"The mission of the MEFACOOG is to foster continuing improvements in women's health care. The goals of the MEFACOOG are to support Continuing Medical Education – Undergraduate, Graduate and Post-graduate, Research Programs, Faculty Development and Development of Educational Networks in women's health care.

Medical Education Foundation of American College of Osteopathic Obstetricians & Gynecologists

Year of 2013

MEFACOOG ANNUAL REPORT

Inside This Issue

Letter from the Chair,
MEFACOOG Board Members

Robert Debbs, DO, FACOOG, (Dist.)

As I have been committed to medical education, and particularly Women's Health education, for my entire career, I'm delighted to be the chair of our Medical Education Foundation at this pivotal time in our history. Our challenges are many and our commitment unwavering. To foster continuing improvements in women's health care by supporting undergraduate, graduate and postgraduate research and educational programs continues to be our mission, while fostering faculty development and national Osteopathic educational networks in the care of women. To this end, we continue to partner with both industry and other organizations committed to the same ideals and goals.

MEFACOOG continues to support the Resident Reporter Program which has always been a successful program from its inception, involving our residents and influencing leaders for our future. We hope to increase participation in residency research activities by providing grants for poster awards, postgraduate thesis awards and individual research grants through individual application. To enhance postgraduate education efforts, the Postgraduate Curriculum Committee, also chaired by me, is charged with providing educational opportunities that can be enhanced nationally in all our training programs providing opportunities to programs with less resources and support for didactic and hands on educational tools so that unification and quality becomes pervasive throughout our profession. To this end, last year we supported the Resident Research online course and now are embarking on a unified ultrasound curriculum for all our programs so that ultrasound training our programs can compete with any program in the country. We to support ,many such programs in the future including minimally invasive surgical training, robotic and other surgical work shops and a unified approach to procedural certification.

Important to me and to all professions is valued and involved mentors. To this end, MEFACOOG continues to support distinguished lectureships at both our conferences including the Gail Goldsmith Memorial lecture, Barbara Hawkes Honorary Fellows lecture, the MEFACOOG Distinguished lectureship and the Past Presidents Honorary lecture. A new endowed lectureship has been developed as the Distinguished Fellows Honorary Lectureship to involve our distinguished fellows as well as a new Legacy Society to enhance our relationship with our past leaders and Fellows.

Lastly, we have always found ways for fellowship and fun times during MEFACOOG fund raisers including charitable endeavors and in many ways our chance to give back! This year, many participated in the Jail and Bail event at the annual conference at which time I really enjoyed cuffing and jailing some of our most prestigious colleagues! Our blood drive was successful this fall as well. MEFACOOG funded and participated in the Build a Bike campaign which proved to be extremely fulfilling for those who participated. Our ability to provide bikes for inner city youth programs really highlighted our philanthropic efforts as a college and foundation.

I'm looking forward to VEGAS and wish all a very healthy and happy New Year!!!

Sincerely Yours,

Robert H. Debbs DO FACOOG

Robert Debbs, DO, FACOOG (Dist)

Our MEFACOOG Board of Trustees members for 2013-2014 includes:

Robert H. Debbs, DO.....Chair
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Valerie Brennan, CAE.....ExecutiveDirector

Letter from the Executive Director

Valerie Brennan, CAE, Executive Director

The Medical Education Foundation has welcomed many changes this year. New investment management services, new officers, and new accounting staff. New officers are Robert Debbs, DO-Chair, Teresa Hubka, DO-Vice Chair, and Deanah Jibril, DO-Secretary Treasurer. Our new Manager of Accounting for ACOOG and MEFACOOG is Minh Nguyen. We have greatly appreciated our relationship with Dean Jacobson Financial while transitioning foundation investment services and look forward to a full year in 2014.

Many thanks to everyone who contributed to the Build-A-Bike service project during the ACOOG 2013 Fall Conference. Participants assembled and donated 20 bicycles to children enrolled in West Town Bikes Youth Program. The program offers year round instruction in bike safety, environmental awareness, personal responsibility, nutrition, and active lifestyles.

Did you know? Donors have the ability to restrict their donation to any of the following programs/initiatives:

- National Student Society of ACOOG
- Resident Reporter Program
- Endowed Lectureships
- Osteopathic Graduate Medical Education
- Postgraduate Research Awards
- Fundraising Events
- Community Service Projects

This is a great opportunity if you've been a recipient of a particular award or scholarship and want to support the participation of another young ACOOG member. The Resident Reporter Scholarship Program alone has benefited more than 270 residents, many of whom have gone on to serve in ACOOG leadership roles. Many other postgraduate training resources have been supported by MEFACOOG, including online evaluation systems, research training modules, and OMM video curriculum. Endowed lectures ensure that quality CME sessions will continue to be offered while allowing some containment of ever increasing costs of conference production. Awarding excellence in research will provide oppoortunities for bringing osteopathic education principles to the greater OBGYN community.

Continuing to provide educational opportunities for our members is crucial; beginning with medical students, through postgraduate training, continuing medical education, and osteopathic continuous certification.

Sincerely,

Valerie Brennan

Valerie Brennan, CAE
Executive Director

ACOOG Headquarters

Valerie Brennan, CAE, COO
Executive Director

Helen Oberbeck
Director of Administration

Minh Nguyen
Accounting Manager

Casie L. Thompson
Administrative Coordinator

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Project Manager

Medical Education Foundation
of the
American College of Osteopathic Obstetricians and Gynecologists

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☐ Please draft my bank account* ☐ monthly ($25 minimum) or ☐ quarterly ($75 minimum)

Enclose a voided check for accuracy ★ Bank Draft Start Date (circle one): 15th 25th

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Type of Credit Card (circle one): Visa MasterCard American Express

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Please designate to help support the following programs:

- ☐ MEFACOOG General Support
- ☐ Gail Goldsmith Memorial Lecture (Annual Conference)
- ☐ Barbara Hawkes & Honorary Fellows Address (Annual Conference)
- ☐ MEFACOOG Distinguished Lecture (Annual Conference)
- ☐ Past President's Honorary Lecture (Fall Conference)
- ☐ National Student Society of the ACOOG Scholarship grant
- ☐ Visiting Professor Program
- ☐ MEFACOOG Fall Service Project

* This agreement will remain in effect until MEFACOOG receives written notification of termination. Quarterly donations will occur every three months after the first gift.

Return this form to: 8851 Camp Bowie West, Suite 275, Fort Worth, TX 76116
Fax: 817-377-0439

Resident Reporter Program

The Resident Reporter Program at the 80th Annual Conference in Clearwater, FL received fine contributions from the 8 residents who participated. The top three papers given monetary awards and publication in the MEFACOOG Annual Report were;

Andrea Dionne, DO - McLaren Greater Lansing/Ingham Regional in Lansing, MI
"Counseling Patients with Multiple Gestations for the General Obstetrician" Article based upon a lecture by Eric Carlson, DO. FACOOG (Dist.)

Andrea Sterling, DO - Metro Heatlh Hospital in Wyoming, MI.
"Osteopathic Considerations in Pregnancy" Article based upon a lecture by Thomas Crow, DO, FAAO

Sara Northrop, DO - St. Vincent Mercy Medical Center in Toledo, OH. *"Diagnosis of Uterine Bleeding in Reproductive Age Women" Article based upon a lecture by Dr. David Jaspan, DO, FACOOG*

Things to Know...

Plan your research project now.

The MEFACOOG Research Grant of up to $5,000 is open to all residents, fellows and junior faculty in Osteopathic Postdoctoral Training Institutions to support research efforts. ***The deadline date for the MEFACOOG Research Grant is November 1,*** *of each year prior to our Annual Conference. Get your application and guidelines on the MEFACOOG website under Research Grant Award.*

CALL FOR VOLUNTEERS

MEDICAL EDUCATION FOUNDATION OF ACOOG

Are you looking for a new way to be involved? Do you enjoy developing innovative educational programs or social philanthropy? Being a MEFACOOG Board Member could be for you! MEFACOOG volunteer leaders can be physicians, educators, non-physician clinicians, spouses/family of ACOOG members, health care industry supporters….anyone with a passion for women's health!

Several positions will be open for nomination this year and we need your expertise. The MEFACOOG Board of Trustees meets twice per year with one meeting usually conducted by phone or web conference. The primary, in-person meeting of the MEFACOOG Board coincides with the ACOOG Annual Conference.

Key MEFACOOG activities include:

- Community Service Projects-past projects include work at a youth community center in Chicago, home repairs in New Orleans for Katrina recovery effort, blood drives, and support for a residential home for pregnant mothers in crisis.
- Resident and Postgraduate Fellow Research Awards and Grants
- Resident Reporter Scholarships provide an opportunity for residents to attend an ACOOG conference and potential article publication
- Resident Education Resources (OMM video curriculum, Challengergrants, L3 for Residents quarterly learning modules)
- Endowed lectureships for CME (Lifelong Learning for attending physicians)
- Support for Osteopathic Continuous Certification (Lifelong Learning, Practice Performance Improvement for attending physicians)
- Annual Silent Auction and Golf Tournament
- Fundraising events such as the 'Evening with the Stars' planetarium function and Cirque Du Soleil Mystere

This is just an overview of the potential that exists with MEFACOOG. We welcome new opportunities, new leaders, and new ideas! If you are interested in MEFACOOG Board of Trustees service, please forward a statement of interest and a brief bio or CV to Valerie Brennan, CAE by email to vbrennan@acoog.org or by fax to (817)377-0439 by **February 13, 2014.**

MEFACOOG/Resident Reporter Scholarship Program

"Counseling Patients with Multiple Gestations for the General Obstetrician"

Andrea Dionne, DO

Article based upon a lecture by Eric Carlson, DO, FACOOG (Dist.)

