member. Currently, all critical indicators
except turning frame, which explicitly includes two staff
members, calculate on a one staff member per patient basis.

To accommodate for patient orders not currently listed
on the nursing order screen, an "other orders" option
exists (see Figure 13). The option allows any nursing
order entry. Entries in this category result in no patient
points awarded to those orders. Despite their critical

indicator value, the program lacks the refinement necessary
to assign a value to this order.

Many of the areas addressed can be corrected by going
into the expert system's interactive mode. In this mode
the program calculates entries in a more thorough manner.
The trade-off for accuracy is user subjectivity in
selecting applicable critical indicators. Another
trade-off is the time required to traverse 85 qualifiers in
a real time setting.

VII. CONCLUSION

Automated systems exists that combine nursing diagnoses with the nursing care planning function. No automated system on the market integrates nursing diagnoses, nursing care plans and patient classification. The Navy Nurse Corps has a sophisticated patient classification tool. The tool lists critical indicators which adapt readily to automation to produce a classification level.

This thesis project is a programming effort producing a prototype software product marrying three nursing activities--nursing diagnosis, nursing care plans, and patient classification. This project demonstrates one possibility for integrating the nursing care plan using nursing diagnosis and the Navy Nurse Corps' patient classification system. The program extracts points for critical indicators from patient orders.

The greatest incentive for marrying nursing diagnosis, nursing care planning and patient classification is to improve patient care. Improved patient care results from precise documentation and uniform staffing. Nurses acknowledge the need to document plans of care to serve as a guide for all staff members. Nursing is a seven day a week, 24 hour a day profession. Care plans provide a consistent, comprehensive method for delivery of patient

care. Without this plan of care, valuable nursing time disappears while continually redefining basic patient care requirements. Successfully implemented automated systems have improved documentation by making it easier, less time-consuming, and more user gratifying.

Patient care is also enhanced through better staffing of nursing units. Staffing levels relate directly to patient care requirements determined by patient classification. The program automates the patient classification process to calculate an accurate and objective measure of patient care requirements. Staffing to a level that can be objectively quantified is a goal. Such a level assures nursing administrators their scarce nursing resources are properly utilized while at the same time providing staffing levels in keeping with safe standards of care.

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DATA DICTIONARY

[Local looping variables omitted]

Module:	Intro.Prg
Variable Name:	Flash
Aliases:	None
Format Of Data:	Character
Allowable Value:	Chr[145]
Files Variable Used:	All modules
Comment:	Flash Code specified variable, use in conjunction to displaying screens.

Module:	Valid.Prg
Variable Name:	Xusepass
Aliases:	None
Format Of Data:	Character
Allowable Value:	String of 5 characters
Files Variable Used:	Valid.Prg
Comments:	A concatenation of Xusepas1 through Xusepas5 [single characters] to form the individual's password entry. Xusepass is compared with those in the Useinfo.Dbf to deter- if the entry received is a valid password.

Module:	Valid.Prg
Variable Name:	Curuser
Aliases:	None
Format Of Data:	Characters
Allowable Value:	String of up to 23 characters
Files Variable Used:	All modules except Intro, Pt_Info and Useinfo
Comments:	A concatenation of Ufinitial and trim Ulname. Is displayed on the screen based on password entered and name associated with that password in the Useinfo.Dbf. Curuser is also entered as the practituner or nurse in the Orders.Dbf or Ncaredb.Dbf.

Module:	Valid.Prg
Variable Name:	Useacc
Aliases:	None

```
Format Of Data:        Numeric
Allowable Value:       0 - 4
Files Variable Used:   Master.Prg
Comments:              When a new user is entered into the
                          system an access level is assign.
                          This access level allows for privacy
                          and security in the program.


Module:                Master.Prg
Variable Name:         Omodule
Aliases:               None
Format Of Data:        Character
Allowable Value:       D or N
Files Variable Used:   Ward2 and Ward3.Prg
Comments:              Serves as a flag when exiting the
                          Ward2 or Ward3.Prg indicating
                          which module called, those
                          pertaining to the physician staff
                          or the nursing staff.


Module:                Pt_Info.Prg
Variable Name:         Xplname
Aliases:               Xdclname,Plname
Format Of Data:        Character
Allowable Value:       20 characters for patient's last name
Files Variable Used:   All files except Intro, Valid, Master,
                          Ward and Useinfo.Prg.
Comments:              Used in the Pt_Info.Dbf and .Prg.
                          Called by Ward2 and Ward3.Prg.


Module:                Pt_Info.Prg
Variable Name:         Xpfname
Aliases:               Xdcfname,Pfname
Format Of Data:        Character
Allowable Value:       12 characters for patient's first name
Files Variable Used:   See discription above for Xplname.
Comments:              See discription above for Xplname.


Module:                Pt_Info.Prg
Variable Name:         Xpmname
Aliases:               Xdcmname,Pmname
Format Of Data:        Character
Allowable Value:       Up to 3 character string.
Files Variable Used:   Pt_Info and Discharg.Prg.
Comments:              Represents the patient's middle
                          initials.


Module:                Pt_Info.Prg
Variable Name:         Xfmpssan
Aliases:               Xdcfssn,Fmpssan,Ptfmpssn, Mptfmpssn
```

```
                             and Xpt1fmpsss...Xp12fmpssn
                             [Ward2/Ward3.Prg]
Format Of Data:              Character
Allowable Value:             2 digit numeric code, a "-", then
                             social security number.
Files Variable Used:         See discription above for Xplname.
Comments:                    See discription above for Xplname.
                             ' The unique identifier for each
                             patient.  Variables with an "Xpt"
                             prefix indicate they are ward,
                             room and bed dependent.


Module:                      Pt_Info.Prg
Variable Name:               Xpregno
Aliases:                     Pregno,Ptregno and Xpt1regno...
                             Xpt12regno [Ward2/Ward3.Prg]
Format Of Data:              Character
Allowable Value:             Numeric 8 digit number
Files Variable Used:         See discription above for Xplname.
Comments:                    See discription above for Xplname.
                             Represents the hospital registra-
                             tion number.  Variables with an "X"
                             prefix indicates they are ward, room
                             and bed dependent.


Module:                      Pt_Info.Prg
Variable Name:               Xpphy
Aliases:                     Xdcpphy, Pphy and Xdcprac
Format Of Data:              Character
Allowable Value:             Up to 24 characters
Files Variable Used:         Pt_Info and Discharg.Prg
Comments:                    Represents the patient's physician.


Module:                      Pt_Info.Prg
Variable Name:               Xpward
Aliases:                     Pward
Format Of Data:              Character
Allowable Value:             "2E" or "3E"
Files Variable Used:         See discription above for Xplname.
Comments:                    See discription above for Xplname.
                             Represents a ward assignment.


Module:                      Pt_Info.Prg
Variable Name:               Xprm
Aliases:                     Prm
Format Of Data:              Character
Allowable Value:             "1","2" or "3"
Files Variable Used:         See discription above for Xplname.
Comments:                    See discription above for Xplname.
                             Represents rooms on the ward.
```

```
Module:               Pt_Info
Variable Name:        Xpbed
Aliases:              Pbed
Format Of Data:       Character
Allowable Value:      "A" or "B"
Files Variable Used:  See discription above for Xplname.
Comments:             See discription above for Xplname.
                        Represents beds in a room.


Module:               Discharg.Prg
Variable Name:        Xppack
Aliases:              None
Format Of Data:       Logical
Allowable Value:      .T. or .F.
Files Variable Used:  Discharg.Prg
Comments:             Flag to indicate if a patient had been
                        discharged.  If .T. Pt_Info.Dbf has
                        discharged patient's database
                        purged.


Module:.              Ward.Prg
Variable Name:        Ourpt
Aliases:              Xpt1...Xpt12 [Ward2/Ward3.Prg]
Format Of Data:       Character
Allowable Value:      Xpfname + Xplname
Files Variable Used:  All modules except Intro, Valid,
                        Pt_Info, Useinfo, Master and Ward.
Comments:             Signifies which patient from the
                        Pt_Info.Dbf has been selected by the
                        user.  The variables with an "X"
                        prefix indicates they are ward, room
                        and bed dependent.


Module:               Ward.Prg
Variable Name:        Ofreq
Aliases:              Xdcfreq, Nfreq
Format Of Data:       Character
Allowable Value:      Blank, options in Time.Prg or options
                        in IVC.Prg.
Files Variable Used:  All order modules [Transfer, Activity,
                        IVA, Lab, Monitor, Pham1, Pham2, Xray,
                        Xray, Diet, Lung, Routine, VS and
                        all Norder*.Prg]
Comments:             Indicates frequency of any ordered
                        action.


Module:               Ward.Prg
Variable Name:        Passdata
Aliases:              None
Format Of Data:       Character
```

```
Allowable Value:        "Q" number space number
Files Variable Used:    All order modules [see Ofreq]
Comments:               Used to pass data to the external
                          expert system.  Indicates qualifier
                          and value to be used.


Module:                 Ward.Prg
Variable Name:          Ptpoint
Aliases:                Xpoints
Format Of Data:         Numeric
Allowable Value:        Positive integers >= 0
Files Variable Used:    All order modules [see Ofreq]
Comments:               Assigns points to orders selected by
                          user to be used in determining the
                          patient classification system.


Module:                 Ward.Prg
Variable Name:          Todayonly
Aliases:                None
Format Of Data:         Logical
Allowable Value:        .T. or .F.
Files Variable Used:    All order modules [see Ofreq]
Comments:               Assigns a .T. for orders of one day
                          frequency for the patient
                          classification system.


Module:                 Ward.Prg
Variable Name:          Monpoint
Aliases:                Xmonpt
Format Of Data:         Numeric
Allowable Value:        Integers 0 or 6
Files Variable Used:    All order modules [see Ofreq]
Comments:               Used to evaluate orders in the Monitor
                          .Prg but included in the Orders.Dbf
                          to determine patient classification.


Module:                 Ward.Prg
Variable Name:          Emopoint
Aliases:                Xemopt
Format Of Data:         Numeric
Allowable Value:        Positive integers >= 0
Files Variable Used:    All order modules [see Ofreq]
Comments:               Used to evaluate orders in the Emosup
                          .Prg but included in the Orders.Dbf
                          to determine patient classification.


Module:                 Ward.Prg
Variable Name:          Roupoint
Aliases:                Xroupt
Format Of Data:         Numeric
```

```
Allowable Value:        Positive integers >= 0
Files Variable Used:    All order modules [see Ofreq]
Comments:               Used to evaluate orders in the Routine
                            .Prg but included in the Orders.Dbf
                            to determine patient classification.


Module:                 Ward.Prg
Variable Name:          Ptselect
Aliases:                None
Format Of Data:         Character
Allowable Value:        Prm + Pbed + [Xpt1 or Xpt2 ... Xpt12]
Files Variable Used:    All modules except Intro, Valid,
                            Pt_Info, Useinfo and Master.
Comments:               Signifies which patient, the room and
                            bed for screen headers.


Module:                 Ward.Prg
Variable Name:          Morder
Aliases:                Order, Xdcorder, Nord
Format Of Data:         Character
Allowable Value:        Character string up to 27
Files Variable Used:    All order modules [see Ofreq]
Comments:               Patient orders requiring action on the
                            part of the hospital staff.


Module:                 Doctor.Prg
Variable Name:          Dmenu
Aliases:                None
Format Of Data:         Character
Allowable Value:        "1" or " "
Files Variable Used:    Doctor, Doc_Menu and all order
                            modules [exc. Norder*.Prg].
Comments:               Flag to indicate if a return is to the
                            Master.Prg module or to a doctor
                            level module.
Module:                 Time.Prg
Variable Name:          Timeopt
Aliases:                None
Format Of Data:         Numeric
Allowable Value:        1 - 41
Files Variable Used:    All order modules [see Ofreq] except
                            Transfer.Prg
Comments:               Used to determine frequency of order.


Module:                 Time.Prg
Variable Name:          Xtimetime
Aliases:                None
Format Of Data:         Character
Allowable Value:        Character string of 4
Files Variable Used:    Time.Prg
```

```
Aliases:                 None
Format Of Data:          Character
Allowable Value:         Character string of 19
Files Variable Used:     Emosup and Teach.Prg
Comments:                Recieves input for Ncaredb.Dbf related
                            to the teaching and emotional
                            requirements of the patient.


Module:                  N_Diag.Prg
Variable Name:           Nrelate
Aliases:                 None
Format Of Data:          Character
Allowable Value:         Character string of 25
Files Variable Used:     Relate_1...Relate_4.Prg
Comments:                Recieves input for Ncaredb.Dbf related
                            to why the patient has the nursing
                            diagnosis chosen.


Module:                  N_Diag.Prg
Variable Name:           Ngoal
Aliases:                 None
Format Of Data:          Character
Allowable Value:         Character string 38
Files Variable Used:     Goal_1...Goal_4.Prg
Comments:                Recieves input for Ncaredb.Dbf related
                            to goal achieveable by the patient.


Module:                  N_Diag.Prg
Variable Name:           Nassess
Aliases:                 None
Format Of Data:          Character
Allowable Value:         Character string of 27
Files Variable Used:     Assess_1...Assess_4.Prg
Comments:                Recieves input for Ncaredb.Dbf
                            relating objective observations and
                            subjective information to the nur-
                            sing diagnosis selected.


Module:                  N_Diag.Prg
Variable Name:           Assoth
Aliases:                 None
Format Of Data:          Character
Allowable Value:         Character string of 27
Files Variable Used:     Assess_1...Assess_4.Prg
Comments:                Allows an assessment of the patient
                            not currently provided on the
                            screen to be entered.


Module:                  N_Diag.Prg
Variable Name:           Reloth
```

```
Comments:                    Provides an option for a time of day
                               that is not provided on the screen.

Module:                      IVA.Prg
Variable Name:               Morder1
Aliases:                     None
Format Of Data:              Character
Allowable Value:             "Start IV of"
                             "Alternate IV w/"
                             "Follow IV w/"
                             "Interrupt IV for"
                             "Start 2nd IV of"
Files Variable Used:         IVA and IVB.Prg
Comments:                    Initial portion of the patient order
                               for IV therapy.

Module:                      IVB.Prg
Variable Name:               Blood
Aliases:                     None
Format Of Data:              Logical
Allowable Value:             .T. or .F.
Files Variable Used:         IVB and IVC.Prg
Comments:                    Flag to indicate whether blood was
                               ordered or not.  Significant in the
                               determining of patient
                               classification points.

Module:                      Lung.Prg
Variable Name:               Xliter
Aliases:                     None
Format Of Data:              Character
Allowable Value:             "@ 1-2 l/m"
                             "@ 3-4 l/m"
                             "@ 5-6 l/m"
                             "@ 7-8 l/m"
                             "@ 9-10 l/m"
Files Variable Used:         Lung.Prg
Comments:                    Xliter is concatenated with the screen
                               selection to indicate oxygen flow
                               rate for the patient.

Module:                      Discont.Prg
Variable Name:               Xdcdate
Aliases:                     Odate
Format Of Data:              Date
Allowable Value:             Date of the medical order
Files Variable Used:         Discont.Prg
Comments:                    Allows user to review date of an order
                               to determine if medical order should
                               be discontinued.
```

```
Module:                 Discont.Prg
Variable Name:          Xordpack
Aliases:                None
Format Of Data:         Logical
Allowable Value:        .T. or .F.
Files Variable Used:    Discont.Prg
Comments:               Flag to indicate if medical orders are
                           to be discontinued.  If .T., deleted
                           orders are purged from the
                           Orders.Dbf.


Module:                 Nurse.Prg
Variable Name:          Nmenu
Aliases:                None
Format Of Data:         Character
Allowable Value:        "1" or " "
Files Variable Used:    Nurse, Nurse1, and N_Diag.Prg
Comments:               Flag to indicate if a return is to the
                           Master.Prg module or to Nurse.Prg
                           module.


Module:                 Nurse.Prg
Variable Name:          Xlevel
Aliases:                None
Format Of Data:         Character
Allowable Value:        "Category I"
                        "Category II"
                        "Category III"
                        "Category IV"
                        "Category V"
                        "Category VI"
Files Variable Used:    Nurse.Prg
Comments:               Indicates patient classification
                           level.


Module:                 N_Diag.Prg
Variable Name:          Nursdiag
Aliases:                None
Format Of Data:         Character
Allowable Value:        "Comfort, Alteration In: Pain"
                        "Communication, Impaired: Verbal"
                        "Impaired Physical Mobility"
                        "Self-Care Deficit"
Files Variable Used:    N_Diag.Prg
Comments:               Nursdiag is of the four values
                           indicated, and directs which branch
                           the program will follow.


Module:                 N_Diag
Variable Name:          Emoteach
```

```
Aliases:              None
Format Of Data:       Character
Allowable Value:      Character string of 25
Files Variable Used:  Relate_1...Relate_4.Prg
Comments:             Allows a related factor not currently
                        provided on the screen to be
                        entered.


Module:               N_Diag.Prg
Variable Name:        Goaoth
Aliases:              None
Format Of Data:       Character
Allowable Value:      Character string 38
Files Variable Used:  Goal_1...Goal_4.Prg
Comments:             Allows a patient's goal not currently
                        provided on the screen to be
                        entered.


Module:               N_Diag.Prg
Variable Name:        Ordoth
Aliases:              None
Format Of Data:       Character
Allowable Value:      Character string 27
Files Variable Used:  Norder*.Prg
Comments:             Allows for a nursing order not cur-
                        rently provided on the screen to be
                        entered.


Module:               Useinfo
Variable Name:        Xufinitial
Format Of Data:       Character
Allowable Value:      Any first initial of user
Files Variable Used:  All modules [except Intro and Valid] as a
                        concatenation with Xulname.


Module:               Useinfo.Prg
Variable Name:        Xulname
Aliases:              Xdlulname
Format Of Data:       Character
Allowable Value:      Character string of length 20
Files Variable Used:  All modules [except Intro and Valid]
                        as a concatenation with Xufinitial.
Comment:              Character string representing the
                        user's last name.  Used as a concat-
                        tenation with Xufinitial to form
                        Curuser.


Module:               Useinfo
Variable Name:        Xcodeword
Format Of Data:       Character
```

```
Allowable Value:        Any 5 characters representing a user's
                        password
Files Variable Used: Valid.Prg

Module:                 Useinfo
Variable Name:          Xaccess
Format Of Data:         Numeric
Allowable Value:        0, 1, 2, 3, or 4
Files Variable Used: Master.Prg
```

APPENDIX B

STRUCTURE CHART
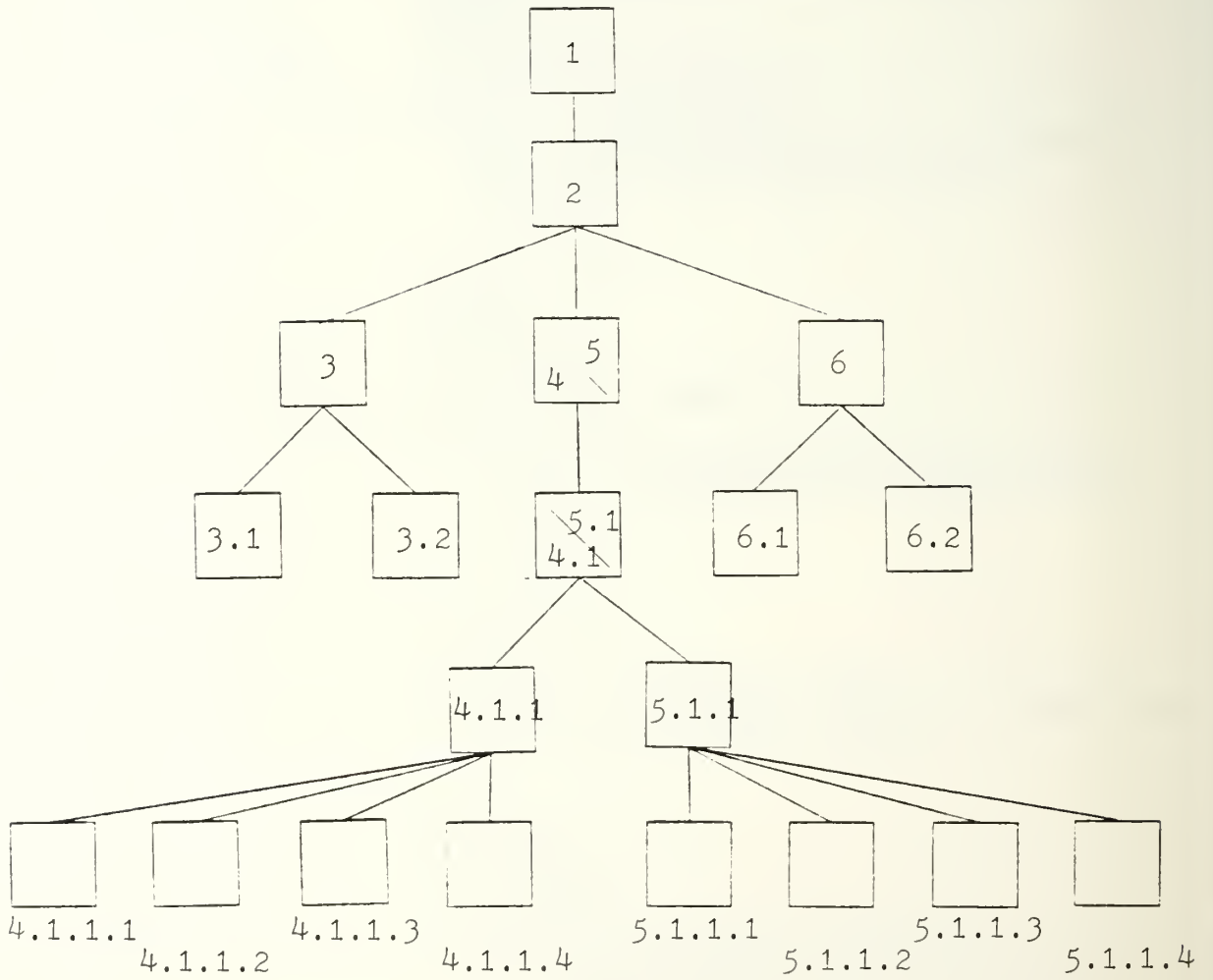
Legend for Structure Chart

* -- Box labelled 1
Box Description: Do Introduction/Validate User

* -- Box labelled 2
Box Description: Choose Path

* -- Box labelled 3
Box Description: Do Admission Department

* -- Box labelled 3.1
Box Description: Admit Patient

* -- Box labelled 3.2
Box Description: Discharge Patient

* -- Box labelled 4/5
Box Description: Select Ward

* -- Box labelled 4.1/5.1
Box Description: Select Patient

* -- Box labelled 4.1.1
Box Description: Select Doctor Option

* -- Box labelled 4.1.1.1
Box Description: Select Medical Orders

* -- Box labelled 4.1.1.2
Box Description: Discontinue Order

* -- Box labelled 4.1.1.3
Box Description: Admit/Transfer/Discharge Patient

* -- Box labelled 4.1.1.4
Box Description: Print/Review Orders

* -- Box labelled 5.1.1
Box Description: Select Nursing Option

* -- Box labelled 5.1.1.1
Box Description: Select Nursing Care Plan

* -- Box labelled 5.1.1.2
Box Description: Review/Print Nursing Care Plan

* -- Box labelled 5.1.1.3
Box Description: Review/Print Patient Care Requirements

* -- Box labelled 5.1.1.4
Box Description: Determine Patient Classification Level

* -- Box labelled 6
Box Description: Do Data Processing Department

* -- Box labelled 6.1
Box Description: Add New User

* -- Box labelled 6.2
Box Description: Delete User

APPENDIX C

USER'S MANUAL

This software product is a prototype model for the Navy
Nurse Corps. The user's manual, as well as the software
product, presupposes a working knowledge of medicine and
the normal functioning of a hospital. The user's manual and
the software product require a working knowledge of the
nursing process using the nursing diagnosis and the patient
classification system.

This manual contains four subdivisions: the admission's
department section, the physician section, the nursing
section and the system's administration section. The
admission's department section allows patients to be
admitted or discharged. Admission of a patient allows
the selection of doctor's and nursing orders. Admission of
a patient also initiates the determination of the patient
classification. The system administration section allows
users access to all or only one of the program sections.

I. Beginning the Program

To begin the program insert disk A:1 into drive A
(normally the left sided drive, or the top drive) of your
IBM, or compatible, personal computer. The computer should
have 640K of internal memory. Next insert disk B:1 into
drive B. Turn on the power for the monitor, disk drives
(the computer), and printer (for written reports). The
first prompt is for the date. The date format of 4-1-86 is
acceptable. The computer also accepts a date format of
4-1-1986. Follow this with <enter>. The next prompt is
for time. The format of 14:45 is the least number of
keystrokes, however the computer accepts seconds as well
(ie. 14:45:30) <enter>. An A> prompt then appears. To
begin the program, type b:proto (capital, mixed or small
letters) <enter>.

A manufacturer's introductory screen appears with a
prompt of: "Insert System Disk 2 and press ENTER or type
CTL-C to abort". Remove disk A:1 and insert disk A:2 into
drive A and press <enter>. Another manufacturer's
introductory screen temporarily flashs on the monitor.
A screen with a Nurse Corps oakleaf and background
information, Figure 1, replaces this screen.

```
 A     PROTOTYPE                         .
                                    ..  ..
    PROJECT                        ...  ...
                                  .        .
      FOR                        ...      ...        BY
                                .            .
      THE                      ...          ...   GARY R. HARMEYER
                              .                .    LCDR NC USN
 NAVY NURSE CORPS            ....          ....
                            .                  .    MARCH  1986
                           .                    .
                          .                      .  NAVAL POSTGRADUATE SCHOOL
                          .                    .
                           ....          ....      MONTEREY, CALIFORNIA
                             .          .
                              ......              RELEASE 1
```
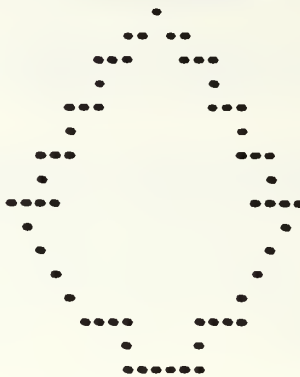
PRESS ANY KEY TO BEGIN

Figure 1

Program Passwords

    To begin the program press any key to move to Figure 1a
which requires the input of a five letter password. Sample
passwords for this program are: level 0 -- mouse, level 1
-- lyons, level 2 -- flyup, level 3 -- littl, and level 4
-- getgo. The password allows access further into the
program, and level indicates which area a user may enter.
Regardless of password used [provided it is an acceptable
password, see System's Administration section] the next
screen is Figure 2.

```
┌─────────────────────────────────────────────────────────────────┐
│                                                                   │
│   ** Prototype Master Screen **              Date      Time       │
│                                                                   │
│           *** Select the Desired Option ***                       │
├─────────────────────────────────────────────────────────────────┤
│                                                                   │
│              1) Admission's Department                            │
│                                                                   │
│              2) Doctor's Master                                   │
│                                                                   │
│              3) Nursing Master                                    │
│                                                                   │
│              4) System Administration                             │
│                                                                   │
│              0) Sign-Off                                          │
├──────────────────────┬──────────────────────────────────────────┤
│  Current User:        │                                          │
│                       │      Select one number (0-4) ---> .       │
│                       │                                          │
└───────────────────────┴──────────────────────────────────────────┘
```

Figure 2

This screen, the Prototype Master Screen provides a
branching point to the four major areas. Depending upon
the password used and option chosen, the program moves to
Figure 3, 4, 5 or 6. Sign-Off is an option given on most
screens to return to Figure 1.

II. Admission's Department Personnel

     Access level 0 or 1 will allow access to the
Admit/Discharge screen [Figure 3].

```
                  ••• SELECT ADMIT / DISCHARGE OPTION •••
_____


                    1)   Admit A Patient


                    2)   Discharge A Patient


                    0) Sign-Off

_____
  Current User:      |
                     |        Select one number (0-2) ----›   •
                     |
_____
```

Figure 3

A patient can be admitted or discharged, depending on
the option selected. Selecting option 1, moves the user to
Figure 3.1. This information creates a patient database
file.

The Patient Admission Form

The Patient Admission Form (Figure 3.1) consists of 17
input areas.

```
                      Patient Admission Form
_____

  Last Name:                  | Registration No:

  First Name:                 | Medical Diagnosis:

  Mid Initial:                | Physician:

  Rate/Rank:                  | Prognosis:

  FMP-SSN:        -           | Allergies:

  Birthdate:    /  /          | Nursing Ward:

  Age:                        | Room Number:

  Sex:                        | Bed:

  Admit Date:   /  /          |
_____
```

Figure 3.1

After typing each category, press <enter> to move to the
next category. The amount of information and the
acceptable inputs are as follows.

Last Name: Allows up to 20 letters in the patient's last
              name and automatically capitalizes the first
              letter.
First Name: Allows up to 12 letters in the patient's first
              name and automatically capitalizes the first
              letter.
Mid Initial: Allows up to 3 letters in the patient's middle
              name to accomodate for No Middle Name [NMN].
              Capitalizes all letters entered.
Rank/Rate: Accepts up to 11 letters and capitalizes all
              letters entered. Typical formats would include
              MS3/N/AD, COL/AF/RET or CIVHUM.
FMP-SSN: Family Member Prefix [FMP] Code includes the
              sponsor's Social Security Number [SSN]. Valid FMP
              code numbers and relationships are:
              01   Sponsor's oldest child [includes
                            stepchildren]
              02   Sponsor's next oldest child
              03,04, etc.   Sponsor's third oldest, etc.
              20   Sponsor [active duty, reserve and
                            retired uniformed services personnel:
                            Army, Navy, Air Force, Marine Corps,
                            Coast Guard, Public Health Service

                              69

and National Oceanic and Atmospheric
                              Administration]
                30   Sponsor's spouse
                40   Sponsor's dependent mother
                45   Sponsor's dependent father
                50   Sponsor's dependent mother-in-law
                55   Sponsor's dependent father-in-law
                60,61, etc.   Other authorized sponsor's dependents
                00   All other authorized personnel
                              [foreign nationals, including foreign
                              military, civilian humanitarians,
                              etc.]
Birthdate: Use the format 08/25/50.
Age: Allows up to 3 letters or numbers. Mixing numbers and
      letters is possible to accommodate for 11M [11 months
      old] or 15D [15 days old]. Age denotes years unless
      M or D are filling the third input space.
Sex: Allows one letter input. Valid letters are:
      M - Male
      F - Female
      U - Unknown
Admit Date: Use the format 12/13/85.
Registration No: The local hospital sequential number of
                  in-patients admitted during a specified
                  period of time.
Medical Diagnosis: Diagnosis listed by the admitting
                    physician and listed on the admission
                    authorization form. Enter up to 24
                    letters.
Physician: Patient's assigned physician, not
            necessarily the admitting practitioner.
            Enter up to 24 letters.
Prognosis: Allows entry of up to 3 letters. Allow-
            able prognosis codes and descriptions are:
            E   Excellent
            F   Fair
            G   Good
            U   Unknown
            GRD   Guarded
            P   Poor
Allergies: Patient's allergies as stated in the
            health record, or by the patient. Enter up to 24
            letters.
Nursing Ward: Two words are possible: 2E [a surgical ward]
               or 3E [a medical ward].
Room Number: Room number is tentatively assigned by the
              admission department, pending confirmation by
              the ward personnel. Room number options are 1,
              2, or 3.

Bed: Actual bed assignment combines a room number and a bed
       letter. Bed letter is tenatively assigned by the
       admission department, pending confirmation by the ward
       personnel. Bed letter options vary between A and B.
Once the patient file is complete, the program returns to
Figure 3 for another selection.

Discharging a Patient

    Selection 2 [Figure 3] moves the user to Figure 3.2
[Discharge A Patient Screen]. A patient is uniquely
identified by listing of FMP-SSN. The screen displays one
patient's FMP-SSN, name and practitioner at a time so the
user can decide which patient to discharge. The user can
discharge more than one patient before returning to the
Admit/Discharge Screen [Figure 3].

III.   Physician Personnel

    Figure 2 [Prototype Master Screen] has two valid choices
for the physician, 0 [Sign-Off] and 2 [Doctor's Master].
Option 0 returns the physician to the Introductory Screen
[Figure 1]. This selection implies intent to leave the
computer session.

Selecting a Patient

    Selection 2 [Doctor's Master] advances the physician to
Figure 4 [Nurse's Station Selection]. The physician is
able to choose patient ward or return to the previous screen
[Figure 2].

```
** Nurse's Station Selection **                          Date     Time

              *** Select Nursing Unit to Display Patients ***
```

```
                        1) 2E  Surgical ward

                        2) 3E  Medical ward

                             .


         0) Sign-Off                              3) Master Screen
```

```
Current User:
                        |       Select one number (0-3) ----> .
                        |
```

Figure 4

```
** Patient Selection **     word 2E  Surgical          Date     Time

                        *** Select Patient ***
```

```
                RM BED              PATIENT
                1] 1   A
                2] 1   B

                3] 2   A
                4] 2   B

                5] 3   A
                6] 3   B

         0) Sign-Off                              7) Master Screen
```

```
Current User:
                        |       Select one number (0-7) ----> .
                        |
```

Figure 4.1a

Selection 1 (Figure 4) follows with Figure 4.1a (Patient Selection for Ward 2E). Patients assigned to Ward 2E by the admissions department appear in their room and bed assignments. Choosing any one of the six patients advances the user to Figure 4.1.1, the Doctor's Master Screen.

```
ward Room Bed      Patient                 Reg #         Date      Time
                     .                     .


                    ••• DOCTOR'S MASTER SCREEN •••

                    1) Order Entry

                    2) Admit / Transfer / Discharge Patient

                    3) Review Medical Orders

                    4) Print Medical Orders

                    5) Discontinue An Order


        0) Sign-Off                              6) Master Screen

Current User:
                                        Select one number (0-6) ----> •
                       .
```

Figure 4.1.1

Ward, room, bed, patient and registration number appears on
the second line of each of the screens to assure proper
patient identification is present. The identical sequence
follows for selection 2 (Patient Selection for ward
3E). Master Screen is an option on most screens and
differs slightly from the Sign-Off option. Sign-Off is the
appropriate selection if the computer session is over.
Master Screen allows the user to select a different patient
to enter orders on without requiring the physician to redo
the user identification process.

Doctor Selection Categories

Figure 4.1.1 (Doctor's Master Screen) is a branching
screen. Selection 1 advances the user to Figure 4.1.1.1
(Doctor's Order Menu). This option allows the physician to
enter patient orders associated with medical treatment.
Selection 2 moves the user to Figure 4.1.1.2 (Admit/
Transfer/Discharge Screen). These orders impact the
admission's department as well as the patient care areas.
The admissions department must enter the patient into the
computer system prior to their selection by the physician
for order entry. The selection of ADMIT officially enters
the patient admission status in the doctor's orders.

```
word Room Bed        Patient              Reg #         Date    Time

                   ••• DOCTOR'S ORDER MENU •••

   1) Activity                    6) Pharmacy

   2) Diet                        7) Radiology

   3) IV's / Blood                8) Respiratory Therapy

   4) Laboratory Tests            9) Vital Signs

   5) Monitoring                  10) ward Routines


     00) Sign-Off      11) Doctor's Master Screen      12) Master Screen

Current user
                          Select one number (00-12) ---> ••
```

Figure 4.1.1.1

Reviewing Patient Orders

Selection 3 and 4, of the Doctor's Master Screen vary
only in the location of their output. Selection 3 displays
patient medical orders on the monitor screen. Figure
4.1.1.3, is a screen output to review medical orders.

```
                  Patient Orders For: Mary Miser

          Press -- Ctrl and S -- Keys to Pause The Scrolling If Necessary
Page No.      1
01/12/86


  Date     Time     Order                      Frequency     Practitioner


  01/11/86 14:13:47 Up in Chair w/ Assist      TID           N. Lyon MD
  01/11/86 14:14:23 Diabetic Diet                            N. Lyon MD
  01/11/86 14:15:41 Start IV of .45 NaCl       Infuse o 8Hr  N. Lyon MD
  01/12/86 10:17:14 Cloride                    Daily @ 0600  N. Lyon MD
  01/12/86 10:17:40 Sodium                                   N. Lyon MD
  01/12/86 10:18:00 Amylase                                  N. Lyon MD
  01/12/86 10:18:26 Potassium                  Daily @ 0600  N. Lyon MD
  01/12/86 10:18:56 CO2                        Daily @ 0600  N. Lyon MD
  01/12/86 10:19:26 CBC                        Daily @ 0600  N. Lyon MD
  01/12/86 10:19:54 Platlets                   Daily @ 0600  N. Lyon MD
  01/12/86 10:20:18 Glucose                    Daily @ 0600  N. Lyon MD
```

Figure 4.1.1.3

Selection 4 provides the same medical order output on the
printer. Selection 5 [Discontinue An Order] advances the
physician to Figure 4.1.1.4. The screen displays each
medical order on the selected patient with the option to
discontinue any obsolete orders.

Selecting Doctor's Orders

    The Doctor's Order Menu [Figure 4.1.1.1] provides a menu
to select a medical treatment category. A rudimentary
selection list of medical orders follows each of
the ten major headings. Selection 1 [Figure 4.1.1.1] moves
the program to Figure 4.1.1.1a.

```
word Room Bed     Patient                Reg #           Date    Time

                *** SELECT ACTIVITY LEVEL ***

    1)  Ambulate ad lib                   7)  Dangle Legs

    2)  Ambulate w/ Assistance            8)  Keep on Back

    3)  Strict Bedrest                    9)  May Shower

    4)  Bedrest w/ BRP                   10)  Turn Patient

    5)  Bedside Commode                  11)  Turning Frame

    6)  OOB to Strecher w/ Assist        12)  Up in Chair w/ Assist

    0) Sign-Off        13) Doctor's Order Screen        14) Master Screen

  Current user:                 Select one number (00-14) --->
```

Figure 4.1.1.1a

Twelve selection criteria follow. When entering a
number less than 10, enter either 03 or 3 <enter> to
advance the program. Some selections request a time or
frequency. These selections are 2, 6, 7, 10, 11, and 12,
which move the program to Figure 4.1.1.1b [Select
Time/Frequency Option]. A list of 39 options follow.
Selection 40 is a brief on-line help facility [Figure
4.1.1.1c]. A selection of 41 returns the program to the
previous screen with no frequency indicated for that order.
Options 5, 8, 9, 24, 29, 33, 35, 37 and 39 are one time
selections. All other options are ongoing until
discontinued.

```
word Room Bed      Patient              Reg #        Date    Time


                 ••• SELECT TIME/FREQUENCY OPTION •••
_____

  1) PRN            • Daily @     |   20) 2200    |   30) Q Shift
  2) Q 1-2 Hr PRN   10) 0200      |   21) 2400    |   31) QID
  3) Q 2-3 Hr PRN   11) 0400      |               |   32) Q 6 Hr
  4) Q 3-4 Hr PRN   12) 0600      |   22) BID     |   33) x 4
                    13) 0800      |   23) Q 12 Hr |   34) Q 4 Hr
  5) On Call        14) 1000      |   24) x 2     |   35) x 6
  6) QD             15) 1200      |   25) TID     |
  7) HS             16) 1400      |   26) AC      |   36) Q 2 Hr
  8) x 1            17) 1600      |   27) PC      |   37) x 12
  9) Today @        18) 1800      |   28) Q 8 Hr  |   38) Q 1 Hr
     ....           19) 2000      |   29) x 3     |   39) x 24

           40) Help            41) Return to Calling Screen
_____
  Current user:      |
                     |        Select one number [01-41] ---> ••
```

Figure 4.1.1.1b

Selection 2 from the Doctor's Order Menu [Figure 4.1.1.1] provides possible diet options for the selected patient. Options 17 and 18 move the program to Figure 4.1.1.1b [Select Time/Frequency Option]. Selection 17 requires the number of bags per 24 hours for continuous tube feedings. Selection 18 requires a frequency for bolus tube feedings.

Selection 3 from the Doctor's Order Menu [Figure 4.1.1.1] provides possible intravenous/blood options. The screen design varies from other medical treatment order screens, to accommodate for the unique characteristics of this order line. Select IV Order [Figure 4.1.1.1e] is the first screen of a series of three. Select IV Order has up to 10 selections. Selections 6 through 8 are one time orders which then returns to the program for another selection. Selection 1 through 5 moves the program to Select IV Solution [Figure 4.1.1.1f]. This requires a selection from options 1 through 8. The program moves to Select Infusion Rate [Figure 4.1.1.1g] for the user to select the desired fluid infusion rate. Following the selection of infusion rate, the program returns to Select IV Order [Figure 4.1.1.1e].

Selection 4 from the Doctor's Order Menu [Figure 4.1.1.1] displays laboratory test options. For each selection on the Select Laboratory Test [Figure 4.1.1.1h], the program moves to the Select Time/Frequency Option

[Figure 4.1.1.1b]. Selections are for additional information regarding the order.

Selection 5 from the Doctor's Order Menu [Figure 4.1.1.1] provides possible monitoring options. For some selections on the Select Monitoring Requirements screen [Figure 4.1.1.1i], the program moves to the Select Time/Frequency Option [Figure 4.1.1.1b] for addition information. The selections requiring time or frequency information include 3, 5, 6, 7, 8, 9, 11, 12, 12, and 15. Other selections are continuous.

Selection 6 from the Doctor's Order Menu [Figure 4.1.1.1] provides pharmacy options. For all selections on the Select Desired Medication / Dosage screens [Figure 4.1.1.1j and Figure 4.1.1.1k], the program moves to the Select Time/Frequency Option [Figure 4.1.1.1b] for frequency of dosage. Each screen contains divisions of major drug categories, of individual drugs, and dosage. A help facility follows [Figure 4.1.1.1l] clarifing route abbreviations used on the screen.

Selection 7 from the Doctor's Order Menu [Figure 4.1.1.1] provides radiology options. For all selections on the Select Xray screen [Figure 4.1.1.1m], the program moves to the Select Time/Frequency Option [Figure 4.1.1.1b] for additional scheduling information.

Selection 8 from the Doctor's Order Menu [Figure 4.1.1.1] provides possible respiratory therapy options. For each selection on the Select Respiratory Therapy Options screen [Figure 4.1.1.1n], except 7 [Ventilator is continuous], the program moves to the Select Time/Frequency Option [Figure 4.1.1.1b]. After selecting a route [option 9 through 13], a flow rate [letter A-E] selection follows.

Selection 9 from the Doctor's Order Menu [Figure 4.1.1.1] provides possible vital signs options. For some selections on the Select Vital Sign Option screen [Figure 4.1.1.1o], the program moves to the Select Time/Frequency Option [Figure 4.1.1.1b]. Time/Frequency Option screen provides selections for additional information with options 1 and 5 through 11. Departmental policy defines selections 2 through 4.

Selection 10 from the Doctor's Order Menu [Figure 4.1.1.1] provides ward routine selection. For many selections on the Select Ward Routine screen [Figure 4.1.1.1p], the program moves to the Select Time/Frequency

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Option [Figure 4.1.1.1b] for added information. Selections
advancing the program to the Time/Frequency screen are: 3,
4, 6, 8, 16, 20-23, 28 and 29. Selections regarded as one
time only orders are: 2, 5, 7, 12-14 and 24-27. All other
selections are ongoing until discontinued [selection 1,
9-11, 15 and 17-19]. In the context of this software
project, option 4 [Complex Drsg Change] is a dressing
change requiring 30 minutes or more to complete. A
dressing change requiring less time is a simple dressing
change [option 20].

IV. Nursing Personnel

     Figure 2 [Prototype Master Screen] has two valid choices
for nurses, 0 [Sign-Off] and 3 [Nursing Master]. Option 0
returns the nurse to the introductory screen [Figure 1].
Option 0 implies intent to leave the computer session.

                    Patient Selection

     Selection 3 [Nursing Master] advances the nurse to
Figure 5 [Nurse's Station Selection]. The nurse selects
the desired ward or returns to the previous screen [Figure
2].

     Selection 1 [Figure 5] follows with Figure 5.1a [Patient
Selection for Ward 2E]. Patients assigned to Ward 2E by
the admission's department appear in their room and bed
assignments.

```
** Nurse's Station Selection **                          Date     Time

              *** Select Nursing Unit to Display Patients ***


                    1) 2E   Surgical Ward

                    2) 3E   Medical Ward



        0) Sign-Off                              3) Master Screen

Current User                    Select one number (0-3) ----> .
```

Figure 5

```
** Patient Selection **      Ward  2E  Surgical        Date     Time

                    *** Select Patient ***


              RM BED                PATIENT

              1) 1   A
              2) 1   B

              3) 2   A
              4) 2   B

              5) 3   A
              6) 3   B

        0) Sign-Off                              7) Master Screen

Current User:                   Select one number (0-7) ----> .
```

Figure 5.1a

Choosing any one of the six patients advances the user to
Figure 5.1.1, the Nursing Master Screen. Ward, room, bed,
patient and registration number appear on the second line
of each of the screens to assure proper patient
identification. The identical sequence follows for
selection 2, Patient Selection for Ward 3E (Figure 5.1b).

Master Screen is an option on some screens and differs
slightly from the Sign-Off option. Sign-Off is the
appropriate selection if the computer session is over.
Master Screen allows the user to select a different patient
to enter a care plan on without requiring the nurse to redo
the user identification process.

Nursing's Category Options

Figure 5.1.1 [Nursing Master Screen] is a branching
screen.

Ward Room Bed	Patient	Reg #	Date	Time

••• NURSING MASTER SCREEN •••

1) Enter/Inactivate Nursing Care Plan   5) Review Patient Care Requirements

2) Review Nursing Care Plan   6) Print Patient Care Requirements

3) Print Nursing Care Plan   7 Internal Patient Classification

4) External Patient Classification

       0) Sign-Off   8) Master Screen

Current user.

Select one number [0-8] ----> •

Figure 5.1.1

Selection 1 advances the program to Figure 5.1.1.1 [Select
The Desired Nursing Care Plan Function]. This option
allows the nurse to enter or inactivate a patient's care
plan.

Selection 2 and 3, on the Nursing Master Screen vary
only in the location of their output. Selection 2 displays
the nursing care plan on the screen. Figure 5.1.1.2, is a
screen output for Review Nursing Care Plan. Selection 3
provides the same nursing care plan information on the
printer. Selection 4 [External Patient Classification]
requires the nurse to leave this portion of the prototype
project [see Expert System Supplement].

Selection 5, of the Nursing Master Screen [Figure
5.1.1], Review Patient Care Requirements, displays all
active orders on the patient. Patient Care Requirements
are the total active medical and nursing care orders for a
particular patient. Figure 5.1.1.3 is a screen output for
Review Patient Care Requirements.

Date	Time	Order	Frequency	Practitioner
01/11/86	10:06:20	Teach Alt Coping Strategies		G. Harmeyer RN
01/11/86	12:08:07	Assist Bed To Wheelchair	TID	N. Lyons MD
01/11/86	13:10:15	Self/Minimum Care		G. Harmeyer RN
01/11/86	13:10:53	Keep Commode @ Bedside	TID	G. Harmeyer RN
01/11/86	14:13:47	Up in Chair w/ Assist	TID	N. Lyons MD
01/11/86	14:14:23	Diabetic Diet		N. Lyons MD
01/12/86	10:17:14	Cloride	Daily @ 0600	T. Bui MD
01/12/86	10:17:40	Sodium		T. Bui MD
01/12/86	10:18:00	Amylase		T. Bui MD
01/12/86	10:18:25	Potassium	Daily @ 0600	T. Bui MD
01/12/86	10:18:56	CO2	Daily @ 0600	T. Bui MD
01/12/86	10:19:26	CBC	Daily @ 0600	T. Bui MD
01/12/86	10:19:54	Platlets	Daily @ 0600	T. Bui MD
01/12/86	10:20:18	Glucose	Daily @ 0600	T. Bui MD
01/12/86	10:22:02	Intake & Output	TID	T. Bui MD

Figure 5.1.1.3

Selection 6 provides the same information on the printer.
Selection 7 [Internal Patient Classification], gives
the patient classification level and point value --
Figure 5.1.1.6 [Appendix F]

Patient: Mary Miser

Is In: Category II

Point Value Is: 27

Figure 5.1.1.6

Nursing Diagnosis

Selection 1 on the Nursing Master Screen, advances the
program to Figure 5.1.1.1 (Select The Desired Nursing Care
Plan Function). The nurse has two major choices: selection
1 -- Enter New Care Plan and selection 2 -- Inactivate
Portions of Care Plans. Selection 1 advances the program
to Figure 5.1.1.1a (Select Nursing Diagnosis).

```
Ward Room Bed      Patient                Reg #         Date    Time


                    ••• SELECT NURSING DIAGNOSIS •••


                   1)  Comfort, Alteration In: Pain

                   2)  Communication, Impaired: Verbal

                   3)  Impaired Physical Mobility

                   4)  Self-Care Deficit


     0) Sign-Off        5) Nurse's Master Screen        6) Master Screen

  Current User.
                            Select one number (0-6) ----> •
```

Figure 5.1.1.1a

Of the 52 nursing diagnoses approved through the 5th and
5th National Conferences of the North American Nursing
Diagnosis Association a representative four were chosen.

Patient Assessment

Following the selection of one of the diagnoses, the nurse
advances to one of the four assessment screens (Figure
5.1.1.1b, 5.1.1.1k, 5.1.1.1q, 5.1.1.1y).

```
Ward Room Bed      Patient            Reg #        Date     Time

          ••  SELECT NURSING ASSESSMENTS FOR A PATIENT WITH   ••
          •• NURSING DIAGNOSIS OF COMFORT ALTERATION IN: PAIN ••

 1) Altered Time          7) Guarding Behavior      12) Self-Focusing
       Perception
                          8) Impaired Thought       13) Talkative
 2) Alteration Muscle Tone      Process
                                                    14) Verbal Complaint
 3) Autonomic Response    9) Narrowing Focus
                                                    15) Vocal Complaints
 4) Distraction Behavior  10) Pacing                      (Moans, Crying)

 5) Facial Mask           11) Patient Report        16) Withdrawal From
                                                          Social Contact
 6) Other Assessment: [.............................]


 Current user:
                            Select one number (01-16) --->
```

Figure 5.1.1.1b

Assessments, related factors, goals and nursing orders
used are not an inclusive list, but rather generic options
to build on. Any assessment, related factor, goal or order
can be changed to better reflect the individual nature of
their hospital setting. To select any number less than 10,
enter either 03 or 3 <enter> to advance the program.

                    Related Factors and Patient Goals

    Following the assessment selection, the program moves to
the related factor associated with the diagnosis (Figure
5.1.1.1c, 5.1.1.1l, 5.1.1.1r, 5.1.1.1z). The patient goal
screen follows (Figure 5.1.1.1d, 5.1.1.1m, 5.1.1.1s,
5.1.1.1aa).

```
Ward Room Bed        Patient              Reg #        Date      Time

            ••    SELECT A RELATED FACTOR FOR A PATIENT WITH    ••
            •• NURSING DIAGNOSIS OF COMFORT ALTERATION IN: PAIN ••

   1)  Altered Sensation              5)  Surgical Procedure

   2)  Disease / Condition            6)  Trauma

   3)  Emotional State                7)  Treatment Regime

   4)  Other: [·························]


Current user:                    Select one number (1-7) ---->
```

Figure 5.1.1.1c

```
Ward Room Bed        Patient              Reg #        Date      Time

            ••    SELECT A PATIENT GOAL FOR A PATIENT WITH    ••
            •• NURSING DIAGNOSIS OF COMFORT ALTERATION IN  PAIN ••


         1)  Communicates Pain Free

         2)  Communicates Experiences Less Pain

         3)  Communicates Experience of Pain More Tolerable

         4)  Demos Skills & Knowledge to Achieve Pt Goals

         5)  Other Goals: [······································]


Current user.                    Select one number (1-5) ---->
```

Figure 5.1.1.1d

Nursing Orders

The patient goal selected, triggers the appropriate
patient order screen.   If patient diagnosis selection is

comfort alteration in: pain, and the goal selected from
Figure 5.1.1.1d is 1, 2, 3, or 5, Figure 5.1.1.1.e appears.
To obtain additional information on some of the nursing
orders, the program may advance the nurse to Select Time /
Frequency Option [Figure 5.1.1.1g] with its help facility
[Figure 5.1.1.1h]; a teaching module [Figure 5.1.1.1i] to
illicit the type of teaching necessary; or an emotional
support screen to determine the type of emotional support
required [Figure 5.1.1.1j]. With the selection of goal 4,
the program displays Figure [5.1.1.1f].

Ward Room Bed   Patient   Reg #   Date   Time

••   SELECT A NURSING ORDER FOR A PATIENT WHOSE GOAL IS   ••
•• COMMUNICATES: PAIN FREE, EXPERIENCES LESS/TOLERABLE PAIN OR OTHER GOAL ••

1] Assess Pain Factors   6] Offer PRN Medications

2] Assess & Evaluate Pain   7] Provide Emotional Support

3] Encour Pt to Use Coping Strategy 8] Schedule "Quiet Times"

4] Give Info & Explain Proc & Tests 9] Teach Alt Coping Strategies

5] Other Nursing Orders: 10] Utilize Diversional Activities
    [............................]