Not all twins are created equal. It is important that the obstetrician understand and identify that "twins" is not a general diagnosis with a single management protocol. The placentation of a multiple gestation plays a significant role in its appropriate management. As an ACOG survey in 2004 demonstrated a gap in knowledge of the general obstetrician in regards to defining zygosity, chorionicity and amnionicity[1], it is now time to revisit and fully understand these concepts. This will allow the obstetrician to provide appropriate care and counseling to patients presenting with multiple gestations.

Multiple gestations have become increasingly more prominent. The incidence of twinning has risen between 1980 and 2005 from 18.9 to 32.1 per 1000 live births[2], currently accounting for at least 1 in 43 births.[3]

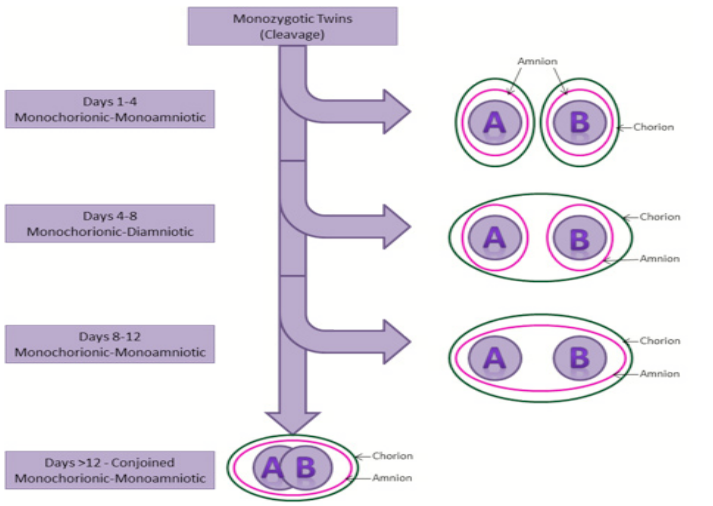
"The incidence of twinning has risen between 1980 abd 2005 from 18.9 to 32.1 per 1000 live bith2, currently accounting for at least 1 in 43 births.

This can be attributed to increased use of assisted reproductive therapies and delayed childbearing. With this increase in incidence, obstetricians must be knowledgeable with the embryologic and physiologic intricacies of multiple gestations.

First and foremost, terminology used to differentiate placentation must be understood when discussing multiple gestations. A sometimes misconstrued designation must be made between the terms zygosity and chorionicity. The term zygosity refers to the genotype of the individual fetuses, while chorionicity refers to placentation. Monozygotic twins result from the union of a single spermatozoa and ovum with subsequent cleavage into two individuals with a similar genotype, while dizygotic twins result from the separate unions of two individual spermatozoa with two respective ova. The placentation in dizygotic gestations is diamniotic-dichorionic, signifying that each embryo develops its own amnion, chorion, and placenta. However, in monozygotic gestations the arrangements of amnion and chorion with the placenta are determined by the timing of cleavage following fertilization. Monozygotic gestation placentation occurs as follows: Dichorionic-diamniotic (cleavage of the zygote 1-4 days following fertilization), monochorionic-diamniotic (cleavage of the zygote 4-8 days following fertilization), monochorionic-monoamniotic (cleavage of the zygote 8-12 days following fertilization), and conjoined monochorionic-monoamniotic (cleavage of the zygote >12 days following fertilization). (Figure 1). Each placentation type within both dizygotic and monozygotic twin gestations confers unique maternal-fetal physiology and, therefore, a variety of higher risk complications. Knowledge of the placentation in a multiple gestation is imperative to appropriately assess the pregnancy risks, counsel the patient accordingly, and formulate a management plan.

The obstetrician, interpreting ultrasound, should have a primary goal of rapidly identifying and distinguishing chorionicity and amnionicity, inferring zygosity, when evaluating a patient. Upon surveying a first trimester gestation, attention should be focused on determining the number of gestational sacs, fetal heart beats, and number of yolk sacs within the

Figure 1 – Monozygotic Twins



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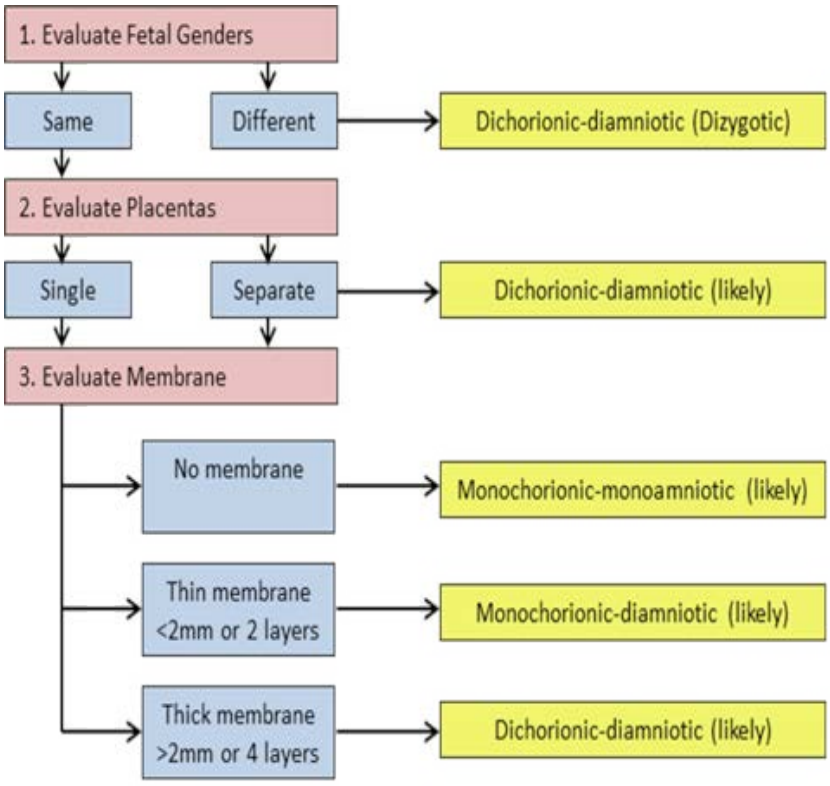
gestation to distinguish chorionicity and amnionicity. This evaluation and determination of amnionicity and chorionicity is easiest and most reliable when assessed in the first trimester[4] due to ability to best visualize the dividing membrane as it appears thicker, progressively becoming thinner and less clearly delineated through gestation. As the dividing membrane evaluation becomes less accurate in the second and third trimester, the obstetrician must evaluate for other markers of zygosity. The second and third trimester ultrasound evaluation of multiple gestations should include evaluation of the following: Gender concordance or discordance, number of placentas, dividing membrane thickness, number of layers present within the dividing membrane, and presence of the "T" sign or the classic "lambda" sign (signifying the chorionic villi forming a triangular tissue collection created between two chorionic membranes). (Figure 2). The placentation should always be included in the description of a multiple gestation. For example, instead of the term "twin pregnancy," more specific descriptions such as "diamniotic-dichorionic twin pregnancy," "monochorionic-diamniotic twin pregnancy," and "monochorionic-monoamniotic twin pregnancy" should be used. Likewise, instead of the term "triplet pregnancy," specific descriptions such as "trichorionic-triamniotic triplet pregnancy," "dichorionic-triamniotic triplet pregnancy," and "monochorionic-triamniotic triplet pregnancy" should be utilized. The goal is not to belabor the terminology of multiple gestations, but to clarify that there is indeed a great difference between the various classifications of multiples. All multiple gestations are associated with a number of risks which include, but are not limited to: Pregnancy loss prior to viability, gestational diabetes, hypertensive disorders of pregnancy including preeclampsia, preterm labor, spontaneous preterm premature rupture of membranes, congenital anomalies, fetal growth restriction, intrauterine fetal death, hyperemesis gravidarum, intrahepatic cholestasis of pregnancy, acute fatty liver of pregnancy, placental abruption, venous thromoembolic events, anemia, urinary tract infections, and maternal and neonatal intensive care unit admissions. Although multifetal births account for only 3% of all live births, they are responsible for a disproportionate share of perinatal morbidity and mortality. Approximately 12% of all twin gestations deliver prior to 32 weeks gestation, which accounts for 17% of all preterm births and 23% of all early preterm births.[5] Depending upon gestational age at preterm delivery, multiple neonatal complications may be present which include: Respiratory distress syndrome, intraventricular hemorrhage, necrotizing enterocolitis, jaundice or hyperbilirubinemia, feeding difficulties, chronic respiratory issues, retinopathy of prematurity, auditory and neuro-developmental complications, four-fold increased risk of cerebral palsy[5], and death. Essentially the rate of every obstetrical and neonatal complication is elevated in multiple gestations and in general rise proportionally to increasing plurality.[4] Being able to distinguish zygosity, chorionicity, and amnionicity allows the provider to adequately manage and counsel the patient regarding specific complications related to the placentation in a given gestation which may lead to maternal and neonatal morbidity and mortality. Specifically, some complications unique to monozygotic twins are twin to twin transfusion syndrome (TTTS) and twin reversed arterial perfusion syndrome (TRAP) (in monochorionic-diamniotic placentation), as well as cord entanglement and conjoined twins (in monochorionic-monoamniotic placentation). It is the obligation of the obstetrician to correctly diagnose the placentation

Figure 2. Second and third trimester evaluation of multiple gestations4



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of the multiple gestation and subsequently counsel the patient appropriately given the identified potential increased risks, formulate a management plan, and acknowledge the opportunity for subspecialty referral to Maternal-Fetal Medicine.