Current User   Select one number [01-10] --->

Figure 5.1.1.1e

```
Ward Room Bed      Patient               Reg #      Date      Time

        •• SELECT A NURSING ORDER FOR A PATIENT WHOSE GOAL IS ••
        •• DEMONSTRATES SKILLS & KNOWLEDGE TO ACHIEVE GOALS  ••
```

```
                • Teach Stress Reduction Techniques

                  1]   Deep Breathing

                  2]   Progressive Relaxation

                  3]   Relaxation Response

                  4]   Diversional Activity

                  5]   Other: [.........................]
```

```
Current User:          |
                       |         Select one number [1-5] ----->
                       |
```

✓ Figure 5.1.1.1f

Each of the four nursing diagnoses follows the same
sequence: assessment, related factor, goal and nursing
order with generic type responses. The only variation lies
in the goal section of the Self-Care Deficit diagnosis
[Figure 5.1.1.1aa]. Levels 0 through 4 are self care
levels as defined in COMPUTERIZED NURSING CARE PLANNING
UTILIZING NURSING DIAGNOSIS and referenced in the main text
of the thesis. Current level of care required is also
asked for. Current level of care enters into
the patient classification determination.

A caveat exists regarding the use of the "other order"
option provided by each of the nursing order screens. Many
nursing orders are directly linked to the internal
processing of the patient classification system. The use
of the "other order" may give a more accurate order, but
will not enter points into the patient's classification
level. If orders are identified that need to be added, and
affect the patient classification, they should be
incorporated into the program, rather than being typed in.

                    Inactivate Portion of Care Plan

In addition to selection 1 on the Select Desired Nursing
Care Plan Function screen [Figure 5.1.1.1], the nurse can
choose to inactivate a portion of the care plan by

selecting option 2. Figure 5.1.1.log displays nursing care plan information for review and inactivation as needed.

U. System Administration Personnel

Access level 0 or 2 will allow the user access to the System Administration section of the program. The target user group for this section is the department responsible for issuing access levels and recording user's information. Figure 6.1 provides the format used to enter user's information.

```
                    ••• SELECT ADD / DELETE A USER •••

                             ·

                      1]  Add A User


                      2]  Delete A User




                      0]  Sign-Off

Current user:        |
                     |          Select one number (0-2) ----->   •
                     |
```

Figure 6

```
                          USER INFORMATION

                ••• THIS INFORMATION IS CONFIDENTIAL •••


                    First Initial:      .

                    Middle Initial:

                    Last Name:

                    Category of
                        Requestor:

                    Password:

                    Access Level.

```
                          Figure 6.1

    The User Information screen consists of 6 input areas.
After inputting the information, press enter to move to the
next category. The amount of information and the
acceptable inputs are as follows:

    First Initial: Allows only one character to be enter-
                      ed, automatically capitalizes it,
                      places a period after the letter and
                      advances the user to the next field.
    Middle Initial: Parameters are identical to First
                      Initial.
    Last Name: Allows entry of up to 20 letters,
                      capitalizes the first letter and
                      advances the user to the next field.
    Category of   A three letter field for a coded
                      category.
    Requestor: Could include rate, rank or education-
                      al background. Used for user infor-
                      mation only and is not otherwise
                      incorporated into the program.
    Password: A 5 letter or number code selected by
                      the user to log into the system.
    Access Level: Authorizes a person to enter different
                      sections of the software project.
                      Five levels of access are available:
                      0   Unlimited access to all sections of
                          the software project.
                      1   Restricted to the admission's sec-
                          tion of the software project.

2   Restricted to the data base section
               of the software project.
          3   Restricted to the doctor section of
               the software project.
          4   Restricted to the nursing section
               of the software project.

                    Expert System Supplement

     There are two ways for the nurse to obtain a patient
classification, externally or internally [selection 4 and 7
respectively on Figure 5.1.1 -- Nurse's Master Screen].
Selection 4 loads a qualifier and value number for each
patient order that corresponds to a critical indicator.
This is the expert system information to calculate the
patient classification level.

     To calculate the external patient classification system
choose selection 4, Figure 5.1.1.   A manufacturer's
sign-off message appears at the bottom of the screen
indicating that you are leaving dBase III. Remove disk A:2
and insert disk A:3. Type b:expert <enter>.   The expert
program loads into memory the necessary information to
calculate the patient classification.   The program asks
some preliminary questions [three] which require no response
except <enter>.   The expert system program gives the
user an opportunity to see the rules used to arrive at the
classification level.

     Selection 7 of Figure 5.1.1 works in a similar manner to
selection 4, without leaving the main program.   Selection 7
provides a much quicker patient classification level, but
is not able to provide the user with the information on how
the classification was derived.

     During the programming phase of this project, medical
orders that corresponded to critical indicators were tied
to their corresponding medical order, ie. vital signs QD
receives a patient point value of 1, apnea monitor receives
a monitor point value of 6.   The reason vital signs has a
patient point value and apnea monitor has a monitor point
value is because the vital sign's critical indicator
relates directly to critical indicator points.   This is not
true of an order for an apnea, cardiac or pressure monitor.
In the latter case the patient point total would remain at
6 even if three monitors were ordered.   Where point totals
are not additive or do not directly translate to patient
points -- the cardiac, apnea, temp and pressure monitors;

S&A, SpGr, Guiac and spin HCT; and emotional support --
special point totals are calculated prior to their
translation to a patient point totals.

Listed in Appendix F are qualifiers and their values
used to derive the expert system's rules. Through the use
of 382 rules, the patient classification level is derived.

APPENDIX D

PATIENT CLASSIFICATION CRITICAL INDICATORS

VITAL SIGNS (MANUAL TPR, BP)

(1) Vital signs Q1D or less	(2) Rectal or axillary temps or apical pulse Q1D or more
(2) Vital signs q4h or x 6	(2) Femoral or pedal pulses or FHT q4h or more
(4) Vital signs q2h or x 12	(2) Tilt tests q4h or more
(8) Vital signs q1h or x 24	(6) Post-op, post-partum or post-newborn

MONITORING

(2) Intake and output q8h or x 3	(6) Cardiac/apnea/temp/pressure monitors (not additive)
(8) Intake and output q2h or x 12	(6) Transcutaneous monitor
(2) Circulation or fundus checks q2h or x 12	(4) A-line or ICP (monitor) or Swan Ganz set-up
(3) Neuro checks q4h or x 6	(2) A-line or ICP (monitor) reading q2h or x 12
(6) Neuro checks q2h or x 12	(2) PAP/PA wedge reading q4h or x 6
(2) CVP or ICP (manual) q2h or x 12	(4) PAP/PA wedge reading q2h or x 12
	(2) Cardiac output T1D or x 3

ACTIVITIES OF DAILY LIVING

(6) Infant/toddler care (≤5 years)	(32) Total care (> 5 years) - position and skin care q2h
(2) Self/minimal care (adult or child > 5 years)	(4) Extra linen change and partial bath 2x per shift
(6) Assisted care (> 5 years) - positions self	(14) Turning frame (2 staff to turn q2h)
(14) Complete care (> 5 years) assist with positioning	(8) Peds recreation/observation - 0-12 yrs (exclude NBN)

FEEDING

(2) Tube feeding (continuous) - per bag change	(2) Infant/neonate bottle x 1 feeding
(5) Tube feed (bolus) adult/child/neonate q4h or x 6	(12) Infant/neonate bottle q4h or x 6
(6) Adult meals > 5 years (spoon feed x 3)	(24) Infant/neonate bottle q2h or x 12
(10) Child meals ≤ 5 years (spoon feed x 3)	

TREATMENTS/PROCEDURES/MEDICATIONS

Simple >15 and < 30 Minutes Total

(2) Start IV or NG insertion or Foley insertion or EKG
(2) Surgical prep or enemas or ace wraps/elastic stockings
(2) Simple dressing x 2, or tube care x 2 (exclude trach), Foley care x 2
(2) S&A or SpGr or Guiac or spin HCT x 6
(2) Lab studies x 6; ABG stick or blood culture x 3
(2) Medications q3h - q8h (exclude IV) - (up to 12 trips)
(2) Irrigations or instillations x 4 or less
(2) Restraints (2 or 4 point or posey)
(2) Assist to chair or stretcher and return x 3
(2) Assist to walk and return x 1
(2) Infant circumcision or phototherapy
(2) Isolation (gown & glove x 8)
(2) Accompany patient off ward > 15 minutes & < 30 minutes
(2) Other activities requiring > 15 minutes & < 30 minutes

Complex > 30 minutes and < 1 Hour Total

(4) Chest tube insertion or lumbar puncture
(4) Thoracentesis or paracentesis
(4) Complex dressing change (> 30 minutes to complete)
(4) Straight catheterization x 4 or more
(4) Medications q2h or more (exclude IV) (> 12 trips)
(4) Range of motion exercises x 3
(4) Accompany patient off ward > 30 minutes
(4) Other activities requiring > 30 minutes and < 1 hour
(12) New admission - assess & orient

Special Procedures > 1 Hour < 4 Hours

(8) Each complete hour requiring continuous staff attendance

RESPIRATORY THERAPY

(2) Oxygen therapy or oxyhood	(2) Chest pulmonary therapy B1D or x 2
(2) Incentive spirometer or C&DB q4h	(4) Chest pulmonary therapy q6h or x 4
(2) IPPB or maximist B1D or x 2	(6) Chest pulmonary therapy q4h or x 6
(4) IPPB or maximist q6h or x 4	(2) Suctioning q4h or x 6
(6) IPPB or maximist q4h or x 6	(4) Suctioning q2h or x 12
(8) Croup tent or mist tent	(4) Tracheostomy care x 3
	(10) Ventilator

IV THERAPY

(4) KVO (change bottle B1D or less)	(2) Medication q8h or x 3
(4) Heparin lock or Broviac	(3) Medication q6h or x 4
(8) Simple (change bottle T1D or Q1D)	(4) Medication q4h or x 6
(8) Complex (two or more sites or change bottle q4h or multilumen line)	(2) Blood products (each unit)

TEACHING AND EMOTIONAL SUPPORT
(Must be documented)

Teaching

(2) Group teaching
(4) Preoperative teaching
(4) Structured teaching (i.e. diabetic, cardiac, colostomy care, post partum first 24 hrs, newborn care, discharge)

Emotional Support (in excess of 30 minutes q 24 hours.)

(4) Patient/family support (i.e. anxiety, denial, loneliness, etc.)
(4) Modification lifestyle (i.e. new prosthesis, body image, behavior modification, etc.)
(6) Sensory deprivation (i.e. retarded, deaf, blind, language barrier, bilateral eye patches, confused, combative, etc.)
(10) Maximum points for emotional support

CONTINUOUS

(96) Patient requiring 1:1 coverage all shifts (i.e. peritoneal dialysis, comoative, etc.)
(146) Patient requiring greater than 1:1 coverage all shifts (i.e. ventilator with multiple vasopressors, IABP, etc.)

Dec 1984

THE NAVY MEDICAL DEPARTMENT'S WORKLOAD MANAGEMENT SYSTEM FOR NURSING, May, 1985, P. 10.

QUALIFIERS

1. Vital signs order is:

   QID or less
   q4h or × 6
   q2h or × 12
   q1h or × 24
   Not ordered

   Used in rules: 1-5

2. Rectal or axillary temp order is:

   Rectal temps less than QID
   Axillary temps less than QID
   Rectal temps QID or more
   Axillary temps QID or more
   Not ordered

   Used in rules: 6-10

3. Patient order for apical pulse is:

   Apical pulse less than QID
   Apical pulse QID or more
   Not ordered

   Used in rules: 11-13

4. Patient order for femoral pulse is:

   Femoral pulses are less than q4h
   Femoral pulses q4h or more
   Not ordered

   Used in rules: 14-16

5. Patient order for pedal pulse is:

   Pedal pulses less than q4h
   Pedal pulses q4h or more
   Not ordered

   Used in rules: 17-19

6. Patient order for FHT is:

    FHT less than q4h
    FHT q4h or more
    Not ordered

    Used in rules: 20-22

7. Patient order for tilt test is:

    Tilt test less than q4h
    Tilt test q4h or more
    Not ordered

    Used in rules: 23-25

8. Patient order for postop/post partum/post-newborn vital signs is:

    Post op vital signs
    Post-partum vital signs
    Post-newborn vital signs
    Not ordered

    Used in rules: 26-29

9. Patient order for intake & output is:

    Intake & output less than q8h or x 3
    Intake & output at least q8h [x 3] but less than q4h
      [x6]
    Intake & output q4h or x 6
    Intake & output q2h or x 12
    Intake & output q1h or x 24
    Not ordered

    Used in rules: 30-35

10. Patient order for circulation checks is:

    Circulation checks less than q2h or x 12
    Circulation checks q2h or x 12
    Circulation checks q1h or x 24
    Not ordered

    Used in rules: 36-39

11. Patient orders for neuro checks is:

    Neuro checks less than q4h or x 6
    Neuro checks q4h or x 6
    Neuro checks q2h or x 12
    Neuro checks q1h or x 24
    Not ordered

    Used in rules: 40-44

12. Patient order for CVP manual readings is:

    CVP manual readings less than q2h or x 12
    CVP manual readings q2h or x 12
    CVP manual readings q1h or x 24
    Not ordered

    Used in rules: 45-48

13. Patient order for ICP manual readings is:

    ICP manual readings less than q2h or x 12
    ICP manual readings q2h or x 12
    ICP manual readings q1h or x 24
    Not ordered

    Used in rules: 49-52

14. Patient order for fundus checks is

    Fundus checks less than q2h or x 12
    Fundus checks q2h or x 12
    Fundus checks q1h or x 24
    Not ordered

    Used in rules: 53-56

15. Patient order for transcutaneous monitor is:

    Transcutaneous monitor
    Not ordered

    Used in rules: 57, 58

16. Patient order for an A-line set-up is

    A-line set-up
    Not ordered

    Used in rules: 59, 60

17. Patient order for an ICP monitor set-up is:

    ICP monitor set-up
    Not ordered

    Used in rules: 61, 62

18. Patient order for Swan-Gantz set-up is:

    Swan Ganz set-up
    Not ordered

    Used in rules: 63, 64

19. Patient order for A-line reading is:

    A-line reading less than q2h or x 12
    A-line reading q2h or x 12
    A-line reading q1h or x 24
    Not ordered

    Used in rules: 65-68

20. Patient order for ICP monitor reading is:

    ICP monitor reading less than q2h or x 12
    ICP monitor reading q2h or x 12
    ICP monitor reading q1h or x 24
    Not ordered

    Used in rules: 69-72

21. Patient order for PAP/PA wedge reading is:

    PAP/PA wedge reading of less than q4h or x 6
    PAP/PA wedge reading q4h or x 6
    PAP/PA wedge reading q2h or x 12
    PAP/PA wedge reading q1h or x 24
    Not ordered

    Used in rules: 73-77

22. Patient order for cardiac output is:

    Cardiac output less than TID or x 3
    Cardiac output less than TID [x 3] but less than q4h
      [x 6]
    Cardiac output q4h or x 6
    Cardiac output q2h or x 12

Cardiac output q1h or x 24
Not ordered

Used in rules: 78-83

23. Patient order for ADL is:

Infant/toddler care [=< 5 years]
Self/minimal care [adult or child > 5 years]
Assisted care [> 5 years] positions self
Complete care [> 5 years] assist with positioning
Total care [> 5 years] position and skin care q2h

Used in rules: 84-88

24. Patient order for extra linen change and partial bath
       is:

Extra linen change and partial bath less than 2x per
       shift
Extra linen change and partial bath 2x per shift [or 6x
       per day]
Extra linen change and partial bath 4x per shift [or 12x
       per day]
Extra linen change and partial bath 8x per shift [or 24x
       per day]
Not ordered

Used in rules: 89-93

25. Patient order for turning frame is:

Turning frame less than q2h
Turning frame q2h or x 12
Turning frame q1h or x 24
Not ordered

Used in rules: 94-97

26. Patient order for peds recreation/observation is:

Peds recreation/observation - 0-12 yrs [exc NBN]
Not ordered

Used in rules: 98, 99

27. Patient order for tube feedings is:

Tube feedings continuous -- less than 1 bag per 24 hours
Tube feedings continuous -- 1 bag per 24 hours

```
        Tube feedings continuous -- 2 bag per 24 hours
        Tube feedings continuous -- 3 bag per 24 hours
        Tube feedings continuous -- 4 bag per 24 hours
        Tube feedings continuous -- 6 bag per 24 hours
        Tube feedings continuous -- 12 bag per 24 hours
        Tube feedings continuous -- 24 bag per 24 hours
        Tube feedings [bolus] less than q4h or x 6
        Tube feedings [bolus] q4h or x 6
        Tube feedings [bolus] q2h or x 12
        Tube feedings [bolus] q1h or x 24
        Not ordered

        Used in rules: 100-112
```

28. Patient order for spoon feeding is:

```
        Adult meals > 5 [spoon feed x 3]
        Child meals =< 5 years [spoon feed x 3]
        Not ordered

        Used in rules: 113-115
```

29. Patient order for infant/neonate bottled feeding is:

```
        Infant/neonate bottle x 1 feeding
        Infant/neonate bottle q4h or x 6
        Infant/neonate bottle q2h or x 12
        Not ordered

        Used in rules: 116-119
```

30. Patient order for IV insertion is:

```
        IV insertion
        Not ordered

        Used in rules: 120, 121
```

31. Patient order for NG insertion is:

```
        NG insertion
        Not ordered

        Used in rules: 122, 123
```

32. Patient order for foley insertion / straight catheter-
        ization is:

```
        Foley insertion
        Straight catheterization of less than 4
```

Straight catheterization of 4 or more
Not ordered

Used in rules: 124-127

33. Patient order for EKG strip is:

EKG rhythm strip
Not ordered

Used in rules: 128, 129

34. Patient order for surgical prep is:

Surgical prep
Not ordered

Used in rules: 130, 131

35. Patient order for enemas is:

Enemas
Not ordered

Used in rules: 132, 133

36. Patient order for ace wrap/elastic stockings is:

Ace wrap
Elastic stockings
Not ordered

Used in rules: 134-136

37. Patient order for dressings change is:

Simple dressing change less than x 2 or BID
Simple dressing change x 2 or BID
Simple dressing change x 3 or TID
Simple dressing change x 4 or QID
Simple dressing change x 6 or q4h
Simple dressing change x 12 or q2h
Simple dressing change x 24 or q1h
Complex dressing change x 1 or QD
Complex dressing change x 2 or BID
Complex dressing change x 3 or TID
Complex dressing change x 4 or QID
Complex dressing change x 6 or q4h
Complex dressing change x 12 or q2h

Complex dressing change x 24 or q1h
Not ordered

Used in rules: 137-151

38. Patient order for tube care [excluding trach] is:

    Tube care less than x 2 or BID
    Tube care x 2 or BID
    Tube care x 3 or TID
    Tube care x 4 or QID
    Tube care x 6 or q4h
    Tube care x 12 or q2h
    Tube care x 24 or q1h
    Not ordered

    Used in rules: 152-159

39. Patient order for Foley care is:

    Foley care less than x 2 or BID
    Foley care x 2 or BID
    Foley care x 3 or TID
    Foley care x 4 or QID
    Foley care x 6 or q4h
    Foley care x 12 or q2h
    Foley care x 24 or q1h
    Not ordered

    Used in rules: 160-167

40. Patient order for S & S is:

    S & A x 1 or QD
    S & A x 2 or BID
    S & A x 3 or TID
    S & A x 4 or QID
    S & A x 6 or q4h
    S & A x 12 or q2h
    S & A x 24 or q1h
    Not ordered

    Used in rules: 168-175

41. Patient order for SpGr is:

    SpGr x 1 or QD
    SpGr x 2 or BID
    SpGr x 3 or TID
    SpGr x 4 or QID

```
SpGr x 6 or q4h
SpGr x 12 or q2h
SpGr x 24 or q1h
Not ordered
```

Used in rules: 176-183

42. Patient order for Guiac is:

```
Guiac stools x 1 or QD
Guiac stools x 2 or BID
Guiac stools x 3 or TID
Guiac stools x 4 or QID
Guiac stools x 6 or q4h
Guiac stools x 12 or q2h
Guiac stools x 24 or q1h
Not ordered
```

Used in rules: 184-191

43. Patient order for spin HCT is:

```
Spin HCT x 1 or QD
Spin HCT x 2 or BID
Spin HCT x 3 or TID
Spin HCT x 4 or QID
Spin HCT x 6 or q4h
Spin HCT x 12 or q2h
Spin HCT x 24 or q1h
Not ordered
```

Used in rules: 192-199

44. Patient order for lab studies is:

```
Lab studies less than x 6
Lab studies x 6 or q4h
Lab studies x 12 or q2h
Lab studies x 24 or q1h
Not ordered
```

Used in rules: 200-204

45. Patient order for ABG stick is:

```
ABG sticks, less than 3
ABG sticks, at least 3 but less than 6
ABG sticks x 6
ABG sticks x 12
```

```
    ABG sticks x 24
    Not ordered

    Used in rules: 205-210

46. Patient order for blood cultures is:

    Blood cultures less than x 3
    Blood cultures at least x 3 but less than x 6
    Blood cultures x 6
    Blood cultures x 12
    Blood cultures x 24
    Not ordered

    Used in rules: 211-216

47. Patient order for medications is:

    Medications less than q8h [excluding IV]
    Medications q3h - q8h [excluding IV] - up to 12 trips
    Medications q2h or more [excluding IV] - > 12 trips
    Not ordered

    Used in rules: 217-220

48. Patient order for irrigations is:

    Irrigation x 4 [QID] or less
    Irrigation x 6 or q4h
    Irrigation x 12 or q2h
    Irrigation x 24 or q1h
    Not ordered

    Used in rules: 221-225

49. Patient order for instillations is:

    Instillations x 4 [QID] or less
    Instillations x 6 or q4h
    Instillations x 12 or q2h
    Instillations x 24 or q1h
    Not ordered

    Used in rules: 226-230

50. Patient order for restraints is:

    2-point
    4-point
```

Posey
Not ordered

Used in rules: 231-234

51. Patient order of assist to chair / stretcher is:

Assist to chair and return less than x 3 or TID
Assist to stretcher and return less than x 3 or TID
Assist to stretcher at least x 3 but less than x 6
Assist to stretcher x 6 or q4h
Assist to stretcher x 12 or q2h
Assist to stretcher x 24 or q1h
Assist to chair at least x 3 but less than x 6
Assist to chair x 6 or q4h
Assist to chair x 12 or q2h
Assist to chair x 24 or q1h
Ambulate with assistance x 1
Ambulate with assistance x 2
Ambulate with assistance x 3
Ambulate with assistance x 4
Ambulate with assistance x 6
Ambulate with assistance x 12
Ambulate with assistance x 24
Not ordered

Used in rules: 236-252

52. Patient order for infant circumcision care is:

Infant circumcision care
Not ordered

Used in rules: 253, 254

53. Patient order for phototherapy is:

Phototherapy
Not ordered

Used in rules: 255, 256

54. Patient order for isolation is:

Isolation (change gown and gloves < x 8)
Isolation (change gown and gloves x 8 or more)
Not ordered

Used in rules: 257-259

55. Patient order for accompany patient off ward is:

    Accompany patient off ward for less than 15 min
    Accompany patient off ward for 15 to 30 min
    Accompany patient off ward for greater than 30 min
    Not ordered

    Used in rules: 260-263

56. Patient order for other activities is:

    Other activities requiring less than 15 minutes
    Other activities requiring 15 to 30 minutes
    Other activities requiring 30 min to 1 hr
    Special procedures > 1hr < 2 hr (requiring continuous
        staff attendance)
    Not ordered

    Used in rules: 264-268

57. Patient order for chest tube insertion is:

    Chest tube insertion
    Not ordered

    Used in rules: 269, 270

58. Patient order for lumbar puncture is:

    Lumbar puncture
    Not ordered

    Used in rules: 271, 272

59. Patient order for thoracentesis is:

    Thoracentesis
    Not ordered

    Used in rules: 273, 274

60. Patient order for paracentesis is:

    Paracentesis
    Not ordered

    Used in rules: 275, 276

61. Patient order for range of motion is:

    Range of motion exercises less than x 3 or TID
    Range of motion exercises at least x 3 but less than x 6
    Range of motion exercises x 6 or q4h
    Range of motion exercises x 12 or q2h
    Range of motion exercises x 24 or q1h
    Not ordered

    Used in rules: 277-282

62. Patient order to transfer in-house or new admission is:

    Transfer in-house (assess and orient)
    New admission (assess and orient)
    Not ordered

    Used in rules: 283-285

63. Patient order for O2 therapy or oxyhood is:

    Oxygen therapy
    Oxyhood
    Not ordered

    Used in rules: 286-288

64. Patient order for incentive spirometer is:

    Incentive spirometer less than q4h
    Incentive spirometer q4h
    Incentive spirometer q2h
    Incentive spirometer q1h
    Not ordered

    Used in rules: 289-293

65. Patient order for C&DB is:

    C & DB less than q4h
    C & DB q4h
    C & DB q2h
    C & DB q1h
    Not ordered

    Used in rules: 294-298

66. Patient order for IPPB or maximist is:

    IPPB or maximist less than BID or x 2

```
        IPPB or maximist BID or x 2
        IPPB or maximist TID or x 3
        IPPB or maximist q6h, x 4 or QID
        IPPB or maximist q4h, x 6
        IPPB or maximist q2h, x 12
        IPPB or maximist q1h, x 24
        Not ordered

        Used in rules: 299-306
```

67. Patient order for croup tent or mist tent is:

```
        Croup tent
        Mist tent
        Not ordered

        Used in rules: 307-309
```

68. Patient order for chest pulmonary therapy is:

```
        Chest pulmonary therapy less than BID or x 2
        Chest pulmonary therapy BID or x 2
        Chest pulmonary therapy TID or x 3
        Chest pulmonary therapy QID or x 4
        Chest pulmonary therapy q4h or x 6
        Chest pulmonary therapy q2h or x 12
        Chest pulmonary therapy q1h or x 24
        Not ordered

        Used in rules: 310-317
```

69. Patient order for suctioning is:

```
        Suctioning less than q4h or x 6
        Suctioning q4h or x 6
        Suctioning q2h or x 12
        Suctioning q1h or x 24
        Not ordered

        Used in rules: 318-322
```

70. Patient order for trach care is:

```
        Trach care < x 3 or less than TID
        Trach care at least TID [x 3] but less than q4h [x 6]
        Trach care x 6 or q4h
        Trach care x 12 or q2h
        Trach care x 24 or q1h
        Not ordered
        Used in rules: 323-328
```

71. Patient order for ventilator is:

   Ventilator
   Not ordered

   Used in rules: 329, 330

72. Patient order for hanging IV bottles is:

   KVO (change bottle BID or less)
   Simple (change bottle TID or QID)
   Complex (change bottle q4h or more, two or more sites,
       or multilumen tube)
   Not ordered

   Used in rules: 331-334

73. Patient order for heparin lock or Broviac catheter is:

   Heparin lock
   Broviac catheter
   Not ordered

   Used in rules: 335-337

74. Patient order for IV medication is:

   IV medication of less than q8h or x 3
   IV medication q8h or x 3
   IV medication q6h or x 4
   IV medication q4h or x 6
   IV medication q2h or x 12
   IV medication q1h or x 24
   Not ordered

   Used for rules: 338-344

75. Patient order for blood products is:

   Blood products x 1 unit
   Blood products x 2 unit
   Blood products x 3 unit
   Blood products x 4 unit
   Blood products x 6 unit
   Blood products x 12 unit
   Blood products x 24 unit
   Not ordered

   Used in rules: 345-352

76. Patient order for group teaching is:

Group teaching
Not ordered

Used in rules: 353, 354

77. Patient order for preoperative teaching is:

Preoperative teaching
Not ordered

Used in rules: 355, 356

78. Patient order for structured teaching is:

Structured teaching [i.e. diabetic, cardiac, colostomy
    care, post partum first 24 hr, newborn care,
    discharge]
Not ordered

Used in rules: 357, 358

79. Patient order for emotional support is:

Patient/family support [i.e. anxiety, denial, lonliness]
Not ordered

Used in rules: 359, 360

80. Patient order for modification of lifestyle is:

Emotional support for modification of lifestyle [i.e.
    new prothesis, body image, behavior modification]
Not ordered

Used in rules: 361, 362

81. Patient order for sensory deprivation is:

Emotional support for sensory deprivation [i.e.
    retarded, blind, deaf, language barrier, bilateral
    eye patches, confused, combative, etc.]
Not ordered

Used in rules: 363, 364

82. Patient order for cardiac monitor is:

    Cardiac monitor
    Not ordered

    Used in rules: 365, 366

83. Patient order for apnea monitor is:

    Apnea monitor
    Not ordered

    Used in rules: 367, 368

84. Patient order for temp monitor is:

    Temp monitor
    Not ordered

    Used in rules: 369, 370

85. Patient order for pressure monitor is:

    Pressure monitor
    Not ordered

    Used in rules: 371, 372

86. Patient category is:

    I   Self Care/Minimal Care
    II   Moderate Care
    III Acute Care [1 staff to 3 patients]
    IV   Intensive Care [1 staff to 2 patients]
    V   Continuous Care [1 staff to 1 patient]
    VI   Critical Care [1 staff to 1 patient]

    Used in rules: 377-382

RULES

Rule Number: 1
    IF: Vital signs order is: QID or less
    THEN: [ptpoint] is given the value [ptpoint] + 1

Rule Number: 2
    IF: Vital signs order is: q4h or x 6
    THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 3
    IF: Vital signs order is: q2h or x 12
    THEN: [ptpoint] is given the value [ptpoint] + 4

Rule Number: 4
    IF: Vital signs order is: q1h or x 24
    THEN: [ptpoint] is given the value [ptpoint] + 8

Rule Number: 5
    IF: Vital signs order is: Not ordered
    THEN: [ptpoint] is given the value: no points awarded

Rule Number: 6
    IF: Rectal or axillary temp order is: Rectal temps
        less than QID
    THEN: [ptpoint] is given the value: no points awarded

Rule Number: 7
    IF: Rectal or axillary temp order is: Axillary temps
        less than QID
    THEN: [ptpoint] is given the value: no points awarded

Rule Number: 8
    IF: Rectal or axillary temp order is: Rectal temps
        QID or more
    THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 9
    IF: Rectal or axillary temp order is: Axillary temps
        QID or more
    THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 10
    IF: Rectal or axillary temp order is: Not ordered
    THEN: [ptpoint] is given the value: no points awarded

Rule Number: 11
    IF: Patient order for apical pulse is: Apical pulse less
        than QID
    THEN: [ptpoint] is given the value: no points awarded

Rule Number: 12
    IF: Patient order for apical pulse is: Apical pulse QID
        or more
    THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 13
    IF: Patient order for apical pulse is: Not ordered
    THEN: [ptpoint] is given the value: no points awarded

Rule Number: 14
    IF: Patient order for femoral pulse is: Femoral pulses
        less than q4h
    THEN: [ptpoint] is given the value: no points awarded

Rule Number: 15
    IF: Patient order for femoral pulse is: Femoral pulses
        q4h or more
    THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 16
    IF: Patient order for femoral pulse is: Not ordered
    THEN: [ptpoint] is given the value: no points awarded

Rule Number: 17
    IF: Patient order for pedal pulses is: Pedal pulses less
        than q4h
    THEN: [ptpoint] is given the value: no points awarded

Rule Number: 18
    IF: Patient order for pedal pulses is: Pedal pulses q4h
        or more
    THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 19
    IF: Patient order for pedal pulses is: Not ordered
    THEN: [ptpoint] is given the value: no points awarded

Rule Number: 20
    IF: Patient order for FHT is: FHT less than q4h
    THEN: [ptpoint] is given the value: no points awarded

Rule Number: 21
    IF: Patient order for FHT is: FHT q4h or more
    THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 22
    IF: Patient order for FHT is: Not ordered
    THEN: [ptpoint] is given the value: no points awarded

Rule Number: 23
    IF: Patient order for tilt test is: Tilt test less
        than q4h
    THEN: [ptpoint] is given the value: no points awarded

Rule Number: 24
    IF: Patient order for tilt test is: Tilt test q4h
        or more
    THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 25
    IF: Patient order for tilt test is: Not ordered
    THEN: [ptpoint] is given the value: no points awarded

Rule Number: 26
    IF: Patient order for post-op/post-partum/post-newborn
        vital signs is: Post-op
    THEN: [ptpoint] is given the value [ptpoint] + 6

Rule Number: 27
    IF: Patient order for post-op/post-partum/post-newborn
        vital signs is: Post-partum
    THEN: [ptpoint] is given the value [ptpoint] + 6

Rule Number: 28
    IF: Patient order for post-op/post-partum/post-newborn
        vital signs is: Post-newborn
    THEN: [ptpoint] is given the value [ptpoint] + 6

Rule Number: 29
    IF: Patient order for post-op/post-partum/post-newborn
        vital signs is: Not ordered
    THEN: [ptpoint] is given the value: no points awarded

Rule Number: 30
    IF: Patient order for intake & output is: Intake &
        output less than q8h or x 3
    THEN: [ptpoint] is given the value: no points awarded

Rule Number: 31
    IF: Patient order for intake & output is: Intake &
        output at least q8h [x 3], but less than q4h [x 6]
    THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 32
    IF: Patient order for intake & output is: Intake &
        output q4h or x 6
    THEN: [ptpoint] is given the value [ptpoint] + 4

Rule Number: 33
    IF: Patient order for intake & output is: Intake &
        output q2h or x 12
    THEN: [ptpoint] is given the value [ptpoint] + 8

Rule Number: 34
    IF: Patient order for intake & output is: Intake &
        output q1h or x 24
    THEN: [ptpoint] is given the value [ptpoint] + 16

Rule Number: 35
    IF: Patient order for intake & output is: Not ordered
    THEN: [ptpoint] is given the value: no points awarded

Rule Number: 36
    IF: Patient order for circulation checks is: Circulation
        checks less than q2h or x 12
    THEN: [ptpoint] is given the value: no points awarded

Rule Number: 37
    IF: Patient order for circulation checks is: Circulation
        checks q2h or x 12
    THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 38
    IF: Patient order for circulation checks is: Circulation
        checks q1h or x 24
    THEN: [ptpoint] is given the value [ptpoint] + 4

Rule Number: 39
    IF: Patient order for circulation checks is: Not ordered
    THEN: [ptpoint] is given the value: no points awarded

Rule Number: 40
    IF: Patient order for neuro checks is: Neuro checks less
        than q4h or x 6
    THEN: [ptpoint] is given the value: no points awarded

Rule Number: 41
    IF: Patient order for neuro checks is: Neuro checks
        q4h or x 6
    THEN: [ptpoint] is given the value [ptpoint] + 3

Rule Number: 42
    IF: Patient order for neuro checks is: Neuro checks
        q2h or x 12
    THEN: [ptpoint] is given the value [ptpoint] + 6

Rule Number: 43
    IF: Patient order for neuro checks is: Neuro checks
        q1h or x 24
    THEN: [ptpoint] is given the value [ptpoint] + 12

Rule Number: 44
    IF: Patient order for neuro checks is: Not ordered
    THEN: [ptpoint] is given the value: no points awarded

Rule Number: 45
    IF: Patient order for CVP manual readings is: CVP manual
        readings less than q2h or x 12
    THEN: [ptpoint] is given the value: no points awarded

Rule Number: 46
    IF: Patient order for CVP manual readings is: CVP manual
        readings q2h or x 12
    THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 47
    IF: Patient order for CVP manual readings is: CVP manual
        readings q1h or x 24
    THEN: [ptpoint] is given the value [ptpoint] + 4

Rule Number: 48
    IF: Patient order for CVP manual readings is: Not
        ordered
    THEN: [ptpoint] is given the value: no points awarded

Rule Number: 49
    IF: Patient order for ICP manual readings is: ICP manual
        readings less than q2h or x 12
    THEN: [ptpoint] is given the value: no points awarded

Rule Number: 50
    IF: Patient order for ICP manual readings is: ICP manual
        readings q2h or x 12
    THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 51
    IF: Patient order for ICP manual readings is: ICP manual
        readings q1h or x 24
    THEN: [ptpoint] is given the value [ptpoint] + 4

Rule Number: 52
    IF: Patient order for ICP manual readings is: Not
        ordered
    THEN: [ptpoint] is given the value: no points awarded

Rule Number: 53
    IF: Patient order for fundus checks is: Fundus checks
        less than q2h or x 12
    THEN: [ptpoint] is given the value: no points awarded

Rule Number: 54
    IF: Patient order for fundus checks is: Fundus checks
        q2h or x 12
    THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 55
    IF: Patient order for fundus checks is: Fundus checks
        q1h or x 24
    THEN: [ptpoint] is given the value [ptpoint] + 4

Rule Number: 56
    IF: Patient order for fundus checks is: Not ordered
    THEN: [ptpoint] is given the value: no points awarded

Rule Number: 57
    IF: Patient order for transcutaneous monitor is:
        transcutaneous monitor
    THEN: [ptpoint] is given the value [ptpoint] + 6

Rule Number: 58
    IF: Patient order for transcutaneous monitor is: Not
        ordered
    THEN: [ptpoint] is given the value: no points awarded

Rule Number: 59
    IF: Patient order for an A-line set-up is: A-line set-up
    THEN: [ptpoint] is given the value [ptpoint] + 4

Rule Number: 60
    IF: Patient order for an A-line set-up is: Not ordered
    THEN: [ptpoint] is given the value: no points awarded

Rule Number: 61
    IF: Patient order for an ICP monitor set-up is: ICP
        monitor set-up
    THEN: [ptpoint] is given the value [ptpoint] + 4

Rule Number: 62
    IF: Patient order for an ICP monitor set-up is: Not
        ordered
    THEN: [ptpoint] is given the value: no points awarded

Rule Number: 63
    IF: Patient order for Swan Ganz set-up is: Swan Ganz
        set-up
    THEN: [ptpoint] is given the value [ptpoint] + 4

Rule Number: 64
    IF: Patient order for Swan Ganz set-up is: Not ordered
    THEN: [ptpoint] is given the value: no points awarded

Rule Number: 65
    IF: Patient order for A-line reading is: A-line reading
        less than q2h or x 12
    THEN: [ptpoint] is given the value: no points awarded

Rule Number: 66
    IF: Patient order for A-line reading is: A-line reading
        q2h or x 12
    THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 67
    IF: Patient order for A-line reading is: A-line reading
        q1h or x 24
    THEN: [ptpoint] is given the value [ptpoint] + 4

Rule Number: 68
    IF: Patient order for A-line reading is: Not ordered
    THEN: [ptpoint] is given the value: no points awarded

Rule Number: 69
    IF: Patient order for ICP monitor reading is: ICP
        monitor reading less than q2h or x 12
    THEN: [ptpoint] is given the value: no points awarded

Rule Number: 70
    IF: Patient order for ICP monitor reading is: ICP
        monitor reading q2h or x 12
    THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 71
    IF: Patient order for ICP monitor reading is: ICP
        monitor reading q1h or x 24
    THEN: [ptpoint] is given the value [ptpoint] + 4

Rule Number: 72
    IF: Patient order for ICP monitor reading is: Not
        ordered
    THEN: [ptpoint] is given the value: no points awarded

Rule Number: 73
    IF: Patient order for PAP/PA wedge reading is: PAP/PA
        wedge reading of less than q4h or x 6
    THEN: [ptpoint] is given the value: no points awarded

Rule Number: 74
    IF: Patient order for PAP/PA wedge reading is: PAP/PA
        wedge reading of q4h or x 6
    THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 75
    IF: Patient order for PAP/PA wedge reading is: PAP/PA
        wedge reading of q2h or x 12
    THEN: [ptpoint] is given the value [ptpoint] + 4

Rule Number: 76
    IF: Patient order for PAP/PA wedge reading is: PAP/PA
        wedge reading of q1h or x 24
    THEN: [ptpoint] is given the value [ptpoint] + 8

Rule Number: 77
    IF: Patient order for PAP/PA wedge reading is: Not
        ordered
    THEN: [ptpoint] is given the value: no points awarded

Rule Number: 78
    IF: Patient order for cardiac output is: Cardiac output
        less than TID or x 3
    THEN: [ptpoint] is given the value: no points awarded

Rule Number: 79
    IF: Patient order for cardiac output is: Cardiac output
        at least TID [x 3] but less than q4h [x 6]
    THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 80
    IF: Patient order for cardiac output is: Cardiac output
        q4h or x 6
    THEN: [ptpoint] is given the value [ptpoint] + 4

Rule Number: 81
    IF: Patient order for cardiac output is: Cardiac output
        q2h or x 12
    THEN: [ptpoint] is given the value [ptpoint] + 8

Rule Number: 82
    IF: Patient order for cardiac output is: Cardiac output
        q1h or x 24
    THEN: [ptpoint] is given the value [ptpoint] + 16

Rule Number: 83
    IF: Patient order for cardiac output is: Not ordered
    THEN: [ptpoint] is given the value: no points awarded

Rule Number: 84
    IF: Patient order for ADL is: Infant/toddler care
        [-< 5 years]
    THEN: [ptpoint] is given the value [ptpoint] + 6

Rule Number: 85
    IF: Patient order for ADL is: Self/minimal care [adult
        or child > 5 years]
    THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 86
    IF: Patient order for ADL is: Assisted care [> 5 years]
        positions self
    THEN: [ptpoint] is given the value [ptpoint] + 6

Rule Number: 87
    IF: Patient order for ADL is: Complete care [> 5 years]
        assists with positioning
    THEN: [ptpoint] is given the value [ptpoint] + 14

Rule Number: 88
    IF: Patient order for ADL is: Total care [> 5 years]
        position and skin care q2h
    THEN: [ptpoint] is given the value [ptpoint] + 32

Rule Number: 89
    IF: Patient order for extra linen change and partial
        bath is: Extra linen and partial bath less than 2x
        per shift
    THEN: [ptpoint] is given the value: no points awarded

Rule Number: 90
    IF: Patient order for extra linen change and partial
        bath is: Extra linen and partial bath 2x per shift
    THEN: [ptpoint] is given the value [ptpoint] + 4

Rule Number: 91
    IF: Patient order for extra linen change and partial
        bath is: Extra linen and partial bath 4x per shift
    THEN: [ptpoint] is given the value [ptpoint] + 8

Rule Number: 92
    IF: Patient order for extra linen change and partial
        bath is: Extra linen and partial bath 8x per shift
    THEN: [ptpoint] is given the value [ptpoint] + 16

Rule Number: 93
    IF: Patient order for extra linen change and partial
        bath is: Not ordered
    THEN: [ptpoint] is given the value: no points awarded

Rule Number: 94
    IF: Patient order for turning frame is: Turning frame
        less than q2h
    THEN: [ptpoint] is given the value: no points awarded

Rule Number: 95
    IF: Patient order for turning frame is: Turning frame
        q2h or x 12
    THEN: [ptpoint] is given the value [ptpoint] + 14

Rule Number: 96
    IF: Patient order for turning frame is: Turning frame
        q1h or x 24
    THEN: [ptpoint] is given the value [ptpoint] + 28

Rule Number: 97
    IF: Patient order for turning frame is: Not ordered
    THEN: [ptpoint] is given the value: no points awarded

Rule Number: 98
    IF: Patient order for peds recreation/observation is:
        Peds recreation/observation - 0-12 yrs [exc NBN]
    THEN: [ptpoint] is given the value [ptpoint] + 8

Rule Number: 99
    IF: Patient order for peds recreation/observation is:
        Not ordered
    THEN: [ptpoint] is given the value: no points awarded

Rule Number: 100
    IF: Patient order for tube feedings is: Tube feedings
        continuous -- less than 1 bag per 24 hours
    THEN: [ptpoint] is given the value: no points awarded

Rule Number: 101
    IF: Patient order for tube feedings is: Tube feedings
        continuous -- 1 bag per 24 hours
    THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 102
    IF: Patient order for tube feedings is: Tube feedings
        continuous -- 2 bag per 24 hours
    THEN: [ptpoint] is given the value [ptpoint] + 4

Rule Number: 103
    IF: Patient order for tube feedings is: Tube feedings
        continuous -- 3 bag per 24 hours
    THEN: [ptpoint] is given the value [ptpoint] + 6

Rule Number: 104
    IF: Patient order for tube feedings is: Tube feedings
        continuous -- 4 bag per 24 hours
    THEN: [ptpoint] is given the value [ptpoint] + 8

Rule Number: 105
    IF: Patient order for tube feedings is: Tube feedings
        continuous -- 6 bag per 24 hours
    THEN: [ptpoint] is given the value [ptpoint] + 12

Rule Number: 106
    IF: Patient order for tube feedings is: Tube feedings
        continuous -- 12 bag per 24 hours
    THEN: [ptpoint] is given the value [ptpoint] + 24

Rule Number: 107
    IF: Patient order for tube feedings is: Tube feedings
        continuous -- 24 bag per 24 hours
    THEN: [ptpoint] is given the value [ptpoint] + 48

Rule Number: 108
    IF: Patient order for tube feedings is: Tube feedings
        [bolus] less than q4h or x 6
    THEN: [ptpoint] is given the value: no points awarded

Rule Number: 109
    IF: Patient order for tube feedings is: Tube feedings
        [bolus] q4h or x 6
    THEN: [ptpoint] is given the value [ptpoint] + 5

Rule Number: 110
    IF: Patient order for tube feedings is: Tube feedings
        [bolus] q2h or x 12
    THEN: [ptpoint] is given the value [ptpoint] + 10

Rule Number: 111
    IF: Patient order for tube feedings is: Tube feedings
        [bolus] q1h or x 24
    THEN: [ptpoint] is given the value [ptpoint] + 20

Rule Number: 112
    IF: Patient order for tube feedings is: Not ordered
    THEN: [ptpoint] is given the value: no points awarded

Rule Number: 113
    IF: Patient order for spoon feedings is: Adult meals
        > 5 years [spoon feed x 3]
    THEN: [ptpoint] is given the value [ptpoint] + 6

Rule Number: 114
    IF: Patient order for spoon feedings is: Child meals
        =< 5 years [spoon feed x 3]
    THEN: [ptpoint] is given the value [ptpoint] + 10

Rule Number: 115
    IF: Patient order for spoon feedings is: Not ordered
    THEN: [ptpoint] is given the value: no points awarded

Rule Number: 116
    IF: Patient order for infant/neonate bottle feeding is:
        Infant/neonate bottle x 1 feeding
    THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 117
    IF: Patient order for infant/neonate bottle feeding is:
        Infant/neonate bottle q4h or x 6
    THEN: [ptpoint] is given the value [ptpoint] + 12

Rule Number: 118
    IF: Patient order for infant/neonate bottle feeding is:
        Infant/neonate bottle q2h or x 12
    THEN: [ptpoint] is given the value [ptpoint] + 24

Rule Number: 119
    IF: Patient order for infant/neonate bottle feeding is:
        Not ordered
    THEN: [ptpoint] is given the value: no points awarded

Rule Number: 120
    IF: Patient order for IV insertion is: IV insertion
    THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 121
    IF: Patient order for IV insertion is: Not ordered
    THEN: [ptpoint] is given the value: no points awarded

Rule Number: 122
    IF: Patient order for NG insertion is: NG insertion
    THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 123
    IF: Patient order for NG insertion is: Not ordered
    THEN: [ptpoint] is given the value: no points awarded

Rule Number: 124
    IF: Patient order for foley insertion/straight
        catheterization is: Foley insertion
    THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 125
    IF: Patient order for foley insertion/straight
        catheterization is: straight catheterizat of less
        than 3
    THEN: [ptpoint] is given the value: no points awarded

Rule Number: 126
    IF: Patient order for foley insertion/straight
        catheterization is: straight catheterizat of 4 or
        more
    THEN: [ptpoint] is given the value [ptpoint] + 4

Rule Number: 127
    IF: Patient order for foley insertion/straight
        catheterization is: Not ordered
    THEN: [ptpoint] is given the value: no points awarded

Rule Number: 128
    IF: Patient order for EKG rhythm strip is: EKG rhythm
        strip
    THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 129
    IF: Patient order for EKG rhythm strip is: Not ordered
    THEN: [ptpoint] is given the value: no points awarded

Rule Number: 130
    IF: Patient order for surgical prep is: Surgical prep
    THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 131
    IF: Patient order for surgical prep is: Not ordered
    THEN: [ptpoint] is given the value: no points awarded

Rule Number: 132
    IF: Patient order for enemas is: Enemas
    THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 133
    IF: Patient order for enemas is: Not ordered
    THEN: [ptpoint] is given the value: no points awarded

Rule Number: 134
    IF: Patient order for ace wrap/elastic stockings is: Ace
        wrap
    THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 135
    IF: Patient order for ace wrap/elastic stockings is:
        Elastic stockings
    THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 136
    IF: Patient order for ace wrap/elastic stockings is: Not
        ordered
    THEN: [ptpoint] is given the value: no points awarded

Rule Number: 137
    IF: Patient order for dressing change is: Simple
        dressing change less than x 2 or BID
    THEN: [ptpoint] is given the value: no points awarded

Rule Number: 138
    IF: Patient order for dressing change is: Simple
        dressing change x 2 or BID
    THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 139
    IF: Patient order for dressing change is: Simple
        dressing change x 3 or TID
    THEN: [ptpoint] is given the value [ptpoint] + 3

Rule Number: 140
    IF: Patient order for dressing change is: Simple
        dressing change x 4 or QID
    THEN: [ptpoint] is given the value [ptpoint] + 4

Rule Number: 141
    IF: Patient order for dressing change is: Simple
        dressing change x 6 or q4h
    THEN: [ptpoint] is given the value [ptpoint] + 6

Rule Number: 142
    IF: Patient order for dressing change is: Simple
        dressing change x 12 or q2h
    THEN: [ptpoint] is given the value [ptpoint] + 12

Rule Number: 143
    IF: Patient order for dressing change is: Simple
        dressing change x 24 or q1h
    THEN: [ptpoint] is given the value [ptpoint] + 24

Rule Number: 144
    IF: Patient order for dressing change is: Complex
        dressing change x 1
    THEN: [ptpoint] is given the value [ptpoint] + 4

Rule Number: 145
    IF: Patient order for dressing change is: Complex
        dressing change x 2 or q12h
    THEN: [ptpoint] is given the value [ptpoint] + 8

Rule Number: 146
    IF: Patient order for dressing change is: Complex
        dressing change x 3 or TID
    THEN: [ptpoint] is given the value [ptpoint] + 12

Rule Number: 147
    IF: Patient order for dressing change is: Complex
        dressing change x 4 or QID
    THEN: [ptpoint] is given the value [ptpoint] + 16

Rule Number: 148
    IF: Patient order for dressing change is: Complex
        dressing change x 6 or q4h
    THEN: [ptpoint] is given the value [ptpoint] + 24

Rule Number: 149
    IF: Patient order for dressing change is: Complex
        dressing change x 12 or q2h
    THEN: [ptpoint] is given the value [ptpoint] + 48

Rule Number: 150
    IF: Patient order for dressing change is: Complex
        dressing change x 24 or q1h
    THEN: [ptpoint] is given the value [ptpoint] + 96

Rule Number: 151
    IF: Patient order for dressing change is: Not ordered
    THEN: [ptpoint] is given the value: no points awarded

Rule Number: 152
    IF: Patient order for tube care (not trach) is: Tube
        care less than x 2 or BID
    THEN: [ptpoint] is given the value: no points awarded

Rule Number: 153
    IF: Patient order for tube care (not trach) is: Tube
        care x 2 or BID
    THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 154
    IF: Patient order for tube care (not trach) is: Tube
        care x 3 or TID
    THEN: [ptpoint] is given the value [ptpoint] + 3

Rule Number: 155
    IF: Patient order for tube care (not trach) is: Tube
        care x 4 or QID
    THEN: [ptpoint] is given the value [ptpoint] + 4

Rule Number: 156
    IF: Patient order for tube care (not trach) is: Tube
        care x 6 or q4h
    THEN: [ptpoint] is given the value [ptpoint] + 6

Rule Number: 157
    IF: Patient order for tube care (not trach) is: Tube
        care x 12 or q2h
    THEN: [ptpoint] is given the value [ptpoint] + 12

Rule Number: 158
    IF: Patient order for tube care (not trach) is: Tube
        care x 24 or q1h
    THEN: [ptpoint] is given the value [ptpoint] + 24

Rule Number: 159
    IF: Patient order for tube care (not trach) is: Not
        ordered
    THEN: [ptpoint] is given the value: no points awarded

Rule Number: 160
    IF: Patient order for Foley care is: Foley care less
        than x 2 or BID
    THEN: [ptpoint] is given the value: no points awarded

Rule Number: 161
    IF: Patient order for Foley care is: Foley care x 2 or
        BID
    THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 162
    IF: Patient order for Foley care is: Foley care x 3 or
        TID
    THEN: [ptpoint] is given the value [ptpoint] + 3

Rule Number: 163
    IF: Patient order for Foley care is: Foley care x 4 or
        QID
    THEN: [ptpoint] is given the value [ptpoint] + 4

Rule Number: 164
    IF: Patient order for Foley care is: Foley care x 6 or
        q4h
    THEN: [ptpoint] is given the value [ptpoint] + 6

Rule Number: 165
    IF: Patient order for Foley care is: Foley care x 12 or
        q2h
    THEN: [ptpoint] is given the value [ptpoint] + 12

Rule Number: 166
    IF: Patient order for Foley care is: Foley care x 24 or
        q1h
    THEN: [ptpoint] is given the value [ptpoint] + 24

Rule Number: 167
    IF: Patient order for Foley care is: Not ordered
    THEN: [ptpoint] is given the value: no points awarded

Rule Number: 168
    IF: Patient order for S & A is: S & A x 1 or QD
    THEN: [roupoint] is given the value [roupoint] + 1

Rule Number: 169
    IF: Patient order for S & A is: S & A x 2 or BID
    THEN: [roupoint] is given the value [roupoint] + 2

Rule Number: 170
    IF: Patient order for S & A is: S & A x 3 or TID
    THEN: [roupoint] is given the value [roupoint] + 3

Rule Number: 171
    IF: Patient order for S & A is: S & A x 4 or QID
    THEN: [roupoint] is given the value [roupoint] + 4