When managing and counseling patients with multiple gestations, it is important to note that 23% of twin gestations in the first trimester will result in a vanishing twin, with 2-4% of dizygotic and 12% of monozygotic twin gestations experiencing second or third trimester loss. Fetal demise confers an increased risk for demise of the remaining fetus, as well as for severe prematurity. Appropriate counseling is necessary to allow these patients to understand the natural occurrence of pregnancy loss and the associated morbidity in a given trimester with spontaneous twin gestation. It is also important for the obstetrician to understand the appropriate management for pregnancy loss with relation to the zygosity, chorionicity, and amnionicity of the gestation. The etiology and management of pregnancy loss carries vast differences depending on chorionicity with the most severe being present in monochorionic multiple gestations. Nearly 100% of monochorionic placentas contain vascular anastomoses that link the circulations of two fetuses, which causes the surviving fetus to risk sustaining neurologic damage caused by sudden, severe, and prolonged hypotension that occurs at the time of the demise or by embolic phenomena that occurs later.[5]

Aneuploidy screening requires patient counseling with reference to the estimated screening performance in multiple gestations. Screening becomes more complex when compared to singleton gestations as the analytes from serum biochemical screening are increased with multiple gestations. For example, alpha-fetoprotein, a component of genetic screening, is significantly elevated in multiple gestations. The median value of MSAFP levels in twin gestations from 14-20 weeks is 2.5 times the median curve for singleton gestations.6 With levels above the typical cutoff curve for singleton gestations, this serum screening proves to alone be suboptimal in the presence of multiple gestations. There is currently no standard agreement on the MSAFP cutoff for twin gestation screening.[3] The first-trimester combined screening, however, can be performed in twin gestations and may be preferable to second-trimester screening, as a fetus-specific risk rather than a pregnancy-specific risk can be obtained with serum levels adjusted for twins combined with nuchal translucency (NT) measurements.[3] It is, again, important to understand and identify chorionicity of the gestation to aid in interpreting aneuploidy screening results in the first trimester. With dichorionic gestations, the NT is measured and an individual risk calculated for each fetus, while in monochorionic gestations, the NT measurements are averaged for a single risk calculated for the karyotypically identical fetuses.[3] Patients must be further counseled on risks of invasive prenatal genetic testing as well as management of gestations with abnormal fetuses. Here too, it is critical to determine zygosity and chorionicity as management is vastly different with regards to selective termination with intracardiac KCl versus surgical reduction. Because monozygotic gestations share vascular connections, fetal intracardiac KCl injection of the anomalous fetus, which can be performed with dichorionic placentation, would result in the demise of its sibling. Therefore, selective reduction of a monochorionic gestation requires surgical intervention.

In conclusion, once a multiple gestation is diagnosed, so should its placentation. The placentation confers the risks to the pregnancy and determines the management plan. It is mandatory that the obstetrician be knowledgeable with regard to monozygotic and dizygotic multiple gestations and understand how ultrasound evaluation of amnionicity and chorionicity is utilized to infer zygosity. With the obstetrician's knowledge, patients must be appropriately counseled on antepartum, intrapartum, and postpartum risks, maternal and neonatal morbidities and mortalities, and surveillance throughout the duration of their prenatal care. Providers should also have knowledge and provide counseling on the appropriate management with antepartum monitoring and evaluation depending on zygosity and chorionicity. An obstetrician should expect to provide discussion and education at all prenatal visits, keeping in mind that multiple gestations require a deeper understanding of embryologic knowledge driving the counseling and management. Again, the provider must remember, just as not all pregnancies are created equal, when dealing with multiples, not all twin gestations are created equal and management must be tailored according to known zygosity, chorionicity, and amnionicity.

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MEFACOOG/Resident Reporter Scholarship Program

"Osteopathic Considerations in Pregnancy"

Andrea Sterling, DO

Article based upon a lecture by Thomas Crow, DO, FAAO

Osteopathic manipulative treatment (OMT) has long been considered to be an integral component of the prenatal and peripartum period. However, it is often difficult for the practicing physician to integrate this element into routine care. By reviewing the literature on the benefits of OMT in pregnancy and labor and some simple techniques to incorporate in one's practice, Dr. Crow hoped to ameliorate this.

Several somatic dysfunctions occur during the course of a normal pregnancy. Many of these are primarily musculoskeletal and relate to a change in the pelvic angle, a shift in the center of gravity and an increase in lumbar lordosis. In addition, with the enlarging fetus, there is a progressive compression of abdominal organs against the thoracoabdominal and pelvic diaphragms with subsequent ribcage out flaring. The osteopathic goals in pregnancy include enhancing homeostasis, facilitating maternal adaption to these structural and hormonal changes and alleviating maternal discomfort caused by progression of the pregnancy.

To utilize OMT, the initial prenatal visit should include a structural exam to identify problems that may complicate pregnancy. OMT can be used in pregnancy to treat the aforementioned somatic dysfunction, in addition to, improving symptoms associated with edema and nausea. For instance, hyperemesis may be reflected in C2 and T5-9, as well as, Chapman's points. Furthermore, as pregnancy progresses, the enlarging uterus may cause abdominal discomfort which may be improved by myofascial release. Tenderpoints, small areas of tissue texture change that are painful when pressure is applied, are often treated with counterstrain. Round ligament pain may correspond to L3-5 counterstrain points.

Another common complaint is carpal tunnel syndrome which may be due to localized edema. There are several techniques that can help alleviate discomfort associated with this including anterior cervical fascia release and the Opponens rolls; a technique used to stretch the transverse carpal ligament and increase the dimensions of the carpal tunnel. It is performed by grasping the first and fifth digits with each hand while the thumbs contact the pisiform and scaphoid bones. The wrist is the extended and the first digit is abducted and laterally rotated. By improving these symptoms, with this technique, it may be possible to avoid more invasive measures.

Low back pain, however, remains the most common pregnancy related complaint. It is thought to be multifactorial. Proposed causes include direct pressure on nerve roots by the gravid uterus, increased burden caused by compensatory lordosis, and increased stress across vertebral facets. Low back pain is usually in the distribution of the ilioinguinal and femoral nerves and can be treated with a variety of techniques including muscle energy myofascial release, and counterstrain.

Clinical case studies have reported reduced back pain, shorter labor, and fewer incidences of peripartum complications in patients who receive prenatal OMM. A study titled Osteopathic Manipulative Treatment in Prenatal Care: A Retrospective Case Control Design Study appeared in the *Journal of the American Osteopathic Association* in December of 2003. One hundred and sixty women who received OMT during their pregnancy were compared to a matched group with no intervention and reviewed for the occurrence of meconium-stained amniotic fluid, preterm delivery, operative delivery, and cesarean delivery. OMT was consistently associated with lower rates of meconium-stained amniotic fluid, preterm delivery, and operative vaginal delivery.[1]

Another study, Osteopathic Manipulative Treatment of Back Pain and Related Symptoms During Pregnancy: A Randomized Controlled Trial appeared in the January 2010 *American Journal of Obstetrics and Gynecology*. It compared routine obstetric care and OMT, routine obstetric care and sham ultrasound treatment, and routine obstetric care only. Treatment modalities included soft tissue, myofascial release, muscle energy, and range of motion mobilization. Back-specific functioning deteriorated significantly less in the OMT group versus the routine obstetric care and the obstetric care with sham ultrasound groups. It was concluded that osteopathic manipulative treatment slows or halts deterioration of back-specific functioning during the third trimester of pregnancy.[2]

By incorporating OMT into one's practice, it can be predicted to aid the body's adjustment to the physiological and biomechanical demands of pregnancy and improve the outcomes of pregnancy, labor and delivery. It has been shown to reduce nausea/vomiting associated with pregnancy, reduce pain during labor, improve postpartum recovery, and improve breastfeeding. By making some simple adjustments, it may be possible to incorporate these techniques to help patients through this period.

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MEFACOOG/Resident Reporter Scholarship Program

"Diagnosis of Abnormal Uterine Bleeding in Reproductive Age Women"

Sara Northrop, DO

Article based upon a lecture by David Jaspan, DO, FACOOG

In 2005, The International Federation of Gynecology and Obstetrics(FIGO) committed to standardizing the nomenclature surrounding abnormal uterine bleeding. This task was undertaken in order to remove inconsistencies in the literature and to provide a framework for clear and precise definitions to enable future investigation of abnormal uterine bleeding. To create uniformity among a potentially ambiguous diagnosis, FIGO created the acronym PALM-COEIN, an acronym that divides the causes of abnormal uterine bleeding (AUB) into structural and non-structural causes based on pattern and etiology of bleeding. PALM (polyp, adenomyosis, leiomyoma, malignancy/hyperplasia) outlines potential structural causes of AUB, while COEIN (coagulopathy, ovulatory dysfunction, endometrium, iatrogenic, not yet classified) illustrates nonstructural causes of AUB. It is important to note that the confusing terms menorrhagia and menometrorrhagia have been replaced with clear descriptive terms: heavy menstrual bleeding and irregular menstrual bleeding. As with any problem visit, the key is in the history. A detailed bleeding profile should enable the practitioner to identify the potential causes of AUB thus leading to the proper diagnostic algorithm.

Although the overarching theme of patient symptomatology revolves around an irregular bleeding pattern, small details can help differentiate between the various pathologies. Patients presenting with heavy bleeding or bleeding between periods may be more likely to harbor a polyp or fibroid whereas a complaint of worsening dysmenorrhea in addition to irregular bleeding is more often found in the setting of adenomyosis. Malignancy and hyperplasia require a high index of suspicion and a detailed investigation regarding risk factors since this etiology can present in a variety of ways and easily be masked by other symptoms.

Because 20% of patients with heavy menstrual bleeding have underlying bleeding disorders, screening for disordered hemostasis is paramount. Symptoms suggestive of a coagulopathy include frequent nosebleeds, excessive bleeding with dental work, or postoperative or postpartum hemorrhage. Ovulatory dysfunction presents with anything from amenorrhea to irregular heavy periods making this etiology difficult to decipher based solely on symptoms. Endocrinopathies tend to be the hallmark of ovulatory dysfunction thus examining for hirsutism, acanthosis nigricans, thyroid nodules, and other signs of insulin resistance can guide the practitioner towards this diagnosis. Disorders of local hemostasis, as well as abnormal inflammatory responses, can contribute to endometrial causes of abnormal uterine bleeding.

Any abnormal exam, or persistence of symptoms despite a normal exam, warrants imaging. Preferable first line diagnostic imaging is by sonohysterography-a test that can show abnormalities often missed by traditional ultrasound. Evaluating the endometrium is often the next step in diagnosis. In addition to women over 45 years old, endometrial evaluation should also be performed in patients less than 45 years old with a history of unopposed estrogen as well as patients who have failed medical treatment. Despite only sampling a small population of the endometrium, biopsy via pipelle has become widely accepted. Maintaining a high index of suspicion is of utmost importance if the biopsy result does not adequately explain symptomatology.

AUB will remain a common chief complaint among gynecologic patients. Taking a detailed history of AUB will lead the clinician down the correct pathway enabling a better evaluation and subsequent treatment plan. Continuing to fine-tune the diagnostic approach to a problem that has more causes than treatments, will hopefully reverse this teetered system in the future.

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MEFACOOG Annual Report - Year 2012 Support

Unfortunately, our economic status has remained relatively the same the past few years. The Medical Education Foundation relies more and more on its members to support its mission. ***The mission of the MEFACOOG is to foster continuing improvements in women's health care.*** The financial review below reflects the year ending December 31, 2012 . As you can see, we were once again down in both individual and corporate contributions. Below are ongoing grants we hope to continue in the upcoming year.

- MEFACOOG Resident Reporter Scholarship Program-educating osteopathic OB/GYN residents at the ACOOG Annual Conference and reporting back to their programs and to the profession.
- MEFACOOG Awards for Excellence in Poster Presentation-encouraging research and rewarding dissemination via poster presentation at the ACOOG Annual conference.
- MEFACOOG Resident Research Grant- encouraging research in osteopathic OB/GYN residency and fellowship programs.

The 80th Annual Conference of the ACOOG hosted three ongoing funded lectureships. The sixteenth annual MEFACOOG Barbara Hawkes Memorial Lecture; also the college's first endowment memorial lectureship, was given by W. Lee Irving, DO. The twelfth annual MEFACOOG Distinguished Lecture was presented by Ronald Librizzi, DO. These is the eighth of ten year endowment by the friends and colleagues of Gail Goldsmith and Wyeth. MEFACOOG Gail Goldsmith Memorial Lectureship was presented this year by Sister Anne Brooks, DO.

The eighth of a ten year endowment of the MEFACOOG Past President's Honorary Lectureship was presented by Jim Dethmer at our 2013 Fall Conference in Chicago, IL

The National Student Society of the ACOOG met for the seventh time in Chicago, IL at the ACOOG Fall Conference. The online Research Training Course was funded for all residency programs through a MEFACOOG gant. These projects would not be possible without the support of you, the donors. Thank you for your continuing support.

Financial Review

Statement of Activities

Year Ended December 31, 2012

Support	
Corporate Contributions	$22,262
Individual Contributions	$42,394
Fund Raising	$15,863
Total Support	**$80,519**
Expenses	
Program Services	$50,366
Support Services	$84,119
Total Expenses	**$134,485**
Net Assets, Beginning of Year	$557,020
Change in Net Assets	($25,945)
Net Assets, End of Year	**$531,075**

Statement of Financial Position

Year Ended December 31, 2012

Assets	
Current Assets	
Cash	$594,621
Investments	$0.00
Due to ACOOG	$0.00
Total Assets	**$594,621**
Liabilities and Net Assets	
Accounts Payable	$539
Due from ACOOG	$ 63,546
Deferred Revenue	$0.00
Net Assets	$531,075
Total Liabilities and Net Assets	**$594,621**

MEFACOOG Awards for Excellence

80th Annual Conference Posters – 1st Place Winner

"A Randomized Prospective Trial Comparing Metal to Plastic Speculums for Patient Comfort"

Submitted by Jamie Rempe, DO

St. John Providence Health System

Introduction:

The speculum examination is commonplace in the setting of primary care and obstetrics and gynecology. It is used on an annual basis for cervical cancer screening, as well as, problem-oriented visits regarding vaginal discharge, abnormal menses, pelvic pain, and sexually-transmitted infection screening. While cervical cytology screening may not be required annually, an annual gynecologic exam is recommended. There is evidence that fear of discomfort during a speculum exam contributes to poor compliance with cervical cytology screening. Poor screening compliance with cervical cytology accounts for the majority of cervical cancer deaths. According to patients, speculum insertion was the most painful part of the gynecologic exam. Use of lubrication during speculum examination has proven to decrease patient discomfort. No studies, however, have been conducted comparing patient discomfort using the two common types of speculum materials, plastic and metal. The objective of this study is to determine if there is a difference in discomfort between these two material types

Objective:

To determine if there is a difference in patient comfort during routine pelvic examination when using plastic versus metal speculums.

Methods:

- This study was a randomized, prospective trial of non-pregnant women presenting for routine gynecologic examination between September and October 2012

- The patients were randomized to either the plastic or metal speculum arm of the study. Patients were blinded to the type of speculum used during the examination. The exam was performed with a standardized technique.

- Patient discomfort was assessed using a self-administered visual analog scale (VAS) immediately after examination.

- Continuous variables were compared using the Student's t test or the nonparametric Mann-Whitney test. The Chi squared test was used to compare proportions. Univariate logistic regression analysis was used to test the significance of individual variables in predicting exam discomfort scores. Correlations were examined using the method of Spearman.

- IRB approval was obtained prior to initiation of trial

Results:

- A total of 145 women presented for annual gynecologic speculum exam during the study period and consented to participate in the study. There were 72 patients randomized to the metal speculum arm and 73 patients to the plastic speculum arm.

- Study participants reported significantly less pain with use of the plastic speculum compared with the metal speculum

- Univariate regression analysis demonstrated no significant predictor of VAS score except for parity.

- A moderate, but significant correlation was seen between patients that reported negative feelings towards speculum exams and higher pain scores overall. There

Figure 1: Assessment, Randomization and Follow-up of Patients in the Study

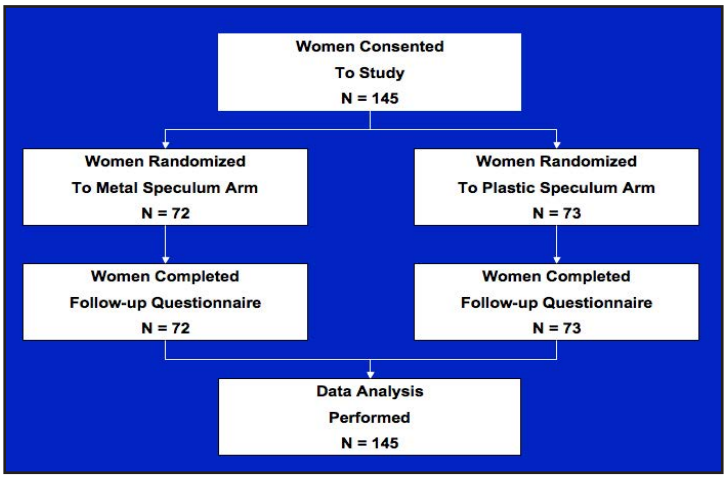

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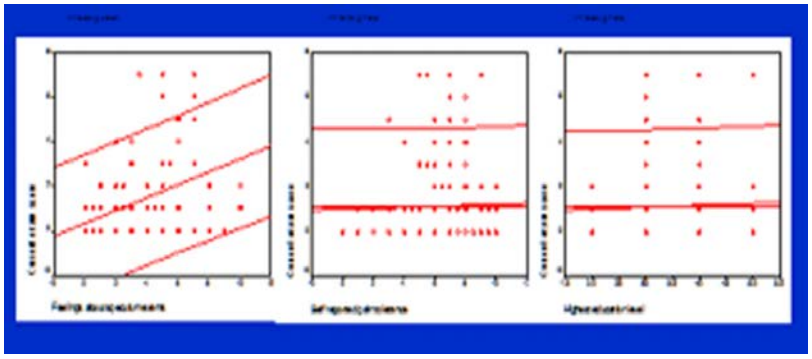
Table 1. Study population demographics