Rule Number: 172
    IF: Patient order for S & A is: S & A x 6 or q4h
    THEN: [roupoint] is given the value [roupoint] + 6

Rule Number: 173
    IF: Patient order for S & A is: S & A x 12 or q2h
    THEN: [roupoint] is given the value [roupoint] + 12

Rule Number: 174
    IF: Patient order for S & A is: S & A x 24 or q1h
    THEN: [roupoint] is given the value [roupoint] + 24

Rule Number: 175
    IF: Patient order for S & A is: Not ordered
    THEN: [roupoint] is given the value: no points awarded

Rule Number: 176
    IF: Patient order for Sp Gr is: Sp Gr x 1 or QD
    THEN: [roupoint] is given the value [roupoint] + 1

Rule Number: 177
    IF: Patient order for Sp Gr is: Sp Gr x 2 or BID
    THEN: [roupoint] is given the value [roupoint] + 2

Rule Number: 178
    IF: Patient order for Sp Gr is: Sp Gr x 3 or TID
    THEN: [roupoint] is given the value [roupoint] + 3

Rule Number: 179
    IF: Patient order for Sp Gr is: Sp Gr x 4 or QID
    THEN: [roupoint] is given the value [roupoint] + 4

Rule Number: 180
    IF: Patient order for Sp Gr is: Sp Gr x 6 or q4h
    THEN: [roupoint] is given the value [roupoint] + 6

Rule Number: 181
    IF: Patient order for Sp Gr is: Sp Gr x 12 or q2h
    THEN: [roupoint] is given the value [roupoint] + 12

Rule Number: 182
    IF: Patient order for Sp Gr is: Sp Gr x 24 or q1h
    THEN: [roupoint] is given the value [roupoint] + 24

Rule Number: 183
    IF: Patient order for Sp Gr is: Not ordered
    THEN: [roupoint] is given the value: no points awarded

Rule Number: 184
    IF: Patient order for Guiac stools is: Guiac stools x 1
        or QD
    THEN: [roupoint] is given the value [roupoint] + 1

Rule Number: 185
    IF: Patient order for Guiac stools is: Guiac stools x 2
        or BID
    THEN: [roupoint] is given the value [roupoint] + 2

Rule Number: 186
    IF: Patient order for Guiac stools is: Guiac stools x 3
        or TID
    THEN: [roupoint] is given the value [roupoint] + 3

Rule Number: 187
    IF: Patient order for Guiac stools is: Guiac stools x 4

or QID
    THEN: [roupoint] is given the value [roupoint] + 4

Rule Number: 188
    IF: Patient order for Guiac stools is: Guiac stools x 6
        or q4h
    THEN: [roupoint] is given the value [roupoint] + 6

Rule Number: 189
    IF: Patient order for Guiac stools is: Guiac stools x 12
        or q2h
    THEN: [roupoint] is given the value [roupoint] + 12

Rule Number: 190
    IF: Patient order for Guiac stools is: Guiac stools x 24
        or q1h
    THEN: [roupoint] is given the value [roupoint] + 24

Rule Number: 191
    IF: Patient order for Guiac stools is: Not ordered
    THEN: [roupoint] is given the value: no points awarded

Rule Number: 192
    IF: Patient order for spin HCT is: Spin HCT x 1 or QD
    THEN: [roupoint] is given the value [roupoint] + 1

Rule Number: 193
    IF: Patient order for spin HCT is: Spin HCT x 2 or BID
    THEN: [roupoint] is given the value [roupoint] + 2

Rule Number: 194
    IF: Patient order for spin HCT is: Spin HCT x 3 or TID
    THEN: [roupoint] is given the value [roupoint] + 3

Rule Number: 195
    IF: Patient order for spin HCT is: Spin HCT x 4 or QID
    THEN: [roupoint] is given the value [roupoint] + 4

Rule Number: 196
    IF: Patient order for spin HCT is: Spin HCT x 6 or q4h
    THEN: [roupoint] is given the value [roupoint] + 6

Rule Number: 197
    IF: Patient order for spin HCT is: Spin HCT x 12 or q2h
    THEN: [roupoint] is given the value [roupoint] + 12

Rule Number: 198
    IF: Patient order for spin HCT is: Spin HCT x 24 or q1h
    THEN: [roupoint] is given the value [roupoint] + 24

                            129

Rule Number: 199
    IF: Patient order for spin HCT is: Not ordered
    THEN: [roupoint] is given the value: no points awarded

Rule Number: 200
    IF: Patient order for lab studies is: Lab studies less
        than x 6
    THEN: [ptpoint] is given the value: no points awarded

Rule Number: 201
    IF: Patient order for lab studies is: Lab studies x 6 or
        q4h
    THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 202
    IF: Patient order for lab studies is: Lab studies x 12
        or q2h
    THEN: [ptpoint] is given the value [ptpoint] + 4

Rule Number: 203
    IF: Patient order for lab studies is: Lab studies x 24
        or q1h
    THEN: [ptpoint] is given the value [ptpoint] + 8

Rule Number: 204
    IF: Patient order for lab studies is: Not ordered
    THEN: [ptpoint] is given the value: no points awarded

Rule Number: 205
    IF: Patient order for ABG sticks is: ABG sticks, less
        than x 3
    THEN: [ptpoint] is given the value: no points awarded

Rule Number: 206
    IF: Patient order for ABG sticks is: ABG sticks, at
        least x 3, but less than x 6
    THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 207
    IF: Patient order for ABG sticks is: ABG sticks x 6
    THEN: [ptpoint] is given the value [ptpoint] + 4

Rule Number: 208
    IF: Patient order for ABG sticks is: ABG sticks x 12
    THEN: [ptpoint] is given the value [ptpoint] + 8

Rule Number: 209
    IF: Patient order for ABG sticks is: ABG sticks x 24
    THEN: [ptpoint] is given the value [ptpoint] + 16

Rule Number: 210
    IF: Patient order for ABG sticks is: Not ordered
    THEN: [ptpoint] is given the value: no points awarded

Rule Number: 211
    IF: Patient order for blood culttures is: Blood cultures
        less than x 3
    THEN: [ptpoint] is given the value: no points awarded

Rule Number: 212
    IF: Patient order for blood culttures is: Blood cultures
        at least x 3 but less than x 6
    THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 213
    IF: Patient order for blood culttures is: Blood cultures
        x 6
    THEN: [ptpoint] is given the value [ptpoint] + 4

Rule Number: 214
    IF: Patient order for blood culttures is: Blood cultures
        x 12
    THEN: [ptpoint] is given the value [ptpoint] + 8

Rule Number: 215
    IF: Patient order for blood culttures is: Blood cultures
        x 24
    THEN: [ptpoint] is given the value [ptpoint] + 16

Rule Number: 216
    IF: Patient order for blood culttures is: Not ordered
    THEN: [ptpoint] is given the value: no points awarded

Rule Number: 217
    IF: Patient order for medications is: Medications less
        than q8h [exclude IV]
    THEN: [ptpoint] is given the value: no points awarded

Rule Number: 218
    IF: Patient order for medications is: Medications q3h -
        q8h [exclude IV] - up to 12 trips
    THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 219
    IF: Patient order for medications is: Medications q2h or
        more [exclude IV] - > 12 trips
    THEN: [ptpoint] is given the value [ptpoint] + 4

Rule Number: 220
    IF: Patient order for medications is: Not ordered
    THEN: [ptpoint] is given the value: no points awarded

Rule Number: 221
    IF: Patient order for irrigations is: Irrigations x 4
        [QID] or less
    THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 222
    IF: Patient order for irrigations is: Irrigations x 6
        or q4h
    THEN: [ptpoint] is given the value [ptpoint] + 3

Rule Number: 223
    IF: Patient order for irrigations is: Irrigations x 12
        or q2h
    THEN: [ptpoint] is given the value [ptpoint] + 6

Rule Number: 224
    IF: Patient order for irrigations is: Irrigations x 24
        or q1h
    THEN: [ptpoint] is given the value [ptpoint] + 12

Rule Number: 225
    IF: Patient order for irrigations is: Not ordered
    THEN: [ptpoint] is given the value: no points awarded

Rule Number: 226
    IF: Patient order for instillations is: Instillations
        x 4 [QID] or less
    THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 227
    IF: Patient order for instillations is: Instillations
        x 6 or q4h
    THEN: [ptpoint] is given the value [ptpoint] + 3

Rule Number: 228
    IF: Patient order for instillations is: Instillations
        x 12 or q2h
    THEN: [ptpoint] is given the value [ptpoint] + 6

Rule Number: 229
    IF: Patient order for instillations is: Instillations
        x 24 or q1h
    THEN: [ptpoint] is given the value [ptpoint] + 12

Rule Number: 230
    IF: Patient order for instillations is: Not ordered
    THEN: [ptpoint] is given the value: no points awarded

Rule Number: 231
    IF: Patient order for restraints is: 2 point
    THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 232
    IF: Patient order for restraints is: 4 point
    THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 233
    IF: Patient order for restraints is: Posey
    THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 234
    IF: Patient order for restraints is: Not ordered
    THEN: [ptpoint] is given the value: no points awarded

Rule Number: 235
    IF: Patient order for assist to chair/stretcher is:
        Assist to chair less than x 3
    THEN: [ptpoint] is given the value: no points awarded

Rule Number: 236
    IF: Patient order for assist to chair/stretcher is:
        Assist to stretcher less than x 3
    THEN: [ptpoint] is given the value: no points awarded

Rule Number: 237
    IF: Patient order for assist to chair/stretcher is:
        Assist to stretcher by at least 3 but less than 6
    THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 238
    IF: Patient order for assist to chair/stretcher is:
        Assist to stretcher x 6 or q4h
    THEN: [ptpoint] is given the value [ptpoint] + 4

Rule Number: 239
    IF: Patient order for assist to chair/stretcher is:
        Assist to stretcher x 12 or q2h
    THEN: [ptpoint] is given the value [ptpoint] + 8

Rule Number: 240
    IF: Patient order for assist to chair/stretcher is:
        Assist to stretcher x 24 or q1h
    THEN: [ptpoint] is given the value [ptpoint] + 16

Rule Number: 241
    IF: Patient order for assist to chair/stretcher is:
        Assist to chair at least x 3 but less than x 6
    THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 242
    IF: Patient order for assist to chair/stretcher is:
        Assist to chair x 6 or q4h
    THEN: [ptpoint] is given the value [ptpoint] + 4

Rule Number: 243
    IF: Patient order for assist to chair/stretcher is:
        Assist to chair x 12 or q2h
    THEN: [ptpoint] is given the value [ptpoint] + 8

Rule Number: 244
    IF: Patient order for assist to chair/stretcher is:
        Assist to chair x 24 or q1h
    THEN: [ptpoint] is given the value [ptpoint] + 16

Rule Number: 245
    IF: Patient order for assist to chair/stretcher is:
        Ambulate with assistance x 1
    THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 246
    IF: Patient order for assist to chair/stretcher is:
        Ambulate with assistance x 2
    THEN: [ptpoint] is given the value [ptpoint] + 4

Rule Number: 247
    IF: Patient order for assist to chair/stretcher is:
        Ambulate with assistance x 3
    THEN: [ptpoint] is given the value [ptpoint] + 6

Rule Number: 248
    IF: Patient order for assist to chair/stretcher is:
        Ambulate with assistance x 4
    THEN: [ptpoint] is given the value [ptpoint] + 8

Rule Number: 249
    IF: Patient order for assist to chair/stretcher is:
        Ambulate with assistance x 6
    THEN: [ptpoint] is given the value [ptpoint] + 12

Rule Number: 250
    IF: Patient order for assist to chair/stretcher is:
        Ambulate with assistance x 12
    THEN: [ptpoint] is given the value [ptpoint] + 24

Rule Number: 251
    IF: Patient order for assist to chair/stretcher is:
        Ambulate with assistance x 24
    THEN: [ptpoint] is given the value [ptpoint] + 48

Rule Number: 252
    IF: Patient order for assist to chair/stretcher is: Not
        ordered
    THEN: [ptpoint] is given the value: no points awarded

Rule Number: 253
    IF: Patient order for infant circumcision care is:
        Infant circumcision care
    THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 254
    IF: Patient order for infant circumcision care is: Not
        ordered
    THEN: [ptpoint] is given the value: no points awarded

Rule Number: 255
    IF: Patient order for phototherapy is: Phototherapy
    THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 256
    IF: Patient order for phototherapy is: Not ordered
    THEN: [ptpoint] is given the value: no points awarded

Rule Number: 257
    IF: Patient order for isolation is: Isolation (change
        gown and gloves less than x 8)
    THEN: [ptpoint] is given the value: no points awarded

Rule Number: 258
    IF: Patient order for isolation is: Isolation (change
        gown and gloves x 8 or more)
    THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 259
    IF: Patient order for isolation is: Not ordered
    THEN: [ptpoint] is given the value: no points awarded

Rule Number: 260
    IF: Patient order for accompany patient off ward is:
        Accompany patient off ward for less than 15 min
    THEN: [ptpoint] is given the value: no points awarded

Rule Number: 261
    IF: Patient order for accompany patient off ward is:

Accompany patient off ward for 15 to 30 min
THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 262
    IF: Patient order for accompany patient off ward is:
        Accompany patient off ward for greater than 30 min
    THEN: [ptpoint] is given the value [ptpoint] + 4

Rule Number: 263
    IF: Patient order for accompany patient off ward is: Not
        ordered
    THEN: [ptpoint] is given the value: no points awarded

Rule Number: 264
    IF: Patient order for other activities is: Other
        activities requiring less than 15 minutes
    THEN: [ptpoint] is given the value: no points awarded

Rule Number: 265
    IF: Patient order for other activities is: Other
        activities requiring 15 to 30 minutes
    THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 266
    IF: Patient order for other activities is: Other
        activities requiring 30 min to 1 hour
    THEN: [ptpoint] is given the value [ptpoint] + 4

Rule Number: 267
    IF: Patient order for other activities is: Special
        procedures > 1 hr < 2 hr [requiring continuous staff
        attendance]
    THEN: [ptpoint] is given the value [ptpoint] + 8

Rule Number: 268
    IF: Patient order for other activities is: Not ordered
    THEN: [ptpoint] is given the value: no points awarded

Rule Number: 269
    IF: Patient order for chest tube insertion is: Chest
        tube insertion
    THEN: [ptpoint] is given the value [ptpoint] + 4

Rule Number: 270
    IF: Patient order for chest tube insertion is: Not
        ordered
    THEN: [ptpoint] is given the value: no points awarded

Rule Number: 271
    IF: Patient order for lumbar puncture is: Lumbar

```
        puncture
   THEN: [ptpoint] is given the value [ptpoint] + 4


Rule Number: 272
   IF: Patient order for lumbar puncture is: Not
       ordered
   THEN: [ptpoint] is given the value: no points awarded


Rule Number: 273
   IF: Patient order for thoracentesis is: Thoracentesis
       ordered
   THEN: [ptpoint] is given the value [ptpoint] + 4


Rule Number: 274
   IF: Patient order for thoracentesis is: Not
       ordered
   THEN: [ptpoint] is given the value: no points awarded


Rule Number: 275
   IF: Patient order for paracentesis is: Paracentesis
   THEN: [ptpoint] is given the value [ptpoint] + 4


Rule Number: 276
   IF: Patient order for paracentesis is: Not ordered
   THEN: [ptpoint] is given the value: no points awarded


Rule Number: 277
   IF: Patient order for range of motion is: Range of
       motion exercises less than x 3 or TID
   THEN: [ptpoint] is given the value: no points awarded


Rule Number: 278
   IF: Patient order for range of motion is: Range of
       motion exercises at least x 3 but less than x 6
   THEN: [ptpoint] is given the value [ptpoint] + 4


Rule Number: 279
   IF: Patient order for range of motion is: Range of
       motion exercises x 6 or q4h
   THEN: [ptpoint] is given the value [ptpoint] + 8


Rule Number: 280
   IF: Patient order for range of motion is: Range of
       motion exercises x 12 or q2h
   THEN: [ptpoint] is given the value [ptpoint] + 16


Rule Number: 281
   IF: Patient order for range of motion is: Range of
       motion exercises x 24 or q1h
   THEN: [ptpoint] is given the value [ptpoint] + 32
```

Rule Number: 282
    IF: Patient order for range of motion is: Not ordered
    THEN: [ptpoint] is given the value: no points awarded

Rule Number: 283
    IF: Patient order to transfer in-house or new admission
        is: Transfer in-house [assess and orient]
    THEN: [ptpoint] is given the value [ptpoint] + 4

Rule Number: 284
    IF: Patient order to transfer in-house or new admission
        is: New admission [assess and orient]
    THEN: [ptpoint] is given the value [ptpoint] + 12

Rule Number: 285
    IF: Patient order to transfer in-house or new admission
        is: Not ordered
    THEN: [ptpoint] is given the value: no points awarded

Rule Number: 286
    IF: Patient order for O2 therapy or oxyhood is: Oxygen
        therapy
    THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 287
    IF: Patient order for O2 therapy or oxyhood is: Oxyhood
    THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 288
    IF: Patient order for O2 therapy or oxyhood is: Not
        ordered
    THEN: [ptpoint] is given the value: no points awarded

Rule Number: 289
    IF: Patient order for incentive spirometer is: Incentive
        spirometer less than q4h
    THEN: [ptpoint] is given the value: no points awarded

Rule Number: 290
    IF: Patient order for incentive spirometer is: Incentive
        spirometer q4h
    THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 291
    IF: Patient order for incentive spirometer is: Incentive
        spirometer q2h
    THEN: [ptpoint] is given the value [ptpoint] + 4

Rule Number: 292
    IF: Patient order for incentive spirometer is: Incentive

```
        spirometer q1h
     THEN: [ptpoint] is given the value [ptpoint] + 8


Rule Number: 293
   IF: Patient order for incentive spirometer is: Not
       ordered
   THEN: [ptpoint] is given the value: no points awarded

Rule Number: 294
   IF: Patient order for C&DB is: C&DB less than q4h
   THEN: [ptpoint] is given the value: no points awarded

Rule Number: 295
   IF: Patient order for C&DB is: C&DB q4h
   THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 296
   IF: Patient order for C&DB is: C&DB q2h
   THEN: [ptpoint] is given the value [ptpoint] + 4

Rule Number: 297
   IF: Patient order for C&DB is: C&DB q1h
   THEN: [ptpoint] is given the value [ptpoint] + 8

Rule Number: 298
   IF: Patient order for C&DB is: Not ordered
   THEN: [ptpoint] is given the value: no points awarded

Rule Number: 299
   IF: Patient order for IPPB or maximist is: IPPB or
       maximist less than BID or x 2
   THEN: [ptpoint] is given the value: no points awarded

Rule Number: 300
   IF: Patient order for IPPB or maximist is: IPPB or
       maximist BID or x 2
   THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 301
   IF: Patient order for IPPB or maximist is: IPPB or
       maximist TID or x 3
   THEN: [ptpoint] is given the value [ptpoint] + 3

Rule Number: 302
   IF: Patient order for IPPB or maximist is: IPPB or
       maximist QID or x 4
   THEN: [ptpoint] is given the value [ptpoint] + 4

Rule Number: 303
   IF: Patient order for IPPB or maximist is: IPPB or
```

maximist q4h or x 6
        THEN: [ptpoint] is given the value [ptpoint] + 6

    Rule Number: 304
        IF: Patient order for IPPB or maximist is: IPPB or
            maximist q2h or x 12
        THEN: [ptpoint] is given the value [ptpoint] + 12

    Rule Number: 305
        IF: Patient order for IPPB or maximist is: IPPB or
            maximist q1h or x 24
        THEN: [ptpoint] is given the value [ptpoint] + 24

    Rule Number: 306
        IF: Patient order for IPPB or maximist is: Not ordered
        THEN: [ptpoint] is given the value: no points awarded

    Rule Number: 307
        IF: Patient order for croup tent or mist tent is: Croup
            tent
        THEN: [ptpoint] is given the value [ptpoint] + 8

    Rule Number: 308
        IF: Patient order for croup tent or mist tent is: Mist
            tent
        THEN: [ptpoint] is given the value [ptpoint] + 8

    Rule Number: 309
        IF: Patient order for croup tent or mist tent is: Not
            ordered
        THEN: [ptpoint] is given the value: no points awarded

    Rule Number: 310
        IF: Patient order for chest pulmonary therapy is: Chest
            pulmonary therapy less than BID or x 2
        THEN: [ptpoint] is given the value: no points awarded

    Rule Number: 311
        IF: Patient order for chest pulmonary therapy is: Chest
            pulmonary therapy BID or x 2
        THEN: [ptpoint] is given the value [ptpoint] + 2

    Rule Number: 312
        IF: Patient order for chest pulmonary therapy is: Chest
            pulmonary therapy TID or x 3
        THEN: [ptpoint] is given the value [ptpoint] + 3

    Rule Number: 313
        IF: Patient order for chest pulmonary therapy is: Chest

pulmonary therapy QID or x 4
     THEN: [ptpoint] is given the value [ptpoint] + 4

Rule Number: 314
     IF: Patient order for chest pulmonary therapy is: Chest
         pulmonary therapy q4h or x 6
     THEN: [ptpoint] is given the value [ptpoint] + 6

Rule Number: 315
     IF: Patient order for chest pulmonary therapy is: Chest
         pulmonary therapy q2h or x 12
     THEN: [ptpoint] is given the value [ptpoint] + 12

Rule Number: 316
     IF: Patient order for chest pulmonary therapy is: Chest
         pulmonary therapy q1h or x 24
     THEN: [ptpoint] is given the value [ptpoint] + 24

Rule Number: 317
     IF: Patient order for chest pulmonary therapy is: Not
         ordered
     THEN: [ptpoint] is given the value: no points awarded

Rule Number: 318
     IF: Patient order for suctioning is: Suctioning less
         than q4h or x 6
     THEN: [ptpoint] is given the value: no points awarded

Rule Number: 319
     IF: Patient order for suctioning is: Suctioning q4h or
         x 6
     THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 320
     IF: Patient order for suctioning is: Suctioning q2h or
         x 12
     THEN: [ptpoint] is given the value [ptpoint] + 4

Rule Number: 321
     IF: Patient order for suctioning is: Suctioning q1h or
         x 24
     THEN: [ptpoint] is given the value [ptpoint] + 8

Rule Number: 322
     IF: Patient order for suctioning is: Not ordered
     THEN: [ptpoint] is given the value: no points awarded

Rule Number: 323
     IF: Patient order for trach care is: Trach care less

than x 3 or TID
          THEN: [ptpoint] is given the value: no points awarded

Rule Number: 324
    IF: Patient order for trach care is: Trach care at least
        TID [or x 3] but less than q4h [x 6]
    THEN: [ptpoint] is given the value [ptpoint] + 4

Rule Number: 325
    IF: Patient order for trach care is: Trach care q4h or
        x 6
    THEN: [ptpoint] is given the value [ptpoint] + 8

Rule Number: 326
    IF: Patient order for trach care is: Trach care q2h or
        x 12
    THEN: [ptpoint] is given the value [ptpoint] + 16

Rule Number: 327
    IF: Patient order for trach care is: Trach care q1h or
        x 24
    THEN: [ptpoint] is given the value [ptpoint] + 32

Rule Number: 328
    IF: Patient order for trach care is: Not ordered
    THEN: [ptpoint] is given the value: no points awarded

Rule Number: 329
    IF: Patient order for ventilator is: Ventilator
    THEN: [ptpoint] is given the value [ptpoint] + 10

Rule Number: 330
    IF: Patient order for ventilator is: Not ordered
    THEN: [ptpoint] is given the value: no points awarded

Rule Number: 331
    IF: Patient order for hanging IV bottles is: KVO [change
        bottle BID or less]
    THEN: [ptpoint] is given the value [ptpoint] + 4

Rule Number: 332
    IF: Patient order for hanging IV bottles is: Simple
        [change bottle TID or QID]
    THEN: [ptpoint] is given the value [ptpoint] + 6

Rule Number: 333
    IF: Patient order for hanging IV bottles is: Complex
        [change bottle q4h or more, two or more sites, or
        multilumen tube]
    THEN: [ptpoint] is given the value [ptpoint] + 8

Rule Number: 334
    IF: Patient order for hanging IV bottles is: Not ordered
    THEN: [ptpoint] is given the value: no points awarded

Rule Number: 335
    IF: Patient order for heparin lock or Broviac cathether
        is: Heparin lock
    THEN: [ptpoint] is given the value [ptpoint] + 4

Rule Number: 336
    IF: Patient order for heparin lock or Broviac cathether
        is: Broviac catheter
    THEN: [ptpoint] is given the value [ptpoint] + 4

Rule Number: 337
    IF: Patient order for heparin lock or Broviac cathether
        is: Not ordered
    THEN: [ptpoint] is given the value: no points awarded

Rule Number: 338
    IF: Patient order for IV medications is: IV medications
        of less than q8h or x 3
    THEN: [ptpoint] is given the value: no points awarded

Rule Number: 339
    IF: Patient order for IV medications is: IV medications
        of q8h or x 3
    THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 340
    IF: Patient order for IV medications is: IV medications
        of q6h or x 4
    THEN: [ptpoint] is given the value [ptpoint] + 3

Rule Number: 341
    IF: Patient order for IV medications is: IV medications
        of q4h or x 6
    THEN: [ptpoint] is given the value [ptpoint] + 4

Rule Number: 342
    IF: Patient order for IV medications is: IV medications
        of q2h or x 12
    THEN: [ptpoint] is given the value [ptpoint] + 8

Rule Number: 343
    IF: Patient order for IV medications is: IV medications
        of q1h or x 24
    THEN: [ptpoint] is given the value [ptpoint] + 16

Rule Number: 344
    IF: Patient order for IV medications is: Not ordered
    THEN: [ptpoint] is given the value: no points awarded

Rule Number: 345
    IF: Patient order for blood products is: Blood products
        x 1 unit
    THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 346
    IF: Patient order for blood products is: Blood products
        x 2 unit
    THEN: [ptpoint] is given the value [ptpoint] + 4

Rule Number: 347
    IF: Patient order for blood products is: Blood products
        x 3 unit
    THEN: [ptpoint] is given the value [ptpoint] + 6

Rule Number: 348
    IF: Patient order for blood products is: Blood products
        x 4 unit
    THEN: [ptpoint] is given the value [ptpoint] + 8

Rule Number: 349
    IF: Patient order for blood products is: Blood products
        x 6 unit
    THEN: [ptpoint] is given the value [ptpoint] + 12

Rule Number: 350
    IF: Patient order for blood products is: Blood products
        x 12 unit
    THEN: [ptpoint] is given the value [ptpoint] + 24

Rule Number: 351
    IF: Patient order for blood products is: Blood products
        x 24 unit
    THEN: [ptpoint] is given the value [ptpoint] + 48

Rule Number: 352
    IF: Patient order for blood products is: Not ordered
    THEN: [ptpoint] is given the value: no points awarded

Rule Number: 353
    IF: Patient order for group teaching is: Group teaching
    THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 354
    IF: Patient order for group teaching is: Not ordered
    THEN: [ptpoint] is given the value: no points awarded

Rule Number: 355
    IF: Patient order for preoperative teaching is:
        Preoperative teaching
    THEN: [ptpoint] is given the value [ptpoint] + 4

Rule Number: 356
    IF: Patient order for preoperative teaching is: Not
        ordered
    THEN: [ptpoint] is given the value: no points awarded

Rule Number: 357
    IF: Patient order for structured teaching is: Structured
        teaching [i.e. diabetic, cardiac, colostomy care,
        post partum first 24 hr, newborn care, discharge]
    THEN: [ptpoint] is given the value [ptpoint] + 4

Rule Number: 358
    IF: Patient order for structured teaching is: Not
        ordered
    THEN: [ptpoint] is given the value: no points awarded

Rule Number: 359
    IF: Patient order for emotional support is: Patient/
        family support [i.e. anxiety, denial, lonliness,
        etc.]
    THEN: [emopoint] is given the value [emopoint] + 4

Rule Number: 360
    IF: Patient order for emotional support is: Not ordered
    THEN: [emopoint] is given the value: no points awarded

Rule Number: 361
    IF: Patient order for modification of lifestyle is:
        Emotional support for modification of lifestyle
        [i.e. new prothesis, body image, behavior
        modification, etc.]
    THEN: [emopoint] is given the value [emopoint] + 4

Rule Number: 362
    IF: Patient order for modification of lifestyle is: Not
        ordered
    THEN: [emopoint] is given the value: no points awarded

Rule Number: 363
    IF: Patient order for sensory deprivation is: Emotional
        support for sensory deprivation [i.e. retarded,
        blind, deaf, language barrier, bilateral eye
        patches, confused, combative, etc.]
    THEN: [emopoint] is given the value [emopoint] + 6

Rule Number: 364
    IF: Patient order for sensory deprivation is: Not
        ordered
    THEN: [emopoint] is given the value: no points awarded

Rule Number: 365
    IF: Patient order for cardiac monitor is: Cardiac
        monitor
    THEN: [monpoint] is given the value [monpoint] + 6

Rule Number: 366
    IF: Patient order for cardiac monitor is: Not ordered
    THEN: [monpoint] is given the value: no points awarded

Rule Number: 367
    IF: Patient order for apnea monitor is: Apnea monitor
    THEN: [monpoint] is given the value [monpoint] + 6

Rule Number: 368
    IF: Patient order for apnea monitor is: Not ordered
    THEN: [monpoint] is given the value: no points awarded

Rule Number: 369
    IF: Patient order for temp monitor is: Temp monitor
    THEN: [monpoint] is given the value [monpoint] + 6

Rule Number: 370
    IF: Patient order for temp monitor is: Not ordered
    THEN: [monpoint] is given the value: no points awarded

Rule Number: 371
    IF: Patient order for pressure monitor is: Pressure
        monitor
    THEN: [monpoint] is given the value [monpoint] + 6

Rule Number: 372
    IF: Patient order for pressure monitor is: Not ordered
    THEN: [monpoint] is given the value: no points awarded

Rule Number: 373
    IF: [monpoint] > 0
    THEN: [ptpoint] is given the value [ptpoint] + 6

Rule Number: 374
    IF: [roupoint] > 5
    THEN: [ptpoint] is given the value [ptpoint] +
        [roupoint]

Rule Number: 375
    IF: [emopoint] > 0 and [emopoint] < 11

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        THEN: [ptpoint] is given the value [ptpoint] +
              [emopoint]

Rule Number: 376
    IF: [emopoint] > 10
    THEN: [ptpoint] is given the value [ptpoint] + 10

Rule Number: 377
    IF: [ptpoint] >= 0 and [ptpoint] < 13
    THEN: Patient category is: I   Self Care/Minimal Care

Rule Number: 378
    IF: [ptpoint] > 12 and [ptpoint] < 32
    THEN: Patient category is: II  Moderate Care

Rule Number: 379
    IF: [ptpoint] > 31 and [ptpoint] < 64
    THEN: Patient category is: III Acute Care [1 staff to 3
              patients]

Rule Number: 380
    IF: [ptpoint] > 63 and [ptpoint] < 96
    THEN: Patient category is: IV  Intensive Care [1 staff
              to 2 patients]

Rule Number: 381
    IF: [ptpoint] > 95 and [ptpoint] < 146
    THEN: Patient category is: V   Continuous Care [1 staff
              to 1 patients]

Rule Number: 382
    IF: [ptpoint] > 145
    THEN: Patient category is: VI  Critical Care [1 staff
              to 1 patients]
```

PROGRAM LISTINGS

```
**** INTRO.PRG ****************************************************
* Author:               Gary R. Harmeyer LCDR NC USN
* Date:                 26 November 1985
* Screen Generated By:  The Software Bottling Company
*                          Of New York, c1985
* Purpose:              Introductory screen for the proto-
*                         type model.
* Input Files Used:     Intro.Scr and Procfile.Prg
* Output Files Used:    None
* Calling Routine:      None
* Routine Called:       Valid.Prg
* Modification Date:    18 February 1986
*
*   -- Screen Input Program For Intro --
*
Set Procedure To B:Procfile
Do Setup
Public Flash
Flash = Chr[145]

Do While .T.

   * -- Screen display B:Intro.Scr --

   Set Procedure To B:Procfile
   Set Color To W+/B, /
   Clear
   ?? Flash+"S.B:Intro.Scr/"
   Set Color To W+/B, /W
   @ 24,0
   Set Console Off
   Wait
   Set Console On
   Do B:Valid

Enddo
```

```
**** PROCFILE.PRG ****************************************
* Author:              Gary R. Harmeyer LCDR NC USN
* Date:                1 December 1985
* Purpose:             See comments above each procedure.
* Input Files Used:    None
* Output Files Used:   Orders and Ncaredb.Dbf
* Calling Routine:     All modules
* Routine Called:      None
* Modification Date:   18 February 1986
*
*
* -- Screen headers after patient selection --

Procedure Headings

   @ 2,3 Say Ptselect
   @ 2,42 Say Ptregno
   @ 2,56 Say Date()
   @ 2,65 Say Time()
   @ 22,3 Say Curuser
Return


* -- Used to reset pointer and put data from variable
* --    names into Orders.Dbf --

Procedure Replaord

   Store DTOC(Date()) To Now
   Use B:Orders
   Do While .Not. EOF()
     Skip
   Enddo
   Append Blank
   Replace Order With Morder
   Replace Fmpssn With Ptfmpssn
   Replace Freq With Ofreq
   Replace Otime With Time()
   Replace Odate With Now
   Replace Proc With Curuser
   Replace Expertsys With Passdata
   Replace Onlytoday With Todayonly
   Replace Critical With Ptpoint
   Replace Module With Omodule
   Replace Monpt With Monpoint
   Replace Emopt With Emopoint
   Replace Roupt With Roupoint
Return
```

```
* -- Used to reset pointer and put data from variable
* --    names into Ncaredb.Dbf --

Procedure Repnrord

   Use B:Ncaredb
   Do While .Not. EOF[]
     Skip
   Enddo
   Append Blank
   Replace Nfmpssn With Ptfmpssn
   Replace Nord With Morder
   Replace Ntime With Time[]
   Replace Ndate With Date[]
   Replace Nurse With Curuser
   Replace Ndiag With Nursdiag
   Replace Assess With Nassess
   Replace Relate With Nrelate
   Replace Goal With Ngoal
   Replace Nfreq With Ofreq
   Replace Emotea With Emoteach
Return


* -- Determine the current nursing care level --

Procedure Current

   Xgoa4cur = "B"
   @ 23,67 Get Xgoa4cur Pict "!"
   Read
   Do While .Not. [Xgoa4cur = "A" .Or. Xgoa4cur = "B" .Or.;
     Xgoa4cur = "C".Or. Xgoa4cur = "D" .Or. Xgoa4cur = "E"]
     @ 23,67 Clear
     Store " " To Xgoa4cur
     @ 24,0 Say "Re-Enter Letter A, B, C, D or E"
     @ 23,67 Get Xgoa4cur Pict "!"
     Read
   Enddo

   * -- Assign value to letter selected --

   Do Case
     Case Xgoa4cur = "A"
       Morder = "Infant/Toddler Care"
       Passdata = "Q23 1"
       Ptpoint = 6
     Case Xgoa4cur = "B"
       Morder = "Self/Minimum Care"
```

```
              Passdata = "Q23 2"
              Ptpoint = 2
         Case Xgoa4cur = "C"
            Morder = "Assisted Care"
            Passdata = "Q23 3"
            Ptpoint = 6
         Case Xgoa4cur = "D"
            Morder = "Complete Care"
            Passdata = "Q23 4"
            Ptpoint = 14
         Case Xgoa4cur = "E"
            Morder = "Total Care"
            Passdata = "Q23 5"
            Ptpoint = 32
      Endcase
Return


* -- Used to evaluate the proper value to pass to the
* --    expert system for oral, IM or subq medication
* --    category options --

Procedure Regmeds

   Do Case
      Case [Timeopt < 25 .Or. Timeopt = 41]
         * -- Less than x 3 or TID
         Passdata = "Q47 1"
         Ptpoint = 0
      Case [Timeopt > 24 .And. Timeopt < 36]
         * -- X 3 or TID up to x 12 trips
         Passdata = "Q47 2"
         Ptpoint = 2
      Case [Timeopt > 35 .And. Timeopt < 40]
         * -- More than 12 trips
         Passdata = "Q47 3"
         Ptpoint = 4
   Endcase
Return


* -- Used to evaluate the proper value to pass to the
* --    expert system for laboratory category options --

Procedure Labcount

   Do Case
      Case [Timeopt < 34 .Or. Timeopt = 41]
         Passdata = "Q44 1"
         Ptpoint = 0
```

```
      Case (Timeopt = 34 .Or. Timeopt = 35)
        Passdata = "Q44 2"
        Ptpoint = 2
      Case (Timeopt = 36 .Or. Timeopt = 37)
        Passdata = "Q44 3"
        Ptpoint = 4
      Case (Timeopt = 38 .Or. Timeopt = 39)
        Passdata = "Q44 4"
        Ptpoint = 8
    Endcase
Return


* -- Determine the liter flow rate of oxygen --

Procedure Liter

    Xliteropt = "A"
    @ 23,66 Get Xliteropt Pict "!"
    Read
    Do While .Not. (Xliteropt = "A" .Or. Xliteropt = "B".Or.;
      Xliteropt= "C".Or. Xliteropt= "D".Or. Xliteropt= "E")
      @ 23,66 Clear
      Store " " To Xliteropt
      @ 24,0 Say "Re-Enter Letter A, B, C, D or E"
      @ 23,66 Get Xliteropt Pict "!"
      Read
    Enddo

    * -- Assign value to letter selected --
    Do Case
      Case Xliteropt = "A"
        Xliter = "@ 1-2 l/m"
      Case Xliteropt = "B"
        Xliter = "@ 3-4 l/m"
      Case Xliteropt = "C"
        Xliter = "@ 5-6 l/m"
      Case Xliteropt = "B"
        Xliter = "@ 7-8 l/m"
      Case Xliteropt = "B"
        Xliter = "@ 9-10 l/m"
    Endcase
Return


* -- Used to evaluate the proper value to pass to the ex-
* --    pert system for IV medication category options --
```

```
Procedure IVmeds

   Do Case
     Case [Timeopt < 25 .Or. Timeopt = 41]
       * -- Less than Q8h or TID
       Passdata = "Q74 1"
       Ptpoint = 0
     Case [Timeopt > 24 .And. Timeopt < 31]
       * -- Q8h or TID
       Passdata = "Q74 2"
       Ptpoint = 2
     Case [Timeopt > 30 .And. Timeopt < 34]
       * -- Q6h or x 4
       Passdata = "Q74 3"
       Ptpoint = 3
     Case [Timeopt = 34 .Or. Timeopt = 35]
       * -- Q4h or x 6
       Passdata = "Q74 4"
       Ptpoint = 4
     Case [Timeopt = 36 .Or. Timeopt = 37]
       * -- Q2h or x 12
       Passdata = "Q74 5"
       Ptpoint = 8
     Case [Timeopt = 38 .Or. Timeopt = 39]
       * -- Q1h or x 24
       Passdata = "Q74 6"
       Ptpoint = 16
   Endcase
Return


* -- Initialize variables in the order modules --

Procedure Startup

   Ofreq = " "
   Ptpoint = 0
   Passdata = " "
   Todayonly = "F"
   Emopoint = 0
   Monpoint = 0
   Roupoint = 0
Return


* -- Used to evaluate the proper value to pass to the
* --    expert system for range of motion category --
```

```
Procedure Range

   Do Case
     Case (Timeopt < 25 .Or. Timeopt = 41)
       * -- Less than x 3
       Passdata = "Q61 1"
       Ptpoint = 0
     Case (Timeopt > 24 .And. Timeopt < 34)
       * -- X 3 or less than x 6
       Passdata = "Q61 2"
       Ptpoint = 4
     Case (Timeopt = 34 .Or. Timeopt = 35)
       * -- X 6 or Q4h
       Passdata = "Q61 3"
       Ptpoint = 8
     Case (Timeopt = 36 .Or. Timeopt = 37)
       * -- X 12 or Q2h
       Passdata = "Q61 4"
       Ptpoint = 16
     Case (Timeopt = 38 .Or. Timeopt = 39)
       * -- X 24 or Q1h
       Passdata = "Q61 5"
       Ptpoint = 32
   Endcase
Return


* -- Used to evaluate the proper value to pass to the
* --    expert system for cough and deep breathe category
* --    option --

Procedure Cough

   Do Case
     Case (Timeopt < 34 .Or. Timeopt = 41)
       * -- Less than Q4h or x 6
       Passdata = "Q65 1"
       Ptpoint = 0
     Case (Timeopt = 34 .Or. Timeopt = 35)
       * -- Q4h or x 6
       Passdata = "Q65 2"
       Ptpoint = 2
     Case (Timeopt = 36 .Or. Timeopt = 37)
       * -- Q2h or x 12
       Passdata = "Q65 3"
       Ptpoint = 4
     Case (Timeopt = 38 .Or. Timeopt = 39)
       * -- Q1h or x 24
```

```
         Passdata - "Q65 4"
         Ptpoint - 8
   Endcase
Return


* -- Sets up the initial environment for each module --

Procedure Setup

   Clear
   Set Escape On
   Set Talk Off
   Set Echo Off
Return


* -- Used to evaluate the proper value to pass to the
* --    expert system for S&A, specific gravity, Guiac
* --    and spin Hct category option --

Procedure Routine
   Do Case
     Case [Timeopt < 5 .Or. Timeopt - 41]
       * -- No specific frequency ordered
       Roupoint - 0
     Case [Timeopt > 4 .And. Timeopt < 22]
       * -- X 1 or QD
       Roupoint - 1
     Case [Timeopt > 21 .And. Timeopt < 25]
       * -- X 2 or BID
       Roupoint - 2
     Case [Timeopt > 24 .And. Timeopt < 31]
       * -- X 3 or TID
       Roupoint - 3
     Case [Timeopt > 30 .And. Timeopt < 34]
       * -- X 4 or QID
       Roupoint - 4
     Case [Timeopt - 34 .Or. Timeopt - 35]
       * -- X 6 or Q4h
       Roupoint - 6
     Case [Timeopt - 36 .Or. Timeopt - 37]
       * -- X 12 or Q2h
       Roupoint - 12
     Case [Timeopt - 38 .Or. Timeopt - 39]
       * -- X 24 or Q1h
       Roupoint - 24
   Endcase
Return
```

```
**** VALID.PRG *****************************************

* Author:                 Gary R. Harmeyer LCDR NC USN
* Date:                   2 December 1985
* Screen Generated By:    The Software Bottling Company
*                            Of New York, c1985
* Purpose:                Evaluate the validity of the
*                            password used.
* Input Files Used:       Valid.Scr and Procfile.Prg
* Output Files Used:      Useinfo.Dbf
* Calling Routine:        Intro.Prg
* Routine Called:         Master.Prg
* Modification Date:      18 February 1986
*
* -- Screen Input Program For Valid --
*
Do Setup
Public Xusepass,Curuser,Useacc
Use B:Useinfo
Xusepass = Space[5]
Xusepas1 = Space[1]
Xusepas2 = Space[1]
Xusepas3 = Space[1]
Xusepas4 = Space[1]
Xusepas5 = Space[1]

Do While .T.

   * -- Screen Display A:Valid.Scr --

   Set Color To W+/B,W+/B
   Clear
   ?? Flash+"S.A:Valid.Scr/"
   Set Color To W+/B,W+/B
   @ 13,43

   * -- Places an "X" on the screen to mask the password
   * --    entered --

   Set Console Off
   Wait To Xusepas1
   @ 13,43 Say 'X'
   Wait To Xusepas2
   @ 13,45 Say 'X'
   Wait To Xusepas3
   @ 13,47 Say 'X'
   Wait To Xusepas4
   @ 13,49 Say 'X'
   Wait To Xusepas5
   @ 13,51 Say 'X'
```

```
Xusepass =;
   Upper(Xusepas1+Xusepas2+Xusepas3+Xusepas4+Xusepas5)
Set Console On

* -- Evaluates the password entered --

Locate For Xusepass = Codeword
If (Xusepass <> Codeword) .And. EOF()
   @ 24,15 Say "INVALID  PASSWORD --  HIT  ANY  KEY"
   @ 24,51 Say "  AND  RE-ENTER"
   Set Console Off
   Wait
   Set Console On
   Loop
Endif
Store Ufinitial + ' ' + Trim(Ulname) To Curuser
Store Access To Useacc
@ 24,0
@ 23,80 Clear
@ 24,7 Say "Your Password Has Been Accepted -- "
@ 24,42 Say "Please Press A Key To Continue"
Set Console Off
Wait
Set Console On
Do B:Master

Enddo
```

```
**** MASTER.PRG *********************************************
* Author:              Gary R. Harmeyer LCDR NC USN
* Date:                26 November 1985
* Screen Generated By: The Software Bottling Company
*                          Of New York, c1985
* Purpose:             Menu program to branch between the
*                          admission's department, the
*                          database administration and
*                          the patient care personnel.
* Input Files Used:    Master.Scr and Procfile.Prg
* Output Files Used:   None
* Calling Routine:     Valid.Prg
* Routine Called:      Admit, Ward or Addelete.Prg
* Modification Date:   4 February 1986
*
* -- Screen Input Program For Master --
*
Do Setup
Public Xmasopt,Omodule
Omodule = Space(1)

Do While .T.

   * -- Screen Display B:Master.Scr --

   Set Color To W+/B,W+/B
   Clear
   ?? Flash+"S.B:Master.Scr/"
   Set Color To W+/B,W+/B
   Xmasopt = 0
   @ 2,56 Say Date()
   @ 2,65 Say Time()
   @ 22,3 Say Curuser
   @ 22,67 Get Xmasopt Pict "9" Range 0,4
   Read

   * -- Evaluate action based on the option selected --
   * -- Validate user's access to area selected --

   Do Case

      Case Xmasopt = 0
         * -- Sign-Off
         Close Databases
         Close Procedure
         Release All
         Return To Master
```

```
Case Xmasopt = 1
  * -- Admission's Department
  Do Case
    Case Useacc = 2 .Or. Useacc = 3 .Or. Useacc = 4
      @ 24,16 Say "Access Not Allowed -- Press "
      @ 24,44 Say "Any Key To Continue"
      Set Console Off
      Wait
      Set Console On
      Loop
    Case Useacc = 0 .Or. Useacc = 1
      Do B:Admit
  Endcase

Case Xmasopt = 2
  * -- Doctor Master
  Do Case
    Case Useacc = 1 .Or. Useacc = 2 .Or. Useacc = 3
      @ 24,16 Say "Access Not Allowed -- Press "
      @ 24,44 Say "Any Key To Continue"
      Set Console Off
      Wait
      Set Console On
      Loop
    Case Useacc = 0  .Or. Useacc = 4
      Omodule = "D"
      Do B:Ward
  Endcase

Case Xmasopt = 3
  * -- Nursing Master
  Do Case
    Case Useacc = 1 .Or. Useacc = 2 .Or. Useacc = 4
      @ 24,16 Say "Access Not Allowed -- Press "
      @ 24,44 Say "Any Key To Continue"
      Set Console Off
      Wait
      Set Console On
      Loop
    Case Useacc = 0  .Or. Useacc = 3
      Omodule = "N"
      Do B:Ward
  Endcase

Case Xmasopt = 4
  * -- System Administration
  Do Case
    Case Useacc = 1 .Or. Useacc = 3 .Or. Useacc = 4
      @ 24,16 Say "Access Not Allowed -- Press "
      @ 24,44 Say "Any Key To Continue"
```

```
            Set Console Off
            Wait
            Set Console On
            Loop
          Case Useacc = 0   .Or.  Useacc = 2
            Do B:Addelete
        Endcase
    Endcase
    Release Xmasopt

Enddo
```

```
**** ADMIT.PRG *************************************************
* Author:              Gary R. Harmeyer LCDR NC USN
* Date:                9 January 1986
* Screen Generated By: The Software Bottling Company
*                        Of New York, c1985
* Purpose:             Allows the admitting personnel to
*                        choose to admit or discharge a
*                        patient.
* Input Files Used:    Admit.Scr and Procfile.Prg
* Output Files Used:   None
* Calling Routine:     Master.Prg
* Routine Calls:       Pt_Info or Discharg.Prg
* Modification Date:   25 January 1986
*
* -- Screen Input Program For Admit --
*
Do Setup
Public Xadmitopt

Do While .T.

   * -- Screen Display B:Admit.Scr --

   Set Color To W+/B,W+/B
   Clear
   ?? Flash+"S.B:Admit.Scr/"
   Set Color To W+/B,W+/B
   Xadmitopt = 0
   @ 22,3 Say Curuser
   @ 22,67 Get Xadmitopt Pict "9" Range 0,2
   Read

    * -- Evaluate action based on the option selected --

   Do Case

      Case Xadmitopt = 0
         * -- Sign-Off
         Close Databases
         Release All
         Close Procedure
         Return To Master

      Case Xadmitopt = 1
         * -- Admit A Patient
         Do B:Pt_Info
         Loop
```

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```
      Case Xadmitopt = 2
         * -- Discharge A Patient
         Do B:Discharg
         Loop

   Endcase
   Release Xadmitopt

Enddo
```

```
**** PT_INFO.PRG ********************************************
* Author:                Gary R. Harmeyer LCDR NC USN
* Date:                  29 November 1985
* Screen Generated By: The Software Bottling Company
*                         Of New York, c1985
* Purpose:                Add a patient to the patient
*                         database file.
* Input Files Used:    Pt_Info.Scr and Procfile.Prg
* Output Files Used:   Pt_Info.Dbf
* Calling Routine:     Admit.Prg
* Routine Called:      None
* Modification Date:   26 January 1986
*
*   -- Screen Input Program for Pt_Info --
*
Do Setup
Public Xplname,Xpfname,Xpmname,Xraterank,Xfmpssan
Public Xpbdate,Xpage,Xpsex,Xpadmdate,Xpregno
Public Xpmeddiag,Xpphy,Xpprog,Xpall,Xpward,Xprm,Xpbed
Xplname = Space[20]
Xpfname = Space[12]
Xpmname = Space[3]
Xraterank = Space[11]
Xfmpssan = "   -"+Space[9]
Xpbdate = Date[]
Xpage = Space[3]
Xpsex = Space[1]
Xpadmdate = Date[]
Xpregno = Space[8]
Xpmeddiag = Space[24]
Xpphy = Space[24]
Xpprog = Space[3]
Xpall = Space[24]
Xpward = Space[2]
Xprm = Space[1]
Xpbed = Space[1]

Do While .T.

   * -- Screen Display B:Pt_Info.Scr --

   Set Color To W+/B,W+/B
   Clear
   ?? Flash+"S.B:Pt_Info.Scr/"
   Set Color To W+/B,W+/B
   @ 5,14 Get Xplname Pict "!XXXXXXXXXXXXXXXXXXX"
   @ 7,14 Get Xpfname Pict "!XXXXXXXXXXX"
   @ 9,14 Get Xpmname Pict "!XX"
   @ 11,14 Get Xraterank Pict "!!!!!!!!!!!"
```

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```
@ 13,14 Get Xfmpssan Pict "99-999999999"
@ 15,14 Get Xpbdate;
  Range CTOD("01/01/00"),CTOD("12/31/99")
@ 17,14 Get Xpage Pict "XXX"
@ 19,14 Get Xpsex Pict "!"
@ 21,14 Get Xpadmdate;
  Range CTOD("01/01/00"),CTOD("12/31/99")
@ 5,55 Get Xpregno Pict "99999999"
@ 7,55 Get Xpmeddiag Pict "!XXXXXXXXXXXXXXXXXXXXXXXX"
@ 9,55 Get Xpphy Pict "!XXXXXXXXXXXXXXXXXXXXXXX"
@ 11,55 Get Xpprog Pict "!!!"
@ 13,55 Get Xpall Pict "!XXXXXXXXXXXXXXXXXXXXXXX"

* -- Validate input for ward, room and bed assignment --

@ 15,55 Get Xpward Pict "9!"
Read
Do While .Not. (Xpward = "2E" .Or. Xpward = "3E")
  Xpward = Space(2)
  @ 24,0 Say "Re-Enter Either 2E or 3E"
  @ 15,55 Get Xpward Pict "9!"
  Read
Enddo
@ 24,0 Clear

@ 17,55 Get Xprm Pict "9"
Read
Do While .Not. (Xprm = "1" .Or. Xprm = "2" .Or.;
  Xprm = "3")
  Xprm = Space(1)
  @ 24,0 Say "Re-Enter Either 1 or 2 or 3"
  @ 17,55 Get Xprm Pict "9"
  Read
Enddo
@ 24,0 Clear

@ 19,55 Get Xpbed PICT "!"
Read
Do While .Not. (Xpbed = "A" .Or. Xpbed = "B")
  Xpbed = Space(1)
  @ 24,0 Say "Re-Enter Either A or B"
  @ 19,55 Get Xpbed Pict "!"
  Read
Enddo
@ 24,0 Clear

* -- Put data from variable names into Dbf file --

Use B:Pt_Info
Do While .Not. EOF()
```

```
    Skip
Enddo
Append Blank

Replace Plname With Xplname
Replace Pfname With Xpfname
Replace Pmname With Xpmname
Replace Raterank With Xraterank
Replace Fmpsson With Xfmpsson
Replace Pbdate With Xpbdate
Replace Page With Xpage
Replace Psex With Xpsex
Replace Padmdate With Xpadmdate
Replace Pregno With Xpregno
Replace Pmeddiag With Xpmeddiag
Replace Pphy With Xpphy
Replace Pprog With Xpprog
Replace Pall With Xpall
Replace Pward With Xpward
Replace Prm With Xprm
Replace Pbed With Xpbed

Return
Release Xplname,Xpfname,Xpmname,Xraterank,Xfmpsson
Release Xpbdate,Xpage,Xpsex,Xpadmdate,Xpregno
Release Xpmeddiag,Xpphy,Xpprog,Xpall,Xpward,Xprm,Xpbed

Enddo
```

```
**** DISCHARG.PRG ******************************************

* Author:              Gary R. Harmeyer LCDR NC USN
* Date:                9 January 1986
* Screen Generated By: The Software Bottling Company
*                         Of New York, c1985
* Purpose:             Discharge a patient.
* Input Files Used:    Discharg.Scr and Procfile.Prg
* Output Files Used:   Pt_Info, Orders and Ncaredb.Dbf
* Calling Routine:     Admit.Prg
* Routine Calls:       None
* Modification Date:   18 February 1986
*
* -- Screen Input Program For Discharg --
*
Do Setup
Public Xdischopt,Xdcfssn,Xdclname,Xdcfname
Public Xdcmname,Xdcpphy,Xmdfmpssn,Xppack
Xppack = .F.
Select A
Use B:Pt_Info
Select B
Use B:Orders
Select C
Use B:Ncaredb

Do While .T.