	Metal Speculum	Plastic Speculum	p value
Number	72	73	
Patient Age-SD	35.0 ± 8.6	37.2 ± 8.4	p = 0.1
Patient Race (% Caucasian)	62	69	p = 0.1
Height-SD (inches)	64.7 ± 2.4	64.5 ± 2.8	p = 0.8
Weight-SD (Kg)	75.7 ± 18.3	73.9 ± 18.1	p = 0.5
BMI	28.1 ± 6.7	27.4 ± 6.2	p = 0.5
Gravida	1.5	1.9	p = 0.1
Parity	1.1	1.6	p = 0.05

Table 2. Results of VAS pain scores in each study arm

	Metal Speculum	Plastic Speculum	p value
Median VAS Score (IQR)	1.0 (0.0-2.0)	0.0 (0.0-1.0)	p = 0.01
Average VAS Score ± SD	1.35 ± 0.2	0.92 ± 0.2	
VAS Score Range	0 - 7	0 - 7	

Figure 2. Correlation of VAS pain scores with other patient data



was a slight inverse correlation between a patient's perception of her pain tolerance and her actual pain score for the exam. Education level showed no correlation with pain during speculum examination

Discussion and Conclusions:

- Our results indicate that there is a statistically significant difference in patients' discomfort with the use of plastic speculums compared to metal. While the finding was significant, we found that the speculum exam was tolerated by most women with minimal discomfort.

- The pain experienced by our patients during the examination was low; most patients (110 out of 145) reported a VAS score of 0 or 1.

- Patients who had a negative perception of gynecologic speculum exams were found to have higher pain scores. A slight inverse correlation was found between a patient's self-perceived pain tolerance score and their VAS score although this was not statistically significant.

- The study was limited by its inability to be double-blind as it was not possible to blind the examiner to the type of speculum material used, although the examiners were not given access to the VAS scoring during the trial.

- The current cost of a plastic speculum is $0.64. At the same vendor, one metal speculum of the same size is $8.62. Over time, it could be argued that cost analysis would indicate savings with reusable materials, such as metal speculums. However, proponents of plastic speculums could argue that the initial investment needed to start a practice is significant and would take several years to see cost savings. Future cost analysis could evaluate these expenses as well as the expenditure towards speculum sterilization and extra time spent by employees completing this process.

MEFACOOG Awards for Excellence

80th Annual Conference Posters – 2nd Place Winner

"A Comparison of Birthweight Before and After Implementation of the IADPSG Guidelines for Diagnosis of Gestational Diabetes"

Submitted by Thuy Duong Mai, DO

Arrowhead Regional Medical Center

ABSTRACT

OBJECTIVE: To compare incidence of diabetes mellitus during pregnancy and assess birth weight prior and after implementation of the International Association of Diabetes in Pregnancy Study Group (IADPSG) revised guidelines for diagnosis of gestational diabetes (GDM).

STUDY DESIGN: This is a retrospective longitudinal cohort study of patients delivered over a six month period (January through June) in 2009 when a Carpenter-Coustan method for diagnosis of GDM was used[1], compared to a cohort over the same time period in 2012 when the IADPSG guidelines[2] were employed. Charts were abstracted for gravidity, parity, ethnicity, and birth weight. Only patients with who completed all the steps to diagnose DM and delivered at our institution were included.

RESULTS: The rate of gestational DM from 2009 to 2012 increased from 9.2% to 15.7%. Mean birth weight was unchanged in patients with GDM from 2009 and 2012 (3611.6 ± 594.2g vs. 3527.4 ± 574.0g respectively, P 0.369). There was non-significant trend towards earlier diagnosis of GDM in the 2012 cohort (29.2 ± 9.7 weeks and 24.2 ± 11.2 weeks, P = 0.0719).

CONCLUSION: There was a marked increase in the diagnosis of DM during pregnancy; however, there was no significant difference in gestational age of diagnosis. There was no difference in birth weight between the two cohorts. An earlier diagnosis in the course of pregnancy for those at risk of sequelae of hyperglycemia

Background

The International Association of Diabetes in Pregnancy Study Group (IADPSG) released a new standard for diagnosis of diabetes in pregnancy, in part based on results of the worldwide Hyperglycemia and Adverse Pregnancy Outcomes (HAPO) trial[2,3]. The more aggressive guidelines have been criticized due to the potential for increased costs, along with a paucity of data relating improved outcomes to intervention (diet and home glucose monitoring) in the gestational diabetic patient[4,5].

We implemented the IADPSG guidelines for diagnosis of gestational diabetes in February 2010 at Arrowhead Regional Medical Center (ARMC), the county hospital serving the community of San Bernardino County, in Southern California. Here we compare birth weight before and after the change in diagnostic strategy for gestational DM.

Methods

Charts from patients delivered at our institution over a six month period between January and June 2009 were reviewed retrospectively and included in this review if they completed testing for gestational diabetes at any point in their pregnancy. Patients who had a one hour, 50 g oral glucose tolerance test (OGTT) in excess of 135 mg/dl underwent screening with a three hour, 100g OGTT, and this was considered positive for gestational DM if it met the criteria outlined by Carpenter-Coustan[1].

These patients were compared to a cohort of patients delivered over the same time period in 2012, once IADPSG guidelines had been implemented. Charts were reviewed retrospectively and included in this review if patients underwent both a hemoglobin A1C (A1C) and two hour, 75g OGTT. Patients with overt DM (A1C in excess of 7.0%), and those with incomplete testing were excluded.

Patients with underlying diabetes were excluded from both cohorts. Patients with preterm delivery (<37 weeks) were excluded from the analysis of birth weight. The following information was abstracted from the medical record for each cohort: gravidity, parity, ethnicity, neonatal birth weight, and weeks at diabetes testing, and weeks at delivery.

Results were compared using student t-test, Mann-Whitney test (non-parametric values), Fischer-exact testing, and chi-squared testing where appropriate. Results were considered significant for P< 0.05, 95% confidence interval. Statistical analysis was performed using GraphPad Prism version 6.00 for MacOS, GraphPad Software, La Jolla California USA, www.graphpad.com. This study was conducted with approval from the Institutional Review Board of ARMC

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Results

890 patients were included in the 2009 cohort, and 325 in the 2012 cohort. Characteristics of each cohort are presented in Table 1. Patients in the 2012 cohort had higher parity, and the gestational age at delivery in the 2012 The rate of gestational DM from 2009 to 2012 increased from 9.2% to 15.7%. Despite the increase in rate of diagnosis of GDM, there was no difference in birth weight of neonates born to mothers with GDM between 2009 (3611.1 ± 594.2 g) and 2012 (3527.4 ± 574.0 g) (Figure 1). There was also no difference in number of infants born with weight in excess of 4000 g (P .586 cohort was slightly earlier (38.9 v 39.3 weeks, P .0022).

	2009		2012		
	Mean or N	(SD or %)	Mean or N	(SD or %)	P
Gravidity	2.8	(1.8)	2.9	(1.9)	0.3625
Parity	1.5	(1.5)	2.4	(1.5)	*<.00001*
Ethnicity					
Caucasian	101	(11.6%)	24	(10.3%)	
Hispanic	669	(76.8%)	178	(76.7%)	0.6491
Black	83	(9.5%)	27	(11.6%)	
Asian	18	(2.1%)	3	(1.3%)	
Delivery GA	39.3	(3.1)	38.9	(1.8)	*0.0022*
GDM	82	(0.1)	51	(0.2)	
Weeks at diagnosis of GDM	29.2	(9.7)	24.2	(11.2)	0.0719
Birthweight (GDM)	3611.6	(594.2)	3527.4	(574.0)	0.3694
GDM and >4000 g	17	(1.9)	7	(2.2)	.586

Table 1 Perinatal characteristics of patients in the 2009 (Carpenter Coustan) cohort, vs. those in the 2012 (IADPSG) cohort.

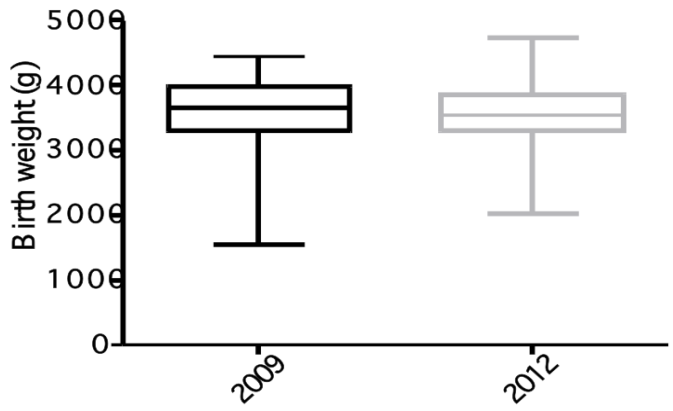

Figure 1 Birth weight (g) between 2009 and 2012. Middle bar is mean, box represents standard deviation, and tags show maximum and minimum birth weights.

Conclusions

Controversy surrounds the early use of the IADPSG guidelines, and ACOG has called for additional research on the maternal or fetal benefits, especially given the expected increase in number of patients with GDM in the new scheme[4,5]. Here, we were able to compare two cohorts in a longitudinal fashion to determine if a change in diagnostic criteria affected birth weight. Despite the increased frequency of patients with GDM referred for dietary counseling and home glucose monitoring, there was no significant change in birth weight at our institution between 2009 and 2012.