   * -- Store data from Dbf file into variable names --

   Select A
   Xdcfssn = Fmpssan
   Xdclname = Plname
   Xdcfname = Pfname
   Xdcmname = Pmname
   Xdcpphy = Pphy

   * -- Screen Display B:Discharg.Scr --

   Set Color To W+/B,W+/B
   Clear
   ?? Flash+"S.B:Discharg.Scr/"
   Set Color To W+/B,W+/B
   Xdischopt = 1
   @ 22,3 Say Curuser
   @ 13,2 Say Xdcfssn
   @ 13,17 Say Xdclname
   @ 13,38 Say Xdcfname
   @ 13,51 Say Xdcmname
   @ 13,55 Say Xdcpphy
```

```
@ 22,67 Get Xdischopt Pict "9" Range 0,3
Read

* -- Evaluate action based on the option selected --

Do Case

   Case Xdischopt = 0
      * -- Sign-Off
      If Xppack = .T.
        Pack
      Endif
      Close Databases
      Close Procedure
      Release All
      Return To Master

   Case Xdischopt = 1
      * -- Next Patient
      Skip
      If EOF ()
        @ 24,15 Say "No Additional Patients -- Press "
        @ 24,47 Say "Any Key To Continue"
        Set Console Off
        Wait
        Set Console On
        If Xppack = .T.
          Pack
        Endif
        Close Databases
        Return
      Else
        Loop
      Endif

   Case Xdischopt = 2
      * -- Discharge patient
      Xppack = .T.
      Store "'" + Xdcfssn + "'" To Xmdfmpssn

      * -- Eliminate patient data from database files
      Select B
        Do While .Not. EOF()
          Locate For Fmpssn = &Xmdfmpssn
          If .Not. EOF()
            Delete
            Skip
          Endif
        Enddo
        Pack
```

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```
          Select C
            Do While .Not. EOF[]
              Locate For Nfmpssn = &Xmdfmpssn
              If .Not. EOF[]
                Delete
                Skip
              Endif
            Enddo
            Pack
          Select A
            Delete
            Skip
            If EOF []
              @ 24,15 Say "No Additional Patients -- Press "
              @ 24,47 Say "Any Key To Continue"
              Set Console Off
              Wait
              Set Console On
              Pack
              Close Databases
              Return
            Else
              Loop
            Endif

       Case Xdischopt = 3
          * -- Admit/Discharge Screen
          If Xppack = .T.
            Pack
          Endif
          Close Databases
          Return

     Endcase
     Release Xdischopt,Xdcfssn,Xdclname,Xdcfname
     Release Xdcmname,Xdcpphy,Xmdfmpssn,Xppack

   Enddo
```

```
**** WARD.PRG ***********************************************
* Author:                Gary R. Harmeyer LCDR NC USN
* Date:                  26 November 1985
* Screen Generated By: The Software Bottling Company
*                          Of New York, c1985
* Purpose:               Determine word selection.
* Input Files Used:     Word.Scr and Procfile.Prg
* Output Files Used:    None
* Calling Routine:      Master.Prg
* Routine Called:       Word2 or Word3.Prg
* Modification Date:    4 February 1986
*
* -- Screen Input Program For Word --
*
Do Setup
Public Xwardopt,Ourpt,Ofreq,Passdata,Ptpoint,Todayonly
Public Monpoint,Emopoint,Roupoint,Ptselect, Morder,Now
Public Ptfmpssn,Ptregno
Ofreq = Space(1)
Passdata = Space(6)
Ptpoint = 0
Todayonly = "F"
Monpoint = 0
Emopoint = 0
Roupoint = 0
Morder = Space(27)
Now = Space(8)

Do While .T.

   * -- Screen Display B:Ward.Scr --

   Set Color To W+/B,W+/B
   Clear
   ?? Flash+"S.B:Ward.Scr/"
   Set Color To W+/B,W+/B
   Xwardopt = 3
   @ 2,56 Say Date()
   @ 2,65 Say Time()
   @ 22,3 Say Curuser
   @ 22,67 Get Xwardopt Pict "9" Range 0,3
   Read

   * -- Evaluate action based on the option selected --

   Do Case

   Case Xwardopt = 0
      * -- Sign-Off
```

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```
      Close Databases
      Close Procedure
      Release All
      Return To Master

   Case Xwardopt = 1
      * -- 2E Surgical Ward
      Do B:Ward2
      Return

   Case Xwardopt = 2
      * -- 3E Medical Ward
      Do B:Ward3
      Return

   Case Xwardopt = 3
      * -- Master Screen
      Return

   Endcase
   Release Xwardopt

Enddo
```

```
**** WARD2.PRG *********************************************
* Author:               Gary R. Harmeyer LCDR NC USN
* Date:                 26 November 1985
* Screen Generated By:  The Software Bottling Company
*                         Of New York, c1985
* Purpose:              Displays patients assigned to ward
*                         2E, for patient selection.
* Input Files Used:     Ward2.Scr and Procfile.Prg
* Output Files Used:    Pt_Info.Dbf
* Calling Routine:      Master.Prg
* Routine Called:       Doctor or Nurse.Prg
* Modification Date:    4 February 1986
*
* -- Screen input program for Ward2 --
*
Do Setup
Public Xwd2opt,Xpt1regno,Xpt2regno,Xpt3regno,Xpt4regno
Public Xpt5regno,Xpt6regno,Xpt1,Xpt2,Xpt3,Xpt4,Xpt5
Public Xpt1fmpssn,Xpt2fmpssn,Xpt3fmpssn,Xpt6
Public Xpt4fmpssn,Xpt5fmpssn,Xpt6fmpssn

* -- Store specific data from Dbf file into variable
* --    names --

Use B:Pt_Info
Locate For Prm = '1' .And. Pbed = 'A' .And. Pward = '2'
   Xpt1 = Pfname - [' ' +Plname]
   Xpt1regno = Pregno
   Xpt1fmpssn = Fmpssn
Locate For Prm = '1' .And. Pbed = 'B' .And. Pward = '2'
   Xpt2 = Pfname - [' ' +Plname]
   Xpt2regno = Pregno
   Xpt2fmpssn = Fmpssn
Locate For Prm = '2' .And. Pbed = 'A' .And. Pward = '2'
   Xpt3 = Pfname - [' ' +Plname]
   Xpt3regno = Pregno
   Xpt3fmpssn = Fmpssn
Locate For Prm = '2' .And. Pbed = 'B' .And. Pward = '2'
   Xpt4 = Pfname - [' ' +Plname]
   Xpt4regno = Pregno
   Xpt4fmpssn = Fmpssn
Locate For Prm = '3' .And. Pbed = 'A' .And. Pward = '2'
   Xpt5 = Pfname - [' ' +Plname]
   Xpt5regno = Pregno
   Xpt5fmpssn = Fmpssn
Locate For Prm = '3' .And. Pbed = 'B' .And. Pward = '2'
   Xpt6 = Pfname - [' ' +Plname]
   Xpt6regno = Pregno
   Xpt6fmpssn = Fmpssn
```

```
Do While .T.

   * -- Screen Display B:Ward2.Scr --

   Set Color To W+/B,W+/B
   Clear
   ?? Flash+"S.B:Ward2.Scr/"
   Set Color To W+/B,W+/B
   Xwd2opt = 7
   @ 2,56 Say Date()
   @ 2,65 Say Time()
   @ 9,39 Say Xpt1
   @ 10,39 Say Xpt2
   @ 12,39 Say Xpt3
   @ 13,39 Say Xpt4
   @ 15,39 Say Xpt5
   @ 16,39 Say Xpt6
   @ 22,3 Say Curuser
   @ 22,67 Get Xwd2opt Pict "9" Range 0,7
   Read

   * -- Evaluate action based on the option selected --
   * -- Store data from Dbf file into variable names --

   Do Case

      Case Xwd2opt = 0
         * -- Sign-Off
         Close Databases
         Close Procedure
         Release All
         Return To Master

      Case Xwd2opt = 1
         * -- Patient in room 1 bed A
         Locate For Prm ='1'.And. Pbed ='A'.And. Pward ='2'
            Ptregno = Xpt1regno
            Ptselect =;
              Pward -['      '+Prm]-['     '+Pbed]-['        '+Xpt1]
            Ourpt = Xpt1
            Ptfmpssn = Xpt1fmpssn
         If Ourpt = "      "
            @ 24,9 Say "Sorry No Patient In That Bed -- "
            @ 24,41 Say "Please Press Any Key To Continue"
            Set Console Off
            Wait
            Set Console On
            Loop
         Endif
```

```
    If Omodule = "D"
      Do B:Doctor
      Return
    Else
      Do B:Nurse
      Return
    Endif
    Return

Case Xwd2opt = 2
  * -- Patient in room 1 bed B
  Locate For Prm ='1'.And. Pbed ='B'.And. Pward ='2'
    Ptregno = Xpt2regno
    Ptselect =;
      Pward -[' '+Prm]-[' '+Pbed]-[' '+Xpt2]
    Ourpt = Xpt2
    Ptfmpssn = Xpt2fmpssn
  If Ourpt = " "
    @ 24,9 Say "Sorry No Patient In That Bed -- "
    @ 24,41 Say "Please Press Any Key To Continue"
    Set Console Off
    Wait
    Set Console On
    Loop
  Endif
  If Omodule = "D"
    Do B:Doctor
    Return
  Else
    Do B:Nurse
    Return
  Endif
  Return

Case Xwd2opt = 3
  * -- Patient in room 2 bed A
  Locate For Prm= '2'.And. Pbed='A' .And. Pward= '2'
    Ptregno = Xpt3regno
    Ptselect =;
      Pward -[' '+Prm]-[' '+Pbed]-[' '+Xpt3]
    Ourpt = Xpt3
    Ptfmpssn = Xpt3fmpssn
  If Ourpt = " "
    @ 24,9 Say "Sorry No Patient In That Bed -- "
    @ 24,41 Say "Please Press Any Key To Continue"
    Set Console Off
    Wait
    Set Console On
    Loop
  Endif
```

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```
      If Omodule = "D"
         Do B:Doctor
         Return
      Else
         Do B:Nurse
         Return
      Endif
      Return

Case Xwd2opt = 4
   * -- Patient in room 2 bed B
   Locate For Prm= '2'.And. Pbed= 'B'.And. Pward= '2'
      Ptregno = Xpt4regno
      Ptselect =;
         Pward -[' '+Prm]-[' '+Pbed]-[' '+Xpt4]
      Ourpt = Xpt4
      Ptfmpssn = Xpt4fmpssn
   If Ourpt = "      "
      @ 24,9 Say "Sorry No Patient In That Bed -- "
      @ 24,41 Say "Please Press Any Key To Continue"
      Set Console Off
      Wait
      Set Console On
      Loop
   Endif
   If Omodule = "D"
      Do B:Doctor
      Return
   Else
      Do B:Nurse
      Return
   Endif
   Return

Case Xwd2opt = 5
   * -- Patient in room 3 bed A
   Locate For Prm= '3'.And. Pbed= 'A'.And. Pward= '2'
      Ptregno = Xpt5regno
      Ptselect =;
         Pward -[' '+Prm]-[' '+Pbed]-[' '+Xpt5]
      Ourpt = Xpt5
      Ptfmpssn = Xpt5fmpssn
   If Ourpt = "      "
      @ 24,9 Say "Sorry No Patient In That Bed -- "
      @ 24,41 Say "Please Press Any Key To Continue"
      Set Console Off
      Wait
      Set Console On
      Loop
   Endif
```

```
      If Omodule = "D"
        Do B:Doctor
        Return
      Else
        Do B:Nurse
        Return
      Endif
      Return

   Case Xwd2opt = 6
      * -- Patient in room 3 bed B
      Locate For Prm= '3'.And. Pbed= 'B'.And. Pward= '2'
        Ptregno = Xpt6regno
        Ptselect =;
          Pword -('     '+Prm)-('     '+Pbed)-('        '+Xpt6)
        Ourpt = Xpt6
        Ptfmpssn = Xpt6fmpssn
      If Ourpt = "       "
        @ 24,9 Say "Sorry No Patient In That Bed -- "
        @ 24,41 Say "Please Press Any Key To Continue"
        Set Console Off
        Wait
        Set Console On
        Loop
      Endif
      If Omodule = "D"
        Do B:Doctor
        Return
      Else
        Do B:Nurse
        Return
      Endif
      Return

   Case Xwd2opt = 7
      * -- Master Screen
      Return

   Endcase
   Release Xwd2opt,Xpt1regno,Xpt2regno,Xpt3regno
   Release Xpt5regno,Xpt6regno,Xpt5fmpssn,Xpt6fmpssn
   Release Xpt1fmpssn,Xpt2fmpssn,Xpt3fmpssn,Xpt4fmpssn
   Release Xpt4regno,Xpt1,Xpt2,Xpt3,Xpt4,Xpt5,Xpt6

Enddo
```

```
**** WARD3.PRG ***********************************************
* Author:              Gary R. Harmeyer LCDR NC USN
* Date:                11 January 1986
* Screen Generated By: The Software Bottling Company
*                        Of New York, c1985
* Purpose:             Displays patients assigned to ward
*                        3E, for patient selection.
* Input Files Used:    Ward3.Scr and Procfile.Prg
* Output Files Used:   Pt_Info.Dbf
* Calling Routine:     Master.Prg
* Routine Called:      Doctor or Nurse.Prg
* Modification Date:   3 March 1986
*
* -- Screen input program for Ward3 --
*
Do Setup
Public Xwd3opt,Xpt7,Xpt8,Xpt9,Xpt10,Xpt11,Xpt12
Public Xpt7regno,Xpt8regno,Xpt9regno,Xpt10regno
Public Xpt11regno,Xpt12regno,Xp11fmpssn,Xp12fmpssn
Public Xpt7fmpssn,Xpt8fmpssn,Xpt9fmpssn,Xp10fmpssn

* -- Store specific data from Dbf file into variable
* --    names --

Use B:Pt_Info
Locate For Prm = '1' .And. Pbed = 'A' .And. Pward = '3'
   Xpt7 = Pfname - [' ' +Plname]
   Xpt7regno = Pregno
   Xpt7fmpssn = Fmpssan
Locate For Prm = '1' .And. Pbed = 'B' .And. Pward = '3'
   Xpt8 = Pfname - [' ' +Plname]
   Xpt8regno = Pregno
   Xpt8fmpssn = Fmpssan
Locate For Prm = '2' .And. Pbed = 'A' .And. Pward = '3'
   Xpt9 = Pfname - [' ' +Plname]
   Xpt9regno = Pregno
   Xpt9fmpssn = Fmpssan
Locate For Prm = '2' .And. Pbed = 'B' .And. Pward = '3'
   Xpt10 = Pfname - [' ' +Plname]
   Xpt10regno = Pregno
   Xp10fmpssn = Fmpssan
Locate For Prm = '3' .And. Pbed = 'A' .And. Pward = '3'
   Xpt11 = Pfname - [' ' +Plname]
   Xpt11regno = Pregno
   Xp11fmpssn = Fmpssan
Locate For Prm = '3' .And. Pbed = 'B' .And. Pward = '3'
   Xpt12 = Pfname - [' ' +Plname]
   Xpt12regno = Pregno
   Xp12fmpssn = Fmpssan
```

```
Do While .T.

  * -- Screen Display B:Ward3.Scr --

  Set Color To W+/B,W+/B
  Clear
  ?? Flash+"S.B:Ward3.Scr/"
  Set Color To W+/B,W+/B
  Xwd3opt = 7
  @ 2,56 Say Date()
  @ 2,65 Say Time()
  @ 9,39 Say Xpt7
  @ 10,39 Say Xpt8
  @ 12,39 Say Xpt9
  @ 13,39 Say Xpt10
  @ 15,39 Say Xpt11
  @ 16,39 Say Xpt12
  @ 22,3 Say Curuser
  @ 22,67 Get Xwd3opt Pict "9" Range 0,7
  Read

  * -- Evaluate action based on the option selected --
  * -- Store data from Dbf file into variable names --

  Do Case

    Case Xwd3opt = 0
      * -- Sign-Off
      Close Databases
      Close Procedure
      Release All
      Return To Master

    Case Xwd3opt = 1
      * -- Patient in room 1 bed A
      Locate For Prm= '1'.And. Pbed= 'A'.And. Pward= '3'
        Ptregno = Xpt7regno
        Ptselect =;
          Pward -['    '+Prm]-['    '+Pbed]-['         '+Xpt7]
        Ourpt = Xpt7
        Ptfmpssn = Xpt7fmpssn
      If Ourpt = "        "
        Wait "Sorry No Patient In That Bed -;
          - Please Press A Key To Continue"
        Loop
      Endif
      If Omodule = "D"
        Do B:Doctor
        Return
```

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```
      Else
        Do B:Nurse
        Return
      Endif
      Return


  Case Xwd3opt = 2
    * -- Patient in room 1 bed B
    Locate For Prm= '1'.And. Pbed= 'B'.And. Pward= '3'
      Ptregno = Xpt8regno
      Ptselect;
        Pword -['       '+Prm]-['       '+Pbed]-['          '+Xpt8]
      Ourpt = Xpt8
      Ptfmpssn = Xpt8fmpssn
    If Ourpt = "        "
      Wait "Sorry No Patient In That Bed -;
        - Please Press A Key To Continue"
      Loop
    Endif
    If Omodule = "D"
      Do B:Doctor
      Return
    Else
      Do B:Nurse
      Return
    Endif
    Return

  Case Xwd3opt = 3
    * -- Patient in room 2 bed A
    Locate For Prm= '2'.And. Pbed= 'A'.And. Pward= '3'
      Ptregno = Xpt9regno
      Ptselect =;
        Pword -['       '+Prm]-['       '+Pbed]-['          '+Xpt9]
      Ourpt = Xpt9
      Ptfmpssn = Xpt9fmpssn
    If Ourpt = "        "
      Wait "Sorry No Patient In That Bed -;
        - Please Press A Key To Continue"
      Loop
    Endif
      If Omodule = "D"
        Do B:Doctor
        Return
      Else
        Do B:Nurse
        Return
      Endif
      Return
```

```
Case Xwd3opt = 4
  * -- Patient in room 2 bed B
  Locate For Prm= '2'.And. Pbed= 'B'.And. Pward= '3'
    Ptregno = Xpt10regno
    Ptselect =;
      Pward-['        '+Prm]-['      '+Pbed]-['           '+Xpt10]
    Ourpt = Xpt10
    Ptfmpssn = Xp10fmpssn
  If Ourpt = "       "
    Wait "Sorry No Patient In That Bed -;
      - Please Press A Key To Continue"
    Loop
  Endif
  If Omodule = "D"
    Do B:Doctor
    Return
  Else
    Do B:Nurse
    Return
  Endif
  Return

Case Xwd3opt = 5
  * -- Patient in room 3 bed A
  Locate For Prm= '3'.And. Pbed= 'A'.And. Pward= '3'
    Ptregno = Xpt11regno
    Ptselect =;
      Pward-['        '+Prm]-['     '+Pbed]-['          '+Xpt11]
    Ourpt = Xpt11
    Ptfmpssn = Xp11fmpssn
  If Ourpt = "       "
    Wait "Sorry No Patient In That Bed -;
      - Please Press A Key To Continue"
    Loop
  Endif
  If Omodule = "D"
    Do B:Doctor
    Return
  Else
    Do B:Nurse
    Return
  Endif
  Return

Case Xwd3opt = 6
  * -- Patient in room 3 bed B
  Locate For Prm= '3'.And. Pbed= 'B'.And. Pward= '3'
    Ptregno = Xpt12regno
    Ptselect =;
      Pward-['        '+Prm]-['     '+Pbed]-['          '+Xpt12]
```

```
         Ourpt = Xpt12
         Ptfmpssn = Xp12fmpssn
      If Ourpt = "        "
        Wait "Sorry No Patient In That Bed -;
           - Please Press A Key To Continue"
        Loop
      Endif
      If Omodule = "D"
        Do B:Doctor
        Return
      Else
        Do B:Nurse
        Return
      Endif
      Return

   Case Xwd3opt = 7
      * -- Master Screen
      Return

   Endcase
   Release Xwd3opt,Xpt7,Xpt8,Xpt9,Xpt10,Xpt11,Xpt12
   Release Xpt7regno,Xpt8regno,Xpt9regno,Xpt10regno
   Release Xpt11regno,Xpt12regno,Xp11fmpssn,Xp12fmpssn
   Release Xpt7fmpssn,Xpt8fmpssn,Xpt9fmpssn,Xp10fmpssn

Enddo
```

```
**** DOCTOR.PRG *********************************************
* Author:              Gary R. Harmeyer LCDR NC USN
* Date:                27 November 1985
* Screen Generated By: The Software Bottling Company
*                         Of New York, c1985
* Purpose:             Menu for selecting, viewing or
*                         modifying the doctor's orders.
* Input Files Used:    Doctor.Prg and Procfile.Prg
* Output Files Used:   Orders.Dbf
* Calling Routine:     Ward2 or Ward3.Prg
* Routine Calls:       Doc_menu, Transfer or Discont.Prg
* Modification Date:   4 February 1986
*
* -- Screen Input Program For Doctor --
*
Do Setup
Public Xdocopt,Xmptfmpssn,Dmenu
Dmenu = Space(1)

Do While .T.

   * -- Screen Display A:Doctor.Scr --

   Set Color To W+/B,W+/B
   Clear
   ?? Flash+"S.A:Doctor.Scr/"
   Set Color To W+/B,W+/B
   Xdocopt = 6
   Do Headings
   @ 22,67 Get Xdocopt Pict "9" Range 0,6
   Read

   * -- Evaluate action based on the option selected --

   Do Case

      Case Xdocopt = 0
         * -- Sign-Off
         Close Databases
         Close Procedure
         Release All
         Return To Master

      Case Xdocopt = 1
         * -- Order Entry
         Do B:Doc_Menu
         If Dmenu = "1"
            Loop
         Else
```

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```
        Return
     Endif

  Case Xdocopt = 2
     * -- Admit / Transfer / Discharge Patient
     Do B:Transfer
     If Dmenu = "1"
        Loop
     Else
        Return
     Endif

  Case Xdocopt = 3
     * -- Review Medical Orders
     Clear
     Set Color To W+/B,W+/B
     @ 1,22 Say "Patient Orders For:"
     @ 1,42 Say Ourpt
     @ 3,10 Say "Press -- Ctrl and S -- Keys to Pause "
     @ 3,47 Say "The Scrolling If Necessary"
     Use B:Orders
     Store "'" + Ptfmpssn + "'" To Xmptfmpssn
     Report Form B:Ord For Fmpssn = &Xmptfmpssn .And.;
        Module # 'N'
     Wait
     Loop

  Case Xdocopt = 4
     * -- Print Medical Orders
     @ 24,0 Say "Turn On Your Printer, "
     @ 24,22 Say "Then Hit Any Key To Print"
     Set Console Off
     Wait
     Set Console On
     Clear
     @ 12,30 Say "Printing, Please Wait"
     Set Console Off
     Set Device To Print
     @ 1,22 Say "Patient Orders For:"
     @ 1,42 Say Ourpt
     Set Device To Screen
     Use B:Orders
     Store "'" + Ptfmpssn + "'" To Xmptfmpssn
     Report Form B:Ord Noeject To Print For;
        Fmpssn = &Xmptfmpssn .And. Module # 'N'
     Set Console On
     @ 24,0 Say "Finished Printing, "
     @ 24,19 Say "Hit Any Key To Continue"
     Set Console Off
     Wait
```

```
      Set Console On
      Loop

   Case Xdocopt = 5
      * -- Discontinue An Order
      Do B:Discont
      If Dmenu = "1"
        Loop
      Else
        Return
      Endif

   Case Xdocopt = 6
      * -- Master Screen
      Return

   Endcase
   Release Xdocopt,Xmptfmpssn

Enddo
```

```
**** DOC_MENU.PRG ********************************************
* Author:              Gary R. Harmeyer LCDR NC USN
* Date:                27 November 1985
* Screen Generated By: The Software Bottling Company
*                        Of New York, c1985
* Purpose:             Menu of ten order categories for
*                        doctor to choose from.
* Input Files Used:    Doc_Menu.Scr and Drproc.Prg
* Output Files Used:   None
* Calling Routine:     Doctor.Prg
* Routine Called:      Activity,Diet,IVA,Lab,Monitor,Pham1
*                        Xray,Lung,VS or Routine.Prg
* Modification Date:   4 February 1986
*
* -- Screen Input Program For Doc_Menu --
*
Do Setup
Public Xdocmenopt

Do While .T.

   * -- Screen Display A:Doc_Menu.Scr  --

   Set Color To W+/B,W+/B
   Clear
   ?? Flash+"S.A:Doc_Menu.Scr/"
   Set Color To W+/B,W+/B
   Xdocmenopt = 11
   Do Headings
   @ 22,66 Get Xdocmenopt Pict "99" Range 0,12
   Read

   * -- Evaluate action based on the option selected --

   Do Case

      Case Xdocmenopt = 0
         * -- Sign-Off
         Close Databases
         Close Procedure
         Release All
         Return To Master

      Case Xdocmenopt = 1
         Do B:Activity
         If Dmenu = "1"
            Loop
         Else
```

```
        Return
      Endif

   Case Xdocmenopt = 2
      Do B:Diet
      If Dmenu = "1"
        Loop
      Else
        Return
      Endif

   Case Xdocmenopt = 3
      Do B:IVA
      If Dmenu = "1"
        Loop
      Else
        Return
      Endif

   Case Xdocmenopt = 4
      Do B:Lab
      If Dmenu = "1"
        Loop
      Else
        Return
      Endif

   Case Xdocmenopt = 5
      Do B:Monitor
      If Dmenu = "1"
        Loop
      Else
        Return
      Endif

   Case Xdocmenopt = 6
      Do B:Pham1
      If Dmenu = "1"
        Loop
      Else
        Return
      Endif

   Case Xdocmenopt = 7
      Do B:Xray
      If Dmenu = "1"
        Loop
      Else
        Return
      Endif
```

```
Case Xdocmenopt = 8
   Do B:Lung
   If Dmenu = "1"
     Loop
   Else
     Return
   Endif

Case Xdocmenopt = 9
   Do B:VS
   If Dmenu = "1"
     Loop
   Else
     Return
   Endif

Case Xdocmenopt = 10
   Do B:Routine
   If Dmenu = "1"
     Loop
   Else
     Return
   Endif

Case Xdocmenopt = 11
   * -- Doctor's Master Screen
   Dmenu = "1"
   Return

Case Xdocmenopt = 12
   * -- Master Screen
   Store ' ' To Dmenu
   Return

Endcase
Release Xdocmenopt

Enddo
```

```
**** ACTIVITY.PRG ******************************************
* Author:              Gary R. Harmeyer LCDR NC USN
* Date:                29 November 1985
* Screen Generated By: The Software Bottling Company
*                          Of New York, c1985
* Purpose:             Determine activity orders of the
*                          patient.
* Input Files Used:    Activity.Scr and Procfile.Prg
* Output Files Used:   Orders.Dbf
* Calling Routine:     Doc_Menu.Prg
* Routine Called:      Time.Prg
* Modification Date:   4 February 1986
*
* -- Screen Input Program For Activity --
*
Do Setup
Public Xactopt

Do While .T.

   * -- Screen Display A:Activity.Scr --

   Set Color To W+/B,W+/B
   Clear
   ?? Flash+"S.A:Activity.Scr/"
   Set Color To W+/B,W+/B
   Xactopt = 13
   Do Headings
   Do Startup
   @ 22,66 Get Xactopt Pict "99" Range 0,14
   Read

   * -- Evaluate action based on the option selected --

   Do Case

      Case Xactopt = 0
         * -- Sign-Off
         Close Databases
         Close Procedure
         Release All
         Return To Master

      Case Xactopt = 1
         Morder = "Ambulate ad lib"
         Do Replaord
         Loop
```

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```
Case Xactopt = 2
   Morder = "Ambulate w/ Assistance"
   Do B:Time

   Do Case
     Case (Timeopt < 5 .Or. Timeopt = 41)
       * -- No precise frequency given
       Passdata = "Q51 18"
       Ptpoint = 0
     Case (Timeopt > 4 .And. Timeopt < 22)
       * -- X 1
       Passdata = "Q51 11"
       Ptpoint = 2
     Case (Timeopt > 21 .And. Timeopt < 25)
       * -- X 2 or BID
       Passdata = "Q51 12"
       Ptpoint = 4
     Case (Timeopt > 24 .And. Timeopt < 31)
       * -- X 3 or TID
       Passdata = "Q51 13"
       Ptpoint = 6
     Case (Timeopt > 30 .And. Timeopt < 34)
       * -- X 4 or QID
       Passdata = "Q51 14"
       Ptpoint = 8
     Case (Timeopt = 34 .Or. Timeopt = 35)
       * -- X 6 or Q4h
       Passdata = "Q51 15"
       Ptpoint = 12
     Case (Timeopt = 36 .Or. Timeopt = 37)
       * -- X 12 or Q2h
       Passdata = "Q51 16"
       Ptpoint = 24
     Case (Timeopt = 38 .Or. Timeopt = 39)
       * -- X 24 or Q1h
       Passdata = "Q51 17"
       Ptpoint = 48
   Endcase

   Do Replaord
   Loop

Case Xactopt = 3
   Morder = "Strict Bedrest"
   Do Replaord
   Loop

Case Xactopt = 4
   Morder = "Bedrest w/ BRP"
```

```
      Do Replaord
      Loop

  Case Xactopt = 5
      Morder = "Bedside Commode"
      Do Replaord
      Loop

  Case Xactopt = 6
      Morder = "OOB to Stretcher w/ Assist"
      Do B:Time

      Do Case
         Case (Timeopt < 25 .Or. Timeopt = 41)
            * -- Less than x 3 or TID
            Passdata = "Q51 2"
            Ptpoint = 0
         Case (Timeopt > 24 .And. Timeopt < 34)
            * -- X 3 or less than Q4h (x 6)
            Passdata = "Q51 3"
            Ptpoint = 2
         Case (Timeopt = 34 .Or. Timeopt = 35)
            * -- X 6 or Q4h
            Passdata = "Q51 4"
            Ptpoint = 4
         Case (Timeopt = 36 .Or. Timeopt = 37)
            * -- X 12 or Q2h
            Passdata = "Q51 5"
            Ptpoint = 8
         Case (Timeopt = 38 .Or. Timeopt = 39)
            * -- X 24 or Q1h
            Passdata = "Q51 6"
            Ptpoint = 16
      Endcase

      Do Replaord
      Loop

  Case Xactopt = 7
      Morder = "Dangle Legs"
      Do B:Time
      Do Replaord
      Loop

  Case Xactopt = 8
      Morder = "Keep on Back"
      Do Replaord
      Loop
```

```
Case Xactopt = 9
   Morder = "May Shower"
   Do Replaord
   Loop

Case Xactopt = 10
   Morder = "Turn Patient"
   Do B:Time
   Do Replaord
   Loop

Case Xactopt = 11
   Morder = "Turning Frame"
   Do B:Time

   Do Case
      Case [Timeopt < 36 .Or. Timeopt = 41]
         * -- Less than Q2h
         Passdata = "Q25 1"
         Ptpoint = 0
      Case [Timeopt = 36 .Or. Timeopt = 37]
         * -- Q2h or x 12
         Passdata = "Q25 2"
         Ptpoint = 14
      Case [Timeopt = 38 .Or. Timeopt = 39]
         * -- Q1h or x 24
         Passdata = "Q25 3"
         Ptpoint = 28
   Endcase

   Do Replaord
   Loop

Case Xactopt = 12
   Morder = "Up in Chair w/ Assist"
   Do B:Time

   Do Case
      Case [Timeopt < 25 .Or. Timeopt = 41]
         * -- Less than x 3 or TID
         Passdata = "Q51 1"
         Ptpoint = 0
      Case [Timeopt > 24 .And. Timeopt < 34]
         * -- X 3 or less than Q4h [x 6]
         Passdata = "Q51 7"
         Ptpoint = 2
      Case [Timeopt = 34 .Or. Timeopt = 35]
         * -- X 6 or Q4h
         Passdata = "Q51 8"
         Ptpoint = 4
```

```
      Case [Timeopt - 36 .Or. Timeopt - 37]
         * -- X 12 or Q2h
         Passdata = "Q51 9"
         Ptpoint - 8
      Case [Timeopt - 38 .Or. Timeopt - 39]
         * -- X 24 or Q1h
         Passdata = "Q51 10"
         Ptpoint - 16
   Endcase

   Do Replaord
   Loop

 Case Xactopt - 13
    * -- Doctor's Order Screen
    Dmenu = '1'
    Return

 Case Xactopt - 14
    * -- Master Screen
    Dmenu = ' '
    Return

 Endcase
 Release Xactopt

Enddo
```

```
**** TIME.PRG ************************************************
* Author:              Gary R. Harmeyer LCDR NC USN
* Date:                29 November 1985
* Screen Generated By: The Software Bottling Company
*                          Of New York, c1985
* Purpose:             Determine the time of orders for
*                          the patient.
* Input Files Used:    Time.Scr and Procfile.Prg
* Output Files Used:   None
* Calling Routine:     All Orders and Ncaredb.Dbf modules.
* Routine Called:      Timehelp.Prg
* Modification Date:   4 February 1986
*
* -- Screen Input Program For Time --
*
Do Setup
Public Timeopt,Xtimetime
Xtimetime = Space[4]

Do While .T.

   * -- Screen Display A:Time.Scr --

   Set Color To W+/B,W+/B
   Clear
   ?? Flash+"S.A:Time.Scr/"
   Set Color To W+/B,W+/B
   Timeopt = 41
   Do Headings
   @ 22,66 Get Timeopt Pict "99" Range 1,41
   Read

   * -- Evaluate action based on the option selected --

   Do Case

      Case Timeopt = 1
        Ofreq = "PRN"
        Return

      Case Timeopt = 2
        Ofreq = "Q 1-2 Hr PRN"
        Return

      Case Timeopt = 3
        Ofreq = "Q 2-3 Hr PRN"
        Return
```

```
Case Timeopt = 4
   Ofreq = "Q 3-4 Hr PRN"
   Return

Case Timeopt = 5
   Ofreq = "On Call"
   Todayonly = "T"
   Return

Case Timeopt = 6
   Ofreq = "QD"
   Return

Case Timeopt = 7
   Ofreq = "HS"
   Return

Case Timeopt = 8
   Ofreq = "x 1"
   Todayonly = "T"
   Return

Case Timeopt = 9
   * -- Today @ ----
   @ 17,8 Get Xtimetime Pict "9999"
   Read
   Ofreq = "Today @ " + Xtimetime
   Todayonly = "T"
   Return

Case Timeopt = 10
   Ofreq = "Daily @ 0200"
   Return

Case Timeopt = 11
   Ofreq = "Daily @ 0400"
   Return

Case Timeopt = 12
   Ofreq = "Daily @ 0600"
   Return

Case Timeopt = 13
   Ofreq = "Daily @ 0800"
   Return

Case Timeopt = 14
   Ofreq = "Daily @ 1000"
   Return
```

```
Case Timeopt = 15
  Ofreq = "Daily @ 1200"
  Return

Case Timeopt = 16
  Ofreq = "Daily @ 1400"
  Return

Case Timeopt = 17
  Ofreq = "Daily @ 1600"
  Return

Case Timeopt = 18
  Ofreq = "Daily @ 1800"
  Return

Case Timeopt = 19
  Ofreq = "Daily @ 2000"
  Return

Case Timeopt = 20
  Ofreq = "Daily @ 2200"
  Return

Case Timeopt = 21
  Ofreq = "Daily @ 2400"
  Return

Case Timeopt = 22
  Ofreq = "BID"
  Return

Case Timeopt = 23
  Ofreq = "Q 12 Hr"
  Return

Case Timeopt = 24
  Ofreq = "x 2"
  Todayonly = "T"
  Return

Case Timeopt = 25
  Ofreq = "TID"
  Return

Case Timeopt = 26
  Ofreq = "AC"
  Return
```

```
Case Timeopt = 27
  Ofreq = "PC"
  Return

Case Timeopt = 28
  Ofreq = "Q 8 Hr"
  Return

Case Timeopt = 29
  Ofreq = "x 3"
  Todayonly = "T"
  Return

Case Timeopt = 30
  Ofreq = "Q Shift"
  Return

Case Timeopt = 31
  Ofreq = "QID"
  Return

Case Timeopt = 32
  Ofreq = "Q 6 Hr"
  Return

Case Timeopt = 33
  Ofreq = "x 4"
  Todayonly = "T"
  Return

Case Timeopt = 34
  Ofreq = "Q 4 Hr"
  Return

Case Timeopt = 35
  Ofreq = "x 6"
  Todayonly = "T"
  Return

Case Timeopt = 36
  Ofreq = "Q 2 Hr"
  Return

Case Timeopt = 37
  Ofreq = "x 12"
  Todayonly = "T"
  Return
```

```
Case Timeopt = 38
   Ofreq = "Q 1 Hr"
   Return

Case Timeopt = 39
   Ofreq = "x 24"
   Todayonly = "T"
   Return

Case Timeopt = 40
   * -- Help
   Do B:Timehelp
   Loop

Case Timeopt = 41
   * -- Return to Calling Screen
   Return

Endcase
Release Xtimetime

Enddo
```

```
**** TIMEHELP.PRG **********************************************
* Author:                 Gary R. Harmeyer LCDR NC USN
* Date:                   1 December 1985
* Screen Generated By:    The Software Bottling Company
*                             Of New York, c1985
* Purpose:                Brief on-line help facility for
*                             Time.Prg.
* Input Files Used:       Timehelp.Scr and Procfile.Prg
* Output Files Used:      None
* Calling Routine:        Time.Prg
* Routine Called:         None
* Modification Date:      26 January 1986
*
*   -- Screen Input Program For Timehelp --
*
Do Setup

Do While .T.

   * -- Screen Display A:Timehelp.Scr --

   Set Color To W+/B,W+/B
   Clear
   ?? Flash+"S.A:Timehelp.Scr/"
   @ 24,0
   @ 24,37 "Press Any Key To Continue"
   Set Console Off
   Wait
   Set Console On
   Return

Enddo
```

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```
**** DIET.PRG *************************************************
* Author:              Gary R. Harmeyer LCDR NC USN
* Date:                27 November 1985
* Screen Generated By: The Software Bottling Company
*                         Of New York, c1985
* Purpose:             Determine the diet orders of the
*                        patient.
* Input Files Used:    Diet.Scr and Procfile.Prg
* Output Files Used:   Orders.Dbf
* Calling Routine:     Doc_Menu.Prg
* Routine Called:      Time.Prg
* Modification Date:   4 February 1986
*
* -- Screen Input Program For Diet --
*
Do Setup
Public Xdietopt

Do While .T.

   * -- Screen Display A:Diet.Scr --

   Set Color To W+/B,W+/B
   Clear
   ?? Flash+"S.A:Diet.Scr/"
   Set Color To W+/B,W+/B
   Xdietopt = 19
   Do Headings
   Do Startup
   @ 22,66 Get Xdietopt Pict "99" Range 0,20
   Read

   * -- Evaluate action based on the option selected --

   Do Case

      Case Xdietopt = 0
         * -- Sign-Off
         Close Databases
         Close Procedure
         Release All
         Return To Master

      Case Xdietopt = 1
         Morder = "Diet As Tolerated"
         Do Replaord
         Loop
```

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```
Case Xdietopt = 2
   Morder = "Clear Liquids Diet"
   Do Replaord
   Loop

Case Xdietopt = 3
   Morder = "Diabetic Diet"
   Do Replaord
   Loop

Case Xdietopt = 4
   Morder = "Fat-controlled Diet"
   Do Replaord
   Loop

Case Xdietopt = 5
   Morder = "Full Liquid Diet"
   Do Replaord
   Loop

Case Xdietopt = 6
   Morder = "Infant/Neonat Bottle x1"
   Passdata = "Q29 1"
   Ptpoint = 2
   Do Replaord
   Loop

Case Xdietopt = 7
   Morder = "Infant/Neonat Bottle x6"
   Passdata = "Q29 2"
   Ptpoint = 12
   Do Replaord
   Loop

Case Xdietopt = 8
   Morder = "Infant/Neonat Bottle x12"
   Passdata = "Q29 3"
   Ptpoint = 24
   Do Replaord
   Loop

Case Xdietopt = 9
   Morder = "Mechanical Soft Diet"
   Do Replaord
   Loop

Case Xdietopt = 10
   Morder = "Na Controlled Diet"
   Do Replaord
   Loop
```

```
Case Xdietopt = 11
   Morder = "NPO"
   Do Replaord
   Loop

Case Xdietopt = 12
   Morder = "NPO p 2400"
   Do Replaord
   Loop

Case Xdietopt = 13
   Morder = "NPO w/ Ice Chips"
   Do Replaord
   Loop

Case Xdietopt = 14
   Morder = "Regular Diet"
   Do Replaord
   Loop

Case Xdietopt = 15
   Morder = "Renal/Liver Disease Diet"
   Do Replaord
   Loop

Case Xdietopt = 16
   Morder = "T & A Diet"
   Do Replaord
   Loop

Case Xdietopt = 17
   Morder = "Continuous Tube Feedings"
   Do B:Time

   Do Case
     Case [Timeopt < 6 .Or. Timeopt = 41]
       * -- Less than 1 bag per 24 hours
       Passdata = "Q27 1"
       Ptpoint = 0
     Case [Timeopt > 5 .And. Timeopt < 22]
       * -- 1 bag per 24 hours
       Passdata = "Q27 2"
       Ptpoint = 2
     Case [Timeopt > 21 .And. Timeopt < 25]
       * -- 2 bags per 24 hours
       Passdata = "Q27 3"
       Ptpoint = 4
     Case [Timeopt > 24 .And. Timeopt < 31]
       * -- 3 bags per 24 hours
```

```
            Passdata = "Q27 4"
            Ptpoint = 6
        Case [Timeopt > 30 .And. Timeopt < 34]
            * -- 4 bags per 24 hours
            Passdata = "Q27 5"
            Ptpoint = 8
        Case [Timeopt = 34 .Or. Timeopt = 35]
            * -- 6 bags per 24 hours
            Passdata = "Q27 6"
            Ptpoint = 12
        Case [Timeopt = 36 .Or. Timeopt = 37]
            * -- 12 bags per 24 hours
            Passdata = "Q27 7"
            Ptpoint = 24
        Case [Timeopt = 38 .Or. Timeopt = 39]
            * -- 24 bags per 24 hours
            Passdata = "Q27 8"
            Ptpoint = 48
    Endcase

    Do Replaord
    Loop

Case Xdietopt = 18
    Morder = "Bolus Tube Feedings"
    Do B:Time

    Do Case
        Case [Timeopt < 34 .Or. Timeopt = 41]
            * -- Less than Q4h or x 6
            Passdata = "Q27 9"
            Ptpoint = 0
        Case [Timeopt = 34 .Or. Timeopt = 35]
            * -- Q4h or x 6
            Passdata = "Q27 10"
            Ptpoint = 5
        Case [Timeopt = 36 .Or. Timeopt = 37]
            * -- Q2h or x 12
            Passdata = "Q27 11"
            Ptpoint = 10
        Case [Timeopt = 38 .Or. Timeopt = 39]
            * -- Q1h or x 24
            Passdata = "Q27 12"
            Ptpoint = 20
    Endcase

    Do Replaord
    Loop
```

```
      Case Xdietopt = 19
        * -- Doctor's Order Screen
        Dmenu = "1"
        Return

      Case Xdietopt = 20
        * -- Master Screen
        Dmenu = " "
        Return

    Endcase
    Release Xdietopt

  Enddo
```

```
**** IVA.PRG ************************************************
* Author:              Gary R. Harmeyer LCDR NC USN
* Date:                8 December 1985
* Screen Generated By: The Software Bottling Company
*                           Of New York, c1985
* Purpose:             Determine first stage IV needs of
*                           the patient.
* Input Files Used:    IVA.Scr and Procfile.Prg
* Output Files Used:   None
* Calling Routine:     Doc_Menu.Prg
* Routine Called:      IVB.Prg
* Modification Date:   4 February 1986
*
* -- Screen Input Program For IVA --
*
Do Setup
Public Xivaopt,Morder1

Do While .T.

   * -- Screen Display A:IVA.Scr --

   Set Color To W+/B,W+/B
   Clear
   ?? Flash+"S.A:IVA.Scr/"
   Set Color To W+/B,W+/B
   Xivaopt = 09
   Do Headings
   Do Startup
   @ 22,66 Get Xivaopt Pict "99" Range 0,10
   Read

   * -- Evaluate action based on the option selected --

   Do Case

      Case Xivaopt = 0
         * -- Sign-Off
         Close Databases
         Close Procedure
         Release All
         Return To Master

      Case Xivaopt = 1
         Morder1 = "Start IV of"
         Passdata = "Q30 1"
         Ptpoint = 2
         Todayonly = "T"
```

```
    Do B:IVB
    Loop

  Case Xivaopt = 2
    Morder1 = "Alternate IV w/"
    Do B:IVB
    Loop

  Case Xivaopt = 3
    Morder1 = "Follow IV w/"
    Do B:IVB
    Loop

  Case Xivaopt = 4
    Morder1 = "Interrupt IV for"
    Do B:IVB
    Loop

  Case Xivaopt = 5
    Morder1 = "Start 2nd IV of"
    Passdata = "Q30 1"
    Ptpoint = 2
    Todayonly = "T"
    Do B:IVB
    Loop

  Case Xivaopt = 6
    Morder = "Discontinue IV"
    Do Replaord
    Loop

  Case Xivaopt = 7
    Morder = "Heparin Lock"
    Passdata = "Q73 1"
    Ptpoint = 4
    Do Replaord
    Loop

  Case Xivaopt = 8
    Morder = "Multilumen Line"
    Passdata = "Q72 3"
    Ptpoint = 8
    Do Replaord
    Loop

  Case Xivaopt = 9
    * -- Doctor's Order Screen
    Dmenu = "1"
    Return
```

```
    Case Xivaopt = 10
       * -- Master Screen
       Dmenu = " "
       Return

    Endcase
    Release Xivaopt

Enddo
```

```
**** IVB.PRG *********************************************
* Author:                Gary R. Harmeyer LCDR NC USN
* Date:                  8 December 1985
* Screen Generated By: The Software Bottling Company
*                         Of New York, c1985
* Purpose:                The doctor selects an IV solution
*                         for the patient.
* Input Files Used:     IVB.Scr and Procfile.Prg
* Output Files Used:    None
* Calling Routine:      IVA.Prg
* Routine Called:       None
* Modification Date:    19 February 1986
*
* -- Screen Input Program For IVB --
*
Do Setup
Public Xivbopt,Blood
Blood = .F.

Do While .T.

   * -- Screen Display A:IVB.Scr --

   Set Color To W+/B,W+/B
   Clear
   ?? Flash+"S.A:IVB.Scr/"
   Set Color To W+/B,W+/B
   Xivbopt = 1
   Do Headings
   @ 22,67 Get Xivbopt Pict "9" Range 1,8
   Read

   * -- Evaluate action based on the option selected --

   Do Case

      Case Xivbopt = 1
        Morder = Morder1 + " D5/.45 NaCl"
        Do B:IVC
        Return

      Case Xivbopt = 2
        Morder = Morder1 + " RL"
        Do B:IVC
        Return

      Case Xivbopt = 3
        Morder = Morder1 + " D5RL"
```

```
       Do B:IVC
       Return

    Case Xivbopt = 4
       Morder = Morder1 + " D5W"
       Do B:IVC
       Return

    Case Xivbopt = 5
       Morder = Morder1 + " NS"
       Do B:IVC
       Return

    Case Xivbopt = 6
       Morder = Morder1 + " D5NS"
       Do B:IVC
       Return

    Case Xivbopt = 7
       Morder = Morder1 + " Whole Bld"
       Blood = .T.
       Do B:IVC
       Return

    Case Xivbopt = 8
       Morder = Morder1 + " Packed Cells"
       Blood = .T.
       Do B:IVC
       Return

  Endcase
  Release Xivbopt

Enddo
```

```
***** IVC.PRG ***********************************************
* Author:             Gary R. Harmeyer LCDR NC USN
* Date:               8 December 1985
* Screen Generated By: The Software Bottling Company
*                        Of New York, c1985
* Purpose:            Determine IV infusion rate for
*                        patient orders.
* Input Files Used:   IVC.Scr and Procfile.Prg
* Output Files Used:  None
* Calling Routine:    IVB.Prg
* Routine Called:     None
* Modification Date:  4 February 1986
*
* -- Screen Input Program For IVC --
*
Do Setup
Public Xivcopt

Do While .T.

   * -- Screen Display A:IVC.Scr --

   Set Color To W+/B,W+/B
   Clear
   ?? Flash+"S.A:IVC.Scr/"
   Set Color To W+/B,W+/B
   Xivcopt = 6
   Do Headings
   @ 22,67 Get Xivcopt Pict "9" Range 1,8
   Read

   * -- Evaluate action based on the option selected --

   Do Case

     Case Xivcopt = 1
       Ofreq = "Infuse o 30M"
       If Blood = .T.
         Passdata = "Q75 1"
         Ptpoint = Ptpoint + 2
       Else
         Passdata = "Q72 3"
         Ptpoint = Ptpoint + 8
       Endif
       Do Replaord
       Return

     Case Xivcopt = 2
       Ofreq = "Infuse o 1Hr"
```

```
     If  Blood  =  .T.
       Passdata  =  "Q75 1"
       Ptpoint  =  Ptpoint  +  2
     Else
       Passdata  =  "Q72 3"
       Ptpoint  =  Ptpoint  +  8
     Endif
     Do Replaord
     Return

 Case Xivcopt  =  3
   Ofreq  =  "Infuse o 2Hr"
   If  Blood  =  .T.
     Passdata  =  "Q75 1"
     Ptpoint  =  Ptpoint  +  2
   Else
     Passdata  =  "Q72 3"
     Ptpoint  =  Ptpoint  +  8
   Endif
   Do Replaord
   Return

 Case Xivcopt  =  4
   Ofreq  =  "Infuse o 4Hr"
   If  Blood  =  .T.
     Passdata  =  "Q75 1"
     Ptpoint  =  Ptpoint  +  2
   Else
     Passdata  =  "Q72 3"
     Ptpoint  =  Ptpoint  +  8
   Endif
   Do Replaord
   Return

 Case Xivcopt  =  5
   Ofreq  =  "Infuse o 6Hr"
   Passdata  =  "Q72 2"
   Ptpoint  =  Ptpoint  +  6
   Do Replaord
   Return

 Case Xivcopt  =  6
   Ofreq  =  "Infuse o 8Hr"
   Passdata  =  "Q72 2"
   Ptpoint  =  Ptpoint  +  6
   Do Replaord
   Return

 Case Xivcopt  =  7
   Ofreq  =  "Infuse o 12H"
```

```
        Passdata - "Q72 1"
        Ptpoint - Ptpoint + 4
        Do Replaord
        Return

    Case Xivcopt - 8
        Ofreq - "Infuse o 24H"
        Passdata - "Q72 1"
        Ptpoint - Ptpoint + 4
        Do Replaord
        Return

    Endcase
    Release Xivcopt,Blood

Enddo
```

```
**** LAB.PRG ******************************************************
* Author:              Gary R. Harmeyer LCDR NC USN
* Date:                8 December 1985
* Screen Generated By: The Software Bottling Company
*                         Of New York, c1985
* Purpose:             Determine laboratory orders of the
*                         patient.
* Input Files Used:    Lab.Scr and Procfile.Prg
* Output Files Used:   Orders.Dbf
* Calling Routine:     Doc_Menu.Prg
* Routine Called:      Time.Prg
* Modification Date:   4 February 1986
*
* -- Screen Input Program For Lab --
*
Do Setup
Public Xlabopt

Do While .T.

   * -- Screen Display A:Lab.Scr --

   Set Color To W+/B,W+/B
   Clear
   ?? Flash+"S.A:Lab.Scr/"
   Set Color To W+/B,W+/B
   Xlabopt = 32
   Do Headings
   Do Startup
   @ 22,66 Get Xlabopt Pict "99" Range 0,33
   Read

   * -- Evaluate action based on the option selected --

   Do Case

      Case Xlabopt = 0
         * -- Sign-Off
         Close Databases
         Close Procedure
         Release All
         Return To Master

      Case Xlabopt = 1
         Morder = "Bilirubin"
         Do B:Time
         Do Labcount
         Do Replaord
         Loop
```

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```
Case Xlabopt = 2
  Morder = "BUN"
  Do B:Time
  Do Labcount
  Do Replaord
  Loop

Case Xlabopt = 3
  Morder = "Calcium"
  Do B:Time
  Do Labcount
  Do Replaord
  Loop

Case Xlabopt = 4
  Morder = "Cloride"
  Do B:Time
  Do Labcount
  Do Replaord
  Loop

Case Xlabopt = 5
  Morder = "CO2"
  Do B:Time
  Do Labcount
  Do Replaord
  Loop

Case Xlabopt = 6
  Morder = "Creatinine"
  Do B:Time
  Do Labcount
  Do Replaord
  Loop

Case Xlabopt = 7
  Morder = "Glucose"
  Do B:Time
  Do Labcount
  Do Replaord
  Loop

Case Xlabopt = 8
  Morder = "Phosphate"
  Do B:Time
  Do Labcount
  Do Replaord
  Loop
```

```
Case Xlabopt = 9
   Morder = "Potassium"
   Do B:Time
   Do Labcount
   Do Replaord
   Loop

Case Xlabopt = 10
   Morder = "Sodium"
   Do B:Time
   Do Labcount
   Do Replaord
   Loop

Case Xlabopt = 11
   Morder = "Uric Acid"
   Do B:Time
   Do Labcount
   Do Replaord
   Loop

Case Xlabopt = 12
   Morder = "Amylase"
   Do B:Time
   Do Labcount
   Do Replaord
   Loop

Case Xlabopt = 13
   Morder = "CPK"
   Do B:Time
   Do Labcount
   Do Replaord
   Loop

Case Xlabopt = 14
   Morder = "LDH"
   Do B:Time
   Do Labcount
   Do Replaord
   Loop

Case Xlabopt = 15
   Morder = "SGOT"
   Do B:Time
   Do Labcount
   Do Replaord
   Loop
```

```
Case Xlabopt = 16
  Morder = "SGPT"
  Do B:Time
  Do Labcount
  Do Replaord
  Loop

Case Xlabopt = 17
  Morder = "CBC"
  Do B:Time
  Do Labcount
  Do Replaord
  Loop

Case Xlabopt = 18
  Morder = "Platlets"
  Do B:Time
  Do Labcount
  Do Replaord
  Loop

Case Xlabopt = 19
  Morder = "Protime"
  Do B:Time
  Do Labcount
  Do Replaord
  Loop

Case Xlabopt = 20
  Morder = "Sed Rate"
  Do B:Time
  Do Labcount
  Do Replaord
  Loop

Case Xlabopt = 21
  Morder = "ABO & Rh"
  Do B:Time
  Do Labcount
  Do Replaord
  Loop

Case Xlabopt = 22
  Morder = "ABG [from A-line]"
  Do B:Time
  Do Labcount
  Do Replaord
  Loop
```

```
Case Xlabopt = 23
   Morder = "ABG [stick]"
   Do B:Time

   Do Case
     Case [Xtimeopt < 25 .Or. Xtimeopt = 41]
        * -- Less than x 3 or TID
        Passdata = "Q45 1"
        Ptpoint = 0
     Case [Xtimeopt > 24 .And. Xtimeopt < 34]
        * -- X 3 [TID] or less than Q4h [x 6]
        Passdata = "Q45 2"
        Ptpoint = 2
     Case [Xtimeopt = 34 .Or. Xtimeopt = 35]
        * -- Q4h or x 6
        Passdata = "Q45 3"
        Ptpoint = 4
     Case [Xtimeopt = 36 .Or. Xtimeopt = 37]
        * -- Q2h or x 12
        Passdata = "Q45 4"
        Ptpoint = 8
     Case [Xtimeopt = 38 .Or. Xtimeopt = 39]
        * -- Q1h or x 24
        Passdata = "Q45 5"
        Ptpoint = 16
   Endcase

   Do Replaord
   Loop

Case Xlabopt = 24
   Morder = "Bld Cultures"
   Do B:Time

   Do Case
     Case [Xtimeopt < 25 .Or. Xtimeopt = 41]
        * -- Less than x 3 or TID
        Passdata = "Q46 1"
        Ptpoint = 0
     Case [Xtimeopt > 24 .And. Xtimeopt < 34]
        * -- X 3 [TID] or less than Q4h [x 6]
        Passdata = "Q46 2"
        Ptpoint = 2
     Case [Xtimeopt = 34 .Or. Xtimeopt = 35]
        * -- Q4h or x 6
        Passdata = "Q46 3"
        Ptpoint = 4
     Case [Xtimeopt = 36 .Or. Xtimeopt = 37]
        * -- Q2h or x 12
        Passdata = "Q46 4"
```

```
            Ptpoint = 8
         Case [Xtimeopt = 38 .Or. Xtimeopt = 39]
            * -- Q1h or x 24
            Passdata = "Q46 S"
            Ptpoint = 16
      Endcase

      Do Replaord
      Loop

   Case Xlabopt = 25
      Morder = "Culture & Sen"
      Do B:Time
      Do Labcount
      Do Replaord
      Loop

   Case Xlabopt = 26
      Morder = "Cold Agglutins"
      Do B:Time
      Do Labcount
      Do Replaord
      Loop

   Case Xlabopt = 27
      Morder = "HCG"
      Do B:Time
      Do Labcount
      Do Replaord
      Loop

   Case Xlabopt = 28
      Morder = "Occ Bld in Stools"
      Do B:Time
      Do Labcount
      Do Replaord
      Loop

   Case Xlabopt = 29
      Morder = "RPR"
      Do B:Time
      Do Labcount
      Do Replaord
      Loop

   Case Xlabopt = 30
      Morder = "SMA 6"
      Do B:Time
      Do Labcount
```

```
        Do Replaord
        Loop

     Case Xlabopt = 31
        Morder = "UA"
        Do B:Time
        Do Labcount
        Do Replaord
        Loop

     Case Xlabopt = 32
        * -- Doctor's Order Screen
        Dmenu = '1'
        Return

     Case Xactopt = 33
        * -- Master Screen
        Dmenu = ' '
        Return

   Endcase
   Release Xlabopt

Enddo
```

```
**** LUNG.PRG ***********************************************
* Author:                Gary R. Harmeyer LCDR NC USN
* Date:                  29 November 1985
* Screen Generated By:   The Software Bottling Company
*                          Of New York, c1985
* Purpose:               Menu providing respiratory therapy
*                          options.
* Input Files Used:      Lung.Scr and Procfile.Prg
* Output Files Used:     Orders.Dbf
* Calling Routine:       Doc_Menu.Prg
* Routine Called:        Time.Prg
* Modification Date:     28 January 1986
*
* -- Screen Input Program For Lung --
*
Do Setup
Public Xlungopt,Xliteropt,Xliter

Do While .T.

   * -- Screen Display A:Lung.Scr --

   Set Color To W+/B,W+/B
   Clear
   ?? Flash+"S.A:Lung.Scr/"
   Set Color To W+/B,W+/B
   Xlungopt = 14
   Do Headings
   Do Startup
   @ 21,66 Get Xlungopt Pict "99" Range 0,15
   Read

   * -- Evaluate action based on the option selected --

   Do Case

      Case Xlungopt = 0
         * -- Sign-Off
         Close Databases
         Close Procedure
         Release All
         Return To Master

      Case Xlungopt = 1
         Morder = "Chest Pulmonary Therapy"
         Do B:Time

         Do Case
            Case [Timeopt < 22 .Or. Timeopt = 41]
```

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```
            * -- Less than BID or x 2
            Passdata = "Q68 1"
            Ptpoint = 0
        Case [Timeopt > 21 .And. Timeopt < 25]
            * -- BID or x 2
            Passdata = "Q68 2"
            Ptpoint = 2
        Case [Timeopt > 24 .And. Timeopt < 31]
            * -- TID or x 3
            Passdata = "Q68 3"
            Ptpoint = 3
        Case [Timeopt > 30 .And. Timeopt < 34]
            * -- QID or x 4
            Passdata = "Q68 4"
            Ptpoint = 4
        Case [Timeopt = 34 .Or. Timeopt = 35]
            * -- Q4h or x 6
            Passdata = "Q68 5"
            Ptpoint = 6
        Case [Timeopt = 36 .Or. Timeopt = 37]
            * -- Q2h or x 12
            Passdata = "Q68 6"
            Ptpoint = 12
        Case [Timeopt = 38 .Or. Timeopt = 39]
            * -- Q1h or x 24
            Passdata = "Q68 7"
            Ptpoint = 24
    Endcase

    Do Replaord
    Loop

Case Xlungopt = 2
    Morder = "Cough & Deep Breath"
    Do B:Time
    Do Cough
    Do Replaord
    Loop

Case Xlungopt = 3
    Morder = "Incentive Spirometer"
    Do B:Time

    Do Case
        Case [Timeopt < 31 .Or. Timeopt = 41]
            * -- Less than Q4h or x 5
            Passdata = "Q64 1"
            Ptpoint = 0
        Case [Timeopt = 34 .Or. Timeopt = 35]
            * -- Q4h or x 6
```

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```
            Passdata = "Q64 2"
            Ptpoint = 2
         Case (Timeopt = 36 .Or. Timeopt = 37)
            * -- Q2h or x 12
            Passdata = "Q64 3"
            Ptpoint = 4
         Case (Timeopt = 38 .Or. Timeopt = 39)
            * -- Q1h or x 24
            Passdata = "Q64 4"
            Ptpoint = 8
      Endcase

      Do Replaord
      Loop

   Case Xlungopt = 4
      Morder = "IPPB"
      Do B:Time

      Do Case
         Case (Timeopt < 22 .Or. Timeopt = 41)
            * -- Less than BID or x 2
            Passdata = "Q66 1"
            Ptpoint = 0
         Case (Timeopt > 21 .And. Timeopt < 25)
            * -- BID or x 2
            Passdata = "Q66 2"
            Ptpoint = 2
         Case (Timeopt > 24 .And. Timeopt < 31)
            * -- TID or x 3
            Passdata = "Q66 3"
            Ptpoint = 3
         Case (Timeopt > 30 .And. Timeopt < 34)
            * -- QID or x 4
            Passdata = "Q66 4"
            Ptpoint = 4
         Case (Timeopt = 34 .Or. Timeopt = 35)
            * -- Q4h or x 6
            Passdata = "Q66 5"
            Ptpoint = 6
         Case (Timeopt = 36 .Or. Timeopt = 37)
            * -- Q2h or x 12
            Passdata = "Q66 6"
            Ptpoint = 12
         Case (Timeopt = 38 .Or. Timeopt = 39)
            * -- Q1h or x 24
            Passdata = "Q66 7"
            Ptpoint = 24
      Endcase
```

```
      Do Replaord
      Loop

Case Xlungopt = 5
   Morder = "Suctioning"
   Do B:Time

   Do Case
      Case [Timeopt < 34 .Or. Timeopt = 41]
         * -- Less than Q4h or x 6
         Passdata = "Q69 1"
         Ptpoint = 0
      Case [Timeopt = 34 .Or. Timeopt = 35]
         * -- Q4h or x 6
         Passdata = "Q69 2"
         Ptpoint = 2
      Case [Timeopt = 36 .Or. Timeopt = 37]
         * -- Q2h or x 12
         Passdata = "Q68 3"
         Ptpoint = 4
      Case [Timeopt = 38 .Or. Timeopt = 39]
         * -- Q1h or x 24
         Passdata = "Q68 4"
         Ptpoint = 8
   Endcase

   Do Replaord
   Loop

Case Xlungopt = 6
   Morder = "Trach Care"
   Do B:Time

   Do Case
      Case [Timeopt < 25 .Or. Timeopt = 41]
         * -- Less than TID or x 3
         Passdata = "Q70 1"
         Ptpoint = 0
      Case [Timeopt > 24 .And. Timeopt < 34]
         * -- TID [x 3] or less than Q4h [x 6]
         Passdata = "Q70 2"
         Ptpoint = 4
      Case [Timeopt = 34 .Or. Timeopt = 35]
         * -- Q4h or x 6
         Passdata = "Q70 3"
         Ptpoint = 8
      Case [Timeopt = 36 .Or. Timeopt = 37]
         * -- Q2h or x 12
         Passdata = "Q70 4"
         Ptpoint = 16
```

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```
        Case (Timeopt = 38 .Or. Timeopt = 39)
           * -- Q1h or x 24
           Passdata = "Q70 5"
           Ptpoint = 32
     Endcase

     Do Replaord
     Loop

Case Xlungopt = 7
   Morder = "Ventilator"
   Passdata = "Q71 1"
   Ptpoint = 10
   Do Replaord
   Loop

Case Xlungopt = 8
   Morder = "Wean from Ventilator"
   Do B:Time
   Do Replaord
   Loop

Case Xlungopt = 9
   Do Liter
   Morder = "Croup Tent " + Xliter
   Do B:Time
   Passdata = "Q67 1"
   Ptpoint = 8
   Do Replaord
   Loop

Case Xlungopt = 10
   Do Liter
   Morder = "Mask " + Xliter
   Do B:Time
   Passdata = "Q63 1"
   Ptpoint = 2
   Do Replaord
   Loop

Case Xlungopt = 11
   Do Liter
   Morder = "Mist Tent " + Xliter
   Do B:Time
   Passdata = "Q67 2"
   Ptpoint = 8
   Do Replaord
   Loop
```

```
Case Xlungopt = 12
   Do Liter
   Morder = "Nasal Prongs " + Xliter
   Do B:Time
   Passdata = "Q63 1"
   Ptpoint = 2
   Do Replaord
   Loop

Case Xlungopt = 13
   Do Liter
   Morder = "Oxyhood " + Xliter
   Do B:Time
   Passdata = "Q63 2"
   Ptpoint = 2
   Do Replaord
   Loop

Case Xlungopt = 14
   * -- Doctor's Order Screen
   Dmenu = '1'
   Return

Case Xlungopt = 15
   * -- Master Screen
   Dmenu = ' '
   Return

Endcase
Release Xlungopt,Xliteropt,Xliter

Enddo
```

223

```
**** MONITOR.PRG ******************************************
* Author:                Gary R. Harmeyer LCDR NC USN
* Date:                  8 December 1985
* Screen Generated By:   The Software Bottling Company
*                          Of New York, c1985
* Purpose:               Determine monitoring orders of the
*                          patient.
* Input Files Used:      Monitor.Scr and Procfile.Prg
* Output Files Used:     Orders.Dbf
* Calling Routine:       Doc_Menu.Prg
* Routine Called:        Time.Prg
* Modification Date:     4 February 1986
*
* -- Screen Input Program For Monitor --
*
Do Setup
Public Xmonopt

Do While .T.

   * -- Screen Display A:Monitor.Scr --

   Set Color To W+/B,W+/B
   Clear
   ?? Flash+"S.A:Monitor.Scr/"
   Set Color To W+/B,W+/B
   Xmonopt = 19
   Do Headings
   Do Startup
   @ 22,66 Get Xmonopt Pict "99" Range 0,20
   Read

   * -- Evaluate action based on the option selected --

   Do Case

      Case Xmonopt = 0
         * -- Sign-Off
         Close Databases
         Close Procedure
         Release All
         Return To Master

      Case Xmonopt = 1
         Morder = "Apnea Monitor"
         Passdata = "Q83 1"
         Monpoint = 6
         Do Replaord
         Loop
```

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```
Case Xmonopt = 2
   Morder = "A-line Set-up"
   Passdata = "Q16 1"
   Ptpoint = 4
   Todayonly = "T"
   Do Replaord
   Loop

Case Xmonopt = 3
   Morder = "A-line Readings"
   Do B:Time

   Do Case
      Case (Timeopt < 36 .Or. Timeopt = 41)
         * -- Less than Q2h or x 12
         Passdata = "Q19 1"
         Ptpoint = 0
      Case (Timeopt = 36 .Or. Timeopt = 37)
         * -- Q2h or x 12
         Passdata = "Q19 2"
         Ptpoint = 2
      Case (Timeopt = 38 .Or. Timeopt = 39)
         * -- Q1h or x 24
         Passdata = "Q19 3"
         Ptpoint = 4
   Endcase

   Do Replaord
   Loop

Case Xmonopt = 4
   Morder = "Cardiac Monitor"
   Passdata = "Q82 1"
   Monpoint = 6
   Do Replaord
   Loop

Case Xmonopt = 5
   Morder = "Cardiac Output"
   Do B:Time

   Do Case
      Case (Timeopt < 25 .Or. Timeopt = 41)
         * -- Less than TID or x 3
         Passdata = "Q22 1"
         Ptpoint = 0
      Case (Timeopt > 24 .And. Timeopt < 34)
         * -- TID (x 3) and less than Q4h (x 6)
         Passdata = "Q22 2"
```

```
           Ptpoint = 2
        Case [Timeopt = 34 .Or. Timeopt = 35]
           * -- Q4h or x 6
           Passdata = "Q22 3"
           Ptpoint = 4
        Case [Timeopt = 36 .Or. Timeopt = 37]
           * -- Q2h or x 12
           Passdata = "Q22 4"
           Ptpoint = 8
        Case [Timeopt = 38 .Or. Timeopt = 39]
           * -- Q1h or x 24
           Passdata = "Q22 5"
           Ptpoint = 16
     Endcase

     Do Replaord
     Loop

  Case Xmonopt = 6
     Morder = "Circulation Checks"
     Do B:Time

     Do Case
        Case [Timeopt < 36 .Or. Timeopt = 41]
           * -- Less than Q2h or x 12
           Passdata = "Q10 1"
           Ptpoint = 0
        Case [Timeopt = 36 .Or. Timeopt = 37]
           * -- Q2h or x 12
           Passdata = "Q10 2"
           Ptpoint = 2
        Case [Timeopt = 38 .Or. Timeopt = 39]
           * -- Q1h or x 24
           Passdata = "Q10 3"
           Ptpoint = 4
     Endcase

     Do Replaord
     Loop

  Case Xmonopt = 7
     Morder = "CVP Readings [Manually]"
     Do B:Time

     Do Case
        Case [Timeopt < 36 .Or. Timeopt = 41]
           * -- Less than Q2h or x 12
           Passdata = "Q12 1"
           Ptpoint = 0
        Case [Timeopt = 36 .Or. Timeopt = 37]
```

```
            * -- Q2h or x 12
            Passdata = "Q12 2"
            Ptpoint = 2
         Case [Timeopt = 38 .Or. Timeopt = 39]
            * -- Q1h or x 24
            Passdata = "Q12 3"
            Ptpoint = 4
      Endcase

      Do Replaord
      Loop

   Case Xmonopt = 8
      Morder = "Fundus Checks"
      Do B:Time

      Do Case
         Case [Timeopt < 36 .Or. Timeopt = 41]
            * -- Less than Q2h or x 12
            Passdata = "Q14 1"
            Ptpoint = 0
         Case [Timeopt = 36 .Or. Timeopt = 37]
            * -- Q2h or x 12
            Passdata = "Q14 2"
            Ptpoint = 2
         Case [Timeopt = 38 .Or. Timeopt = 39]
            * -- Q1h or x 24
            Passdata = "Q14 3"
            Ptpoint = 4
      Endcase

      Do Replaord
      Loop

   Case Xmonopt = 9
      Morder = "Intake & Output"
      Do B:Time

      Do Case
         Case [Timeopt < 25 .Or. Timeopt = 41]
            * -- Less than Q8h or x 3
            Passdata = "Q9 1"
            Ptpoint = 0
         Case [Timeopt > 24 .And. Timeopt < 34]
            * -- Q8h [x 3] and less than Q4h [x 6]
            Passdata = "Q9 2"
            Ptpoint = 2
         Case [Timeopt = 34 .Or. Timeopt = 35]
            * -- Q4h or x 6
            Passdata = "Q9 3"
```

```
               Ptpoint = 4
           Case [Timeopt = 36 .Or. Timeopt = 37]
               * -- Q2h or x 12
               Passdata = "Q9 4"
               Ptpoint = 8
           Case [Timeopt = 38 .Or. Timeopt = 39]
               * -- Q1h or x 24
               Passdata = "Q9 5"
               Ptpoint = 16
           Endcase

       Do Replaord
       Loop

   Case Xmonopt = 10
       Morder = "ICP [Monitor] Set-Up"
       Passdata = "Q2 9"
       Ptpoint = 4
       Todayonly = "T"
       Do Replaord
       Loop

   Case Xmonopt = 11
       Morder = "Manual ICP Readings"
       Do B:Time

       Do Case
           Case [Timeopt < 36 .Or. Timeopt = 41]
               * -- Less than Q2h or x 12
               Passdata = "Q13 1"
               Ptpoint = 0
           Case [Timeopt = 36 .Or. Timeopt = 37]
               * -- Q2h or x 12
               Passdata = "Q13 2"
               Ptpoint = 2
           Case [Timeopt = 38 .Or. Timeopt = 39]
               * -- Q1h or x 24
               Passdata = "Q13 3"
               Ptpoint = 4
       Endcase

       Do Replaord
       Loop

   Case Xmonopt = 12
       Morder = "Monitor ICP Readings"
       Do B:Time

       Do Case
           Case [Timeopt < 36 .Or. Timeopt = 41]
```

```
            * -- Less than Q2h or x 12
            Passdata = "Q20 1"
            Ptpoint = 0
         Case (Timeopt = 36 .Or. Timeopt = 37)
            * -- Q2h or x 12
            Passdata = "Q20 2"
            Ptpoint = 2
         Case (Timeopt = 38 .Or. Timeopt = 39)
            * -- Q1h or x 24
            Passdata = "Q20 3"
            Ptpoint = 4
      Endcase

      Do Replaord
      Loop

   Case Xmonopt = 13
      Morder = "Neuro Checks"
      Do B:Time

      Do Case
         Case (Timeopt < 34 .Or. Timeopt = 41)
            * -- Less than Q4h or x 6
            Passdata = "Q11 1"
            Ptpoint = 0
         Case (Timeopt = 34 .Or. Timeopt = 35)
            * -- Q4h or x 6
            Passdata = "Q11 2"
            Ptpoint = 3
         Case (Timeopt = 36 .Or. Timeopt = 37)
            * -- Q2h or x 12
            Passdata = "Q11 3"
            Ptpoint = 6
         Case (Timeopt = 38 .Or. Timeopt = 39)
            * -- Q1h or x 24
            Passdata = "Q11 4"
            Ptpoint = 12
      Endcase

      Do Replaord
      Loop

   Case Xmonopt = 14
      Morder = "Pressure Monitor"
      Passdata = "Q85 1"
      Monpoint = 6
      Do Replaord
      Loop
```

```
Case Xmonopt = 15
  Morder = "PAP/PA Wedge [Readings]"
  Do B:Time

  Do Case
    Case [Timeopt < 34 .Or. Timeopt = 41]
      * -- Less than Q4h or x 6
      Passdata = "Q21 1"
      Ptpoint = 0
    Case [Timeopt = 34 .Or. Timeopt = 35]
      * -- Q4h or x 6
      Passdata = "Q21 2"
      Ptpoint = 2
    Case [Timeopt = 36 .Or. Timeopt = 37]
      * -- Q2h or x 12
      Passdata = "Q21 3"
      Ptpoint = 4
    Case [Timeopt = 38 .Or. Timeopt = 39]
      * -- Q1h or x 24
      Passdata = "Q21 4"
      Ptpoint = 8
    Endcase

  Do Replaord
  Loop

Case Xmonopt = 16
  Morder = "Swan-Ganz Set-up"
  Passdata = "Q18 1"
  Ptpoint = 4
  Todayonly = "T"
  Do Replaord
  Loop

Case Xmonopt = 17
  Morder = "Temperature Monitor"
  Passdata = "Q84 1"
  Monpoint = 6
  Do Replaord
  Loop

Case Xmonopt = 18
  Morder = "Transcutaneous Monitor"
  Passdata = "Q15 1"
  Ptpoint = 6
  Do Replaord
  Loop

Case Xmonopt = 19
  * -- Doctor's Order Screen
```

```
        Dmenu = '1'
        Return

    Case Xmonopt = 20
        * -- Master Screen
        Dmenu = ' '
        Return

    Endcase
    Release Xmonopt

Enddo
```

```
**** PHAM1.PRG *****************************************************
* Author:                 Gary R. Harmeyer LCDR NC USN
* Date:                   29 November 1985
* Screen Generated By:    The Software Bottling Company
*                             Of New York, c1985
* Purpose:                One of two program modules used to
*                             determine phamacy orders of the
*                             patient.
* Input Files Used:       Monitor.Scr and Procfile.Prg
* Output Files Used:      Orders.Dbf
* Calling Routine:        Doc_Menu.Prg
* Routine Called:         Time, Pham2 and Phamhelp.Prg
* Modification Date:      4 February 1986
*
* -- Screen Input Program For Pham1 --
*
Do Setup
Public Xpham1opt

Do While .T.

   * -- Screen Display A:Pham1.Scr --

   Set Color To W+/B,W+/B
   Clear
   ?? Flash+"S.A:Pham1.Scr/"
   Set Color To W+/B,W+/B
   Xpham1opt = 26
   Do Headings
   Do Startup
   @ 22,66 Get Xpham1opt Pict "99" Range 1,27
   Read

   * -- Evaluate action based on the option selected --

   Do Case

      Case Xpham1opt = 1
         Morder = "Benadryl 25mg [O]"
         Do B:Time
         Do Regmeds
         Do Replaord
         Loop

      Case Xpham1opt = 2
         Morder = "Benadryl 50mg [IM]"
         Do B:Time
         Do Regmeds
```

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```
      Do Replaord
      Loop

   Case Xpham1opt = 3
      Morder = "Benadryl 50mg [IV]"
      Do B:Time
      Do IVmeds
      Do Replaord
      Loop

   Case Xpham1opt = 4
      Morder = "Dimetapp 4mg [O]"
      Do B:Time
      Do Regmeds
      Do Replaord
      Loop

   Case Xpham1opt = 5
      Morder = "Dimetapp Elix 5mg [O]"
      Do B:Time
      Do Regmeds
      Do Replaord
      Loop

   Case Xpham1opt = 6
      Morder = "Phenergan 25mg [O]"
      Do B:Time
      Do Regmeds
      Do Replaord
      Loop

   Case Xpham1opt = 7
      Morder = "Phenergan 25mg [IM]"
      Do B:Time
      Do Regmeds
      Do Replaord
      Loop

   Case Xpham1opt = 8
      Morder = "Phenergan 25mg [SP]"
      Do B:Time
      Do Regmeds
      Do Replaord
      Loop

   Case Xpham1opt = 9
      Morder = "Ampicillin 250mg [O]"
      Do B:Time
      Do Regmeds
```

```
      Do Replaord
      Loop

Case Xphamlopt = 10
   Morder = "Ampicillin 500mg [IM]"
   Do B:Time
   Do Regmeds
   Do Replaord
   Loop

Case Xphamlopt = 11
   Morder = "Ampicillin 500mg [IV]"
   Do B:Time
   Do IVmeds
   Do Replaord
   Loop

Case Xphamlopt = 12
   Morder = "Ancef .5Gm [IM]"
   Do B:Time
   Do Regmeds
   Do Replaord
   Loop

Case Xphamlopt = 13
   Morder = "Ancef .5Gm [IV]"
   Do B:Time
   Do IVmeds
   Do Replaord
   Loop

Case Xphamlopt = 14
   Morder = "Cefadyl 500mg [IM]"
   Do B:Time
   Do Regmeds
   Do Replaord
   Loop

Case Xphamlopt = 15
   Morder = "Cefadyl 1.0Gm [IM]"
   Do B:Time
   Do Regmeds
   Do Replaord
   Loop

Case Xphamlopt = 16
   Morder = "Cefadyl 1.0Gm [IV]"
   Do B:Time
   Do IVmeds
```

```
      Do Replaord
      Loop

   Case Xpham1opt = 17
      Morder = "Erythromycin 250mg [O]"
      Do B:Time
      Do Regmeds
      Do Replaord
      Loop

   Case Xpham1opt = 18
      Morder = "Erythromycin Susp 200mg [O]"
      Do B:Time
      Do Regmeds
      Do Replaord
      Loop

   Case Xpham1opt = 19
      Morder = "Keflex  250mg [O]"
      Do B:Time
      Do Regmeds
      Do Replaord
      Loop

   Case Xpham1opt = 20
      Morder = "Keflex Susp 125mg [O]"
      Do B:Time
      Do Regmeds
      Do Replaord
      Loop

   Case Xpham1opt = 21
      Morder = "Sulfacetamine 10% Solt [Op]"
      Do B:Time
      Do Regmeds
      Do Replaord
      Loop

   Case Xpham1opt = 22
      Morder = "Tetracycline 250mg [O]"
      Do B:Time
      Do Regmeds
      Do Replaord
      Loop

   Case Xpham1opt = 23
      Morder = "Tetracycline 500mg [IV]"
      Do B:Time
      Do IVmeds
```

```
      Do Replaord
      Loop

   Case Xpham1opt = 24
      * -- Help
      Do B:Phamhelp
      Loop

   Case Xpham1opt = 25
      * -- Next Screen [More Meds]
      Do B:Pham2
      Loop

   Case Xpham1opt = 26
      * -- Dr's Order Screen
      Dmenu = '1'
      Return

   Case Xpham1opt = 27
      * -- Master Screen
      Dmenu = ' '
      Return

  Endcase
  Release Xpham1opt

Enddo
```

```
**** PHAM2.PRG ********************************************
* Author:               Gary R. Harmeyer LCDR NC USN
* Date:                 29 Nov 1985
* Screen Generated By:  The Software Bottling Company
*                         Of New York, c1985
* Purpose:              One of two program modules to
*                         determine pharmacy orders of the
*                         patient.
* Input Files Used:     Pham2.Scr and Procfile.Prg
* Output Files Used:    Orders.Dbf
* Calling Routine:      Pham1.Prg
* Routine Called:       Time.Prg
* Modification Date:    4 February 1986
*
* -- Screen Input Program For Pham2 --
*
Do Setup
Public Xpham2opt

Do While .T.

   * -- Screen Display A:Pham2.Scr --

   Set Color To W+/B,W+/B
   Clear
   ?? Flash+"S.A:Pham2.Scr/"
   Set Color To W+/B,W+/B
   Xpham2opt = 24
   Do Headings
   Do Startup
   @ 22,66 Get Xpham2opt Pict "99" Range 1,24
   Read

   * -- Evaluate action based on the option selected --

   Do Case

      Case Xpham2opt = 1
         Morder = "Boric Acid 5% Solt [I]"
         Do B:Time

         Do Case
            * -- Expert system data
            Case [Timeopt < 6 .Or. Timeopt = 41]
               Passdata = "Q48 5"
               Ptpoint = 0
            Case [Timeopt > 5 .And. Timeopt < 34]
               Passdata = "Q48 1"
               Ptpoint = 2
```

```
            Case [Timeopt = 34 .Or. Timeopt = 35]
               Passdata = "Q48 2"
               Ptpoint = 3
            Case [Timeopt = 36 .Or. Timeopt = 37]
               Passdata = "Q48 3"
               Ptpoint = 6
            Case [Timeopt = 38 .Or. Timeopt = 39]
               Passdata = "Q48 4"
               Ptpoint = 12
         Endcase

         Do Replaord
         Loop

      Case Xpham2opt = 2
         Morder = "Atropine 0.4mg [O]"
         Do B:Time
         Do Regmeds
         Do Replaord
         Loop

      Case Xpham2opt = 3
         Morder = "Atropine 0.4mg [IM]"
         Do B:Time
         Do Regmeds
         Do Replaord
         Loop

      Case Xpham2opt = 4
         Morder = "Valium 5mg [O]"
         Do B:Time
         Do Regmeds
         Do Replaord
         Loop

      Case Xpham2opt = 5
         Morder = "Valium 5mg [IM]"
         Do B:Time
         Do Regmeds
         Do Replaord
         Loop

      Case Xpham2opt = 6
         Morder = "Valium 5mg [IV]"
         Do B:Time
         Do IVmeds
         Do Replaord
         Loop
```

```
Case Xpham2opt = 7
   Morder = "Digoxin .125mg [O]"
   Do B:Time
   Do Regmeds
   Do Replaord
   Loop

Case Xpham2opt = 8
   Morder = "Digoxin .250mg [O]"
   Do B:Time
   Do Regmeds
   Do Replaord
   Loop

Case Xpham2opt = 9
   Morder = "Inderal 10mg [O]"
   Do B:Time
   Do Regmeds
   Do Replaord
   Loop

Case Xpham2opt = 10
   Morder = "Inderal 40mg [O]"
   Do B:Time
   Do Regmeds
   Do Replaord
   Loop

Case Xpham2opt = 11
   Morder = "Inderal 1mg [IV]"
   Do B:Time
   Do IVmeds
   Do Replaord
   Loop

Case Xpham2opt = 12
   Morder = "Minipres 1mg [O]"
   Do D:Time
   Do Regmeds
   Do Replaord
   Loop

Case Xpham2opt = 13
   Morder = "Minipres 2mg [O]"
   Do B:Time
   Do Regmeds
   Do Replaord
   Loop
```

```
Case Xpham2opt = 14
  Morder = "Minipres 5mg [O]"
  Do B:Time
  Do Regmeds
  Do Replaord
  Loop

Case Xpham2opt = 15
  Morder = "Dilantin 100mg [O]"
  Do B:Time
  Do Regmeds
  Do Replaord
  Loop

Case Xpham2opt = 16
  Morder = "Dilantin Supp 125mg [O]"
  Do B:Time
  Do Regmeds
  Do Replaord
  Loop

Case Xpham2opt = 17
  Morder = "Elavil 10mg [O]"
  Do B:Time
  Do Regmeds
  Do Replaord
  Loop

Case Xpham2opt = 18
  Morder = "Elavil 25mg [O]"
  Do B:Time
  Do Regmeds
  Do Replaord
  Loop

Case Xpham2opt = 19
  Morder = "Elavil 50mg [O]"
  Do B:Time
  Do Regmeds
  Do Replaord
  Loop

Case Xpham2opt = 20
  Morder = "Phenobarbital 15mg [O]"
  Do B:Time
  Do Regmeds
  Do Replaord
  Loop
```

```
   Case Xpham2opt = 21
     Morder = "Phenobarbital 30mg (O)"
     Do B:Time
     Do Regmeds
     Do Replaord
     Loop

   Case Xpham2opt = 22
     Morder = "Phenobarbital 60mg (IM)"
     Do B:Time
     Do Regmeds
     Do Replaord
     Loop

   Case Xpham2opt = 23
     * -- Help
     Do B:Phamhelp
     Loop

   Case Xpham2opt = 24
     * -- Previous Screen
     Return

  Endcase
  Release Xpham2opt

Enddo
```

```
**** PHAMHELP.PRG *******************************************
* Author:              Gary R. Harmeyer LCDR NC USN
* Date:                29 November 1985
* Screen Generated By: The Software Bottling Company
*                        Of New York, c1985
* Purpose:             Brief on-line help facility for the
*                        Pham1 and Pham2.Prg.
* Input Files Used:    Phamhelp.Scr and Procfile.Prg
* Output Files Used:   None
* Calling Routine:     Pham1 or Pham2.Prg
* Routine Called:      None
* Modification Date:   26 January 1986
*
* -- Screen Input Program For Phamhelp --
*
Do Setup

Do While .T.

   * -- Screen Display A:Phamhelp.Scr --

   Set Color To W+/B,W+/B
   Clear
   ?? Flash+"S.A:Phamhelp.Scr/"
   @ 24,0
   @ 24,37 Say "Press Any Key To Continue"
   Set Console Off
   Wait
   Set Console On
   Return

Enddo
```

```
**** ROUTINE.PRG *********************************************
* Author:              Gary R. Harmeyer LCDR NC USN
* Date:                29 November 1985
* Screen Generated By: The Software Bottling Company
*                        Of New York, c1985
* Purpose:             Determine the ward routine orders
*                        of the patient.
* Input Files Used:    Routine.Scr and Procfile.Prg
* Output Files Used:   Orders.Dbf
* Calling Routine:     Doc_Menu.Prg
* Routine Called:      Time.Prg
* Modification Date:   19 February 1986
*
* -- Screen Input Program For Routine --
*
Do Setup
Public Xrouopt

Do While .T.

   * -- Screen Display A:Routine.Scr --

   Set Color To W+/B,W+/B
   Clear
   ?? Flash+"S.A:Routine.Scr/"
   Set Color To W+/B,W+/B
   Xrouopt = 30
   Do Headings
   Do Startup
   @ 22,66 Get Xrouopt Pict "99" Range 0,31
   Read

   * -- Evaluate action based on the option selected --

   Do Case

      Case Xrouopt = 0
         * -- Sign-Off
         Close Databases
         Close Procedure
         Release All
         Return To Master

      Case Xrouopt = 1
         Morder = "Ace Wrap Lower Ext"
         Passdata = "Q36 1"
         Ptpoint = 2
         Do Replaord
         Loop
```

```
Case Xrouopt = 2
  Morder = "Chest Tube Insertion"
  Passdata = "Q57 1"
  Ptpoint = 4
  Todayonly = "T"
  Do Replaord
  Loop

Case Xrouopt = 3
  Morder = "Circumcision Care"
  Do B:Time
  Passdata = "Q52 1"
  Ptpoint = 2
  Do Replaord
  Loop

Case Xrouopt = 4
  Morder = "Complex Dressing Change"
  Do B:Time

  Do Case
    Case [Timeopt < 6 .Or. Timeopt = 41]
      * -- Less than one dressing
      Passdata = "Q37 1"
      Ptpoint = 0
    Case [Timeopt > 5 .And. Timeopt < 22]
      * -- One dressing change
      Passdata = "Q37 8"
      Ptpoint = 4
    Case [Timeopt > 21 .And. Timeopt < 25]
      * -- Two dressing changes
      Passdata = "Q37 9"
      Ptpoint = 8
    Case [Timeopt > 24 .And. Timeopt < 31]
      * -- Three dressing changes
      Passdata = "Q37 10"
      Ptpoint = 12
    Case [Timeopt > 30 .And. Timeopt < 34]
      * -- Four dressing changes
      Passdata = "Q37 11"
      Ptpoint = 16
    Case [Timeopt = 34 .Or. Timeopt = 35]
      * -- Six dressing changes
      Passdata = "Q37 12"
      Ptpoint = 24
    Case [Timeopt = 36 .Or. Timeopt = 37]
      * -- Twelve dressing changes
      Passdata = "Q37 13"
      Ptpoint = 48
```

```
        Case [Timeopt = 38 .Or. Timeopt = 39]
           * -- Twenty-four dressing changes
           Passdata = "Q37 14"
           Ptpoint = 96
     Endcase

     Do Replaord
     Loop

Case Xrouopt = 5
   Morder = "EKG Rhythm Strip"
   Passdata = "Q33 1"
   Ptpoint = 2
   Todayonly = "T"
   Do Replaord
   Loop

Case Xrouopt = 6
   Morder = "Foley Cath Care"
   Do B:Time

   Do Case
     Case [Timeopt < 22 .Or. Timeopt = 41]
        * -- Tube care less than x 2
        Passdata = "Q39 1"
        Ptpoint = 0
     Case [Timeopt > 21 .And. Timeopt < 25]
        * -- Tube care x 2
        Passdata = "Q39 2"
        Ptpoint = 2
     Case [Timeopt > 24 .And. Timeopt < 31]
        * -- Tube care x 3
        Passdata = "Q39 3"
        Ptpoint = 3
     Case [Timeopt > 30 .And. Timeopt < 34]
        * -- Tube care x 4
        Passdata = "Q39 4"
        Ptpoint = 4
     Case [Timeopt = 34 .Or. Timeopt = 35]
        * -- Tube care x 6
        Passdata = "Q39 5"
        Ptpoint = 6
     Case [Timeopt = 36 .Or. Timeopt = 37]
        * -- Tube care x 12
        Passdata = "Q39 6"
        Ptpoint = 12
     Case [Timeopt = 38 .Or. Timeopt = 39]
        * -- Tube care x 24
        Passdata = "Q39 7"
```

```
        Ptpoint = 24
   Endcase

   Do Replaord
   Loop

Case Xrouopt = 7
  Morder = "Foley Cath Insertion"
  Passdata = "Q32 1"
  Ptpoint = 2
  Todayonly = "T"
  Do Replaord
  Loop

Case Xrouopt = 8
  Morder = "Guiac Stools"
  Do B:Time
  Do Routine
  Do Replaord
  Loop

Case Xrouopt = 9
  Morder = "Respiratory Isolation"
  Passdata = "Q54 2"
  Ptpoint = 2
  Do Replaord
  Loop

Case Xrouopt = 10
  Morder = "Reverse Isolation"
  Passdata = "Q54 2"
  Ptpoint = 2
  Do Replaord
  Loop

Case Xrouopt = 11
  Morder = "Strict Isolation"
  Passdata = "Q54 2"
  Ptpoint = 2
  Do Replaord
  Loop

Case Xrouopt = 12
  Morder = "Lumbar Puncture"
  Passdata = "Q58 1"
  Ptpoint = 4
  Todayonly = "T"
  Do Replaord
  Loop
```

```
  Case Xrouopt = 13
    Morder = "N-G Insertion"
    Passdata = "Q31 1"
    Ptpoint = 2
    Todayonly = "T"
    Do Replaord
    Loop

  Case Xrouopt = 14
    Morder = "Parencentesis"
    Passdata = "Q60 1"
    Ptpoint = 4
    Todayonly = "T"
    Do Replaord
    Loop

Case Xrouopt = 15
    Morder = "Phototherapy"
    Passdata = "Q53 1"
    Ptpoint = 2
    Do Replaord
    Loop

  Case Xrouopt = 16
    Morder = "ROM Exercises [Passive]"
    Do B:Time
    Do Range
    Do Replaord
    Loop

  Case Xrouopt = 17
    Morder = "2-Point Restaints"
    Passdata = "Q50 1"
    Ptpoint = 2
    Do Replaord
    Loop

  Case Xrouopt = 18
    Morder = "4-Point Restraints"
    Passdata = "Q50 2"
    Ptpoint = 2
    Do Replaord
    Loop

  Case Xrouopt = 19
    Morder = "Posey Restraint"
    Passdata = "Q50 3"
    Ptpoint = 2
    Do Replaord
    Loop
```

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```
Case Xrouopt = 20
  Morder = "Simple Dressing Change"
  Do B:Time

  Do Case
    Case [Timeopt < 22 .Or. Timeopt = 41]
      * -- Less than x 2
      Passdata = "Q37 1"
      Ptpoint = 0
    Case [Timeopt > 21 .And. Timeopt < 25]
      * -- X 2 or BID
      Passdata = "Q37 2"
      Ptpoint = 2
    Case [Timeopt > 24 .And. Timeopt < 31]
      * -- X 3 or TID
      Passdata = "Q37 3"
      Ptpoint = 3
    Case [Timeopt > 30 .And. Timeopt < 34]
      * -- X 4 or QID
      Passdata = "Q37 4"
      Ptpoint = 4
    Case [Timeopt = 34 .Or. Timeopt = 35]
      * -- X 6 or Q6h
      Passdata = "Q37 5"
      Ptpoint = 6
    Case [Timeopt = 36 .Or. Timeopt = 37]
      * -- X 12 or Q2h
      Passdata = "Q37 6"
      Ptpoint = 12
    Case [Timeopt = 38 .Or. Timeopt = 39]
      * -- X 24 or Q1h
      Passdata = "Q37 7"
      Ptpoint = 24
  Endcase

  Do Replaord
  Loop

Case Xrouopt = 21
  Morder = "Spec Gravity"
  Do B:Time
  Do Routine
  Do Replaord      .
  Loop

Case Xrouopt = 22
  Morder = "Spin HCT"
  Do B:Time
  Do Routine
```

```
   Do Replaord
   Loop

Case Xrouopt = 23
   Morder = "Straight Cath"
   Do B:Time

   Do Case
     Case [Timeopt < 31 .Or. Timeopt = 41]
       * -- Less than x 4
       Passdata = "Q32 2"
       Ptpoint = 0
     Case [Timeopt > 30 .And. Timeopt < 41]
       * -- X 4 or more
       Passdata = "Q32 3"
       Ptpoint = 4
   Endcase

   Do Replaord
   Loop

Case Xrouopt = 24
   Morder = "Surgical Shave Prep"
   Passdata = "Q34 1"
   Ptpoint = 2
   Todayonly = "T"
   Do Replaord
   Loop

Case Xrouopt = 25
   Morder = "SS Enema"
   Passdata = "Q35 1"
   Ptpoint = 2
   Todayonly = "T"
   Do Replaord
   Loop

Case Xrouopt = 26
   Morder = "Tap Water Enema"
   Passdata = "Q35 1"
   Ptpoint = 2
   Todayonly = "T"
   Do Replaord
   Loop

Case Xrouopt = 27
   Morder = "Thoracentesis"
   Passdata = "Q59 1"
   Ptpoint = 4
```

```
         Todayonly = "T"
         Do Replaord
         Loop

   Case Xrouopt = 28
      Morder = "Tube Care (not trach)"
      Do B:Time

      Do Case
         Case (Timeopt < 22 .Or. Timeopt = 41)
            * -- Tube care less than x 2
            Passdata = "Q38 1"
            Ptpoint = 0
         Case (Timeopt > 21 .And. Timeopt < 25)
            * -- Tube care x 2
            Passdata = "Q38 2"
            Ptpoint = 2
         Case (Timeopt > 24 .And. Timeopt < 31)
            * -- Tube care x 3
            Passdata = "Q38 3"
            Ptpoint = 3
         Case (Timeopt > 30 .And. Timeopt < 34)
            * -- Tube care x 4
            Passdata = "Q38 4"
            Ptpoint = 4
         Case (Timeopt = 34 .Or. Timeopt = 35)
            * -- Tube care x 6
            Passdata = "Q38 5"
            Ptpoint = 6
         Case (Timeopt = 36 .Or. Timeopt = 37)
            * -- Tube care x 12
            Passdata = "Q38 6"
            Ptpoint = 12
         Case (Timeopt = 38 .Or. Timeopt = 39)
            * -- Tube care x 24
            Passdata = "Q38 7"
            Ptpoint = 24
      Endcase

      Do Replaord
      Loop

   Case Xrouopt = 29
      Morder = "S & A of Urine"
      Do B:Time
      Do Routine
      Do Replaord
      Loop
```

```
    Case Xrouopt = 30
       * -- Doctor's Order Screen
       Dmenu = '1'
       Return

    Case Xrouopt = 31
       * -- Master Screen
       Dmenu = ' '
       Return

  Endcase
  Release Xrouopt

Enddo
```

```
**** VS.PRG *****************************************************
* Author:               Gary R. Harmeyer LCDR NC USN
* Date:                 29 November 1985
* Screen Generated By:  The Software Bottling Company
*                          Of New York, c1985
* Purpose:              Determine the vital sign orders of
*                          the patient.
* Input Files Used:     VS.Scr and Procfile.Prg
* Output Files Used:    Orders.Dbf
* Calling Routine:      Doc_Menu.Prg
* Routine Called:       Time.Prg
* Modification Date:    4 February 1986
*
* -- Screen Input Program For VS --
*
Do Setup
Public Xvsopt

Do While .T.

   * -- Screen Display A:VS.Scr --

   Set Color To W+/B,W+/B
   Clear
   ?? Flash+"S.A:VS.Scr/"
   Set Color To W+/B,W+/B
   Xvsopt = 12
   Do Headings
   Do Startup
   @ 22,66 Get Xvsopt Pict "99" Range 0,13
   Read

   * -- Evaluate action based on the option selected --

   Do Case

     Case Xvsopt = 0
        * -- Sign-Off
        Close Database
        Close Procedure
        Release All
        Return To Master

     Case Xvsopt = 1
        Morder = "T-P-R, B/P"
        Do B:Time

        Do Case
          Case Timeopt < 34
```

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```
            * -- QID or less
            Passdata = "Q1 1"
            Ptpoint = 1
         Case [Timeopt = 34 .Or. Timeopt = 35]
            * -- Q4h or x 6
            Passdate = "Q1 2"
            Ptpoint = 2
         Case [Timeopt = 36 .Or. Timeopt = 37]
            * -- Q2h or x 12
            Passdate = "Q1 3"
            Ptpoint = 4
         Case [Timeopt = 38 .Or. Timeopt = 39]
            * -- Q1h or x 24
            Passdate = "Q1 4"
            Ptpoint = 8
         Case Timeopt = 41
            * -- No frequency indicated
            Passdate = "Q1 5"
            Ptpoint = 0
         Endcase

      Do Replaord
      Loop

  Case Xvsopt = 2
     Morder = "Post-op"
     Passdata = "Q8 1"
     Ptpoint = 6
     Todayonly = "T"
     Do Replaord
     Loop

  Case Xvsopt = 3
     Morder = "Post Partum"
     Passdata = "Q8 2"
     Ptpoint = 6
     Todayonly = "T"
     Do Replaord
     Loop

  Case Xvsopt = 4
     Morder = "Post Newborn"
     Passdata = "Q8 3"
     Ptpoint = 6
     Todayonly = "T"
     Do Replaord
     Loop
```

```
Case Xvsopt = 5
  Morder = "FHT"
  Do B:Time

  If [Timeopt < 34 .Or. Timeopt = 41]
    * -- Less than Q4h
    Passdata = "Q6 1"
    Ptpoint = 0
  Else
    * -- Q4h or more
    Passdata = "Q6 2"
    Ptpoint = 2
  Endif

  Do Replaord
  Loop

Case Xvsopt = 6
  Morder = "Apical Pulse"
  Do B:Time

  If [Timeopt < 31 .Or. Timeopt = 41]
    * -- Less than QID
    Passdata = "Q3 1"
    Ptpoint = 0
  Else
    * -- QID or more
    Passdata = "Q3 2"
    Ptpoint = 2
  Endif

  Do Replaord
  Loop

Case Xvsopt = 7
  Morder = "Femoral Pulse"
  Do B:Time

  If [Timeopt < 34 .Or. Timeopt = 41]
    * -- Less than Q4h
    Passdata = "Q4 1"
    Ptpoint = 0
  Else
    * -- Q4h or more
    Passdata = "Q4 2"
    Ptpoint = 2
  Endif

  Do Replaord
  Loop
```

```
Case Xvsopt = 8
  Morder = "Pedal Pulse"
  Do B:Time

  If [Timeopt < 34 .Or. Timeopt = 41]
    * -- Less than Q4h
    Passdata = "Q5 1"
    Ptpoint = 0
  Else
    * -- Q4h or more
    Passdata = "Q5 2"
    Ptpoint = 2
  Endif

  Do Replaord
  Loop

Case Xvsopt = 9
  Morder = "Axillary Temps"
  Do B:Time

  If [Timeopt < 31 .Or. Timeopt = 41]
    * -- Less than QID
    Passdata = "Q2 2"
    Ptpoint = 0
  Else
    * -- QID or more
    Passdata = "Q2 4"
    Ptpoint = 2
  Endif

  Do Replaord
  Loop

Case Xvsopt = 10
  Morder = "Rectal Temps"
  Do B:Time

  If [Timeopt < 31 .Or. Timeopt = 41]
    * -- Less than QID
    Passdata = "Q2 1"
    Ptpoint = 0
  Else
    * -- QID or more
    Passdata = "Q2 3"
    Ptpoint = 2
  Endif
```

```
    Do Reploord
    Loop

  Case Xvsopt = 11
    Morder = "Tilt Test"
    Do B:Time

    If (Timeopt < 34 .Or. Timeopt = 41)
      * -- Less than Q4h
      Possdate = "Q7 1"
      Ptpoint = 0
    Else
      * -- Q4h or more
      Possdate = "Q7 2"
      Ptpoint = 2
    Endif

    Do Reploord
    Loop

  Case Xvsopt = 12
    * -- Doctor's Order Screen
    Dmenu = '1'
    Return

  Case Xvsopt = 13
    * -- Master Screen
    Dmenu = ' '
    Return

  Endcase
  Release Xvsopt

Enddo
```

```
**** XRAY.PRG ******************************************************
* Author:              Gary R. Karmeyer LCDR NC USN
* Date:                8 December 1985
* Screen Generated By: The Software Bottling Company
*                          Of New York, c1985
* Purpose:             Determine xray orders for the
*                         patient.
* Input Files Used:    Xray.Scr and Procfile.Prg
* Output Files Used:   Orders.Dbf
* Calling Routine:     Doc_Menu.Prg
* Routine Called:      Time.Prg
* Modification Date:   4 February 1986
*
* -- Screen Input Program For Xray --
*
Do Setup
Public Xxrayopt

Do While .T.