The duration of exposure to the intervention (i.e. dietary change, home glucose monitoring, anti-hyperglycemic agents) is relatively short in both groups. The mean gestational age at testing was 29.2 ± 9.7 weeks in 2009, and 24.2 ± 11.2 weeks in 2012 (P = .0719). This leaves only 15 weeks for intervention, or less, especially given the need for a lifestyle change on the mother's behalf which may not be as immediate as one could hope. Thus, the key to preventing macrosomia may lie in earlier diagnosis instead of lower thresholds for hyperglycemia.

References

1. Carpenter MW, Coustan DR. Criteria for screening tests for gestational diabetes. Am J Obstet Gynecol. 1982 Dec 1;144(7):768-73.
2. International Association of Diabetes and Pregnancy Study Groups Consensus Panel, Metzger BE, Gabbe SG, Persson B, Buchanan TA, Catalano PA, Damm P, Dyer AR, Leiva A, Hod M, Kitzmiler JL, Lowe LP, McIntyre HD, Oats JJ, Omori Y, Schmidt MI. International association of diabetes and pregnancy study groups recommendations on the diagnosis and classification of hyperglycemia in pregnancy. Diabetes Care. 2010 Mar;33(3):676-82.
3. HAPO Study Cooperative Research Group, Metzger BE, Lowe LP, Dyer AR, Trimble ER, Chaovarindr U, Coustan DR, Hadden DR, McCance DR, Hod M, McIntyre HD, Oats JJ, Persson B, Rogers MS, Sacks DA. Hyperglycemia and adverse pregnancy outcomes. N Engl J Med. 2008 May 8;358(19):1991-2002.
4. Langer, Oded MD, PhD; Umans, Jason G. MD, PhD; Miodovnik, Menachem MD. Perspectives on the Proposed Gestational Diabetes Mellitus Diagnostic Criteria. Obstetrics & Gynecology. 2013 Jan; 121(1):177–182.
5. Blatt, Amy J. PhD; Nakamoto, Jon M. MD, PhD; Kaufman, Harvey W. MD. Gaps in Diabetes Screening During Pregnancy and Postpartum. Obstetrics & Gynecology. 2011 Jan; 117(1):61-68.

MEFACOOG Awards for Excellence

80th Annual Conference Posters – 3rd Place Winner

"Hemoglobin A1C Levels Early in Pregnancy as Predictors of Gestational Diabetes in a County Hospital Population"

Submitted by Sarah Garcia DO

Arrowhead Regional Medical Center

Abstract

OBJECTIVE: The aim of this study was to determine levels of early (<20 weeks) Hemoglobin A1C (A1C) testing less than the cut off for gestational diabetes (GDM), but predictive of the development of GDM. We also evaluate the relationship between early A1C testing, birth weight, and mode of delivery.

STUDY DESIGN: This is a retrospective review of 281 patients delivered over a six-month period with both A1C testing, and testing for GDM (2h oral glucose tolerance test, OGTT) without diagnosis of overt DM. The following data was also abstracted: maternal age, ethnicity, gravidity, parity, neonatal birth weight, and mode of delivery.

RESULTS: The mean early A1C of patients who go on to develop GDM was significantly higher than patients who did not develop GDM (5.52 ± 0.09 SEM vs. 5.23 ± 0.02, P 0.0036). However, a value of 5.9% was predictive of GDM in 100% of cases, while a value of 5.7-5.8% predicts a 50% chance. There was no difference in mean birth weight (3319 ± 42 g, 3304 ± 68, P 0.85) or mode of delivery when patients were compared based on early A1C testing.

C**ONCLUSION:** A borderline A1C at the first prenatal visit (<20 weeks) predicts patients who will go on to develop gestational diabetes. These patients may benefit from earlier intervention and treatment to reduce maternal and fetal morbidity.

Objectives

In March 2010 the International Association of the Diabetes in Pregnancy Study Group (IADPSG) suggested that a fasting plasma glucose (FPG) or a hemoglobin A1C (A1C) level be performed at the first prenatal visit in order to diagnose overt diabetes (A1C ≥ 6.5%, FPG ≥ 126 mg/dL)[1]. However, there are currently no recommendations regarding further testing or treatment of the patient with borderline A1C result.

There is evidence that even mild hyperglycemia in the first half pregnancy affects outcomes; a borderline FPG (i.e. 90 ≤ FPG ≤ 126 mg/dL) is associated with macrosomia[2]. In addition, treatment of non-pregnant adults with a mildly elevated A1C (5.7-6.4%) has been shown to prevent DM[3]. It follows that an A1C drawn in the first half of pregnancy may predict hyperglycemia that leads to adverse pregnancy outcomes.

Here, we ask what level of early A1C is predictive of GDM, and look to determine if there is a relationship between early A1C elevations to birth weight and mode of delivery. We hypothesize that patients who develop GDM will have higher early A1C values.

Methods

This is a retrospective cohort study of all live born singleton and twin gestations delivered at our institution (Arrowhead Regional Medical Center (ARMC), Colton CA) between January and July 2012. We adopted the Hyperglycemia and Adverse Pregnancy Outcomes (HAPO) study and the IADPSG's recommendations in February 2011. Only patients with both early A1C and 2h OGTT results on record were included in our study. Patients with overt diabetes (early FPG ≥ 126 mg/dL or AIC ≥ 6.5%), or known pre-existing diabetes were excluded. Records were abstracted for gravidity, parity, ethnicity, mode of delivery, and birth weight. This study was performed with approval from the ARMC IRB.

This study includes 281 patients who delivered at ARMC that had both 2h OGTT and A1C testing completed. Statistical analysis was performed using GraphPad Prism version 6.0 for MacOS, Graphpad Software, La Jolla CA USA, www.graphpad.com. Results were considered significant at P 0.05, with confidence intervals set at 95%.

Results

Two hundred and eighty one patients with both A1C and 2h OGTT testing were included. Forty patients (14%) developed GDM under the IADPSG criteria (one elevated value on 2h OGTT, FPG ≥ 92 mf/Dl, 1h ≥ 180 mg/dl, 2h ≥ 153 mg/dl)1. Of the 281 patients that had both 2h OGTT testing and A1C testing, 135 (50%) patients had an early A1C, done prior to or in the 20th week. In this group, 18 patients (13%) developed GDM. The mean early A1C for patients who developed GDM was significantly different compared to those

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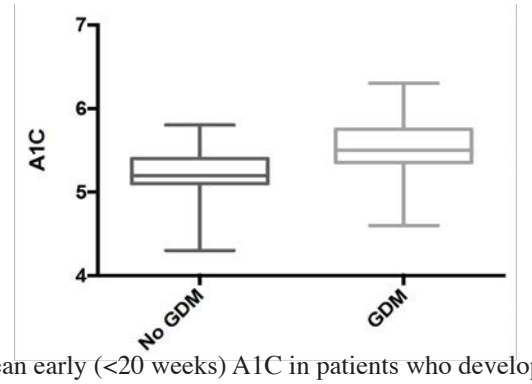

Figure 1 Mean early (<20 weeks) A1C in patients who developed GDM, verses negative testing for GDM. Boxes represent mean with SEM, error bars show SD.

	A1C Range	<5.2	5.3-5.4	5.5-5.6	5.7-5.8	>5.9	All
	N	127	59	40	13	10	240
Birth weight	A1C < 20 weeks	3310	3372	3352	3200	3289	3304
	A1C > 20 weeks	3191	3249	3415	3282	3398	3307
	P	*0.889*	*0.875*	*0.991*	*0.972*	*0.917*	
Birth weight > 4000g	A1C < 20 weeks	1	2	1	0	0	4
	A1C > 20 weeks	4	1	4	1	1	11
SVD	A1C < 20 weeks	42	18	13	3	1	
	A1C > 20 weeks	43	23	15	4	2	*0.524*[+]
OVD	A1C < 20 weeks	3	1	4	2	0	
	A1C > 20 weeks	2	1	4	2	0	*0.740*[+]
SVD vs OVD	P	*0.2953*	*0.8219*	*0.9849*	*> 0.9999*	*> 0.9999*	
VD	A1C < 20 weeks	45	19	17	5	1	
	A1C > 20 weeks	45	24	19	6	2	
CS	A1C < 20 weeks	16	5	2	0	1	
	A1C > 20 weeks	19	7	5	1	4	*0.540*[+]
VD vs CS	P	*0.2867*	*0.7267*	*0.77*	*0.9961*	*> 0.9999*	

Table 1 Birth weight and mode of delivery as a function of A1C range.