   * -- Screen Display B:Xray.Scr --

   Set Color To W+/B,W+/B
   Clear
   ?? Flash+"S.B:Xray.Scr/"
   Set Color To W+/B,W+/B
   Xxrayopt = 19
   Do Headings
   Do Startup
   @ 22,66 Get Xxrayopt Pict "99" Range 0,20
   Read

   * -- Evaluate action based on the option selected --

   Do Case

      Case Xxrayopt = 0
         * -- Sign-Off
         Close Databases
         Close Procedure
         Release All
         Return To Master

      Case Xxrayopt = 1
         Morder = "Abdomen Flat Plate Xray"
         Do B:Time
         Do Replaord
         Loop
```

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```
Case Xxrayopt = 2
  Morder = "Abdomen AP Xray"
  Do B:Time
  Do Replaord
  Loop

Case Xxrayopt = 3
  Morder = "Abdomen 3-way Xray"
  Do B:Time
  Do Replaord
  Loop

Case Xxrayopt = 4
  Morder = "Angiography"
  Do B:Time
  Do Replaord
  Loop

Case Xxrayopt = 5
  Morder = "Arteriography"
  Do B:Time
  Do Replaord
  Loop

Case Xxrayopt = 6
  Morder = "Barium Enema"
  Do B:Time
  Do Replaord
  Loop

Case Xxrayopt = 7
  Morder = "Brain Scan"
  Do B:Time
  Do Replaord
  Loop

Case Xxrayopt = 8
  Morder = "Chest PA Xray"
  Do B:Time
  Do Replaord
  Loop

Case Xxrayopt = 9
  Morder = "Chest Lateral Xray"
  Do B:Time
  Do Replaord
  Loop

Case Xxrayopt = 10
  Morder = "CT Scan"
```

```
    Do B:Time
    Do Replaord
    Loop

Case Xxrayopt = 11
  Morder = "Gallbladder Series"
  Do B:Time
  Do Replaord
  Loop

Case Xxrayopt = 12
  Morder = "IVP"
  Do B:Time
  Do Replaord
  Loop

Case Xxrayopt = 13
  Morder = "Sinus Series"
  Do B:Time
  Do Replaord
  Loop

Case Xxrayopt = 14
  Morder = "Skull Xray"
  Do B:Time
  Do Replaord
  Loop

Case Xxrayopt = 15
  Morder = "Spine Xray"
  Do B:Time
  Do Replaord
  Loop

Case Xxrayopt = 16
  Morder = "Tomography"
  Do B:Time
  Do Replaord
  Loop

Case Xxrayopt = 17
  Morder = "Upper GI Series"
  Do B:Time
  Do Replaord
  Loop

Case Xxrayopt = 18
  Morder = "Ultrasound"
  Do B:Time
```

```
        Do Replaord
        Loop

    Case Xxrayopt = 19
        * -- Doctor's Order Screen
        Dmenu = '1'
        Return

    Case Xxrayopt = 20
        * -- Master Screen
        Dmenu = ' '
        Return

    Endcase
    Release Xxrayopt

Enddo
```

```
**** DISCONT.PRG *****************************************
* Author:                Gary R. Harmeyer LCDR NC USN
* Date:                  18 December 1985
* Screen Generated By: The Software Bottling Company
*                          Of New York, c1985
* Purpose:              Display patient orders to determine
*                          if any are to be discontinued.
* Input Files Used:     Discont.Scr and Procfile.Prg
* Output Files Used:    Orders.Dbf
* Calling Routine:      Doctor.Prg
* Routine Calls:        None
* Modification Date:    18 February 1986
*
* -- Screen Input Program For Discont --
*
Do Setup
Public Xdisopt,Xdcdate,Xdcorder,Xdcprac
Public XdcFreq,Xmptfmpssn,Xordpack
Xordpack = .F.

* -- Identify correct patient to display orders --

Use B:Orders
Store "'" + Ptfmpssn + "'" To Xmptfmpssn
Locate For Fmpssn = &Xmptfmpssn .And. Module # 'N'

Do While .T.

  * -- Store data from Dbf file into variable names --

  Xdcdate = Odate
  Xdctime = Otime
  Xdcorder = Order
  Xdcfreq = Freq
  Xdcprac = Prac

  * -- Screen Display A:Discont.Scr --

  Set Color To W+/B,W+/B
  Clear
  ?? Flash+"S.A:Discont.Scr/"
  Set Color To W+/B,W+/B
  Xdisopt = 1
  Do Headings
  @ 13,1 Say Xdcdate
  @ 13,10 Say Xdctime
  @ 13,19 Say Xdcorder
  @ 13,47 Say Xdcfreq
  @ 13,60 Say Xdcprac
```

```
@ 22,67 Get Xdisopt Pict "9" Range 0,4
Read

* -- Evaluate action based on the option selected --

Do Case

   Case Xdisopt = 0
      * -- Sign-Off
      If Xordpack = .T.
        Pack
      Endif
      Close Databases
      Close Procedure
      Release All
      Return To Master

   Case Xdisopt = 1
      * -- Next Order
      Skip
      Do While ((Fmpssn # &Xmptfmpssn).Or.(Module = "N"))
        IF EOF()
           @ 24,4 Say "No Additional Medical Orders On "
           @ 24,36 Say "This Patient -- Press Any Key To "
           @ 24,69 Say "Continue"
           Set Console Off
           Wait
           Set Console On
             If Xordpack = .T.
                Pack
             Endif
             Return
        Else
           Skip
        Endif
      Enddo
      IF EOF ()
        @ 24,4 Say "No Additional Medical Orders On "
        @ 24,36 Say "This Patient -- Press Any Key To "
        @ 24,69 Say "Continue"
        Set Console Off
        Wait
        Set Console On
        If Xordpack = .T.
          Pack
        Endif
        Return
      Else
         Loop
      Endif
```

```
Case Xdisopt = 2
  * -- Discontinue The Order
  Xordpack = .T.
  Delete
  Skip
  Do While ((Fmpssn # &Xmptfmpssn).Or.(Module = "N"))
    IF EOF()
      @ 24,4 Say "No Additional Medical Orders On "
      @ 24,36 Say "This Patient -- Press Any Key To "
      @ 24,69 Say "Continue"
      Set Console Off
      Wait
      Set Console On
      Pack
      Return
    Else
      Skip
    Endif
  Enddo
  IF EOF ()
    @ 24,4 Say "No Additional Medical Orders On "
    @ 24,36 Say "This Patient -- Press Any Key To "
    @ 24,69 Say "Continue"
    Set Console Off
    Wait
    Set Console On
    Pack
    Return
  Else
      Loop
  Endif

Case Xdisopt = 3
  * -- Dr's Master
  If Xordpack = .T.
    Pack
  Endif
  Dmenu ="1"
  Return

Case Xdisopt = 4
  * -- Master
  If Xordpack = .T.
    Pack
  Endif
  Dmenu =" "
  Return
```

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```
    Endcase
    Release Xdisopt,Xdcdate,Xdcorder,Xdcprac
    Release Xdcfreq,Xmptfmpssn,Xordpack

Enddo
```

```
**** TRANSFER.PRG *******************************************
* Author:              Gary R. Harmeyer LCDR NC USN
* Date:                9 December 1985
* Screen Generated By: The Software Bottling Company
*                         Of New York, c1985
* Purpose:             Menu to determine if patient will
*                         be admitted, transferred or
*                         discharged.
* Input Files Used:    Transfer.Scr and Procfile.Prg
* Output Files Used:   Orders.Dbf
* Calling Routine:     Doctor.Prg
* Routine Called:      None
* Modification Date:   4 February 1986
*
* -- Screen Input Program For Transfer --
*
Do Setup
Public Xtranopt

Do While .T.

   * -- Screen Display A:Transfer.Scr --

   Set Color To W+/B,W+/B
   Clear
   ?? Flash+"S.A:Transfer.Scr/"
   Set Color To W+/B,W+/B
   Xtranopt = 4
   Do Headings
   Do Startup
   @ 22,67 Get Xtranopt Pict "9" Range 0,5
   Read

   * -- Evaluate action based on the option selected --

   Do Case

      Case Xtranopt = 0
         * -- Sign-Off
         Close Databases
         Release All
         Close Procedure

      Case Xtranopt = 1
         Morder = "Admit"
         Passdata = "62 2"
         Ptpoint = 12
         Todayonly = "T"
```

```
        Do Replaord
        Loop

     Case Xtranopt = 2
        Morder = "Transfer"
        Passdata = "62 1"
        Ptpoint = 4
        Todayonly = "T"
        Do Replaord
        Loop

     Case Xtranopt = 3
        Morder = "Discharge"
        Do Replaord
        Loop

     Case Xtranopt = 4
        * -- Doctor's Master Screen
        Dmenu = '1'
        Return

     Case Xtranopt = 5
        * -- Master Screen
        Dmenu = ' '
        Return

   Endcase
   Release Xtranopt

 Enddo
```

```
**** NURSE.PRG **********************************************
* Author:              Gary R. Harmeyer LCDR NC USN
* Date:                20 December 1985
* Screen Generated By: The Software Bottling Company
*                         Of New York, c1985
* Purpose:             Provide the nurse options of enter-
*                        ing or reviewing nursing care
*                        plans.  The module allows the
*                        nurse to determine the patient
*                        classification level either in-
*                        ternally or externally.
* Input Files Used:    Nurse.Scr and Procfile.Prg
* Output Files Used:   Orders and Ncaredb.Dbf
* Output File Created: Return.Txt
* Calling Routine:     Ward2 or Ward3.Prg
* Routine Calls:       Nurse1.Prg
* Modification Date:   3 March 1986
*
* -- Screen Input Program For Nurse --
*
Do Setup
Public Xnuropt,Nmenu,Xpoints,Xmonpt,Xemopt,Xroupt,Xlevel
Public Xnow,Xtoday
Nmenu = Space[1]
Xpoints = 0
Xmonpt = 0
Xemopt = 0
Xroupt = 0
Xlevel = Space[12]
Store DTOC[Date[]] To Xnow
Store "'" + Xnow + "'" To Xtoday

Do While .T.

   * -- Screen Display A:Nurse.Scr --

   Set Color To W+/B,W+/B
   Clear
   ?? Flash+"S.A:Nurse.Scr/"
   Set Color To W+/B,W+/B
   Xnuropt = 8
   Do Headings
   @ 22,67 Get Xnuropt Pict "9" Range 0,8
   Read

   * -- Evaluate action based on the option selected --

   Do Case
```

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```
Case Xnuropt = 0
   * -- Sign-Off
   Close Databases
   Close Procedure
   Release All
   Return To Master

Case Xnuropt = 1
   * -- Enter/Inactivate Nursing Care Plan
   Do B:Nurse1
   If Nmenu = "1"
     Loop
   Else
     Return
   Endif

Case Xnuropt = 2
   * -- Review Nursing Care Plan
   Clear
   Set Color To W+/B,W+/B
   @ 1,20 Say "Nursing Care Plan For:"
   @ 1,43 Say Ourpt
   @ 3,10 Say "Press -- Ctrl and S -- Keys "
   @ 3,38 Say "to Pause The Scrolling If Necessary"
   Use B:Ncaredb
   Store "'" + Ptfmpssn + "'" To Mptfmpssn
   Report Form B:NC For Nfmpssn = &mptfmpssn
   Wait
   Loop

Case Xnuropt = 3
   * -- Print Nursing Care Plan
   @ 24,0 Say "Turn On Your Printer, "
   @ 24,22 Say "Then Hit Any Key To Print"
   Set Console Off
   Wait
   Set Console On
   Clear
   @ 12,30 Say "Printing, Please Wait"
   Set Console Off
   Set Device To Print
   @ 1,20 Say "Nursing Care Plan For:"
   @ 1,43 Say Ourpt
   Set Device To Screen
   Use B:Ncaredb
   Store "'" + Ptfmpssn + "'" To Mptfmpssn
   Report Form B:NC Noeject;
      To Print For Nfmpssn = &mptfmpssn
   Set Console On
   @ 24,0 Say "Finished Printing, Hit "
```

```
@ 24,22 Say "Any Key To Continue"
Set Console Off
Wait
Set Console On
Loop

Case Xnuropt = 4
  * -- Determine Patient Classification Level
  Use B:Orders
  Store "'" + Ptfmpssn + "'" To Mptfmpssn
  Copy To B:Return Fields Expertsys Sdf;
     Fmpssn = &mptfmpssn .And. [Onlytoday = "F" .Or.;
     [Onlytoday = "T" .And. Odate = &Xtoday]]
  Close Procedure
  Close Databases
  Release All
  * -- Exit this portion of prototype software
  Quit

Case Xnuropt = 5
  * -- Review Patient Care Requirements
  Clear
  Set Color To W+/B,W+/B
  @ 1,17 Say "Patient Care Requirements For:"
  @ 1,48 Say Ourpt
  @ 3,10 Say "Press -- Ctrl and S -- Keys To Pause "
  @ 3,47 Say "The Scrolling If Necessary"
  Use B:Orders
  Store "'" + Ptfmpssn + "'" To Mptfmpssn
  Report Form B:Ord For;
     Fmpssn = &mptfmpssn .And. [Onlytoday = "F" .Or.;
     [Onlytoday = "T" .And. Odate = &Xtoday]]
  Wait
  Loop

Case Xnuropt = 6
  * -- Print Patient Care Requirements
  @ 24,0 Say "Turn On Your Printer, "
  @ 24,23 Say "Then Hit Any Key To Print"
  Set Console Off
  Wait
  Set Console On
  Clear
  @ 12,30 Say "Printing, Please Wait"
  Set Console Off
  Set Device To Print
  @ 1,17 Say "Patient Care Requirements For:"
  @ 1,47 Say Ourpt
  Set Device To Screen
  Use B:Orders
```

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```
      Store "'" + Ptfmpssn + "'" To Mptfmpssn
      Report Form B:Ord Noeject To Print For;
         Fmpssn = &mptfmpssn .And. [Onlytoday = "F" .Or.;
         [Onlytoday = "T" .And. Odate = &Xtoday]]
      Set Console On
      @ 24,0 Say "Finished Printing, Hit "
      @ 24,23 Say "Any Key To Continue"
      Set Console Off
      Wait
      Set Console On
      Loop

   Case Xnuropt = 7
      * -- Internal Patient Classification
      Clear
      Set Color To W+/B,W+/B
      @ 7,25 Say "Please Wait While Calculating"
      Use B:Orders
      Store "'" + Ptfmpssn + "'" To Mptfmpssn
      Sum Critical To Xpoints For;
         Fmpssn = &mptfmpssn .And. [Onlytoday = "F" .Or.;
         [Onlytoday = "T" .And. Odate = &Xtoday]]
      Sum Monpt To Xmonpt For;
         Fmpssn = &mptfmpssn .And. [Onlytoday = "F" .Or.;
         [Onlytoday = "T" .And. Odate = &Xtoday]]
      If Xmonpt > 0
         Xpoints = Xpoints + 6
      Endif
      Sum Emopt To Xemopt For;
         Fmpssn = &mptfmpssn .And. [Onlytoday = "F" .Or.;
         [Onlytoday = "T" .And. Odate = &Xtoday]]
      If Xemopt >= 10
         Xpoints = Xpoints + 10
      Else
         Xpoints = Xpoints + Xemopt
      Endif
      Sum Roupt To Xroupt For;
         Fmpssn = &mptfmpssn .And. [Onlytoday = "F" .Or.;
         [Onlytoday = "T" .And. Odate = &Xtoday]]
      Do Case
         Case Xroupt < 6
            Xpoints = Xpoints + 0
         Case [Xroupt > 5 .And. Xroupt < 12]
            Xpoints = Xpoints + 2
         Case [Xroupt > 11 .And. Xroupt < 18]
            Xpoints = Xpoints + 4
         Case [Xroupt > 17 .And. Xroupt < 24]
            Xpoints = Xpoints + 6
```

```
      Case Xroupt > 23
         Xpoints = Xpoints + 8
      Endcase

      * -- Determine patient classification level based on
      * --   patient care points --
      Do Case
        Case Xpoints < 13
          Xlevel = "Category I"
        Case [Xpoints > 12 .And. Xpoints < 32]
          Xlevel = "Category II"
        Case [Xpoints > 31 .And. Xpoints < 64]
          Xlevel = "Category III"
        Case [Xpoints > 63 .And. Xpoints < 96]
          Xlevel = "Category IV"
        Case [Xpoints > 95 .And. Xpoints < 146]
          Xlevel = "Category V"
        Case Xpoints > 146
          Xlevel = "Category IV"
      Endcase

      Clear
      Set Color To W+/B,W+/B
      @ 7,30 Say "Patient: "
      @ 7,39 Say Ourpt
      @ 8,30 Say "Is In: "
      @ 8,37 Say Xlevel
      @ 10,30 Say "Point Value Is:"
      @ 10,46 Say Xpoints
      @ 24,0 Say "Calculation Complete -- "
      @ 24,24 Say "Press Any Key To Continue"
      Set Console Off
      Wait
      Set Console On
      Loop

    Case Xnuropt = 8
      * -- Master Screen
      Return

  Endcase
  Release Xnuropt,Xpoints,Xmonpt,Xemopt,Xroupt,Xlevel
  Release Xnow,Xtoday

Enddo
```

```
**** NURSE1.PRG ********************************************
* Author:               Gary R. Harmeyer LCDR NC USN
* Date:                 20 December 1985
* Screen Generated By:  The Software Bottling Company
*                         Of New York, c1985
* Purpose:              Enables the nurse to enter or
*                         modify a nursing care plan.
* Input Files Used:     Nurse1.Scr and Procfile.Prg
* Output Files Used:    None
* Calling Routine:      Nurse.Prg
* Routine Calls:        N_Diag or Inact.Prg
* Modification Date:    4 February 1986
*
* -- Screen Input Program For Nurse1 --
*
Do Setup
Public Xnurs1opt

Do While .T.

   * -- Screen Display A:Nurse1.Scr --

   Set Color To W+/B,W+/B
   Clear
   ?? Flash+"S.A:Nurse1.Scr/"
   Set Color To W+/B,W+/B
   Xnurs1opt = 4
   Do Headings
   @ 22,67 Get Xnurs1opt Pict "9" Range 0,4
   Read

   * -- Evaluate action based on the option selected --

   Do Case

      Case Xnurs1opt = 0
         * -- Sign-Off
         Close Databases
         Close Procedure
         Release All
         Return To Master

      Case Xnurs1opt = 1
         * -- Enter A New Care Plan
         Do B:N_Diag
         Return

      Case Xnurs1opt = 2
         * -- Inactivate A Nursing Care Plan
```

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```
      Do B:Inactive
      Return

   Case Xnurslopt = 3
      * -- Nurse's Master Screen
      Nmenu = "1"
      Return

   Case Xnurslopt = 4
      * -- Master Screen
      Store ' ' To Nmenu
      Return

   Endcase
   Release Xnurslopt

Enddo
```

```
**** N_DIAG.PRG *********************************************
* Author:                Gary R. Harmeyer LCDR NC USN
* Date:                  20 December 1985
* Screen Generated By:   The Software Bottling Company
*                            Of New York, c1985
* Purpose:               Allows the nurse to chose from a
*                            menu of four nursing diagnoses.
* Input Files Used:      N_Diag.Scr and Procfile.Prg
* Output Files Used:     None
* Calling Routine:       Nurse1.Prg
* Routine Called:        Assess_1,Assess_2,Assess_3, or
*                            Assess_4.Prg
* Modification Date:     4 February 1986
*
* -- Screen Input Program For N_Diag --
*
Do Setup
Public Xndiagopt,Nursdiag,Emoteach,Nrelate,Ngoal,Nassess
Public Assoth,Reloth,Goaoth,Ordoth
Nursdiag = Space[30]
Emoteach = Space[19]
Nrelate = Space[25]
Ngoal = Space[38]
Nassess = Space[27]
Assoth = Space[27]
Reloth = Space[25]
Goaoth = Space[38]
Ordoth = Space[27]

Do While .T.

   * -- Screen Display A:N_Diag.Scr --

   Set Color To W+/B,W+/B
   Clear
   ?? Flash+"S.A:N_Diag.Scr/"
   Set Color To W+/B,W+/B
   Xndiagopt = 5
   Do Headings
   Do Startup
   @ 22,67 Get Xndiagopt Pict "9" Range 0,6
   Read

   * -- Evaluate action based on the option selected --

   Do Case

      Case Xndiagopt = 0
         * -- Sign-Off
```

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```
      Close Databases
      Close Procedure
      Release All
      Return To Master

   Case Xndiagopt = 1
      Nursdiag = "Comfort Alteration In: Pain"
      Do B:Assess_1
      Loop

   Case Xndiagopt = 2
      Nursdiag = "Communication Impaired: Verbal"
      Do B:Assess_2
      Loop

   Case Xndiagopt = 3
      Nursdiag = "Impaired Physical Mobility"
      Do B:Assess_3
      Loop

   Case Xndiagopt = 4
      Nursdiag = "Self-Care Deficit"
      Do B:Assess_4
      Loop

   Case Xndiagopt = 5
      * -- Nurse's Master Screen
      Nmenu = "1"
      Return

   Case Xndiagopt = 6
      * -- Master Screen
      Nmenu = " "
      Return

   Endcase
   Release Xndiagopt

Enddo
```

```
****  ASSESS_1.PRG  ************************************************
* Author:              Gary R. Harmeyer LCDR NC USN
* Date:                20 December 1985
* Screen Generated By: The Software Bottling Company
*                        Of New York, c1985
* Purpose:             Provides a menu for the nurse to
*                        select nursing assessments for a
*                        patient with a nursing diagnosis
*                        of comfort alteration in: pain.
* Input Files Used:    Assess_1.Scr and Procfile.Prg
* Output Files Used:   None
* Calling Routine:     N_Diag.Prg
* Routine Called:      Relate_1.Prg
* Modification Date:   3 February 1986
*
* -- Screen Input Program For Assess_1 --
*
Do Setup
Public Xass1opt

Do While .T.

   * -- Screen Display A:Assess_1.Scr --

   Set Color To W+/B,W+/B
   Clear
   ?? Flash+"S.A:Assess_1.Scr/"
   Set Color To W+/B,W+/B
   Xass1opt = 11
   Do Headings
   @ 22,66 Get Xass1opt Pict "99" Range 1,16
   Read

   * -- Allows the nurse to document assessment of the
   * --    patient --

   Do Case

      Case Xass1opt = 1
        Nassess = "Altered Time Perception"
        Do B:Relate_1
        Return

      Case Xass1opt = 2
        Nassess = "Alteration In Muscle Tone"
        Do B:Relate_1
        Return
```

```
Case Xass1opt = 3
  Nassess = "Autonomic Response"
  Do B:Relate_1
  Return

Case Xass1opt = 4
  Nassess = "Distraction Behavior"
  Do B:Relate_1
  Return

Case Xass1opt = 5
  Nassess = "Facial Mask"
  Do B:Relate_1
  Return

Case Xass1opt = 6
  @ 18,24 Get Assoth;
    Pict "!XXXXXXXXXXXXXXXXXXXXXXXXXX"
  Read
  Nassess = Assoth
  Do B:Relate_1
  Return

Case Xass1opt = 7
  Nassess = "Guarding Behavior"
  Do B:Relate_1
  Return

Case Xass1opt = 8
  Nassess = "Impaired Thought Process"
  Do B:Relate_1
  Return

Case Xass1opt = 9
  Nassess = "Narrowing Focus"
  Do B:Relate_1
  Return

Case Xass1opt = 10
  Nassess = "Pacing"
  Do B:Relate_1
  Return

Case Xass1opt = 11
  Nassess = "Patient Report"
  Do B:Relate_1
  Return

Case Xass1opt = 12
  Nassess = "Self_Focusing"
```

```
      Do B:Relate_1
      Return

   Case Xasslopt = 13
      Nassess = "Talkative"
      Do B:Relate_1
      Return

   Case Xasslopt = 14
      Nassess = "Verbal Complaint"
      Do B:Relate_1
      Return

   Case Xasslopt = 15
      Nassess = "Verbal Complaint"
      Do B:Relate_1
      Return

   Case Xasslopt = 16
      Nassess = "W/draw From Social Contact"
      Do B:Relate_1
      Return

   Endcase
   Release Xasslopt

Enddo
```

```
**** RELATE_1.PRG ***************************************
* Author:                Gary R. Harmeyer LCDR NC USN
* Date:                  20 December 1985
* Screen Generated By: The Software Bottling Company
*                         Of New York, c1985
* Purpose:                Provides a menu for the nurse to
*                         select related factors for a
*                         patient with a nursing diagnosis
*                         of comfort alteration in: pain.
* Input Files Used:      Relate_1.Scr and Procfile.Prg
* Output Files Used:     None
* Calling Routine:       Assess_1.Prg
* Routine Called:        Goal_1.Prg
* Modification Date:     1 February 1986
*
* -- Screen Input Program For Relate_1 --
*
Do Setup
Public Xrel1opt

Do While .T.

   * -- Screen Display A:Relate_1.Scr --

   Set Color To W+/B,W+/B
   Clear
   ?? Flash+"S.A:Relate_1.Scr/"
   Set Color To W+/B,W+/B
   Xrel1opt = 2
   Do Headings
   @ 22,67 Get Xrel1opt Pict "9" Range 1,7
   Read

   * -- Previous assessment is related to some cause --

   Do Case

      Case Xrel1opt = 1
        Nrelate = "Altered Sensation"
        Do B:Goal_1
        Return

      Case Xrel1opt = 2
        Nrelate = "Disease / Condition"
        Do B:Goal_1
        Return

      Case Xrel1opt = 3
        Nrelate = "Emotional State"
```

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```
      Do B:Goal_1
      Return

   Case Xrellopt = 4
      @ 17,14 Get Reloth;
         Pict "!XXXXXXXXXXXXXXXXXXXXXXXX"
      Read
      Nrelate = Reloth
      Do B:Goal_1
      Return

   Case Xrellopt = 5
      Nrelate = "Surgical Procedure"
      Do B:Goal_1
      Return

   Case Xrellopt = 6
      Nrelate = "Trauma"
      Do B:Goal_1
      Return

   Case Xrellopt = 7
      Nrelate = "Treatment Regime"
      Do B:Goal_1
      Return

  Endcase
  Release Xrellopt

Enddo
```

```
**** GOAL_1.PRG *********************************************
* Author:               Gary R. Harmeyer LCDR NC USN
* Date:                 20 December 1985
* Screen Generated By: The Software Bottling Company
*                           Of New York, c1985
* Purpose:              Provides a menu for the nurse to
*                           select a patient goal for a
*                           patient with a nursing diagnosis
*                           of comfort alteration in: pain.
* Input Files Used:     Goal_1.Scr and Procfile.Prg
* Output Files Used:    None
* Calling Routine:      Relate_1.Prg
* Routine Called:       Norder1A or Norder1B.Prg
* Modification Date:    3 February 1986
*
* -- Screen Input Program For Goal_1 --
*
Do Setup
Public Xgoal1opt

Do While .T.

   * -- Screen Display A:Goal_1.Scr --

   Set Color To W+/B,W+/B
   Clear
   ?? Flash+"S.A:Goal_1.Scr/"
   Set Color To W+/B,W+/B
   Xgoa1opt = 2
   Do Headings
   @ 22,67 Get Xgoa1opt Pict "9" Range 1,5
   Read

   * -- Allows nurse to select specific goal at  inable
   * --    by this patient --

   Do Case

      Case Xgoa1opt = 1
        Ngoal = "Communicates Pain Free"
        Do B:Norder1A
        Return

      Case Xgoa1opt = 2
        Ngoal = "Communicates Experiences Less Pain"
        Do B:Norder1A
        Return
```

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```
    Case Xgoalopt = 3
       Ngoal = "Communicates Experience Tolerable Pain"
       Do B:Norder1A
       Return

    Case Xgoalopt = 4
       Ngoal = "Demos Skills/Knowledge To Achieve Goal"
       Do B:Norder1B
       Return

    Case Xgoalopt = 5
       @ 17,34 Get Goooth;
          Pict "!XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX"
       Read
       Ngoal = Goooth
       Do B:Norder1A
       Return

   Endcase
   Release Xgoalopt

 Enddo
```

```
**** NORDER1A.PRG ****************************************
* Author:              Gary R. Harmeyer LCDR NC USN
* Date:                20 December 1985
* Screen Generated By: The Software Bottling Company
*                        Of New York, c1985
* Purpose:             Provides a menu for the nurse to
*                        select a nursing order for a pa-
*                        tient whose goal is communicates
*                        experiences less/tolerable pain
*                        or is pain free.
* Input Files Used:    Norder1A.Scr, Time, Emosup, Teach
*                        and Procfile.Prg
* Output Files Used:   Orders.Dbf and Ncaredb.Dbf
* Calling Routine:     Goal_1.Prg
* Routine Called:      None
* Modification Date:   3 February 1986
*
* -- Screen Input Program For Norder1A --
*
Do Setup
Public Xnord1aopt

Do While .T.

   * -- Screen Display A:Norder1A.Scr --

   Set Color To W+/B,W+/B
   Clear
   ?? Flash+"S.A:Norder1A.Scr/"
   Set Color To W+/B,W+/B
   Xnord1aopt = 10
   Do Headings
   @ 22,66 Get Xnord1aopt Pict "99" Range 1,10
   Read

   * -- Nursing orders are determined by evaluating the
   * --   case statement, then place data into Ncaredb and
   * --   Orders.Dbf files --

   Do Case

      Case Xnord1aopt = 1
         Morder = "Assess Pain Factors"
         Do B:Time
         Do Replaord
         Do Repnrord
         Return
```

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```
Case Xnord1aopt = 2
  Morder = "Assess/Evaluate Pain"
  Do B:Time
  Do Replaord
  Do Repnrord
  Return

Case Xnord1aopt = 3
  Morder = "Encour To Use Coping Skills"
  Do B:Time
  Do Replaord
  Do Repnrord
  Return

Case Xnord1aopt = 4
  Morder = "Explain Proc & Tests"
  Do B:Time
  Do Replaord
  Do Repnrord
  Return

Case Xnord1aopt = 5
  @ 18,10 Get Ordoth;
    Pict "!XXXXXXXXXXXXXXXXXXXXXXXXXX"
  Read
  Morder = Ordoth
  Do B:Time
  Do Replaord
  Do Repnrord
  Return

Case Xnord1aopt = 6
  Morder = "Offer PRN Medications"
  Do B:Time
  Do Replaord
  Do Repnrord
  Return

Case Xnord1aopt = 7
  Morder = "Provide Emotional Support"
  Do B:Emosup
  Do Replaord
  Do Repnrord
  Return

Case Xnord1aopt = 8
  Morder = "Schedule Quiet Times"
  Do B:Time
  Do Replaord
```

```
      Do Repnrord
      Return

   Case Xnord1aopt = 9
      Morder = "Teach Alt Coping Strategies"
      Do B:Teach
      Do Replaord
      Do Repnrord
      Return

   Case Xnord1aopt = 10
      Morder = "Util Diversional Activities"
      Do B:Time
      Do Replaord
      Do Repnrord
      Return

   Endcase
   Release Xnord1aopt

Enddo
```

```
**** NORDER1B.PRG ***********************************************
* Author:              Gary R. Harmeyer LCDR NC USN
* Date:                20 December 1985
* Screen Generated By: The Software Bottling Company
*                      Of New York, c1985
* Purpose:             Provides a menu for the nurse to
*                      select a nursing order for a pa-
*                      tient whose goal is demonstrates
*                      skills and knowledge to achieve
*                      goals.
* Input Files Used     Norder1B.Scr, Teach & Procfile.Prg
* Output Files Used:   Orders.Dbf and Ncaredb.Dbf
* Calling Routine:     Goal_1.Prg
* Routine Called:      None
* Modification Date:   1 February 1986
*
* -- Screen Input Program For Norder1B --
*
Do Setup
Public Xnord1bopt

Do While .T.

   * -- Screen Display A:Norder1B.Scr --

   Set Color To W+/B,W+/B
   Clear
   ?? Flash+"S.A:Norder1B.Scr/"
   Set Color To W+/B,W+/B
   Xnord1bopt = 1
   Do Headings
   @ 22,67 Get Xnord1bopt Pict "9" Range 1,5
   Read

   * -- Nursing orders are determined by evaluating the
   * --    case statement, then place data into Ncaredb and
   * --    Orders.Dbf files --

   Do Case

      Case Xnord1bopt = 1
         Morder = "Teach: Deep Breathing Exer"
         Do B:Teach
         Do Replaord
         Do Repnrord
         Return

      Case Xnord1bopt = 2
         Morder = "Teach: Prog/sive Relax Exer"
```

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      Morder = "Teach: Deep Breathing Exer"
      Do B:Teach
      Do Replaord
      Do Repnrord
      Return

   Case Xnord1bopt = 2
      Morder = "Teach: Prog/sive Relax Exer"
      Do B:Teach
      Do Replaord
      Do Repnrord
      Return

   Case Xnord1bopt = 3
      Morder = "Teach: Relaxation Response"
      Do B:Teach
      Do Replaord
      Do Repnrord
      Return

   Case Xnord1bopt = 4
      Morder = "Teach: Diversional Activity"
      Do B:Teach
      Do Replaord
      Do Repnrord
      Return

   Case Xnord1bopt = 5
      @ 18,38 Get Ordoth;
         Pict "!XXXXXXXXXXXXXXXXXXXXXXXXX"
      Read
      Morder = Ordoth
      Do B:Teach
      Do Replaord
      Do Repnrord
      Return

   Endcase
   Release Xnord1bopt

Enddo
```

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```
**** TEACH.PRG ***********************************************
* Author:               Gary R. Harmeyer LCDR NC USN
* Date:                 23 December 1985
* Screen Generated By:  The Software Bottling Company
*                          Of New York, c1985
* Purpose:              Provides a menu to select teaching
*                          requirements of the patient.
* Input Files Used:     Teach.Scr and Procfile.Prg
* Output Files Used:    None
* Calling Routine:      Norder1A, Norder1B, Norder2C, and
*                          Norder3E.Prg
* Routine Called:       None
* Modification Date:    3 February 1986
*
* -- Screen Input Program For Teach --
*
Do Setup
Public Xteachopt
Xteachopt = Space[1]

Do While .T.

   * -- Screen Display A:Teach.Scr --

   Set Color To W+/B,W+/B
   Clear
   ?? Flash+"S.A:Teach.Scr/"
   Set Color To W+/B,W+/B
   @ 19,54 Get Xteachopt Pict "!"
   Read

   * -- Validate response --

   Do While .Not. [Xteachopt ="A" .Or. Xteachopt ="B" .Or.;
      Xteachopt = "C" .Or. Xteachopt="D"]
      @ 19,53 Clear
      Store ' ' To Xteachopt
      @ 24,0 Say "Re-Enter Letter A, B, C, or D"
      @ 19,54 Get Xteachopt Pict "!"
      Read
   Enddo

   * -- Determine teaching requirements by evaluating
   * --    option selected --

   Do Case

      Case Xteachopt = "A"
         Emoteach = "Group Teaching"
```

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      Passdata = "Q76 1"
      Ptpoint = 2
      Return

   Case Xteachopt = "B"
      Emoteach = "Pre-op Teaching"
      Passdata = "Q77 1"
      Ptpoint = 4
      Todayonly = "T"
      Return

   Case Xteachopt = "C"
      * -- Return to previous screen
      Return

   Case Xteachopt = "D"
      Emoteach = "Structured Teaching"
      Passdata = "Q78 1"
      Ptpoint = 4
      Return

Endcase
Release Xteachopt

Enddo
```

```
**** EMOSUP.PRG *****************************************************
* Author:              Gary R.Harmeyer LCDR NC USN
* Date:                23 December 1985
* Screen Generated By: The Software Bottling Company
*                         Of New York, c1985
* Purpose:             Provides a menu to select emotional
*                         support requirements of the
*                         patient.
* Input Files Used:    Emosup.Scr and Procfile.Prg
* Output Files Used:   None
* Calling Routine:     Norder1A, Norder4C, Norder4D,
*                         and Norder4E.Prg
* Routine Called:      None
* Modification Date:   25 January 1986
*
* -- Screen Input Program For Emosup --
*
Do Setup
Public Xesupopt
Xesupopt = Space(1)

Do While .T.

   * -- Screen Display A:Emosup.Scr --

   Set Color To W+/B,W+/B
   Clear
   ?? Flash+"S.A:Emosup.Scr/"
   Set Color To W+/B,W+/B
   @ 21,54 Get Xesupopt Pict "!"
   Read

   * -- Validate response --

   Do While .Not. (Xesupopt ="A" .Or. Xesupopt ="B" .Or.;
     Xesupopt = "C" .Or. Xesupopt="D")
     @ 21,53 Clear
     Store ' ' To Xesupopt
     @ 24,0 Say "Re-Enter Letter A, B, C, or D"
     @ 21,54 Get Xesupopt Pict "!"
     Read
   Enddo

   * -- Determine emotional support requirements by eval-
   *       uating the option selected --

   Do Case
```

```
   Case Xesupopt = "A"
      Emoteach = "Pt/Family Support"
      Passdata = "Q79 1"
      Emopoint = 4
      Return

   Case Xesupopt = "B"
      Emoteach = "Modify Lifestyle"
      Passdata = "Q80 1"
      Emopoint = 4
      Return

   Case Xesupopt = "C"
      Emoteach = "Sensory Deprivation"
      Passdata = "Q81 1"
      Emopoint = 6
      Return

   Case Xesupopt = "D"
      * -- Return to previous screen
      Return

   Endcase
   Release Xesupopt

Enddo
```

```
**** ASSESS_2.PRG *******************************************
* Author:              Gary R. Harmeyer LCDR NC USN
* Date:                23 December 1985
* Screen Generated By: The Software Bottling Company
*                      Of New York, c1985
* Purpose:             Provides a menu for the nurse to
*                      select nursing assessment for a
*                      patient with a nursing diagnosis
*                      of communication impairment:
*                      verbal.
* Input Files Used:    Assess_2.Scr and Procfile.Prg
* Output Files Used:   None
* Calling Routine:     N_Diag.Prg
* Routine Called:      Relate_2.Prg
* Modification Date:   3 February 1986
*
* -- Screen Input Program For Assess_2 --
*
Do Setup
Public Xass2opt

Do While .T.

   * -- Screen Display A:Assess_2.Scr --

   Set Color To W+/B,W+/B
   Clear
   ?? Flash+"S.A:Assess_2.Scr/"
   Set Color To W+/B,W+/B
   Xass2opt = 01
   Do Headings
   @ 22,67 Get Xass2opt Pict "99" Range 1,13
   Read

   * -- Allows nurse to document assessment of the
   * --    patient --

   Do Case

     Case Xass2opt = 1
       Nassess = "Anxiety"
       Do B:Relate_2
       Return

     Case Xass2opt = 2
       Nassess = "Disorientation"
       Do B:Relate_2
       Return
```

```
Case Xass2opt = 3
  Nassess = "Fear"
  Do B:Relate_2
  Return

Case Xass2opt = 4
  Nassess = "Frustration"
  Do B:Relate_2
  Return

Case Xass2opt = 5
  @ 17,24 Get Assoth;
    Pict "!XXXXXXXXXXXXXXXXXXXXXXXXX"
  Read
  Nassess = Assoth
  Do B:Relate_2
  Return

Case Xass2opt = 6
  Nassess = "Inability to Hear"
  Do B:Relate_2
  Return

Case Xass2opt = 7
  Nassess = "Inability to Speak"
  Do B:Relate_2
  Return

Case Xass2opt = 8
  Nassess = "Incomprehensible Speech"
  Do B:Relate_2
  Return

Case Xass2opt = 9
  Nassess = "Refusal to Speak"
  Do B:Relate_2
  Return

Case Xass2opt = 10
  Nassess = "Slurring"
  Do B:Relate_2
  Return

Case Xass2opt = 11
  Nassess = "Stuttering"
  Do B:Relate_2
  Return

Case Xass2opt = 12
  Nassess = "Tearfulness"
```

```
        Do B:Relate_2
        Return

    Case Xass2opt = 13
        Nassess = "Thought Disorder"
        Do B:Relate_2
        Return

    Endcase
    Release Xass2opt

Enddo
```

```
**** RELATE_2.PRG *****************************************
* Author:              Gary R. Harmeyer LCDR NC USN
* Date:                23 December 1985
* Screen Generated By: The Software Bottling Company
*                          Of New York, c1985
* Purpose:             Provides a menu for the nurse to
*                      select related factors for a pa-
*                      tient with a nursing diagnosis of
*                      communication, impaired: verbal.
* Input Files Used:    Relate_2.Scr and Procfile.Prg
* Output Files Used:   None
* Calling Routine:     Assess_2.Prg
* Routine Called:      Goal_2.Prg
* Modification Date:   3 February 1986
*
* -- Screen Input Program For Relate_2 --
*
Do Setup
Public Xrel2opt

Do While .T.

   * -- Screen Display A:Relate_2.Scr --

   Set Color To W+/B,W+/B
   Clear
   ?? Flash+"S.A:Relate_2.Scr/"
   Set Color To W+/B,W+/B
   Xrel2opt = 01
   Do Headings
   @ 22,67 Get Xrel2opt Pict "99" Range 1,10
   Read

   * -- Previous assessment is related to some cause --

   Do Case

      Case Xrel2opt = 1
        Nrelate = "Anatomical Impairment"
        Do B:Goal_2
        Return

      Case Xrel2opt = 2
        Nrelate = "Cultural Difference"
        Do B:Goal_2
        Return

      Case Xrel2opt = 3
        Nrelate = "Developmental Age"
```

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      Do B:Goal_2
      Return

    Case Xrel2opt = 4
      Nrelate = "Disease Process"
      Do B:Goal_2
      Return

    Case Xrel2opt = 5
      @ 17,14 Get Reloth;
        Pict "!XXXXXXXXXXXXXXXXXXXXXXX"
      Read
      Nrelate = Reloth
      Do B:Goal_2
      Return

    Case Xrel2opt = 6
      Nrelate = "Foreign Language"
      Do B:Goal_2
      Return

    Case Xrel2opt = 7
      Nrelate = "Mental Capacity"
      Do B:Goal_2
      Return

    Case Xrel2opt = 8
      Nrelate = "Sedation"
      Do B:Goal_2
      Return

    Case Xrel2opt = 9
      Nrelate = "Surgical Procedure"
      Do B:Goal_2
      Return

    Case Xrel2opt = 10
      Nrelate = "Treatment Regime"
      Do B:Goal_2
      Return

  Endcase
  Release Xrel2opt

Enddo
```

```
**** GOAL_2.PRG ********************************************
* Author:              Gary R. Harmeyer LCDR NC USN
* Date:                23 December 1985
* Screen Generated By: The Software Bottling Company
*                          Of New York, c1985
* Purpose:             Provides a menu for the nurse to
*                          select a patient goal for a pa-
*                          tient with a nursing diagnosis of
*                          communication, impaired: verbal.
* Input Files Used:    Goal_2.Scr and Procfile.Prg
* Output Files Used:   None
* Calling Routine:     Relate_2.Prg
* Routine Called:      Norder2A, Norder2B or Norder2C.Prg
* Modification Date:   3 February 1986
*
* -- Screen Input Program For Goal_2 --
*
Do Setup
Public Xgoa2opt

Do While .T.

   * -- Screen Display A:Goal_2.Scr --

   Set Color To W+/B,W+/B
   Clear
   ?? Flash+"S.A:Goal_2.Scr/"
   Set Color To W+/B,W+/B
   Xgoa2opt = 1
   Do Headings
   @ 22,67 Get Xgoa2opt Pict "9" Range 1,7
   Read

   * -- Allows nurse to select specific goal attainable
   * --    by this patient --

   Do Case

      Case Xgoa2opt = 1
        Ngoal = "Communicates Needs Through Words"
        Do B:Norder2A
        Return

      Case Xgoa2opt = 2
        Ngoal = "Comm Needs Through Mechanical Tools"
        Do B:Norder2A
        Return
```

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    Case Xgoa2opt = 3
      Ngoal = "Demos Skills to Achieve Goals"
      Do B:Norder2C
      Return

    Case Xgoa2opt = 4
      @ 18,21 Get Goooth;
        Pict "!XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX"
      Read
      Ngoal = Goooth
      Do B:Norder2A
      Return

    Case Xgoa2opt = 5
      Ngoal = "Reports Less Anxiety"
      Do B:Norder2B
      Return

    Case Xgoa2opt = 6
      Ngoal = "Reports Less Fear"
      Do B:Norder2B
      Return

    Case Xgoa2opt = 7
      Ngoal = "Reports Less Stress"
      Do B:Norder2B
      Return

  Endcase
  Release Xgoa2opt

Enddo
```

```
**** NORDER2A.PRG ***************************************
* Author:                Gary R. Harmeyer LCDR NC USN
* Date:                  23 December 1985
* Screen Generated By:   The Software Bottling Company
*                          Of New York, c1985
* Purpose:               Provides a menu for the nurse to
*       .                  select a nursing order for a pa-
*                          tient whose goal is communicates
*                          needs through use of words or
*                          mechanical tools.
* Input Files Used:      Norder2A.Scr, Time, Emosup and
*                          Procfile.Prg
* Output Files Used:     Orders and Ncaredb.Dbf
* Calling Routine:       Goal_2.Prg
* Routine Called:        None
* Modification Date:     3 February 1986
*
* -- Screen Input Program For Norder2A --
*
Do Setup
Public Xnord2aopt

Do While .T.

   * -- Screen Display A:Norder2A.Scr --

   Set Color To W+/B,W+/B
   Clear
   ?? Flash+"S.A:Norder2A.Scr/"
   Set Color To W+/B,W+/B
   Xnord2aopt = 01
   Do Headings
   @ 22,67 Get Xnord2aopt Pict "99" Range 1,10
   Read

   * -- Nursing orders are determined by evaluating the
   * --   case statement, then place data into Ncaredb and
   * --   Orders.Dbf files --

   Do Case

      Case Xnord2aopt = 1
         Morder = "Apprise Others of Comm Prob"
         Do B:Time
         Do Replaord
         Do Repnrord
         Return
```

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Case Xnord2aopt = 2
  Morder = "Provide Emotional Support"
  Do B:Emosup
  Do Replaord
  Do Repnrord
  Return

Case Xnord2aopt = 3
  Morder = "Provide Paper and Pencil"
  Do B:Time
  Do Replaord
  Do Repnrord
  Return

Case Xnord2aopt = 4
  Morder = "Provide Spelling Board"
  Do B:Time
  Do Replaord
  Do Repnrord
  Return

Case Xnord2aopt = 5
  @ 18,11 Get Ordoth;
    Pict "!XXXXXXXXXXXXXXXXXXXXXXXXXXX"
  Read
  Morder = Ordoth
  Do B:Time
  Do Replaord
  Do Repnrord
  Return

Case Xnord2aopt = 6
  Morder = "Prov Translated Phase Chart"
  Do B:Time
  Do Replaord
  Do Repnrord
  Return

Case Xnord2aopt = 7
  Morder = "Provide Translator"
  Do B:Time
  Do Replaord
  Do Repnrord
  Return

Case Xnord2aopt = 8
  Morder = "Simple Questions w/ Y/N Ans"
  Do B:Time
  Do Replaord
```

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        Do Repnrord
        Return

    Case Xnord2aopt = 9
        Morder = "Use Sign Language"
        Do B:Time
        Do Replaord
        Do Repnrord
        Return

    Case Xnord2aopt = 10
        Morder = "Use Establishd Comm for ADL"
        Do Replaord
        Do Repnrord
        Return

  Endcase
  Release Xnord2aopt

Enddo
```

```
**** NORDER2B.PRG ***********************************************
* Author:                 Gary R. Harmeyer LCDR NC USN
* Date:                   23 December 1985
* Screen Generated By:    The Software Bottling Company
*                              Of New York, c1985
* Purpose:                Provides a menu for the nurse to
*                         select a nursing order for a
*                         patient whose goal is reports de-
*                         creased level of stress, anxiety
*                         or fear.
* Input Files Used:       Norder2B.Scr, Time and Procfile.Prg
* Output Files Used:      Orders and Ncaredb.Dbf
* Calling Routine:        Goal_2.Prg
* Routine Called:         None
* Modification Date:      5 February 1986
*
* -- Screen Input Program For Norder2B --
*
Do Setup
Public Xnord2bopt

Do While .T.

   * -- Screen Display A:Norder2B.Scr --

   Set Color To W+/B,W+/B
   Clear
   ?? Flash+"S.A:Norder2B.Scr/"
   Set Color To W+/B,W+/B
   Xnord2bopt = 01
   Do Headings
   @ 22,66 Get Xnord2bopt Pict "99" Range 1,10
   Read

   * -- Nursing orders are determined by evaluating the
   * --    case statement, then place data into Ncaredb and
   * --    Orders.Dbf files --

   Do Case

      Case Xnord2bopt = 1
        Morder = "Encour Pt To Speak Slowly"
        Do B:Time
        Do Replaord
        Do Repnrord
        Return

      Case Xnord2bopt = 2
        Morder = "Encou To Util Cope Strategy"
```

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      Do B:Time
      Do Reploord
      Do Repnrord
      Return

   Case Xnord2bopt = 3
      Morder = "Explain Proc & Elicit Ques"
      Do B:Time
      Do Reploord
      Do Repnrord
      Return

   Case Xnord2bopt = 4
      Morder = "Provide Spelling Board"
      Do B:Time
      Do Reploord
      Do Repnrord
      Return

   Case Xnord2bopt = 5
      @ 18,10 Get Ordoth;
         Pict "!XXXXXXXXXXXXXXXXXXXXXXXXXXX"
      Read
      Morder = Ordoth
      Do B:Time
      Do Reploord
      Do Repnrord
      Return

   Case Xnord2bopt = 6
      Morder = "Prov Translated Phase Chart"
      Do B:Time
      Do Reploord
      Do Repnrord
      Return

   Case Xnord2bopt = 7
      Morder = "Provide Translator"
      Do B:Time
      Do Reploord
      Do Repnrord
      Return

   Case Xnord2bopt = 8
      Morder = "Simple Questions w/ Y/N Ans"
      Do B:Time
      Do Reploord
      Do Repnrord
      Return
```

```
    Case Xnord2bopt = 9
       Morder = "Use Sign Language"
       Do B:Time
       Do Replaord
       Do Repnrord
       Return

    Case Xnord2bopt = 10
       Morder = "Use Establishd Comm for ADL"
       Do Replaord
       Do Repnrord
       Return

  Endcase
  Release Xnord2bopt

Enddo
```

```
**** NORDER2C.PRG ******************************************
* Author:              Gary R. Harmeyer LCDR NC USN
* Date:                23 December 1985
* Screen Generated By: The Software Bottling Company
*                        Of New York, c1985
* Purpose:             Provides a menu for the nurse to
*                        select a nursing order for a pa-
*                        tient whose goal is demonstrates
*                        skills to achieve goals.
* Input Files Used:    Norder2C.Scr, Teach & Procfile.Prg
* Output Files Used:   Orders and Ncaredb.Dbf
* Calling Routine:     Goal_2.Prg
* Routine Called:      None
* Modification Date:   1 February 1986
*
* -- Screen Input Program For Norder2C --
*
Do Setup
Public Xnord2copt

Do While .T.

   * -- Screen Display A:Norder2C.Scr --

   Set Color To W+/B,W+/B
   Clear
   ?? Flash+"S.A:Norder2C.Scr/"
   Set Color To W+/B,W+/B
   Xnord2copt = 1
   Do Headings
   @ 22,67 Get Xnord2copt Pict "9" Range 1,9
   Read

   * -- Nursing orders are determined by evaluating the
   * --   case statement, then place data into Ncaredb and
   * --   Orders.Dbf files --

   Do Case

      Case Xnord2copt = 1
        Morder = "Teach: Blink 1x No, 2x Yes"
        Do B:Teach
        Do Replaord
        Do Repnrord
        Return

      Case Xnord2copt = 2
        Morder = "Teach To Squeeze Hand 4 Y/N"
        Do B:Teach
```

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      Do Replaord
      Do Repnrord
      Return

   Case Xnord2copt = 3
      Morder = "Teach Use Of Mech Device"
      Do B:Teach
      Do Replaord
      Do Repnrord
      Return

   Case Xnord2copt = 4
      Morder = "Apprise Others of Comm Prob"
      Do B:Time
      Do Replaord
      Do Repnrord
      Return

   Case Xnord2copt = 5
      @ 18,30 Get Ordoth;
         Pict "!XXXXXXXXXXXXXXXXXXXXXXXXXXXX"
      Read
      Morder = Ordoth
      Do B:Teach
      Do Replaord
      Do Repnrord
      Return

   Case Xnord2copt = 6
      Morder = "Teach: Deep Breathing Exer"
      Do B:Teach
      Do Replaord
      Do Repnrord
      Return

   Case Xnord2copt = 7
      Morder = "Teach: Diversional Activity"
      Do B:Teach
      Do Replaord
      Do Repnrord
      Return

   Case Xnord2copt = 8
      Morder = "Teach: Prog/sive Relaxation"
      Do B:Teach
      Do Replaord
      Do Repnrord
      Return
```

```
      Case Xnord2copt = 9
         Morder = "Teach: Relaxation Response"
         Do B:Time
         Do Replaord
         Do Repnrord
         Return

   Endcase
   Release Xnord2copt

Enddo
```

```
**** ASSESS_3.PRG ************************************************
* Author:                Gary R. Harmeyer LCDR NC USN
* Date:                  23 December 1985
* Screen Generated By:   The Software Bottling Company
*                          Of New York, c1985
* Purpose:               Provides a menu for the nurse to
*                          select nursing assessment for a
*                          patient with a nursing diagnosis
*                          of impaired physical mobility.
* Input Files Used:      Assess_3.Scr and Procfile.Prg
* Output Files Used:     None
* Calling Routine:       N_Diag.Prg
* Routine Called:        Relate_3.Prg
* Modification Date:     3 February 1986
*
* -- Screen Input Program For Assess_3 --
*
Do Setup
Public Xass3opt

Do While .T.