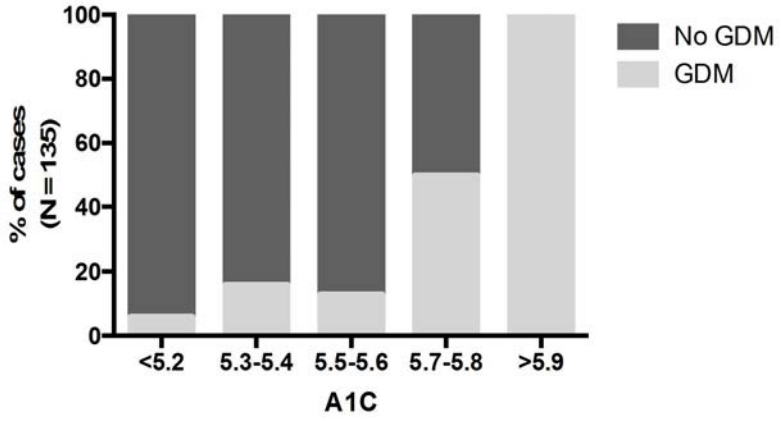

Figure 2 Percent of cases that developed or did not develop GDM for a set early A1C range.

who did not develop GDM, 5.5 ± 0.25% SD vs. 5.2 ± 0.4% SD, respectively (P = 0.0036, t-test) (Figure 1). On average, these patients were diagnosed with GDM at 25 weeks of gestation. However, 3 patients with an early A1C ≥ 5.9% were diagnosed at a mean of 15 weeks, allowing for earlier intervention and treatment. As expected, a higher A1C was correlated with the presence of GDM (P < 0.0001 chi-squared test for trend). Fifty percent of patients went on to develop GDM if their early A1C was 5.7-5.8%, and 100% of patients with early A1C > 5.9% developed GDM (Figure 2).

The mean birth weight of infants born in or after the 37th week of gestation to patients with GDM was 3565 ± 483g, which was statistically different from those without GDM, 3327 ± 416g (N =249, P = 0.012, t-test). However, early or late A1C testing did not significantly predict birth weight (Table 1). Numbers of infants born with birth weight in excess of 4000 g was low in both groups (4 in early A1C group, 8 in late A1C group). However, there were no infants with birth weight ≥ 4000 g for patients with early A1C t.CS across any A1C category.

Conclusions

An A1C is an ideal test to add to the initial prenatal lab package, as it is relatively inexpensive and is drawn in the non-fasting state. If it is above 6.5%, the diagnosis of overt diabetes is made1. Here, we have shown that of patients with an early A1C of 5.7-5.8%, half will develop GDM; and for a value of ≥ 5.9%, all patients will develop GDM. The mean early A1C of patients who go on to develop GDM is significantly different from those who do not (5.5 ± 0.25% vs. 5.2 ± 0.4% SD, P = 0.0036).

According to the current guidelines by the IADPSG (based on results from the HAPO study) there is no recommendation for treatment or

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earlier screening of patients with a borderline A1C1. Under the present IADPSG recommendations, and in our population, most patients perform the 2h OGTT screening test after 24 weeks gestation and confirmatory test at least 1-3 weeks later, therefore the time frame for treatment to affect outcome is greatly reduced. Based on results of this study, an early A1C of 5.7% may be a reasonable lower limit to treat patients as gestational diabetics. This earlier initiation of treatment in pregnancy would lead to longer duration of treatment to influence outcome. Patients with an A1C of 5.7 to 5.9% may benefit from earlier OGTT testing as there are still a significant number of patients in this group that developed GDM.

We did not find a difference in birth weight or mode of delivery based on early A1C testing. However, patients in this study that had an A1C > 5.9% (all of whom were diagnosed with GDM) were diagnosed at a significantly earlier gestational age than those with lower early A1C values. Thus, we think that earlier diagnosis of patients with borderline A1C led to improvement their lifestyle habits with diet and exercise earlier, thereby introducing an effective intervention to prevent excessive fetal growth and CS.

Clinical Implications

Patients with early A1C in excess of 5.7% may benefit from earlier intervention or testing for gestational diabetes.

References

1. International Association of Diabetes and Pregnancy Study Groups Consensus Panel, Metzger BE, Gabbe SG, Persson B, Buchanan TA, Catalano PA, Damm P, Dyer AR, Leiva A, Hod M, Kitzmiler JL, Lowe LP, McIntyre HD, Oats JJ, Omori Y, Schmidt MI. International association of diabetes and pregnancy study groups recommendations on the diagnosis and classification of hyperglycemia in pregnancy. Diabetes Care. 2010 Mar;33(3):676-82.
2. Riskin-Mashiah S, Younes G, Damti A, Auslender R. First-trimester fasting hyperglycemia and adverse pregnancy outcomes. Diabetes Care. 2009 Sep;32(9):1639-43. Epub 2009 Jun 23.
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ACOOG CME Calendar of Events

81st Annual Conference
April 6-11, 2014
Four Seasons Las Vegas
Las Vegas, NV

2014 FALL CONFERENCE
October 8-12, 2014
Hilton DFW Lakes Hotel
Grapevine, TX

82nd Annual Conference
April 12-17, 2015
Loews Coronado Bay
San Diego, CA

2015 Fall Conference
October 21-25, 2015
Orlando, FL
Loews Portofina Bay Hotel at Universal Studios

81st ANNUAL CONFERENCE

FOUR SEASONS
LAS VEGAS
APRIL 6-11, 2014

- Catherine Bernardini, DO, Co-Program Chair
- David Jaspan, DO, Co-Program Chair

81st ANNUAL CONFERENCE

April 6-11, 2014

WELCOME & CONFERENCE OVERVIEW

It is our pleasure to invite you to the 81st Annual Conference of the American College of Osteopathic Obstetricians and Gynecologists. This conference has been carefully designed to meet the unique educational needs of ACOOG members, offering thorough scientific assessment of a variety of clinical topics and controversial issues that OB/GYN's face on a daily basis. In addition to cutting-edge presentations and debates, this year's schedule provides you an opportunity to participate in an Pre course in Female Pelvic Medicine and Reconstructive Surgery- (FPMRS/Urogynecology). Thank you for supporting ACOOG through your membership. We hope you will register for the 81st Annual Conference.

LOCATION & LODGING

FOUR SEASONS HOTEL LAS VEGAS

3960 Las Vegas Boulevard South,
Las Vegas, Nevada 89119
Tel. 1 (702) 632-5000

Visit ***www.acoog.org*** for a direct link to the hotel. Don't forget to reserve early. Hotel block cutoff date is **March 10, 2014**. ACOOG Rate: Double/Double $229, King $229. To make reservations call 1-702-632-5000, group ID ***ACOOG***

LEARNING OBJECTIVES

Those participating in this activity will receive information that should allow them to...

- Enhance the skills needed to diagnose and manage common and uncommon clinical challenges faced in a modern OB/GYN practice.
- Address current and future OB/GYN practice issues.
- Apply advances in technology and therapeutics to facilitate improved patient care and outcomes.

ACCREDITATION

The American College of Osteopathic Obstetricians & Gynecologists is accredited by the American Osteopathic Association to award continuing medical education to physicians. This activity has been planned and implemented in accordance with the Policies of the Council on Continuing Medical Education of the American Osteopathic Association.

CREDIT STATEMENTS

The American College of Osteopathic Obstetricians & Gynecologists has requested that the AOA Council on Continuing Medical Education approve this program for 30 credits of AOA Category 1-A CME. Approval is currently pending.

Physicians should only claim credit commensurate with the extent of their participation in the activity.

A completed attestation form and post-course evaluation are required to receive CME credit and a certificate of attendance.

PRESIDENTIAL CELEBRATION

Wednesday, April 9, 2014 join us for a ***Vintage Vegas*** themed Presidential Celebration. Cocktail attire suggested but not required. **A ticket must be purchased to attend. Tickets are no longer included in the CME registration fee.** Children are welcome at the celebration with the purchase of an additional ticket.

DO NOT FORGET...

In an continued effort to go green there will not be a printed syllabus; however if you would like to order a black and white printed copy of the syllabus make sure to indicate on the registration form. The cost is $45 and must be pre-ordered with your registration. Printed syllabus will include all slides submitted prior to the print deadline. Printed copies will NOT be available on site. Check the ACOOG web site one week prior to the conference to download the syllabus.

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SUNDAY (April 6, 2014) 4 Credits

8:00 AM-Noon	*ACOOG Board of Trustees meeting*
Noon-5:00 PM	**Early Registration**

Subspecialty Course in FPMRS:

1:00-1:45	**The Difficult TVH** Andrew Walter, MD
1:45-2:30	**Midurethral Slings** John Fischer, MD
2:30-3:15	**Native Tissue Apical Repairs** Sesh Kasturi, MBBS
3:15-3:30	**BREAK**
3:30-4:15	**Native Tissue Cystocoele and Rectocele Repair** Patrick Woodman, DO
4:15-5:00	**Pelvic Pain** Andrew Walter, MD
1:00	**MEFACOOG Golf Tournament**
6:00-7:30	Symposium Opportunity

MONDAY (April 7, 2014) 6.75 Credits

6:30- 7:30 AM	Resident Reporter Orientation Breakfast
6:30-7:30	**Registration/Breakfast/Exhibits**
7:30-7:45	**President's Welcome Address**
7:45-8:30	**Gail Goldsmith Memorial Lecture** Charles Hatem, MD
8:30- 9:15	**Disorders of Sex Differentiation** Anne-Marie Amies, MD
9:15-10:00	**Abnormal Adolencent Bleeding** Anne-Marie Amies, MD
10:00-10:45	**BREAK with Exhibits**
10:45-11:30	**Current Pap Smear Guidelines/ Cervical Cancer Screening-What's The Evidence** Alan Waxman, MD
11:30-12:15	**L.A.S.T. Terminology** Alan Waxman, MD
12:15-1:30	**Lunch with Exhibits**
1:30-2:15	**The Assessment and Grading of Cervical Lesions-Where to Biopsy** Charles Dunton, MD
2:15-3:00	**Diagnosis and Treatment of VIN** Charles Dunton, MD
3:00-3:45	**BREAK with Exhibits**
3:45-4:30	**Antibiotic Prophylaxis-What and When To Use** Dipak Delvadia, DO
4:30-5:15	**Family Planning and Avoiding Unintended Pregnancy** Joel Lebed, DO
6:00-7:30	**Symposium Opportunity**