   * -- Screen Display A:Assess_3.Scr --

   Set Color To W+/B,W+/B
   Clear
   ?? Flash+"S.A:Assess_3.Scr/"
   Set Color To W+/B,W+/B
   Xass3opt = O1
   Do Headings
   @ 22,66 Get Xass3opt Pict "99" Range 1,11
   Read

   * -- Allows nurse to document assessment of the
   * --   patient --

   Do Case

      Case Xass3opt = 1
         Nassess = "Confinement Imposed"
         Do B:Relate_3
         Return

      Case Xass3opt = 2
         Nassess = "Fatiques Easily"
         Do B:Relate_3
         Return
```

```
Case Xass3opt = 3
  Nassess = "Gait Impairement"
  Do B:Relate_3
  Return

Case Xass3opt = 4
  Nassess = "Impaired Coordination"
  Do B:Relate_3
  Return

Case Xass3opt = 5
  Nassess = "Inability to Ambulate"
  Do B:Relate_3
  Return

Case Xass3opt = 6
  @ 18,13 Get Assoth;
    Pict "!XXXXXXXXXXXXXXXXXXXXXXXXXX"
  Read
  Nassess = Assoth
  Do B:Relate_3
  Return

Case Xass3opt = 7
  Nassess = "Inability to Transfer"
  Do B:Relate_3
  Return

Case Xass3opt = 8
  Nassess = "Inability to Turn"
  Do B:Relate_3
  Return

Case Xass3opt = 9
  Nassess = "Limited Range Of Motion"
  Do B:Relate_3
  Return

Case Xass3opt = 10
  Nassess = "Reluctant To Move"
  Do B:Relate_3
  Return

Case Xass3opt = 11
  Nassess = "Use Of Assistive Devices"
  Do B:Relate_3
  Return

Endcase
Release Xass3opt
```

```
**** RELATE_3.PRG **********************************************
* Author:              Gary R. Harmeyer LCDR NC USN
* Date:                23 December 1985
* Screen Generated By: The Software Bottling Company
*                        Of New York, c1985
* Purpose:             Provides a menu for the nurse to
*                        select related factors for a
*                        patient with a nursing diagnosis
*                        of impaired physical mobility.
* Input Files Used:    Relate_3.Scr and Procfile.Prg
* Output Files Used:   None
* Calling Routine:     Assess_3.Prg
* Routine Called:      Goal_3.Prg
* Modification Date:   3 February 1986
*
* -- Screen Input Program For Relate_3 --
*
Do Setup
Public Xrel3opt

Do While .T.

   * -- Screen Display A:Relate_3.Scr --

   Set Color To W+/B,W+/B
   Clear
   ?? Flash+"S.A:Relate_3.Scr/"
   Set Color To W+/B,W+/B
   Xrel3opt = 01
   Do Headings
   @ 22,67 Get Xrel3opt Pict "9" Range 1,6
   Read

   * -- Previous assessment is related to some cause --

   Do Case

      Case Xrel3opt = 1
        Nrelate = "Decrease Act Tolerance"
        Do B:Goal_3
        Return

      Case Xrel3opt = 2
        Nrelate = "Musculoskeletal Function"
        Do B:Goal_3
        Return

      Case Xrel3opt = 3
        Nrelate = "Neuromuscular Function"
```

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```
      Do B:Goal_3
      Return

   Case Xrel3opt = 4
      Nrelate = "Pain / Discomfort"
      Do B:Goal_3
      Return

   Case Xrel3opt = 5
      Nrelate = "Treatment Regime"
      Do B:Goal_3
      Return

   Case Xrel3opt = 6
      @ 18,36 Get Reloth;
        Pict "!XXXXXXXXXXXXXXXXXXXXXXXX"
      Read
      Nrelate = Reloth
      Do B:Goal_3
      Return

 Endcase
 Release Xrel3opt

Enddo
```

```
**** GOAL_3.PRG ***************************************************
* Author:                 Gary R. Harmeyer LCDR NC USN
* Date:                   23 December 1985
* Screen Generated By:    The Software Bottling Company
*                             Of New York, c1985
* Purpose:                Provides a menu for the nurse to
*                             select a patient goal for a
*                             patient with a nursing diagnosis
*                             of impaired physical mobility.
* Input Files Used:       Goal_3.Scr and Drproc.Prg
* Output Files Used:      None
* Calling Routine:        Relate_3.Prg
* Routine Called:         Norder3A, Norder3B, Norder3C,
*                             Norder3D or Norder3E.Prg
* Modification Date:      3 February 1986
*
* -- Screen Input Program For Goal_3 --
*
Do Setup
Public Xgoa3opt

Do While .T.

   * -- Screen Display A:Goal_3.Scr --

   Set Color To W+/B,W+/B
   Clear
   ?? Flash+"S.A:Goal_3.Scr/"
   Set Color To W+/B,W+/B
   Xgoa3opt = 01
   Do Headings
   @ 22,66 Get Xgoa3opt Pict "99" Range 1,11
   Read

   * -- Allows nurse to select specific goal attainable
   * --   by this patient --

   Do Case

      Case Xgoa3opt = 1
        Ngoal = "Able To Transfer Independently"
        Do B:Norder3D
        Return

      Case Xgoa3opt = 2
        Ngoal = "Able To Transfer With Assistance"
        Do B:Norder3D
        Return
```

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```
     Case Xgoa3opt = 3
       Ngoal = "Demos Skills to Achieve Goals"
       Do B:Norder3E
       Return

     Case Xgoa3opt = 4
       Ngoal = "Increase Range Of Motion [ROM]"
       Do B:Norder3A
       Return

     Case Xgoa3opt = 5
       Ngoal = "Maint Effective Breathing Pattern"
       Do B:Norder3A
       Return

     Case Xgoa3opt = 6
       @ 18,21 Get Goaoth;
         Pict "!XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX"
       Read
       Ngoal = Goaoth
       Do B:Norder3B
       Return

     Case Xgoa3opt = 7
       Ngoal = "Maintains Full Range Of Motion [ROM]"
       Do B:Norder3A
       Return

     Case Xgoa3opt = 8
       Ngoal = "Maintains Pattern Of Elimination"
       Do B:Norder3C
       Return

     Case Xgoa3opt = 9
       Ngoal = "Maintains Skin Integrity"
       Do B:Norder3B
       Return

     Case Xgoa3opt = 10
       Ngoal = "No Additional Contractures"
       Do B:Norder3A
       Return

     Case Xgoa3opt = 11
       Ngoal = "Performs Activity Of Daily Living[ADL]"
       Do B:Norder3C
       Return

Endcase
Release Xgoa3opt
```

```
**** NORDER3A.PRG ***********************************************
* Author:                Gary R. Harmeyer LCDR NC USN
* Date:                  23 December 1985
* Screen Generated By: The Software Bottling Company
*                          Of New York, c1985
* Purpose:                Provides a menu for the nurse to
*                          select a nursing order for a
*                          patient whose goal is maintains
*                          maintains full range of motion
*                          [ROM], increases ROM or no added
*                          contractures.
* Input Files Used:      Norder3A.Scr, Time and Drproc.Prg
* Output Files Used:      Orders and Ncaredb.Dbf
* Calling Routine:       Goal_3.Prg
* Routine Called:        None
* Modification Date:     5 February 1986
*
* -- Screen Input Program For Norder3A --
*
Do Setup
Public Xnord3aopt

Do While .T.

   * -- Screen Display A:Norder3A.Scr --

   Set Color To W+/B,W+/B
   Clear
   ?? Flash+"S.A:Norder3A.Scr/"
   Set Color To W+/B,W+/B
   Xnord3aopt = 1
   Do Headings
   @ 22,66 Get Xnord3aopt Pict "9" Range 1,10
   Read

   * -- Nursing orders are determined by evaluating the
   * --    case statement, when place data into Ncaredb and
   * --    Orders.Dbf files --

   Do Case

      Case Xnord3aopt = 1
         Morder = "Active Range Of Motion"
         Do B:Time
         Do Replaord
         Do Repnrord
         Return
```

```
Case Xnord3aopt = 2
  Morder = "Cough & Deep Breath"
  Do B:Time
  Do Cough
  Do Replaord
  Do Repnrord
  Return

Case Xnord3aopt = 3
  Morder = "Encourage Independent ADL"
  Do B:Time
  Do Replaord
  Do Repnrord
  Return

Case Xnord3aopt = 4
  Morder = "Gradual Increase ADL Actity"
  Do B:Time
  Do Replaord
  Do Repnrord
  Return

Case Xnord3aopt = 5
  @ 18,10 Get Ordoth;
    Pict "!XXXXXXXXXXXXXXXXXXXXXXXXXX"
  Read
  Morder = Ordoth
  Do B:Time
  Do Replaord
  Do Repnrord
  Return

Case Xnord3aopt = 6
  Morder = "Passive Range Of Motion"
  Do B:Time
  Do Range
  Do Replaord
  Do Repnrord
  Return

Case Xnord3aopt = 7
  Morder = "Positioning"
  Do B:Time
  Do Replaord
  Do Repnrord
  Return

Case Xnord3aopt = 8
  Morder = "Turning"
  Do B:Time
```

```
      Do Replaord
      Do Repnrord
      Return

   Case Xnord3aopt = 9
      Morder = "Accom Pt Off Wd [>15 <30mn]"
      Passdata = "Q55 2"
      Ptpoint = 2
      Do Replaord
      Do Repnrord
      Return

   Case Xnord3aopt = 10
      Morder = "Accompy Pt Off Wd [>30 min]"
      Passdata = "Q55 3"
      Ptpoint = 4
      Do Replaord
      Do Repnrord
      Return

   Endcase
   Release Xnord3aopt

Enddo
```

```
**** NORDER3B.PRG ********************************************
* Author:              Gary R. Harmeyer LCDR NC USN
* Date:                23 December 1985
* Screen Generated By: The Software Bottling Company
*                         Of New York, c1985
* Purpose:             Provides a menu for the nurse to
*                        select a nursing order for a
*                        patient whose goal is maintains
*                        maintains skin integrity or
*                        selects other for the goal.
* Input Files Used:    Norder3B.Scr, Time and Procfile.Prg
* Output Files Used:   Orders and Ncaredb.Dbf
* Calling Routine:     Goal_3.Prg
* Routine Called:      None
* Modification Date:   3 February 1986
*
* -- Screen Input Program For Norder3B --
*
Do Setup
Public Xnord3bopt

Do While .T.

   * -- Screen Display A:Norder3B.Scr --

   Set Color To W+/B,W+/B
   Clear
   ?? Flash+"S.A:Norder3B.Scr/"
   Set Color To W+/B,W+/B
   Xnord3bopt = 01
   Do Headings
   @ 22,66 Get Xnord3bopt Pict "99" Range 1,11
   Read

   * -- Nursing orders are determined by evaluating the
   * --   case statement, then place data into Ncaredb and
   * --   Orders.Dbf files --

   Do Case

      Case Xnord3bopt = 1
         Morder = "Ambulate"
         Do B:Time
         Do Replaord
         Do Repnrord
         Return

      Case Xnord3bopt = 2
         Morder = "Assist To Select Diet"
```

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```
      Do B:Time
      Do Replaord
      Do Repnrord
      Return

Case Xnord3bopt = 3
   Morder = "Encourage Independent ADL"
      Do B:Time
      Do Replaord
      Do Repnrord
      Return

Case Xnord3bopt = 4
   Morder = "Massage-Promote Circulation"
      Do B:Time
      Do Replaord
      Do Repnrord
      Return

Case Xnord3bopt = 5
   Morder = "Possessions w/in Reach"
      Do Replaord
      Do Repnrord
      Return

Case Xnord3bopt = 6
   @ 18,30 Get Ordoth;
      Pict "!XXXXXXXXXXXXXXXXXXXXXXXXXXX"
   Read
   Morder = Ordoth
      Do B:Time
      Do Replaord
      Do Repnrord
      Return

Case Xnord3bopt = 7
   Morder = "Position"
      Do B:Time
      Do Replaord
      Do Repnrord
      Return

Case Xnord3bopt = 8
   Morder = "Protect Bony Prominences"
      Do B:Time
      Do Replaord
      Do Repnrord
      Return
```

```
      Case Xnord3bopt = 9
        Morder = "Protect Pressure Areas"
        Do B:Time
        Do Replaord
        Do Repnrord
        Return

      Case Xnord3bopt = 10
        Morder = "Provide Safe Environment"
        Do B:Time
        Do Replaord
        Do Repnrord
        Return

      Case Xnord3bopt = 11
        Morder = "Siderails"
        Do B:Time
        Do Replaord
        Do Repnrord
        Return

    Endcase
    Release Xnord3bopt

  Enddo
```

```
**** NORDER3C.PRG ********************************************
* Author:              Gary R. Harmeyer LCDR NC USN
* Date:                23 December 1985
* Screen Generated By: The Software Bottling Company
*                         Of New York, c1985
* Purpose:             Provides a menu for the nurse to
*                        select a nursing order for a
*                        patient whose goal is maintains
*                        pattern of elimination or per-
*                        forms activities of daily living
*                        [ADL].
* Input Files Used:    Norder3C.Scr, Time and Procfile.Prg
* Output Files Used:   Orders and Ncaredb.Dbf
* Calling Routine:     Goal_3.Prg
* Routine Called:      None
* Modification Date:   4 February 1986
*
* -- Screen Input Program For Norder3C --
*
Do Setup
Public Xnord3copt

Do While .T.

   * -- Screen Display A:Norder3C.Scr --

   Set Color To W+/B,W+/B
   Clear
   ?? Flash+"S.A:Norder3C.Scr/"
   Set Color To W+/B,W+/B
   Xnord3copt = 1
   Do Headings
   @ 22,67 Get Xnord3copt Pict "9" Range 1,8
   Read

   * -- Nursing orders are determined by evaluating the
   * --    case statement, then place data into Ncaredb and
   * --    Orders.Dbf files --

   Do Case

      Case Xnord3copt = 1
         Morder = "Ambulate with Assistance"
         Do B:Time

         Do Case
            Case [Timeopt < 5 .Or. Timeopt = 41]
               * -- No precise frequency given
               Passdata = "Q51 18"
```

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```
            Ptpoint = 0
        Case (Timeopt > 4 .And. Timeopt < 22)
            * -- X 1
            Passdata = "Q51 11"
            Ptpoint = 2
        Case (Timeopt > 21 .And. Timeopt < 25)
            * -- X 2 or BID
            Passdata = "Q51 12"
            Ptpoint = 4
        Case (Timeopt > 24 .And. Timeopt < 31)
            * -- X 3 or TID
            Passdata = "Q51 13"
            Ptpoint = 6
        Case (Timeopt > 30 .And. Timeopt < 34)
            * -- X 4 or QID
            Passdata = "Q51 14"
            Ptpoint = 8
        Case (Timeopt = 34 .Or. Timeopt = 35)
            * -- X 6 or Q4h
            Passdata = "Q51 15"
            Ptpoint = 12
        Case (Timeopt = 36 .Or. Timeopt = 37)
            * -- X 12 or Q2h
            Passdata = "Q51 16"
            Ptpoint = 24
        Case (Timeopt = 38 .Or. Timeopt = 39)
            * -- X 24 or Q1h
            Passdata = "Q51 17"
            Ptpoint = 48
    Endcase

    Do Replaord
    Do Repnrord
    Return

Case Xnord3copt = 2
    Morder = "Increase Independ Doing ADL"
    Do Replaord
    Do Repnrord
    Return

Case Xnord3copt = 3
    Morder = "Plan For Continuing Care"
    Do Replaord
    Do Repnrord
    Return

Case Xnord3copt = 4
    Morder = "Position"
    Do B:Time
```

```
      Do Replaord
      Do Repnrord
      Return

   Case Xnord3copt = 5
      @ 18,29 Get Ordoth;
         Pict "!XXXXXXXXXXXXXXXXXXXXXXXXXXX"
      Read
      Morder = Ordoth
      Do B:Time
      Do Replaord
      Do Repnrord
      Return

   Case Xnord3copt = 6
      Morder = "Range Of Motion [ROM]"
      Do B:Time
      Do Replaord
      Do Repnrord
      Return

   Case Xnord3copt = 7
      Morder = "Diet To Promote GI Function"
      Do Replaord
      Do Repnrord
      Return

   Case Xnord3copt = 8
      Morder = "Turn"
      Do B:Time
      Do Replaord
      Do Repnrord
      Return

   Endcase
   Release Xnord3copt

Enddo
```

```
**** NORDER3D.PRG *********************************************
* Author:              Gary R. Harmeyer LCDR NC USN
* Date:                23 December 1985
* Screen Generated By: The Software Bottling Company
*                        Of New York, c1985
* Purpose:             Provides a menu for the nurse to
*                        select a nursing order for a
*                        patient whose goal is able to
*                        transfer independently or with
*                        assistance.
* Input Files Used:    Norder3D.Scr, Time and Procfile.Prg
* Output Files Used:   Orders and Ncaredb.Dbf
* Calling Routine:     Goal_3.Prg
* Routine Called:      None
* Modification Date:   4 February 1986
*
* -- Screen Input Program For Norder3D --
*
Do Setup
Public Xnord3dopt

Do While .T.

   * -- Screen Display A:Norder3D.Scr --

   Set Color To W+/B,W+/B
   Clear
   ?? Flash+"S.A:Norder3D.Scr/"
   Set Color To W+/B,W+/B
   Xnord3dopt = 1
   Do Headings
   @ 22,67 Get Xnord3dopt Pict "9" Range 1,5
   Read

   * -- Nursing orders are determined by evaluating the
   * --    case statement, then place data into Ncaredb and
   * --    Orders.Dbf files --

   Do Case

      Case Xnord3dopt = 1
         Morder = "Assist Bed To Chair"
         Do B:Time

         Do Case
            Case [Timeopt < 25 .Or. Timeopt = 41]
               * -- Less than x 3 or TID
               Passdata = "QS1 1"
               Ptpoint = 0
```

323

```
      Case [Timeopt > 24 .And. Timeopt < 34]
        * -- X 3 or less than Q4h [x 6]
        Passdata = "Q51 7"
        Ptpoint = 2
      Case [Timeopt = 34 .Or. Timeopt = 35]
        * -- X 6 or Q4h
        Passdata = "Q51 8"
        Ptpoint = 4
      Case [Timeopt = 36 .Or. Timeopt = 37]
        * -- X 12 or Q2h
        Passdata = "Q51 9"
        Ptpoint = 8
      Case [Timeopt = 38 .Or. Timeopt = 39]
        * -- X 24 or Q1h
        Passdata = "Q51 10"
        Ptpoint = 16
    Endcase

    Do Replaord
    Do Repnrord
    Return

Case Xnord3dopt = 2
    Morder = "Assist Bed To Wheelchair"
    Do B:Time

    Do Case
      Case [Timeopt < 25 .Or. Timeopt = 41]
        * -- Less than x 3 or TID
        Passdata = "Q51 1"
        Ptpoint = 0
      Case [Timeopt > 24 .And. Timeopt < 34]
        * -- X 3 or less than Q4h [x 6]
        Passdata = "Q51 7"
        Ptpoint = 2
      Case [Timeopt = 34 .Or. Timeopt = 35]
        * -- X 6 or Q4h
        Passdata = "Q51 8"
        Ptpoint = 4
      Case [Timeopt = 36 .Or. Timeopt = 37]
        * -- X 12 or Q2h
        Passdata = "Q51 9"
        Ptpoint = 8
      Case [Timeopt = 38 .Or. Timeopt = 39]
        * -- X 24 or Q1h
        Passdata = "Q51 10"
        Ptpoint = 16
    Endcase
```

```
      Do Replaord
      Do Repnrord
      Return

   Case Xnord3dopt = 3
      @ 18,29 Get Ordoth;
         Pict "!XXXXXXXXXXXXXXXXXXXXXXXXXXX"
      Read
      Morder = Ordoth
      Do Replaord
      Do Repnrord
      Return

   Case Xnord3dopt = 4
      Morder = "Provide Helping Person"
      Do B:Time
      Do Replaord
      Do Repnrord
      Return

   Case Xnord3dopt = 5
      Morder = "Provide Mechanical Aid"
      Do B:Time
      Do Replaord
      Do Repnrord
      Return

   Endcase
   Release Xnord3dopt

Enddo
```

```
**** NORDER3E.PRG ********************************************
* Author:                Gary R. Harmeyer LCDR NC USN
* Date:                  23 December 1985
* Screen Generated By:   The Software Bottling Company
*                           Of New York, c1985
* Purpose:               Provides a menu for the nurse to
*                           select a nursing order for a pa-
*                           tient whose goal is demonstrates
*                           skills to achieve goals.
* Input Files Used:      Norder3E.Scr, Time, Teach and
*                           Procfile.Prg
* Output Files Used:     Orders and Ncaredb.Dbf
* Calling Routine:       Goal_3.Prg
* Routine Called:        None
* Modification Date:     3 February 1986
*
* -- Screen Input Program For Norder3E --
*
Do Setup
Public Xnord3eopt

Do While .T.

   * -- Screen Display A:Norder3E.Scr --

   Set Color To W+/B,W+/B
   Clear
   ?? Flash+"S.A:Norder3E.Scr/"
   Set Color To W+/B,W+/B
   Xnord3eopt = 1
   Do Headings
   @ 22,67 Get Xnord3eopt Pict "9" Range 1,6
   Read

   * -- Nursing orders are determined by evaluating the
   * --   case statement, then place data into Ncaredb and
   * --   Orders.Dbf files --

   Do Case

      Case Xnord3eopt = 1
        Morder = "Provide Opport To Prac Skil"
        Do B:Time
        Do Replaord
        Do Repnrord
        Return

      Case Xnord3eopt = 2
        Morder = "Teach Factor-Impair Moblity"
```

326

```
      Do B:Teach
      Do Replaord
      Do Repnrord
      Return

   Case Xnord3eopt = 3
      Morder = "Teach Rationale For Skills"
      Do B:Teach
      Do Replaord
      Do Repnrord
      Return

   Case Xnord3eopt = 4
      @ 18,29 Get Ordoth;
         Pict "!XXXXXXXXXXXXXXXXXXXXXXXXXXX"
      Read
      Morder = Ordoth
      Do B:Time
      Do Replaord
      Do Repnrord
      Return

   Case Xnord3eopt = 5
      Morder = "Teach Required Exercise"
      Do B:Teach
      Do Replaord
      Do Repnrord
      Return

   Case Xnord3eopt = 6
      Morder = "Teach Use Of Adjuncts/Aids"
      Do Replaord
      Do Repnrord
      Return

   Endcase
   Release Xnord3eopt

Enddo
```

```
**** ASSESS_4.PRG ***********************************************
* Author:                Gary R. Harmeyer LCDR NC USN
* Date:                  23 December 1985
* Screen Generated By:   The Software Bottling Company
*                          Of New York, c1985
* Purpose:               Provides a menu for the nurse to
*                          select nursing assessment for a
*                          patient with a nursing diagnosis
*                          of self-care deficit.
* Input Files Used:      Assess_4.Scr and Procfile.Prg
* Output Files Used:     None
* Calling Routine:       N_Diag.Prg
* Routine Called:        Relate_4.Prg
* Modification Date:     3 February 1986
*
* -- Screen Input Program For Assess_4 --
*
Do Setup
Public Xass4opt

Do While .T.

   * -- Screen Display A:Assess_4.Scr --

   Set Color To W+/B,W+/B
   Clear
   ?? Flash+"S.A:Assess_4.Scr/"
   Set Color To W+/B,W+/B
   Xass4opt = 01
   Do Headings
   @ 22,66 Get Xass4opt Pict "99" Range 1,14
   Read

   * -- Allows nurse to document assessment of the
   * --    patient --

   Do Case

     Case Xass4opt = 1
       Nassess = "Unable To Cloth Self"
       Do B:Relate_4
       Return

     Case Xass4opt = 2
       Nassess = "Unable To Cut Food"
       Do B:Relate_4
       Return
```

328

```
Case Xass4opt = 3
  Nassess = "Unable To Drink"
  Do B:Relate_4
  Return

Case Xass4opt = 4
  Nassess = "Unable To Fasten Clothes"
  Do B:Relate_4
  Return

Case Xass4opt = 5
  Nassess = "Unable To Feed Self"
  Do B:Relate_4
  Return

Case Xass4opt = 6
  @ 18,24 Get Assoth;
    Pict "!XXXXXXXXXXXXXXXXXXXXXXXXXXX"
  Read
  Nassess = Assoth
  Do B:Relate_4
  Return

Case Xass4opt = 7
  Nassess = "Unable To Get To Bathroom"
  Do B:Relate_4
  Return

Case Xass4opt = 8
  Nassess = "Unable To Maint Appearance"
  Do B:Relate_4
  Return

Case Xass4opt = 9
  Nassess = "Unable To Select Clothes"
  Do B:Relate_4
  Return

Case Xass4opt = 10
  Nassess = "Unable To Sit On Toilet"
  Do B:Relate_4
  Return

Case Xass4opt = 11
  Nassess = "Unable To Do Toilet Hygiene"
  Do B:Relate_4
  Return

Case Xass4opt = 12
  Nassess = "Unable To Rise Off Toilet"
```

```
        Do B:Relate_4
        Return

    Case Xass4opt = 13
        Nassess = "Unable To Do Flush Toilet"
        Do B:Relate_4
        Return

    Case Xass4opt = 14
        Nassess = "Unable To Wash Self"
        Do B:Relate_4
        Return

  Endcase
  Release Xass4opt

Enddo
```

```
**** RELATE_4.PRG ***********************************************
* Author:              Gary R. Harmeyer LCDR NC USN
* Date:                23 December 1985
* Screen Generated By: The Software Bottling Company
*                        Of New York, c1985
* Purpose:             Provides a menu for the nurse to
*                        select related factors for a
*                        patient with a nursing diagnosis
*                        of self care: deficit.
* Input Files Used:    Relate_4.Scr and Procfile.Prg
* Output Files Used:   None
* Calling Routine:     Assess_4.Prg
* Routine Called:      Goal_4.Prg
* Modification Date:   3 February 1986
*
* -- Screen Input Program For Relate_4 --
*
Do Setup
Public Xrel4opt

Do While .T.

   * -- Screen Display A:Relate_4.Scr --

   Set Color To W+/B,W+/B
   Clear
   ?? Flash+"S.A:Relate_4.Scr/"
   Set Color To W+/B,W+/B
   Xrel4opt = 01
   Do Headings
   @ 22,66 Get Xrel4opt Pict "99" Range 1,10
   Read

   * -- Previous assessment is related to some cause --

   Do Case

      Case Xrel4opt = 1
        Nrelate = "Activity Intolerance"
        Do B:Goal_4
        Return

      Case Xrel4opt = 2
        Nrelate = "Depression"
        Do B:Goal_4
        Return

      Case Xrel4opt = 3
        Nrelate = "Developmental Phase"
```

331

```
      Do B:Goal_4
      Return

   Case Xrel4opt = 4
      Nrelate = "Musculoskeletal Function"
      Do B:Goal_4
      Return

   Case Xrel4opt = 5
      @ 17,14 Get Reloth;
         Pict "!XXXXXXXXXXXXXXXXXXXXXXXXX"
      Read
      Nrelate = Reloth
      Do B:Goal_4
      Return

   Case Xrel4opt = 6
      Nrelate = "Neuromuscular Impairment"
      Do B:Goal_4
      Return

   Case Xrel4opt = 7
      Nrelate = "Pain / Discomfort"
      Do B:Goal_4
      Return

   Case Xrel4opt = 8
      Nrelate = "Perceptual Impairment"
      Do B:Goal_4
      Return

   Case Xrel4opt = 9
      Nrelate = "Sensory Impairment"
      Do B:Goal_4
      Return

   Case Xrel4opt = 10
      Nrelate = "Severe Anxiety"
      Do B:Goal_4
      Return

   Endcase
   Release Xrel4opt

Enddo
```

```
**** GOAL_4.PRG *************************************************
* Author:               Gary R. Harmeyer LCDR NC USN
* Date:                 23 December 1985
* Screen Generated By:  The Software Bottling Company
*                           Of New York, c1985
* Purpose:              Provides a menu for the nurse to
*                           select a patient goal for a
*                           patient with a nursing diagnosis
*                           of self-care: deficit.
* Input Files Used:     Goal_4.Scr and Procfile.Prg
* Output Files Used:    None
* Calling Routine:      Relate_4.Prg
* Routine Called:       Norder4A, Norder4B, Norder4C,
*                           Norder4D or Norder4E.Prg
* Modification Date:    25 January 1986
*
* -- Screen Input Program For Goal_4 --
*
Do Setup
Public Xgoa4opt,Xgoa4cur
Xgoa4cur = Space[1]

Do While .T.

   * -- Screen Display A:Goal_4.Scr --

   Set Color To W+/B,W+/B
   Clear
   ?? Flash+"S.A:Goal_4.Scr/"
   Set Color To W+/B,W+/B
   Xgoa4opt = 1
   Do Headings
   @ 21,67 Get Xgoa4opt Pict "9" Range 1,5
   Read

   * -- Allows nurse to select specific goal attainable
   * --    by this patient and current level of care the
   * --    the patient requires --

   Do Case

      Case Xgoa4opt = 1
         Ngoal = "Func @ Level 0, Full Self Care"
         Do Current
         Do Replaord
         Do B:Norder4A
         Return
```

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```
    Case Xgoa4opt = 2
      Ngoal = "Func @ Level 1, Use Of Equip/Device"
      Do Current
      Do Replaord
      Do B:Norder4B
      Return

    Case Xgoa4opt = 3
      Ngoal = "Func @ Level 2, Needs Assist/Supervis"
      Do Current
      Do Replaord
      Do B:Norder4C
      Return

    Case Xgoa4opt = 4
      Ngoal = "Func @ Level 3 Needs Assist/Use Device"
      Do Current
      Do Replaord
      Do B:Norder4D
      Return

    Case Xgoa4opt = 5
      Ngoal = "Func @ Level 4 Dependent/No Participtn"
      Do Current
      Do Replaord
      Do B:Norder4E
      Return

  Endcase
  Release Xgoa4opt,Xgoa4cur

Enddo
```

```
**** NORDER4A.PRG *********************************************
* Author:               Gary R. Harmeyer LCDR NC USN
* Date:                 23 December 1985
* Screen Generated By:  The Software Bottling Company
*                           Of New York, c1985
* Purpose:              Provides a menu for the nurse to
*                           select a nursing order for a
*                           patient whose goal is functions
*                           at level 0: full self care.
* Input Files Used:     Norder4A.Scr, Time and Procfile.Prg
* Output Files Used:    Orders and Ncaredb.Dbf
* Calling Routine:      Goal_4.Prg
* Routine Called:       None
* Modification Date:    3 February 1986
*
* -- Screen Input Program For Norder4A --
*
Do Setup
Public Xnord4aopt

Do While .T.

   * -- Screen Display A:Norder4A.Scr --

   Set Color To W+/B,W+/B
   Clear
   ?? Flash+"S.A:Norder4A.Scr/"
   Set Color To W+/B,W+/B
   Xnord4aopt = 1
   Do Headings
   @ 22,67 Get Xnord4aopt Pict "9" Range 1,3
   Read

   * -- Nursing orders are determined by evaluating the
   * --   case statement, then place data into Ncaredb and
   * --   Orders.Dbf files --

   Do Case

      Case Xnord4aopt = 1
         Morder = "Supprt Increse Indep In ADL"
         Do Replaord
         Do Repnrord
         Return

      Case Xnord4aopt = 2
         Morder = "Peds Recreation/Observation"
         Passdata = "Q26 1"
         Ptpoint = 8
```

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```
      Do Replaord
      Do Repnrord
      Return

   Case Xnord4aopt = 3
      @ 17,42 Get Ordoth;
        Pict "!XXXXXXXXXXXXXXXXXXXXXXXXXX"
      Read
      Morder = Ordoth
      Do B:Time
      Do Replaord
      Do Repnrord
      Return

   Endcase
   Release Xnord4aopt

Enddo
```

```
**** NORDER4B.PRG ***********************************
* Author:              Gary R. Harmeyer LCDR NC USN
* Date:                23 December 1985
* Screen Generated By: The Software Bottling Company
*                         Of New York, c1985
* Purpose:             Provides a menu for the nurse to
*                         select a nursing order for a
*                         patient whose goal is functions
*                         at level 1: needs equipment or
*                         device.
* Input Files Used:    Norder4B.Scr, Time and Procfile.Prg
* Output Files Used:   Orders and Ncaredb.Dbf
* Calling Routine:     Goal_4.Prg
* Routine Called:      None
* Modification Date:   3 February 1986
*
* -- Screen Input Program For Norder4B --
*
Do Setup
Public Xnord4bopt

Do While .T.

   * -- Screen Display A:Norder4B.Scr --

   Set Color To W+/B,W+/B
   Clear
   ?? Flash+"S.A:Norder4B.Scr/"
   Set Color To W+/B,W+/B
   Xnord4bopt = 1
   Do Headings
   @ 22,67 Get Xnord4bopt Pict "9" Range 1,8
   Read

   * -- Nursing orders are determined by evaluating the
   * --    case statement, then place data into Ncaredb and
   * --    Orders.Dbf files --

   Do Case

      Case Xnord4bopt = 1
        Morder = "Provide Equip For Bathing"
        Do B:Time
        Do Replaord
        Do Repnrord
        Return

      Case Xnord4bopt = 2
        Morder = "Provide Equip For Dressing"
```

337

```
   Do B:Time
   Do Replaord
   Do Repnrord
   Return


Case Xnord4bopt = 3
  Morder = "Provide Equip For Feeding"
  Do B:Time
  Do Replaord
  Do Repnrord
  Return


Case Xnord4bopt = 4
  @ 18,11 Get Ordoth;
    Pict "!XXXXXXXXXXXXXXXXXXXXXXXXXX"
  Read
  Morder = Ordoth
  Do B:Time
  Do Replaord
  Do Repnrord
  Return


Case Xnord4bopt = 5
  Morder = "Provide Equip For Toileting"
  Do B:Time
  Do Replaord
  Do Repnrord
  Return


Case Xnord4bopt = 6
  Morder = "Peds Recreation/Observation"
  Passdata = "Q26 1"
  Ptpoint = 8
  Do Replaord
  Do Repnrord
  Return


Case Xnord4bopt = 7
  Morder = "Spoon Feed Patient"
  Passdata = "Q28 1"
  Ptpoint = 6
  Do Replaord
  Do Repnrord
  Return


Case Xnord4bopt = 8
  Morder = "Spoon Feed Child"
  Passdata = "Q28 2"
  Ptpoint = 10
  Do Replaord
```

```
        Do Repnrord
        Return

    Endcase
    Release Xnord4bopt

Enddo
```

```
**** NORDER4C.PRG ****************************************************
* Author:               Gary R. Harmeyer LCDR NC USN
* Date:                 23 December 1985
* Screen Generated By:  The Software Bottling Company
*                       Of New York, c1985
* Purpose:              Provides a menu for the nurse to
*                       select a nursing order for a
*                       patient whose goal is functions
*                       at level 2: needs assistance,
*                       supervision or other.
* Input Files Used:     Norder4C.Scr, Time, Emosup and
*                       Procfile.Prg
* Output Files Used:    Orders and Ncaredb.Dbf
* Calling Routine:      Goal_4.Prg
* Routine Called:       None
* Modification Date:    3 February 1986
*
* -- Screen Input Program For Norder4C --
*
Do Setup
Public Xnord4copt

Do While .T.

   * -- Screen Display A:Norder4C.Scr --

   Set Color To W+/B,W+/B
   Clear
   ?? Flash+"S.A:Norder4C.Scr/"
   Set Color To W+/B,W+/B
   Xnord4copt = 01
   Do Headings
   @ 22,66 Get Xnord4copt Pict "99" Range 1,16
   Read

   * -- Nursing orders are determined by evaluating the
   * --   case statement, then place data into Ncaredb and
   * --   Orders.Dbf files --

   Do Case

      Case Xnord4copt = 1
         Morder = "Assist To Dress"
         Do B:Time
         Do Replaord
         Do Repnrord
         Return
```

340

```
Case Xnord4copt = 2
  Morder = "Assist To/From Bathroom"
  Do B:Time
  Do Replaord
  Do Repnrord
  Return

Case Xnord4copt = 3
  Morder = "Assist With Partial Bath"
  Do B:Time
  Do Replaord
  Do Repnrord
  Return

Case Xnord4copt = 4
  Morder = "Assist To Comb/Brush Hair"
  Do B:Time
  Do Replaord
  Do Repnrord
  Return

Case Xnord4copt = 5
  Morder = "Dress Patient"
  Do Replaord
  Do Repnrord
  Return

Case Xnord4copt = 6
  @ 18,12 Get Ordoth;
    Pict "!XXXXXXXXXXXXXXXXXXXXXXXXXX"
  Read
  Morder = Ordoth
  Do B:Time
  Do Replaord
  Do Repnrord
  Return

Case Xnord4copt = 7
  Morder = "Feed Patient"
  Passdata = "Q28 1"
  Ptpoint = 6
  Do Replaord
  Do Repnrord
  Return

Case Xnord4copt = 8
  Morder = "Give Emotional Support"
  Do B:Emosup
  Do Replaord
```

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```
        Do Repnrord
        Return

    Case Xnord4copt = 9
        Morder = "Give Complete Bath"
        Do B:Time
        Do Replaord
        Do Repnrord
        Return

    Case Xnord4copt = 10
        Morder = "Keep Commode @ Bedside"
        Do B:Time
        Do Replaord
        Do Repnrord
        Return

    Case Xnord4copt = 11
        Morder = "Keep Urinal/Bedpan Near"
        Do B:Time
        Do Replaord
        Do Repnrord
        Return

    Case Xnord4copt = 12
        Morder = "Peds Recreation/Observation"
        Passdata = "Q26 1"
        Ptpoint = 8
        Do Replaord
        Do Repnrord
        Return

    Case Xnord4copt = 13
        Morder = "Set Up Food Tray"
        Do B:Time
        Do Replaord
        Do Repnrord
        Return

    Case Xnord4copt = 14
        Morder = "Shave Patient"
        Do B:Time
        Do Replaord
        Do Repnrord
        Return

    Case Xnord4copt = 15
        Morder = "Socialize During Meals"
        Do Replaord
```

```
      Do Repnrord
      Return

   Case Xnord4copt = 16
      Morder = "Spoon Feed Child"
      Passdata = "Q28 2"
      Ptpoint = 10
      Do Replaord
      Do Repnrord
      Return

   Endcase
   Release Xnord4copt

Enddo
```

```
**** NORDER4D.PRG ********************************************
* Author:                Gary R. Harmeyer LCDR NC USN
* Date:                  23 December 1985
* Screen Generated By:   The Software Bottling Company
*                           Of New York, c1985
* Purpose:               Provides a menu for the nurse to
*                           select a nursing order for a
*                           patient whose goal is functions
*                           at level 3: needs assistance and
*                           uses equipment.
* Input Files Used:      Norder4C.Scr, Time, Emosup and
*                           Procfile.Prg
* Output Files Used:     Orders and Ncaredb.Dbf
* Calling Routine:       Goal_4.Prg
* Routine Called:        None
* Modification Date:     3 February 1986
*
* -- Screen Input Program For Norder4D --
*
Do Setup
Public Xnord4dopt

Do While .T.

   * -- Screen Display A:Norder4D.Scr --

   Set Color To W+/B,W+/B
   Clear
   ?? Flash+"S.A:Norder4D.Scr/"
   Set Color To W+/B,W+/B
   Xnord4dopt = 01
   Do Headings
   @ 22,66 Get Xnord4dopt Pict "99" Range 1,16
   Read

   * -- Nursing orders are determined by evaluating the
   * --   case statement, then place data into Ncaredb and
   * --   Orders.Dbf files --

   Do Case

      Case Xnord4dopt = 1
         Morder = "Assist To Dress"
         Do B:Time
         Do Replaord
         Do Repnrord
         Return
```

344

```
Case Xnord4dopt = 2
  Morder = "Assist To/From Bathroom"
  Do B:Time
  Do Replaord
  Do Repnrord
  Return

Case Xnord4dopt = 3
  Morder = "Assist With Partial Bath"
  Do B:Time
  Do Replaord
  Do Repnrord
  Return

Case Xnord4dopt = 4
  Morder = "Assist To Comb/Brush Hair"
  Do B:Time
  Do Replaord
  Do Repnrord
  Return

Case Xnord4dopt = 5
  Morder = "Dress Patient"
  Do Replaord
  Do Repnrord
  Return

Case Xnord4dopt = 6
  @ 18,12 Get Ordoth;
    Pict "!XXXXXXXXXXXXXXXXXXXXXXXXXX"
  Read
  Morder = Ordoth
  Do B:Time
  Do Replaord
  Do Repnrord
  Return

Case Xnord4dopt = 7
  Morder = "Feed Patient"
  Passdata = "Q28 1"
  Ptpoint = 6
  Do Replaord
  Do Repnrord
  Return

Case Xnord4dopt = 8
  Morder = "Give Emotional Support"
  Do B:Emosup
  Do Replaord
```

```
      Do Repnrord
      Return

   Case Xnord4dopt = 9
      Morder = "Give Complete Bath"
      Do B:Time
      Do Replaord
      Do Repnrord
      Return

   Case Xnord4dopt = 10
      Morder = "Keep Commode @ Bedside"
      Do B:Time
      Do Replaord
      Do Repnrord
      Return

   Case Xnord4dopt = 11
      Morder = "Keep Urinal/Bedpan Near"
      Do B:Time
      Do Replaord
      Do Repnrord
      Return

   Case Xnord4dopt = 12
      Morder = "Provide Necessary Equipment"
      Do B:Time
      Do Replaord
      Do Repnrord
      Return

   Case Xnord4dopt = 13
      Morder = "Provide For Hygiene"
      Do B:Time
      Do Replaord
      Do Repnrord
      Return

   Case Xnord4dopt = 14
      Morder = "Set Up Food Tray"
      Do B:Time
      Do Replaord
      Do Repnrord
      Return

   Case Xnord4dopt = 15
      Morder = "Spoon Feed Child"
      Passdata = "Q28 2"
      Ptpoint = 10
      Do Replaord
```

```
        Do Repnrord
        Return

    Case Xnord4dopt = 16
        Morder = "Peds Recreation/Observation"
        Passdata = "Q26 1"
        Ptpoint = 8
        Do Replaord
        Do Repnrord
        Return

    Endcase
    Release Xnord4dopt

Enddo
```

```
**** NORDER4E.PRG ********************************************
* Author:              Gary R. Harmeyer LCDR NC USN
* Date:                23 December 1985
* Screen Generated By: The Software Bottling Company
*                        Of New York, c1985
* Purpose:             Provides a menu for the nurse to
*                        select a nursing order for a
*                        patient whose goal is functions
*                        at level 4: dependent and does
*                        not participate in care.
* Input Files Used:    Norder4E.Scr, Time, Emosup and
*                        Procfile.Prg
* Output Files Used:   Orders and Ncaredb.Dbf
* Calling Routine:     Goal_4.Prg
* Routine Called:      None
* Modification Date:   3 February 1986
*
* -- Screen Input Program For Norder4E --
*
Do Setup
Public Xnord4eopt

Do While .T.

   * -- Screen Display A:Norder4E.Scr --

   Set Color To W+/B,W+/B
   Clear
   ?? Flash+"S.A:Norder4E.Scr/"
   Set Color To W+/B,W+/B
   Xnord4eopt = 01
   Do Headings
   @ 22,66 Get Xnord4eopt Pict "99" Range 1,16
   Read

   * -- Nursing orders are determined by evaluating the
   * --   case statement, then place data into Ncaredb and
   * --   Orders.Dbf files --

   Do Case

      Case Xnord4eopt = 1
         Morder = "Assist To/From Bathroom"
         Do B:Time
         Do Replaord
         Do Repnrord
         Return
```

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```
Case Xnord4eopt = 2
   Morder = "Assist To/From Commode"
   Do B:Time
   Do Replaord
   Do Repnrord
   Return

Case Xnord4eopt = 3
   Morder = "Assist To Comb/Brush Hair"
   Do B:Time
   Do Replaord
   Do Repnrord
   Return

Case Xnord4eopt = 4
   Morder = "Dress Patient"
   Do Replaord
   Do Repnrord
   Return

Case Xnord4eopt = 5
   Morder = "Feed Patient"
   Passdata = "Q28 1"
   Ptpoint = 6
   Do Replaord
   Do Repnrord
   Return

Case Xnord4eopt = 6
   @ 18,12 Get Ordoth;
     Pict "!XXXXXXXXXXXXXXXXXXXXXXXXX"
   Read
   Morder = Ordoth
   Do B:Time
   Do Replaord
   Do Repnrord
   Return

Case Xnord4eopt = 7
   Morder = "Give Complete Bath"
   Do B:Time
   Do Replaord
   Do Repnrord
   Return

Case Xnord4eopt = 8
   Morder = "Give Emotional Support"
   Do B:Emosup
   Do Replaord
```

```
    Do Repnrord
    Return

Case Xnord4eopt = 9
  Morder = "Provide For Oral Hygiene"
  Do B:Time
  Do Replaord
  Do Repnrord
  Return

Case Xnord4eopt = 10
  Morder = "Provide For Personal Hygene"
  Do B:Time
  Do Replaord
  Do Repnrord
  Return

Case Xnord4eopt = 11
  Morder = "Provide Urinal/Bedpan"
  Do B:Time
  Do Replaord
  Do Repnrord
  Return

Case Xnord4eopt = 12
  Morder = "Spoon Feed Child"
  Passdata = "Q28 2"
  Ptpoint = 10
  Do Replaord
  Do Repnrord
  Return

Case Xnord4eopt = 13
  Morder = "Other Activity [>15 <30min]"
  Passdata = "Q56 2"
  Ptpoint = 2
  Do Replaord
  Do Repnrord
  Return

Case Xnord4eopt = 14
  Morder = "Other Activity [>30min]"
  Passdata = "Q56 3"
  Ptpoint = 4
  Do Replaord
  Do Repnrord
  Return

Case Xnord4eopt = 15
  Morder = "Special Procedure [>1 <2hr]"
```

```
      Passdata = "Q56 4"
      Ptpoint = 8
      Do Replaord
      Do Repnrord
      Return

   Case Xnord4eopt = 16
      Morder = "Xtra Linen Chge/Partal Both"
      Do B:Time

      Do Case
        Case [Timeopt < 34 .Or. Timeopt = 41]
          * -- Less than x 6 per day
          Passdata = "Q24 1"
          Ptpoint = 0
        Case [Timeopt = 34 .Or. Timeopt = 35]
          * -- x 2 per shift or x 6 per day
          Passdata = "Q24 2"
          Ptpoint = 4
        Case [Timeopt = 36 .Or. Timeopt = 37]
          * -- x 4 per shift or x 12 per day
          Passdata = "Q24 3"
          Ptpoint = 8
        Case [Timeopt = 38 .Or. Timeopt = 39]
          * -- x 8 per shift or x 24 per day
          Passdata = "Q24 4"
          Ptpoint = 16
      Endcase

      Do Replaord
      Do Repnrord
      Return

   Endcase
   Release Xnord4eopt

Enddo
```

```
**** INACTIVE.PRG ************************************************
* Author:              Gary R. Harmeyer LCDR NC USN
* Date:                8 January 1986
* Screen Generated By: The Software Bottling Company
*                          Of New York, c1985
* Purpose:             Displays the patient's nursing care
*                          plan and allows it to be modified
*                          by inactivating portions of it.
* Input Files Used:    Inactive.Scr and Procfile.Prg
* Output Files Used:   Ncaredb.Dbf
* Calling Routine:     Nurse1.Prg
* Routine Calls:       None
* Modification Date:   4 February 1986
*
* -- Screen Input Program For Inactive --
*
Do Setup
Public Xinaopt,Xidate,Xitime,Xinurse,Xnpack
Public Xiemo,Xifreq,Xmptfmpssn,Xidiag,Xmord
Public Xigoal,Xiassess,Xirelate,Xiord
Xnpack = .F.

* -- Identify correct patient and isolate the nursing
* --    care plan --

Use B:Ncaredb
Store "'" + Ptfmpssn + "'" To Xmptfmpssn
Locate For Nfmpssn = &Xmptfmpssn

Do While .T.

   * -- Store data from Dbf file into variable names --

   Xidate = Ndate
   Xitime = Ntime
   Xinurse = Nurse
   Xiemo = Emotea
   Xifreq = Nfreq
   Xidiag = Ndiag
   Xigoal = Goal
   Xiassess = Assess
   Xirelate = Relate
   Xiord = Nord

   * -- Screen Display B:Inactive.Scr --

   Set Color To W+/B,W+/B
   Clear
   ?? Flash+"S.B:Inactive.Scr/"
```

```
Set Color To W+/B,W+/B
Do Headings
Xinaopt = 1
@ 13,1 Say Xitime
@ 13,9 Say Xidate
@ 13,18 Say Xidiag
@ 13,46 Say Xiassess
@ 14,1 Say Xirelate
@ 14,27 Say Xigoal
@ 15,1 Say Xiord
@ 15,28 Say Xifreq
@ 15,41 Say Xiemo
@ 15,61 Say Xinurse
@ 22,67 Get Xinaopt Pict "9" Range 0,4
Read

* -- Evaluate action based on the option selected --

Do Case

   Case Xinaopt = 0
      * -- Sign-Off
      If Xnpack = .T.
        Pack
      Endif
      Close Databases
      Close Procedure
      Release All
      Return To Master

   Case Xinaopt = 1
      * -- Next Plan
      Skip
      Do While (Nfmpssn # &Xmptfmpssn)
        IF EOF()
          Nmenu ="1"
          @ 24,5 Say "No Additional Care Plans On This "
          @ 24,38 Say "Patient -- Press Any Key To "
          @ 24,66 Say "Continue"
          Set Console Off
          Wait
          Set Console On
          If Xnpack = .T.
            Pack
          Endif
          Return
        Else
          Skip
        Endif
      Enddo
```

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```
   If EOF ()
     Nmenu ="1"
     @ 24,5 Say "No Additional Care Plans On This "
     @ 24,38 Say "Patient -- Press Any Key To "
     @ 24,66 Say "Continue"
     Set Console Off
     Wait
     Set Console On
     If Xnpack = .T.
       Pack
     Endif
     Return
   Else
     Loop
   Endif

Case Xinaopt = 2
   * -- Inactivate Plan
   Xnpack = .T.
   Store "'" + Xiord + "'" To Xmord

   * -- Remove corresponding order from Orders.Dbf

   Use B:Orders
   Locate For (Fmpssn=&Xmptfmpssn .And. Order=&Xmord)
   Delete
   Pack

   * -- Remove nursing care plan data from Ncaredb.Dbf

   Use B:Ncaredb
   Delete
   Skip
   Do While (Nfmpssn # &Xmptfmpssn)
     If EOF()
       Nmenu ="1"
       @ 24,5 Say "No Additional Care Plans On This "
       @ 24,38 Say "Patient -- Press Any Key To "
       @ 24,66 Say "Continue"
       Set Console Off
       Wait
       Set Console On
       Pack
       Return
     Else
       Skip
     Endif
   Enddo
   If EOF ()
     Nmenu ="1"
```

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```
            @ 24,5 Say "No Additional Care Plans On This "
            @ 24,38 Say "Patient -- Press Any Key To "
            @ 24,66 Say "Continue"
            Set Console Off
            Wait
            Set Console On
            Pack
            Return
         Else
            Loop
         Endif

      Case Xinaopt = 3
         * -- Nurse Master
         If Xnpack = .T.
            Pack
         Endif
         Nmenu ="1"
         Return

      Case Xinaopt = 4
         * -- Master
         If Xnpack = .T.
            Pack
         Endif
         Nmenu =" "
         Return

   Endcase
   Release Xinaopt,Xidate,Xitime,Xinurse,Xnpack
   Release Xiemo,Xifreq,Xmptfmpssn,Xidiag,Xmord
   Release Xigoal,Xiassess,Xirelate,Xiord

Enddo
```

```
**** ADDELETE.PRG ********************************************
* Author:                Gary R. Harmeyer LCDR NC USN
* Date:                  9 January 1986
* Screen Generated By: The Software Bottling Company
*                         Of New York, c1985
* Purpose:                Allows the data processing person-
*                         nel to choose to add or delete a
*                         user.
* Input Files Used:      Addelete.Scr and Procfile.Prg
* Output Files Used:     None
* Calling Routine:       Master.Prg
* Routine Calls:         Useinfo or Delete.Prg
* Modification Date:     25 January 1986
*
* -- Screen Input Program For Addelete --
*
Do Setup
Public Xaddelopt

Do While .T.

   * -- Screen Display B:Addelete.Scr --

   Set Color To W+/B,W+/B
   Clear
   ?? Flash+"S.B:Addelete.Scr/"
   Set Color To W+/B,W+/B
   Xaddelopt = 0
   @ 22,67 Get Xaddelopt Pict "9" Range 0,2
   Read

    * -- Evaluate action based on the option selected --

   Do Case

      Case Xaddelopt = 0
         * -- Sign-Off
         Close Databases
         Close Procedure
         Release All
         Return To Master

      Case Xaddelopt = 1
         * -- Add A User
         Do B:Useinfo
         Loop

      Case Xadmitopt = 2
         * -- Delete A User
```

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```
        Do B:Delete
        Loop

     Endcase
     Release Xaddelopt

Enddo
```

```
**** USEINFO.PRG ******************************************
* Author:                Gary R. Harmeyer LCDR NC USN
* Date:                  12 December 1985
* Screen Generated By:   The Software Bottling Company
*                            Of New York, c1985
* Purpose:               Allow data processing personnel to
*                            add new user.
* Input Files Used:      Useinfo.Scr and Procfile.Prg
* Output Files Used:     Useinfo.Dbf
* Calling Routine:       Addelete.Prg
* Routine Called:        None
* Modification Date:     4 February 1986
*
*   -- Screen Input Program For Useinfo --
*
Do Setup
Public Xufinitial,Xuminitial,Xulname
Public Xrequestor,Xcodeword,Xaccess
Xufinitial = " ."+Space[0]
Xuminitial = Space[3]
Xulname = Space[12]
Xrequestor = Space[3]
Xcodeword = Space[5]
Xaccess = 3

Do While .T.

   * -- Screen Display B:Useinfo.Scr --

   Set Color To W+/B,W+/B
   Clear
   ?? Flash+"S.B:Useinfo.Scr/"
   Set Color To W+/B,W+/B
   @ 9,43 Get Xufinitial Pict "!."
   @ 11,43 Get Xuminitial Pict "!!!"
   @ 13,43 Get Xulname Pict "!XXXXXXXXXXX"
   @ 16,43 Get Xrequestor Pict "!!!"
   @ 18,43 Get Xcodeword Pict "!!!!!"
   @ 20,43 Get Xaccess Pict "9" Range 0,4
   Read

   Use B:Useinfo
   Do While .Not. EOF[]
     Skip
   Enddo
   Append Blank

   * -- Put data from variable names into Dbf file --
```

```
    Replace Ufinitial With Xufinitial
    Replace Uminitial With Xuminitial
    Replace Ulname With Xulname
    Replace Requestor With Xrequestor
    Replace Codeword With Xcodeword
    Replace Access With Xaccess

    Return
    Release Xufinitial,Xuminitial,Xulname
    Release Xrequestor,Xcodeword,Xaccess

Enddo
```

```
**** DELETE.PRG ***********************************************
* Author:              Gary R. Harmeyer LCDR NC USN
* Date:                9 January 1986
* Screen Generated By: The Software Bottling Company
*                        Of New York, c1985
* Purpose:             Delete a user.
* Input Files Used:    Delete.Scr and Procfile.Prg
* Output Files Used:   Useinfo.Dbf
* Calling Routine:     Addelete.Prg
* Routine Calls:       None
* Modification Date:   4 February 1986
*
* -- Screen Input Program For Delete --
*
Do Setup
Public Xdelopt,Xdlulname,Xdlufinit,Xdluminit
Public Xdlreq,Xdlacc,Xusepack
Xusepack = .F.

Do While .T.

   * -- Store data from Dbf file into variable names --

   Use B:Useinfo
   Xdlulname = Ulname
   Xdlufinit = Ufinitial
   Xdluminit = Uminitial
   Xdlreq = Requestor
   Xdlacc = Access

   * -- Screen Display B:Delete.Scr --

   Set Color To W+/B,W+/B
   Clear
   ?? Flash+"S.B:Delete.Scr/"
   Set Color To W+/B,W+/B
   Xdelopt = 1
   @ 13,5 Say Xdlulname
   @ 13,19 Say Xdlufinit
   @ 13,22 Say Xdluminit
   @ 13,39 Say Xdlreq
   @ 13,66 Say Xdlacc
   @ 22,67 Get Xdelopt Pict "9" Range 0,3
   Read

     * -- Evaluate action based on the option selected --

   Do Case
```

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```
Case Xdischopt = O
  * -- Sign-Off
  If Xusepack = .T.
    Pack
  Endif
  Close Databases
  Close Procedure
  Release All
  Return To Master

Case Xdischopt = 1
  * -- Next User
  Skip
  IF EOF ()
    @ 24,15 Say "No Additional Users -- Press "
    @ 24,44 Say "Any Key To Continue"
    Set Console Off
    Wait
    Set Console On
    If Xusepack = .T.
      Pack
    Endif
    Return
  Else
    Loop
  Endif

Case Xdischopt = 2
  * -- Delete User
  Xusepack = .T.
  Delete
  Skip
  IF EOF ()
    @ 24,15 Say "No Additional Users -- Press "
    @ 24,44 Say "Any Key To Continue"
    Set Console Off
    Wait
    Set Console On
    Pack
    Return
  Else
    Loop
  Endif

Case Xdischopt = 3
  * -- Return To Add/Delete Screen
  If Xusepack = .T.
    Pack
  Endif
```

```
        Close Databases
        Return

    Endcase
    Release Xdelopt,Xdlulname,Xdlufinit,Xdluminit
    Release Xdlreq,Xdlacc,Xusepack

Enddo
```

APPENDIX F

PROGRAM SCREENS

A   PROTOTYPE

PROJECT
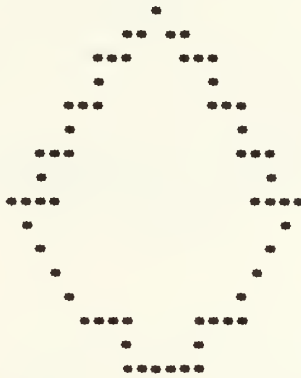
FOR   BY

THE   GARY R. HARMEYER
                                                              LCDR NC USN
NAVY NURSE CORPS
                                                           MARCH 1986

                                                    NAVAL POSTGRADUATE SCHOOL

                                                       MONTEREY, CALIFORNIA

                                                           RELEASE 1

PRESS ANY KEY TO BEGIN

Figure 1

```
*** Please Sign On By Entering Password ***
```

```
** Password :
```

Figure 1a

```
** Prototype Master Screen **                    Date      Time

                  *** Select the Desired Option ***

                  1] Admission's Department

                  2] Doctor's Master

                  3] Nursing Master

                  4] System Administration

                  0] Sign-Off
Current User:
                       Select one number [0-4] ----> .
```

Figure 2

```
              *** SELECT ADMIT / DISCHARGE OPTION ***

                    1]  Admit A Patient

                    2]  Discharge A Patient

        •
                    0]  Sign-Off

 Current User:
                        Select one number [0-2] ---->  ∎
```

Figure 3

```
                        Patient Admission Form

 Last Name:                       Registration No:

 First Name:                      Medical Diagnosis:

 Mid Initial:                     Physician:

 Rate/Rank:                       Prognosis:

 FMP-SSN:          -              Allergies:

 Birthdate:     /  /             Nursing Ward:

 Age:                             Room Number:

 Sex:                             Bed:

 Admit Date:    /  /
```

Figure 3.1

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```
                    *** DISCHARGE A PATIENT ***


    FMP-SSN        Patient Name                    Practitioner




    0] Sign-off  1] Next Patient  2] Discharge Patient  3] Admit/Discharge Scr

    Current User:     |
                      |       Select one number [0-3] ----->  .
                      |
```

Figure 3.2

```
    ** Nurse's Station Selection **                    Date    Time

            *** Select Nursing Unit to Display Patients ***


                    1] 2E   Surgical Ward

                    2] 3E   Medical Ward



        0] Sign-Off                        3] Master Screen
    Current User:     |
                      |       Select one number [0-3] ----->  .
                      |
```

Figure 4

```
** Patient Selection **      Ward  2E  Surgical          Date      Time

                        *** Select Patient ***


                 RM BED              PATIENT
                1] 1  A
                2] 1  B

                3] 2  A
                4] 2  B

                5] 3  A
                6] 3  B


      0] Sign-Off                            7] Master Screen

Current User:        |
                     |      Select one number [0-7] ----> .
                     |
```

Figure 4.1a


```
** Patient Selection **      Ward  3E  Medical           Date      Time

                        *** Select Patient ***


                 RM BED              PATIENT
                1] 1  A
                2] 1  B

                3] 2  A
                4] 2  B

                5] 3  A
                6] 3  B


      0] Sign-Off                            7] Master Screen

Current User:        |
                     |      Select one number [0-7] ----> .
                     |
```

Figure 4.1b

```
Ward Room Bed      Patient                   Reg #         Date      Time


                        *** DOCTOR'S MASTER SCREEN ***

                    1] Order Entry

                    2] Admit / Transfer / Discharge Patient

                    3] Review Medical Orders

                    4] Print Medical Orders

                    5] Discontinue An Order


        0] Sign-Off                              6] Master Screen

    Current User:
                            Select one number [0-6] ----> ■
```

Figure 4.1.1

```
Ward Room Bed      Patient                   Reg #         Date      Time

                        *** DOCTOR'S ORDER MENU ***

    1] Activity                      6] Pharmacy

    2] Diet                          7] Radiology

    3] IV's / Blood                  8] Respiratory Therapy

    4] Laboratory Tests              9] Vital Signs

    5] Monitoring                    10] Ward Routines


      00] Sign-Off      11] Doctor's Master Screen      12] Master Screen

    Current User:
                            Select one number [00-12] ---> ■■
```

Figure 4.1.1.1

```
Word Room Bed        Patient              Reg #           Date      Time
                                              .
                     *** SELECT ACTIVITY LEVEL ***

       1] Ambulate ad lib              7] Dangle Legs

       2] Ambulate w/ Assistance       8] Keep on Back

       3] Strict Bedrest               9] May Shower

       4] Bedrest w/ BRP              10] Turn Patient

       5] Bedside Commode             11] Turning Frame

       6] OOB to Strecher w/ Assist   12] Up in Chair w/ Assist

       0] Sign-Off      13] Doctor's Order Screen      14] Master Screen

Current User:
                         Select one number [00-14] --->
```

Figure 4.1.1.1a

```
Word Room Bed        Patient              Reg #           Date      Time

                 *** SELECT TIME/FREQUENCY OPTION ***

   1] PRN            * Daily @        20] 2200        30] Q Shift
   2] Q 1-2 Hr PRN  10] 0200          21] 2400        31] QID
   3] Q 2-3 Hr PRN  11] 0400                          32] Q 6 Hr
   4] Q 3-4 Hr PRN  12] 0600          22] BID         33] x 4
                    13] 0800          23] Q 12 Hr     34] Q 4 Hr
   5] On Call       14] 1000          24] x 2         35] x 6
   6] QD            15] 1200          25] TID
   7] HS            16] 1400          26] AC          36] Q 2 Hr
   8] x 1           17] 1600          27] PC          37] x 12
   9] Today @       18] 1800          28] Q 8 Hr      38] Q 1 Hr
      ....          19] 2000          29] x 3         39] x 24

          40] Help            41] Return to Calling Screen

Current User:
                         Select one number [01-41] --->  ..
```

Figure 4.1.1.1b

Hospital policy dictates the exact time for standardized abbreviations.

1-4) PRN	31-33) Four times a day frequency
	QID -- 0900, 1300, 1700, 2100
5-21) Single dosages	Q 6 Hr -- 0600, 1200, 1800,
QD -- 0900	2400
HS -- 2200	
	34-35) Six times a day frequency
22-24) Twice a day frequency	Q 4 Hr -- 0200, 0600, 1000,
BID -- 0900 & 2100	1400, 1800, 2200
Q 12 Hr -- 1200 & 2400	
	36-37) Twelve times a day frequency
25-30) Three times a day frequency	Q 2 Hr -- Even hours
TID -- 0900, 1400, 2100	
AC -- 0700, 1100, 1700	38-39) 24 times a day frequency
PC -- 0900, 1300, 1900	Q 1 Hr -- On the hour
Q 8 Hr -- 0600, 1400, 2200	
Q Shift -- 0900, 1700, 0200	41) No frequency will be assigned

Figure 4.1.1.1c

Ward Room Bed	Patient	Reg #	Date	Time

*** SELECT DIET ***

1) As Tolerated	10) No Controlled
2) Clear Liquids	11) NPO
3) Diabetic	12) NPO p 2400
4) Fat-controlled	13) NPO w/ ice chips
5) Full Liquids	14) Regular
6) Infant / Neonatal Bottle x1	15) Renal & Liver Disease
7) Infant / Neonatal Bottle x6	16) T & A
8) Infant / Neonatal Bottle x12	17) Tube Feedings [cont / bags]
9) Mechanical Soft	18) Tube Feedings [bolus]

00) Sign-Off   19) Doctor's Order Screen   20) Master Screen

Current User:	Select one number [00-20] --->

Figure 4.1.1.1d

```
Word Room Bed        Patient              Reg #           Dote     Time


                    *** SELECT IV ORDER ***

        * IV ORDERS *

    1]   Start IV of          .45 NaCl                Over 30 Min
    2]   Alternote IV with    Ringer's Loctote        Over 1 Hr
    3]   Follow Present IV w/  DS Ringer's Loctote     Over 2 Hr
    4]   Interrupt IV for      DS Water               Over 4 Hr
    5]   Stort Second IV of   Normal Saline           Over 6 Hr
                              DS Normal Saline         Over 8 Hr
    6]   Discontinue IV                                Over 12 Hr
    7]   Insert Heporin Lock  Whole Blood              Over 24 Hr
    8]   Use Multilumen Line  Pocked Cells


    00] Sign-Off      09] Doctor's Order Screen      10] Moster Screen

Current User:
                         Select one number [00-10] ---> ••
```

Figure 4.1.1.1e


```
Word Room Bed        Patient              Reg #           Dote     Time


                    *** SELECT IV SOLUTION ***


                         * SOLUTION *

    Start IV of          1]  DS .45 NoCl            Over 30 Min
    Alternote IV with _  2]  Ringer's Loctote       Over 1 Hr
    Follow Present IV c  3]  DS Ringer's Loctote    Over 2 Hr
    Interrupt IV for      4]  DS Water              Over 4 Hr
    Stort Second IV of   5]  Normal Saline          Over 6 Hr
                         6]  DS Normal Saline        Over 8 Hr
    Discontinue IV                                  Over 12 Hr
    Insert Heporin Lock  7]  Whole Blood            Over 24 Hr
    Use Multilumen Line  8]  Packed Cells


Current User:
                         Select one number [1-8] ----> •
```

Figure 4.1.1.1f

```
Ward Room Bed        Patient                Reg #           Date     Time


                     *** SELECT INFUSION RATE ***


                                        * INFUSION RATE *

    Start IV of          .45 NaCl          1)  Over 30 Min
    Alternate IV with    Ringer's Lactate  2)  Over 1 Hr
    Follow Present IV w/  D5 Ringer's Lactate 3)  Over 2 Hr
    Interrupt IV for     D5 Water          4)  Over 4 Hr
    Start Second IV of   Normal Saline     5)  Over 6 Hr
                         D5 Normal Saline  6)  Over 8 Hr
    Discontinue IV                         7)  Over 12 Hr
    Insert Heparin Lock  Whole Blood       8)  Over 24 Hr
    Use Multilumen Line  Packed Cells


    Current User:
                          Select one number (1-8) ----> .
```

Figure 4.1.1.1g

```
Ward Room Bed        Patient                Reg #           Date     Time


                     *** SELECT LABORATORY TEST ***

     * CHEMISTRY *          * ENZYMES *           * OTHER *
     1) Bilirubin          12) Amylase          21) ABO & Rh
     2) BUN                13) CPK              22) ABG (from A-line)
     3) Calcium            14) LDH              23) ABG (stick)
     4) Cloride            15) SGOT             24) Blood Culture
     5) CO2                16) SGPT             25) Culture & Sensitivity
     6) Creatinine                             26) Cold Agglutins
     7) Glucose             * HEMATOLOGY *      27) HCG
     8) Phosphate          17) CBC             28) Occ Blood in Stools
     9) Potassium          18) Platlets        29) RPR
    10) Sodium             19) Protime         30) SMA 6
    11) Uric Acid          20) Sed Rate        31) UA

    00) Sign-Off      32) Doctor's Order Screen      33) Master Screen

    Current User:
                          Select one number (00-33) --->
```

Figure 4.1.1.1h
```

```
Ward Room Bed      Patient                 Reg #        Date    Time


               ••• SELECT MONITIORING REQUIREMENTS •••


     1] Apnea Monitor              10] ICP [Monitor] Set-up
     2] A-line Set-up
                                   11] Manual ICP Readings
     3] A-line Readings            12] Monitor ICP Readings
     4] Cardiac Monitor            13] Neuro Checks
     5] Cardiac Output             14] Pressure Monitor
     6] Circulation Checks         15] PAP/PA Wedge Readings
     7] CVP Readings               16] Swan-Ganz Set-up
          [Manually]               17] Temperature Monitor
     8] Fundus Checks              18] Transcutaneous
     9] Intake & Output                   Monitoring

     00] Sign-Off      19] Doctor's Order Screen    20] Master Screen

   Current User:
                          Select one number [00-19] --->
```

Figure 4.1.1.1i

```
Ward Room Bed      Patient                 Reg #        Date    Time


              ••• SELECT DESIRED MEDICATION / DOSAGE •••

  •• ANTIHISTAMINE ••            •• ANTI-INFECTIVE ••
    • Benadryl           • Ampicillin          • Erythromycin
     1]  25 mg [O]         9]  250 mg [O]        17]  250 mg [O]
     2]  50 mg [IM]       10]  500 mg [IM]       18]  200 mg Susp [O]
     3]  50 mg [IV]       11]  500 mg [IV]      • Keflex
    • Dimetapp          • Ancef                  19]  250 mg [O]
     4]   4 mg [O]        12]  .5 Gm [IM]         20]  125 mg Susp [O]
     5]   5 mg Elxr [O]   13]  .5 Gm [IV]       • Sulfacetamine Na
    • Phenergan         • Cefadyl                 21]  10% Solt [Op]
     6]  25 mg [O]        14]  500 mg [IM]      • Tetracycline
     7]  25 mg [IM]       15]  1.0 Gm [IM]        22]  250 mg [O]
     8]  25 mg [SP]       16]  1.0 Gm [IV]        23]  500 mg [IV]

24] Help   25] Next Screen [More Meds]   26] Dr's Ord Screen   27] Master Scree

   Current User:
                          Select one number [01-27] --->
```

Figure 4.1.1.1j

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```
Ward Room Bed      Patient               Reg #         Date     Time

            ••• SELECT DESIRED MEDICATION / DOSAGE •••
─────────────────────────────────────────────────────────────────────
 •• ANTISEPTIC ••      •• CARDIOVASCULAR ••     •• CNS DRUGS ••
  • Boric Acid          • Digoxin               • Dilantin
    1]   5% Salt [I]      7] .125 mg [O]          15]  100 mg [O]
                          8] .250 mg [O]          16]  125 mg Susp [O]
 •• AUTONOMIC ••        • Inderal               • Elavil
  • Atropine             9] 10 mg [O]            17]  10 mg [O]
    2]   0.4 mg [O]      10] 40 mg [O]           18]  25 mg [O]
    3]   0.4 mg [IM]     11]  1 mg [IV]          19]  50 mg [O]
  • Valium              • Minipress             • Phenobarbital
    4]   5 mg [O]        12]  1 mg [O]           20]  15 mg [O]
    5]   5 mg [IM]       13]  2 mg [O]           21]  30 mg [O]
    6]   5 Gm [IV]       14]  5 mg [O]           22]  60 mg [IM]

            23] Help              24] Previous Screen
─────────────────────────────────────────────────────────────────────
 Current User:       |
                     |      Select one number [01-24] --->
─────────────────────────────────────────────────────────────────────
```

Figure 4.1.1.1k

HELP SCREEN FOR PHARMACY MODULES

        This Help Facility explains abbreviations used in parenthesis. If

the user requires additional information on medications or dosages, they

should consult the PHYSICIAN'S DESK REFERENCE [PDR] or contact a Pharmacy

Officer. The abbreviations indicate the route of administration:

            [O] Oral   [I] Irrigation

            [IM] Intramuscular   [Op] Opthalmic

            [IV] Intravenous   [SQ] Subcutaneous

            [Sp] Suppository

Figure 4.1.1.1l

```
Ward Room Bed        Patient                    Reg #           Date      Time


                      *** SELECT X-RAY ***


        1]  Abdomen Flat Plate        |  10]  CT Scan
        2]  Abdomen AP                |  11]  Gallbladder Series
        3]  Abdomen 3-way             |  12]  IVP
        4]  Angiography               |  13]  Sinus Series
        5]  Arteriography             |  14]  Skull
        6]  Barium Enema              |  15]  Spine
        7]  Brain Scan                |  16]  Tomograpy
        8]  Chest PA                  |  17]  Upper GI Series
        9]  Chest Lateral             |  18]  Ultrasound


        00] Sign-Off    19] Doctor's Order Screen    20] Master Screen

    Current User:           |
                            |    Select one number [00-20] --->
                            |
```

Figure 4.1.1.1m

```
Ward Room Bed        Patient                    Reg #           Date      Time

  *** SELECT RESPIRATORY THERAPY OPTIONS * THEN FLOW RATE FOR ROUTE ***


            ** RESPIRATORY THERAPY **              * Flow Rate *

    1] Chest Pulmonary      |  8] Wean from      |  A] 1-2 liters/min
         Therapy            |     Ventilator     |
    2] Cough & Deep Breath  |                    |  B] 3-4 liters/min
    3] Incentive            |    * Route *        |
         Spirometer         |  9] Croup Tent     |  C] 5-6 liters/min
    4] IPPB                 | 10] Mask           |
    5] Suctioning           | 11] Mist Tent      |  D] 7-8 liters/min
    6] Tracheostomy Care    | 12] Nasal Prongs   |
    7] Ventilator           | 13] Oxyhood        |  E] 9-10 liters/min

        00] Sign-Off    14] Doctor's Order Screen    15] Master Screen

    Current User:           |    Select one number [00-15] ---> **
                            |
                            |    Select one letter [A-E] -----> •
```

Figure 4.1.1.1n

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```
Ward Room Bed        Patient                    Reg #            Date      Time


                        *** SELECT VITAL SIGN OPTION ***


              * ROUTINE *                        * SPECIAL *

          1] T-P-R, B/P                      5] FHT
                                             6] Pulse Apical
          2] Post-op                         7] Pulse Femoral
                                             8] Pulse Pedal
          3] Post Partum                     9] Temp Axillory
                                            10] Temp Rectol
          4] Post Newborn                   11] Tilt Test


      00] Sign-Off        12] Doctor's Order Screen        13] Moster Screen

    Current User:
                           Select one number [00-13] --->
```

Figure 4.1.1.1o


```
Ward Room Bed        Patient                    Reg #            Date      Time


                        *** SELECT WARD ROUTINE ***

    1] Ace Wrap Lower Ext   12] Lumbar Puncture      20] Simple Drsg Change
    2] Chest Tube Insertion 13] N-G Insertion        21] Spec Gravity
    3] Circumcision Core    14] Porencentesis        22] Spin HCT
    4] Complex Drsg Change  15] Phototherapy         23] Straight Cath
    5] EKG Rhythm Strip     16] Ronge of Motion      24] Surgical
    6] Foley Coth Care          Exercises [Possive]      Shave Prep
    7] Foley Coth Insertion                          25] SS Enema
    8] Guioc Stools         * Restraints             26] Tap Water Enema
    9] Isolation Respiratory 17] 2-Point             27] Thoracentesis
   10]      "      Reverse  18] 4-Point              28] Tube Care [not trach]
   11]      "      Strict   19] Posey                29] Urine for S & A

      00] Sign-Off        30] Doctor's Order Screen        31] Moster Screen

    Current User:
                           Select one number [00-31] --->
```

Figure 4.1.1.1p

```
Ward Room Bed      Patient                Reg #        Date      Time

                *** ADMIT ** TRANSFER ** DISCHARGE ***


                       1]   Admit

                       2]   Transfer

                       3]   Dischorge



    0] Sign-Off        4] Doctor's Order Screen       5] Moster Screen

  Current User:   |
                  |         Select one number [0-5] ---->
```

<p style="text-align:center">Figure 4.1.1.2</p>

```
                    Potient Orders For: Mary Miser

        Press -- Ctrl ond S -- Keys to Pouse The Scrolling If Necessory
Poge No.     1
01/12/86


  Dote     Time    Order                  Frequency    Practitioner

01/11/86 14:13:47 Up in Choir w/ Assist   TID          N. Lyon MD
01/11/86 14:14:23 Diobetic Diet                        N. Lyon MD
01/11/86 14:15:41 Stort IV of .45 NoCl    Infuse o 8Hr N. Lyon MD
01/12/86 10:17:14 Cloride                 Daily @ 0600 N. Lyon MD
01/12/86 10:17:40 Sodium                               N. Lyon MD
01/12/86 10:18:00 Amylase                               N. Lyon MD
01/12/86 10:18:26 Potassium               Doily @ 0600 N. Lyon MD
01/12/86 10:18:56 CO2                     Daily @ 0600 N. Lyon MD
01/12/86 10:19:26 CBC                     Daily @ 0600 N. Lyon MD
01/12/86 10:19:54 Platlets                Doily @ 0600 N. Lyon MD
01/12/86 10:20:18 Glucose                 Daily @ 0600 N. Lyon MD
```

<p style="text-align:center">Figure 4.1.1.3</p>

```
Ward Room Bed      Patient              Reg #         Date    Time

                    ••• DISCONTINUE AN ORDER •••



Date    Start    Order                         Frequency    Practitioner




0) Sign-Off  1) Next Order  2) Discontinue Order  3) Dr's Scrn  4) Master Scrn

Current User:                   Select one number (0-4) ----->   •
```

Figure 4.1.1.4

```
Ward Room Bed        Patient              Reg #           Date      Time


              ••• NURSING MASTER SCREEN •••
_____

  1] Enter/Inactivate Nursing Care Plan │ S] Review Patient Care Requirements

  2] Review Nursing Care Plan           │ 6] Print Patient Care Requirements

  3] Print Nursing Care Plan            │ 7] Internal Patient Classification

  4] External Patient Classification    │


          O] Sign-Off                       8] Master Screen
_____
Current User:            │
                         │      Select one number [0-8] ----> ▪
                         │
_____
```

Figure 5.1.1

```
_____

Ward Room Bed        Patient              Reg #           Date      Time



      ••• SELECT THE DESIRED NURSING CARE PLAN FUNCTION •••
_____


            1] Enter a New Care Plan


            2] Inactivate Portions of Care Plans



   O] Sign-Off     3] Nurse's Master Screen      4] Master Screen
_____
Current User:            │
                         │      Select one number [0-4] ----> ▪
                         │
_____
```

Figure 5.1.1.1

```
Ward Room Bed        Patient                    Reg #            Date     Time


                    *** SELECT NURSING DIAGNOSIS ***


                    1)  Comfort, Alteration In: Pain


                    2)  Communication, Impaired: Verbal


                    3)  Impaired Physical Mobility


                    4)  Self-Care Deficit


    0) Sign-Off     5) Nurse's Master Screen        6) Master Screen

Current User:
                         Select one number (0-6) ----> .
```

Figure 5.1.1.1a

```
Ward Room Bed        Patient                    Reg #            Date     Time

        **  SELECT NURSING ASSESSMENTS FOR A PATIENT WITH    **
        ** NURSING DIAGNOSIS OF COMFORT ALTERATION IN: PAIN **

1) Altered Time          7) Guarding Behavior       12) Self-Focusing
     Perception
                         8) Impaired Thought        13) Talkative
2) Alteration Muscle Tone     Process
                                                    14) Verbal Complaint
3) Autonomic Response    9) Narrowing Focus
                                                    15) Vocal Complaints
4) Distraction Behavior  10) Pacing                     (Moans, Crying)

5) Facial Mask           11) Patient Report         16) Withdrawal From
                                                        Social Contact
6) Other Assessment: [.........................]

Current User:
                         Select one number (01-16) --->
```

Figure 5.1.1.1b

380

```
Ward Room Bed      Patient              Reg #        Date      Time

        ••    SELECT A RELATED FACTOR FOR A PATIENT WITH    ••
        •• NURSING DIAGNOSIS OF COMFORT ALTERATION IN: PAIN ••

  1]  Altered Sensation            5]  Surgical Procedure

  2]  Disease / Condition          6]  Trauma

  3]  Emotional State              7]  Treatment Regime

  4]  Other: [.......................]


 Current User:
                       Select one number [1-7] ---->
```

Figure 5.1.1.1c


```
Ward Room Bed      Patient              Reg #        Date      Time

        ••    SELECT A PATIENT GOAL FOR A PATIENT WITH    ••
        •• NURSING DIAGNOSIS OF COMFORT ALTERATION IN: PAIN ••

        1]  Communicates Pain Free

        2]  Communicates Experiences Less Pain

        3]  Communicates Experience of Pain More Tolerable

        4]  Demos Skills & Knowledge to Achieve Pt Goals

        5]  Other Goals: [..................................]


 Current User:
                       Select one number [1-5] ---->
```

Figure 5.1.1.1d

```
Word Room Bed       Patient                  Reg #          Date      Time

  ••           SELECT A NURSING ORDER FOR A PATIENT WHOSE GOAL IS           ••
  •• COMMUNICATES: PAIN FREE, EXPERIENCES LESS/TOLERABLE PAIN OR OTHER GOAL ••


    1]  Assess Pain Factors                  6]  Offer PRN Medications

    2]  Assess & Evaluate Pain               7]  Provide Emotional Support

    3]  Encour Pt to Use Coping Strategy     8]  Schedule "Quiet Times"

    4]  Give Info & Explain Proc & Tests     9]  Teach Alt Coping Strategies

    5]  Other Nursing Orders:                10]  Utilize Diversional Activities
           [............................]

  Current User:
                              Select one number [01-10] ••••>
```

Figure 5.1.1.1e

```
Word Room Bed       Patient                  Reg #          Date      Time

        •• SELECT A NURSING ORDER FOR A PATIENT WHOSE GOAL IS ••
        •• DEMONSTRATES SKILLS & KNOWLEDGE TO ACHIEVE GOALS  ••


              • Teach Stress Reduction Techniques

                  1]  Deep Breathing

                  2]  Progressive Relaxation

                  3]  Relaxation Response

                  4]  Diversional Activity

                  5]  Other: [............................]

  Current User:
                              Select one number [1-5] ••••>
```

Figure 5.1.1.1f

382

```
Ward Room Bed      Patient                Reg #        Date      Time


              *** SELECT TIME/FREQUENCY OPTION ***


   1] PRN           * Daily @      │  20] 2200     │  30] Q Shift
   2] Q 1-2 Hr PRN  10] 0200       │  21] 2400     │  31] QID
   3] Q 2-3 Hr PRN  11] 0400       │               │  32] Q 6 Hr
   4] Q 3-4 Hr PRN  12] 0600       │  22] BID      │  33] x 4
                    13] 0800       │  23] Q 12 Hr  │  34] Q 4 Hr
   5] On Call       14] 1000       │  24] x 2      │  35] x 6
   6] QD            15] 1200       │  25] TID      │
   7] HS            16] 1400       │  26] AC       │  36] Q 2 Hr
   8] x 1           17] 1600       │  27] PC       │  37] x 12
   9] Today @       18] 1800       │  28] Q 8 Hr   │  38] Q 1 Hr
      ....          19] 2000       │  29] x 3      │  39] x 24

          40] Help          41] Return to Calling Screen

Current User:     │
                  │        Select one number [01-41] ---> ••
```

Figure 5.1.1.1g


```
             HELP SCREEN FOR THE TIME MODULE


   Hospital policy dictates the exact time for standardized abbreviations.


  1-4] PRN                      │  31-33] Four times a day frequency
                                │         QID -- 0900, 1300, 1700, 2100
  5-21] Single dosages          │         Q 6 Hr -- 0600, 1200, 1800,
        QD -- 0900              │                   2400
        HS -- 2200              │
                                │  34-35] Six times a day frequency
  22-24] Twice a day frequency  │         Q 4 Hr -- 0200, 0600, 1000,
        BID -- 0900 & 2100      │                   1400, 1800, 2200
        Q 12 Hr -- 1200 & 2400  │
                                │  36-37] Twelve times a day frequency
  25-30] Three times a day frequency │     Q 2 Hr -- Even hours
        TID -- 0900, 1400, 2100 │
        AC -- 0700, 1100, 1700  │  38-39] 24 times a day frequency
        PC -- 0900, 1300, 1900  │         Q 1 Hr -- On the hour
        Q 8 Hr -- 0600, 1400, 2200 │
        Q Shift -- 0900, 1700, 0200 │  41] No frequency will be assigned
```

Figure 5.1.1.1h

You have identified teaching as a nursing intervention. Please
specify the type of teaching that will be required. Remember to
document the teaching you give to your patient.

A] Group Teaching   D] Structured Teaching
                                        [ie. diabetic, cardiac,
B] Preoperative Teaching   colostomy care, post
                                        partum first 24 hr, newborn
C] Return to Previous Screen   care, or discharge]

Select one letter [A-D] ---> ▪

Figure 5.1.1.1i

You have identified emotional support as a nursing intervention.

Emotional support is expected for each patient, but augmented staffing

may be required for the following:

▪ Answer A-C only if emotional support is in excess of 30 min q24h ▪

A] Patient/family support [ie. anxiety, denial, loneliness, etc.]

B] Modification of lifestyle [ie. new prosthesis, body image,
        behavior modification, etc.]

C] Sensory deprivation [ie. retarded, deaf, blind, language barrier,
        bilateral eye patches, confused, combative]

D] Return to previous screen

                    Select one letter [A-D] ---> ▪

Figure 5.1.1.1j

```
Word Room Bed      Potient              Reg #          Date      Time

       ••    SELECT NURSING ASSESSMENTS FOR A PATIENT WITH    ••
       •• NURSING DIAGNOSIS OF COMMUNICATION, IMPAIRED: VERBAL ••


   1) Anxiety            6) Inability to Hear     10) Slurring

   2) Disorientation     7) Inability to Speak    11) Stuttering

   3) Fear               8) Incomprehensible Speech  12) Tearfulness

   4) Frustration        9) Refusal to Speak      13) Thought Disorder

   5) Other Assessment: [·························]


   Current User:
                        Select one number [01-13] --->
```

Figure 5.1.1.1k

```
Word Room Bed      Potient              Reg #          Date      Time

       ••    SELECT A RELATED FACTOR FOR A PATIENT WITH      ••
       •• NURSING DIAGNOSIS OF COMMUNICATION, IMPAIRED: VERBAL ••


   1)  Anatomical Impairment       6)  Foreign Language

   2)  Cultural Difference         7)  Mental Capacity

   3)  Developmental Age           8)  Sedation

   4)  Disease Process             9)  Surgical Procedure

   5)  Other: [·····················]  10) Treatment Regime


   Current User:
                        Select one number [01-10] --->
```

Figure 5.1.1.1l

385

```
Ward Room Bed      Patient                Reg #           Date      Time

        ••      SELECT A PATIENT GOAL FOR A PATIENT WITH         ••
        •• NURSING DIAGNOSIS OF COMMUNICATION, IMPAIRED: VERBAL ••


    1]  Communicates Needs Thru Words    5]  Reports Less Anxiety

    2]  Comm Needs Thru Mechanical Tools 6]  Reports Less Fear

    3]  Demo Skills to Achieve Goals     7]  Reports Less Stress

    4]  Other Goals: [................................... ]

  Current User:
                          Select one number [1-7] ---->
```

Figure 5.1.1.1m

```
Ward Room Bed      Patient                Reg #           Date      Time

        ••      SELECT A NURSING ORDER FOR A PATIENT WHOSE GOAL IS    ••
        •• COMMUNICATES NEEDS THROUGH USE OF WORDS OR MECHANICAL TOOLS ••


  1]  Apprise Others of Communication Prob   6]  Provd Translated Phase Chart

  2]  Provide Emotional Support              7]  Provide Translator

  3]  Provide Paper & Pencil                 8]  Simple Ques w/ Y/N Ans

  4]  Provide Spelling Board                 9]  Use Sign Language

  5]  Other Nursing Order:                  10]  Use Establish Comm for ADL
          [.........................]

  Current User:
                          Select one number [01-10] --->
```

Figure 5.1.1.1n

```
Ward Room Bed        Patient                      Reg #          Date       Time

          **    SELECT A NURSING ORDER FOR A PATIENT WHOSE GOAL IS   **
          **    REPORTS DECREASED LEVEL OF STRESS, ANXIETY, OR FEAR  **


   1]  Encourage Patient to Speak Slowly │  6]  Provide Translated Phase Chart

   2]  Encour To Util Coping Strategy    │  7]  Provide Translator

   3]  Explain Proc and Elicit Question  │  8]  Simple Questions w/ Y/N Answers

   4]  Provide Spelling Board            │  9]  Use Sign Language

   5]  Other Nursing Orders:             │ 10]  Use Establish Comm for ADL
          [.........................]    │

   Current User:         │
                         │         Select one number [01-10] --->
```

Figure 5.1.1.1o

```
Ward Room Bed        Patient                      Reg #          Date       Time

          **    SELECT A NURSING ORDER FOR A PATIENT WHOSE GOAL IS   **
          **             DEMONSTRATES SKILLS TO ACHIEVE GOALS        **

 * Teach Method Preop for Postop Use      * Teach Stress Reduction Techniques

   1]  Blink 1x For No, 2x For Yes     │   6]  Deep Breathing

   2]  Squeeze Hand For Y/N Response   │   7]  Diversional Activities

   3]  Teach Proper Use of Mech Device │   8]  Progressive Relaxation

   4]  Apprise Others of Comm Problem  │   9]  Relaxation Response

   5]  Other Nursing Orders: [......................]

   Current User:         │
                         │         Select one number [1-9] ---->
```

Figure 5.1.1.1p

387

```
Ward Room Bed      Patient                  Reg #         Date      Time

              ••   SELECT NURSING ASSESSMENTS FOR A PATIENT WITH   ••
              •• NURSING DIAGNOSIS OF IMPAIRED PHYSICAL MOBILITY ••

  1] Confinement Imposed              7] Inability to Transfer

  2] Fatigues Easily                  8] Inability to Turn

  3] Gait Impairment                  9] Limited Range of Motion [ROM]

  4] Impaired Coordination           10] Reluctant to Move

  5] Inability to Ambulate           11] Use of Assistive Devices

  6] Other: [·························]

  Current User:
                           Select one number [01-11] ••••>
```

Figure 5.1.1.1q

```
Ward Room Bed      Patient                  Reg #         Date      Time

              ••   SELECT A RELATED FACTOR FOR A PATIENT WITH   ••
              •• NURSING DIAGNOSIS OF IMPAIRED PHYSICAL MOBILITY ••

                 1]  Decreased Activity Tolerance

                 2]  Musculoskeletal Function

                 3]  Neuromuscular Function

                 4]  Pain / Discomfort

                 5]  Treatment Regime

                 6]  Other: [·························]

  Current User:
                           Select one number [1-6] ••••>
```

Figure 5.1.1.1r

```
Ward Room Bed      Patient                Reg #         Date     Time


        **      SELECT A PATIENT GOAL FOR A PATIENT WITH      **
        ** NURSING DIAGNOSIS OF IMPAIRED PHYSICAL MOBILITY **

    1]  Able to Transfer Independently    7]  Maintains Full ROM

    2]  Able to Transfer w/ Assistance    8]  Maintain Pattern of Elimination

    3]  Demos Skills to Achieve Goals     9]  Maintain Skin Integrity

    4]  Increase Range of Motion [ROM]    10] No Additional Contractures

    5]  Maint Effective Breathing Pattern 11] Performs ADL

    6]  Other Goals: [...................................]


Current User:
                        Select one number [01-11] --->
```

Figure 5.1.1.1s

```
Ward Room Bed      Patient                Reg #         Date     Time


        **      SELECT A NURSING ORDER FOR A PATIENT WHOSE GOAL IS      **
        ** MAINTAINS FULL ROM, INCREASES ROM, NO ADDED CONTRACTURES **
        **          OR MAINTAINS EFFECTIVE BREATHING PATTERN          **

    1]  Active Range Of Motion [ROM]      6]  Passive Range Of Motion [ROM]

    2]  Cough & Deep Breath               7]  Positioning

    3]  Encourage Independent ADL         8]  Turning

    4]  Gradual Increase ADL Activity     9]  Accom Pt Off Ward [>15 <30min]

    5]  Other Nursing Orders:             10] Accom Pt Off Ward [> 30 min]
            [.........................]


Current User:
                        Select one number [01-10] --->
```

Figure 5.1.1.1t

```
Ward Room Bed      Patient                Reg #         Date      Time

          ••    SELECT A NURSING ORDER FOR A PATIENT WHOSE GOAL IS  ••
          ••           MAINTAINS SKIN INTEGRITY OR OTHER            ••

   1]  Ambulate                        │   7]  Position

   2]  Assist to Select Diet           │   8]  Protect Boney Prominences

   3]  Encourage Independent ADL        │   9]  Protect Pressure Areas

   4]  Massage to Promote Circulation   │  10]  Provide Safe Environment

   5]  Personal Possessions w/in Reach │  11]  Siderails

   6]  Other Nursing Orders: [··························]

  Current User:            │
                           │      Select one number [01-11] ===>
                           │
```

Figure 5.1.1.1u

```
Ward Room Bed      Patient                Reg #         Date      Time

          ••    SELECT A NURSING ORDER FOR A PATIENT WHOSE GOAL IS  ••
          ••      MAINTAINS PATTERN OF ELIMINATION OR PERFORMS ADL  ••
          •• AFTER SOME SELECTIONS YOU WILL BE ASKED FOR FREQUENCY ••

   1]  Ambulate with Assistance       │   6]  Range Of Motion [ROM]

   2]  Increase Independence Doing ADL │   7]  Select Diet to Promote GI Functior

   3]  Plan for Continuing Care        │   8]  Turn

   4]  Position                        │

   5]  Other Nursing Orders: [··························]

  Current User:            │
                           │      Select one number [1-8] ===>
                           │
```

Figure 5.1.1.1v

390

```
Ward Room Bed        Patient                    Reg #          Date      Time

        **    SELECT A NURSING ORDER FOR A PATIENT WHOSE GOAL IS   **
        **    ABLE TO TRANSFER INDEPENDENTLY OR WITH ASSISTANCE    **


    1)  Assist: Bed to Chair          |   4)  Provide Helping Person
                                       |
                                       |
    2)  Assist: Bed to Wheelchair      |   5)  Provide Mechanical Aid
                                       |
                                       |
    3)  Other Nursing Orders: [.........................]


    Current User:            |
                             |          Select one number [1-5] ---->
                             |
```

Figure 5.1.1.1w

```
Ward Room Bed        Patient                    Reg #          Date      Time

        **    SELECT A NURSING ORDER FOR A PATIENT WHOSE GOAL IS   **
        **                DEMOS SKILLS TO ACHIEVE GOALS            **


    1)  Provide Opport To Practice Skills|  5)  Teach Required Exercise
                                         |
    2)  Teach Factors for Impaired Moblty|  6)  Teach Use of Adjuncts/Aids
                                         |
    3)  Teach Rationale for Skills       |
                                         |
    4)  Other Nursing Orders: [.........................]


    Current User:            |
                             |          Select one number [1-6] ---->
```

Figure 5.1.1.1x
```

```
Ward Room Bed       Patient                   Reg #        Date      Time


           ** SELECT NURSING ASSESSMENTS FOR A PATIENT WITH **
           **      NURSING DIAGNOSIS OF SELF-CARE DEFICIT     **
_____

  1] Unable to Cloth Self    | 7] Unable to Get to BR    | 11] Unable to do Toile
                             |                           |      Hygiene
  2] Unable to Cut Food       | 8] Unable to Maint Appear |
                             |                           | 12] Unable to Rise Off
  3] Unable to Drink          | 9] Unable to Select Cloth |      Toilet
                             |                           |
  4] Unable to Fasten Cloth   | 10] Unable to Sit on      | 13] Unable to Flush
                             |       Toilet/Commode      |      Toilet
  5] Unable to Feed Self      |                           |
                             |                           | 14] Unable to Wash Sel
  6] Other Assessment: [..............................]
_____

  Current User:          |
                         |       Select one number [01-14] --->
                         |
```

Figure 5.1.1.1y


```
Ward Room Bed       Patient                   Reg #        Date      Time


             ** SELECT A RELATED FACTOR FOR A PATIENT WITH **
             **  NURSING DIAGNOSIS OF SELF CARE: DEFICIT    **
_____

  1]  Activity Intolerance          |  6]  Neuromuscular Impairment

  2]  Depression                     |  7]  Pain/Discomfort

  3]  Developmental Phase            |  8]  Perceptual Impairment

  4]  Musculoskeletal Function       |  9]  Sensory Impairment

  5]  Other: [.....................] | 10]  Severe Anxiety
_____

  Current User:          |
                         |       Select one number [01-10] --->
                         |
```

Figure 5.1.1.1z

```
Ward Room Bed       Patient              Reg #          Date      Time


            ** SELECT A PATIENT GOAL FOR A PATIENT WITH A **
            **  NURSING DIAGNOSIS OF SELF-CARE: DEFICIT   **
            ** THEN SELECT CURRENT LEVEL OF CARE REQUIRED **

            * Patient Goal *                        * Current Level *

1]  Functions @ Level 0: Full Self Care      A]  Infant/Toddler Care

2]  Functions @ Level 1: Use of Equip or Device  B]  Self/Minimum Care

3]  Functions @ Level 2: Needs Assist/Supervisn  C]  Assisted Care

4]  Functions @ Level 3: Needs Assist & Use Device  D]  Complete Care

5]  Functions @ Level 4: Dependent & Does Not    E]  Total Care
        Participate

Current User:                   Select one number [1-5] ---->

                                Select one letter [A-E] ---->
```

Figure 5.1.1.1aa

```
Ward Room Bed       Patient              Reg #          Date      Time


        ** SELECT A NURSING ORDER FOR A PATIENT WHOSE GOAL IS **
        **          FUNCTIONS AT LEVEL 0: FULL SELF-CARE        **


        1]  Support Increasing Independence in ADL
                [ie. feeding, bathing, toileting, dressing, grooming, etc.


        2]  Peds Recreation/Observation


        3]  Other Nursing Orders: [............................]


Current User:
                        Select one number [1-3] ---->
```

Figure 5.1.1.1ab

```
Word Room Bed        Patient                    Reg #          Date      Time


        ••    SELECT A NURSING ORDER FOR A PATIENT WHOSE GOAL IS   ••
        ••       FUNCTIONS AT LEVEL 1: NEEDS EQUIPMENT OR DEVICE      ••


    1)  Provide Equip For Bathing          5)  Provide Equip For Toileting


    2)  Provide Equip For Dressing         6)  Peds Recreation/Observation


    3)  Provide Equip For Feeding          7)  Spoon Feed Adult Patient


    4)  Other Nursing Orders:              8)  Spoon Feed Child (<6)
         [..........................]


Current User:
                        Select one number (1-8) ---->
```

Figure 5.1.1.1ac

```
Word Room Bed        Patient                    Reg #          Date      Time


     ••        SELECT A NURSING ORDER FOR A PATIENT WHOSE GOAL IS       ••
     •• FUNCTIONS AT LEVEL 2: NEEDS ASSISTANCE/SUPERVISION OR OTHER ••

1) Assist to Dress         7) Feed Adult Patient      12) Peds Recreation/Obs

2) Assist To/From Bathroom  8) Give Emotional Support  13) Set up Food Tray

3) Assist w/ Partial Bath   9) Give Complete Bath      14) Shave Patient

4) Assist: Comb/Brush Hair 10) Keep Commode @ Bedside  15) Socialize During Mec

5) Dress Patient           11) Kp Urinal/Bedpan Near   16) Spoon Feed Child

6) Other: [..........................]


Current User:
                        Select one number (01-16) --->
```

Figure 5.1.1.1ad

Ward Room Bed   Patient   Reg #   Date   Time

         ••   SELECT A NURSING ORDER FOR A PATIENT WHOSE GOAL IS   ••
         •• FUNCTIONS AT LEVEL 3: NEEDS ASSISTANCE AND USES EQUIP ••

1] Assist to Dress | 7] Feed Adult Patient |12] Provide Necesary Eqr

2] Assist To/From Bathroom | 8] Give Emotional Support|13] Provide For Hygiene

3] Assist w/ Partial Bath | 9] Give Complete Bath |14] Set Up Food Tray

4] Assist: Comb/Brush Hair|10] Keep Commode @ Bedside|15] Spoon Feed Child [<6

5] Dress Patient |11] Kp Urinal/Bedpan Near |16] Ped's Recreation/Obs

6] Other: [·························]

Current User: Select one number [01-16] --->

Figure 5.1.1.1ae

Ward Room Bed   Patient   Reg #   Date   Time

         ••   SELECT A NURSING ORDER FOR A PATIENT WHOSE GOAL IS   ••
         •• FUNCTIONS AT LEVEL 4: DEPENDENT AND DOES NOT PARTICIPATE ••

1] Assist To/From Bathroom| 7] Give Complete Bath |12] Spoon Feed Child [<6

2] Assist To/From Commode | 8] Give Emotional Support|13] Other Act [>15 <30mn

3] Assist: Comb/Brush Hair| 9] Provide for Oral Hygen|14] Other Act [>30 <1 hr

4] Dress Patient |10] Provide Personal Hygen|15] Special Proc [>1 <2h

5] Feed Adult Patient |11] Provide Urinal/Bedpan |16] Xtra Linen Chge/
                                                           Partial Bath
6] Other: [·························]

Current User: Select one number [01-16] --->

Figure 5.1.1.1af

```
┌────────────────────────────────────────────────────────────────────────┐
│                                                                          │
│  Ward Room Bed       Patient                    Reg #        Date   Time │
│                                                                          │
│              ••• INACTIVATE A NURSING CARE PLAN •••                      │
├────────────────────────────────────────────────────────────────────────┤
│                                                                          │
│                                                                          │
│  Date    Time      Nursing Diagnosis           Assessment               │
│  Related To Factor           Patient Goal                               │
│  Nursing Order               Frequency    Emotion/Teach     Nurse       │
│                                                                          │
│                                                                          │
│                                                                          │
│                                                                          │
│  0) Sign-Off  1) Next Plan   2) Inactivate Plan   3) Return   4) Master Screen │
├───────────────────────────┬────────────────────────────────────────────┤
│  Current User:            │                                             │
│                           │    Select one number (0-4) ---->   •        │
│                           │                                             │
└───────────────────────────┴────────────────────────────────────────────┘
```

Figure 5.1.1.1ag

Press -- Ctrl and S -- Keys to Pouse The Scrolling If Necessary

Page No.   1
03/04/86

Dote   Time   Nursing Diagnosis   Assessment
Related To   Patient Gool
Nursing Order   Frequency   Emotional/Teach   Nurse

01/01/86 10:06:24 Comfort Alteration In: Poin   Alterotion In Muscle Tone
 Disease / Condition   Communicates Experience Tolerable Poin
 Teach Alt Coping Strotegies   Structured Teaching G. Hormeyer

01/01/86 10:08:12 Impaired Physical Mobility   Reluctant To Move
 Musculoskeletal Function Able To Transfer With Assistance
 Assist Bed To Wheelchair   TID   Structured Teaching G. Harmeyer

01/01/86 10:10:58 Self-Core Deficit   Unable To Do Toilet Hygiene
 Neuromuscular Impoirment Func @ Level 2, Needs Assist/Supervis
 Keep Commode @ Bedside   TID   Structured Teaching G. Harmeyer

---

Figure 5.1.1.2

Date	Time	Order	Frequency	Practitioner
01/11/86	10:06:20	Teach Alt Coping Strategies		G. Harmeyer RN
01/11/86	12:08:07	Assist Bed To Wheelchair	TID	N. Lyons MD
01/11/86	13:10:15	Self/Minimum Care		G. Harmeyer RN
01/11/86	13:10:53	Keep Commode @ Bedside	TID	G. Harmeyer RN
01/11/86	14:13:47	Up in Chair w/ Assist	TID	N. Lyons MD
01/11/86	10:14:23	Diabetic Diet		N. Lyons MD
01/12/86	10:17:14	Cloride	Daily @ 0600	T. Bui MD
01/12/86	10:17:40	Sodium		T. Bui MD
01/12/86	10:18:00	Amylase		T. Bui MD
01/12/86	10:18:26	Potassium	Daily @ 0600	T. Bui MD
01/12/86	10:18:56	CO2	Daily @ 0600	T. Bui MD
01/12/86	10:19:26	CBC	Daily @ 0600	T. Bui MD
01/12/86	10:19:54	Platlets	Daily @ 0600	T. Bui MD
01/12/86	10:20:18	Glucose	Daily @ 0600	T. Bui MD
01/12/86	10:22:02	Intake & Output	TID	T. Bui MD

Figure 5.1.1.3

Patient: Mary Miser

Is In: Category II

Point Value Is: 27

Figure 5.1.1.4

397

```
*** SELECT ADD / DELETE A USER ***

                    1]  Add A User

                    2]  Delete A User


                    0]  Sign-Off
Current User:
                         Select one number (0-2) ----->  .
```

Figure 6

```
                         USER INFORMATION
              *** THIS INFORMATION IS CONFIDENTIAL ***


                    First Initial:      .
                    Middle Initial:
                    Last Name:
                    Category of
                        Requestor:
                    Password:
                    Access Level:
```

Figure 6.1

```
                        *** DELETE A USER ***

    User's Name                Category            Access Level




    0] Sign-Off    1] Next User    2] Delete User    3] Add/Delete Scr

Current User:    |
                 |       Select one number [0-3] ---->   .
                 |
```

Figure 6.2

APPENDIX G

DATABASE STRUCTURE

Structure of the four databases used in the prototype
project. Names have been elongated to provide more meaning
for the reader.

Patient database

Field name	Type	Width
LAST NAME	Character	20
FIRST NAME	Character	12
MIDDLE NAME	Character	3
RATE/RANK	Character	11
FMPSSN	Character	12
BIRTH DATE	Date	8
AGE	Character	3
SEX	Character	1
ADMISSION DATE	Date	8
REGISTRATION NUMBER	Character	8
MEDICAL DIAGNOSIS	Character	24
PHYSICIAN	Character	24
PROGNOSIS	Character	3
ALLERGIES	Character	24
WARD	Character	2
ROOM	Character	1
BED	Character	1

Order database

Field name	Type	Width
FMPSSN	Character	12
ORDER	Character	27
FREQUENCY	Character	12
TIME	Character	8
DATE	Character	8
PRACTITIONER	Character	20
QUALIFIER	Character	6
TODAYONLY	Character	1
PATIENT POINTS	Numeric	3
MODULE	Character	1
MONITOR POINTS	Numeric	2
EMOTION POINTS	Numeric	2
ROUTINE POINTS	Numeric	2

Nursing care database

Field name	Type	Width
FMPSSN	Character	12
NURSING DIAGNOSIS	Character	30
NURSING ASSESSMENT	Character	27
RELATED FACTORS	Character	25
PATIENT GOAL	Character	38
NURSE'S ORDER	Character	27
DATE	Date	8
TIME	Character	8
NURSE	Character	20
FREQUENCY	Character	12
EMOTIONAL/TEACHING REQUIREMENTS	Character	19

User's information database

Field name	Type	Width
USER'S FIRST INITIAL	Character	2
USER'S MIDDLE INTIAL	Character	3
USER'S LAST NAME	Character	12
REQUESTOR	Character	3
PASSWORD	Character	5
ACCESS LEVEL	Numeric	1

INITIAL DISTRIBUTION LIST