TUESDAY (April 8, 2014) 6 Credits

7:00-7:30 AM	**Registration/Breakfast/Exhibits**
7:30-8:15	**Obesity/PCOS: REI Perspective** John Orris, DO
8:15-8:38	**A Generalist's Work Up For Infertility** Ellen Wood, DO
8:38-9:00	**What To Do With The Abnormal Semen Analysis** David Forstein, DO
9:00-9:23	**Treatment Options and Evaluation of The Abnormal HSG** Ellen Wood, DO
9:23-9:45	**The Evaluation/Treatment of Abnormal Labs in The Infertile Patient** David Forstein, DO
9:45-10:15	**BREAK with Exhibits**
10:15-11:00	**Pearls and Pitfalls of Surgery in The Obese Patient** David Holtz, MD
11:00-11:45	**Alternative Fibroid Treatments** Jay Goldberg, MD
11:45-12:45 PM	**ACOOG Membership Meeting Luncheon** *(Dues must be current to participate)*
12:45-1:30	**Diagnosis and Treatment of Endometriosis and Its Effects on Fertility** Jennifer Nichols, DO
1:30-2:15	**Psyche and Prenatal OMM** Hollis King, DO
2:00-5:00	*AOBOG Recertification Exam*
2:15-3:00	**Prenatal OMM** Hollis King, DO
3:00-6:00	*MEFACOOG Board of Trustees Meeting*
6:30-7:30	*New Fellows/Distinguished Fellows Reception* *(Invitation Only)*

WEDNESDAY (April 9, 2014) PRESIDENT'S DAY 6 Credits

6:30-7:00	**Breakfast**
7:00-7:45	**AOA President-elect (CME content)** Robert Juhasz, DO
7:45-8:30	**ACOG President-elect (CME content)** John C. Jennings, MD
8:30-9:15	**MEFACOOG Distinguished Lecture**
9:15-10:00	**Barbara Hawkes Memorial Lecture**
10:00-10:30	**BREAK** (New Fellows, Distinguished Fellows, Boards and Past Presidents assemble for entrance)
10:30- Noon	**Awards Ceremony, Presentation of New Fellows, New Distinguished Fellows, and President's Inaugural Address**

WEDNESDAY Continued.....

Noon-1:00	Lunch and Learn - Symposium Opportunity
1:00-1:45	Distinguished Fellow Lecture
1:45-2:30	Controversies and Recommendations in Breast Cancer Mark Morginstin, DO
2:30-3:15	Gestational Trophoblastic Neoplasia Dette Vasques, DO
3:15-3:30	BREAK
3:30-4:15	Work Up of The Pelvic Mass Dette Vasques, DO
4:15-5:00	Thrombophilia Management in The Perioperative Period Mark Morginstin, DO
6:30-7:30	Legacy Society/MEFACOOG Golf-Challenge Reception
7:30-10:30	Presidential Celebration

THURSDAY (April 10, 2014) 6.75 Credits

8:00-10:00	*ACOOG Board of Trustees Re-Organizational Meeting*
7:45-8:45	Breakfast - Symposium Opportunity
8:15-8:45	Breakfast
8:45-9:30	The Ten Commandments of Malpractice Avoidance Philip Ginsberg DO
9:30-9:53	Shoulder Dystocia Eric Carlson, DO
9:53-10:15	Obstetric Hemorrhage Robert Debbs, DO
10:15-10:30	BREAK
10:30-10:53	Eclampsia Eric Carlson, DO
10:53-11:15	Cardiovascular Collapse Robert Debbs, DO
11:15-11:38 PM	Abnormal Placentation Eric Carlson, DO
11:38-12:00	VBAC Robert Debbs, DO
12:00-1:00	Lunch and Learn - Symposium Opportunity
12:00-1:00	Lunch and Learn - Profesional Speaking Workshop
1:00-1:45	PPROM Management Ronald J Librizzi, DO
1:45-2:30	Avoiding Urologic Complications in GYN Surgery Betsy Greenleaf, DO
2:30-3:15	OAB-Sorting Out The Treatment Options Philip Ginsberg, DO
3:15-4:00	Interstitial Cystitis-Diagnosis and Management Betsy Greenleaf, DO

FRIDAY(April 11, 2014) 6 Credits

6:30-7:00	Breakfast
7:00-7:45	Advanced Maternal Age-Genetic and Obstetric Management Arnie Cohen, MD
7:45-8:30	Insomnia Fred Jaffe, DO
8:30-9:15	Hair Today, Gone Tomorrow-Female Hair Loss Evaluation and Treatment Options Melinda Greenfield, DO
9:15-10:00	Sleep Apnea Fred Jaffe, DO
10:00-10:15	BREAK
10:15-11:00	General Skin Exam Melinda Greenfield, DO
11:00- 11:45	Cardio Prevention in The Female Patient David Shipon, MD
11:45-12:30	50 Shades of Dysfunction Laura Dalton DO
12:30-1:15	Learning or Relearning The Critical Analysis of Medical Literature David Jaspan, DO
1:15	*Adjourn*

Things to Do...!

Cirque du Soleil www.cirquedusoleil.com

Designer Dinner: Multiple locations

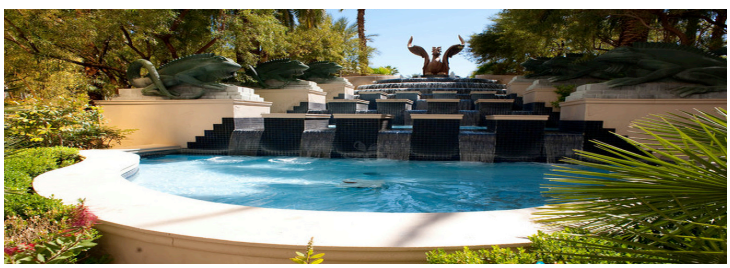
- -Restaurant Guy Savoy
- -L'Atelier de Joël Robuchon
- -SW Steakhouse
- -N9NE Steakhouse
- -Craftsteak

Shark Reef Aquarium www.cmaquirium.com

Richard Petty Driving Experience www.lvms.com
at Las Vegas Motor Speedway

Vegas Indoor Skydiving www.vegasindoorskydiving.com
at Convention Center Drive

CSI: The Experience at MGM



ACOOG 81st ANNUAL CONFERENCE

REGISTRATION FORM

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First Name*		MI	
Last Name*			
AOA Number*			
Degree*	DO MD Other (PhD, RN, NP, RDMS,)		
Address*			
Apt. or Suite*			
City*			
State*		Zip*	
Contact Tel*			
E-mail *			
Guest Badge **	Please print name for guest badge (ADULTS ONLY)		

* Required ** Adults only; includes entrance to Exhibit Hall only. Daily meals not included. Please call the ACOOG office for daily meal ticket prices.

√	GENERAL SESSION	Pre-Registration (payment received by March 07, 2014)	Late Registration (payment received after March 07, 2014)
	Physician Member *(Regular, Senior, Fellow, DF)*	$800	$900
	Non-Member Physician	$1,000	$1,100
	Life Member	$525	$625
	Affiliate Member *(Non-physician member)*	$525	$625
	Candidate *(Resident member)*	$400	$500
	Non-Member Resident	$500	$600
	Student Member	$0	$0
	Non-Member Student	$250	$350
	Monday Only 6.75 credits April 7	$202	$252
	Tuesday Only 6.00 credits April 8	$180	$230
	Wednesday Only 6.00 credits April 09	$180	$230
	Thursday Only 5.25 credits April 10	$158	$202
	Friday Only 6.00credits April 11	$180	$230

Pre-registrations will be accepted until March 07, 2014. All registrations received after this date will be processed at the late registration rate. Registrations received after March 14, 2014 will be accepted onsite at the registration desk only. A Presidential Reception ticket is not included with any of the CME registration fees or the daily rates. Payment must be received in full to process registration. Faxed registrations without payment information will not be processed.

√	SUPPLEMENTAL SESSIONS	Day	Time	CME	Limit	Fee	Residents
	Subspecialty Pre-Course in FPMRS	Sun (April 6)	1:00-5:00 PM	4 Credits	100	$150	$75
	Professional Speaking Workshop	Thur (April 10))	12:00-1:00 PM	1 Credits	50	$70	$70

Workshops and supplemental sessions are space limited. Your registration will be returned if a session has reached maximum capacity. Medical students may audit workshops free of charge if space is available. If you plan to attend the Presidential Reception you must purchase a ticket. There is not a ticket included with registration. Children are allowed to attend.

√	EVENT TICKETS	Day	Time	Cost Per Ticket	Quantity
	MEFACOOG Golf Tournament	Sunday (April 6)	1:00 PM	$250	
	ADULT Presidential Reception ticket	Wed (April 9)	7:00-10:00 PM	$65	
	CHILD Presidential Reception ticket	Wed (April 9)	7:00-10:00 PM	$25	
	DONATION of a Presidential Reception ticket for Resident or Student	Wed (April 9)	7:00-10:00 PM	$65	

√	MISCELLANEOUS	Amount	Quantity
	Black and white printed syllabus and color CD (PRE ORDER ONLY - available for pickup at the registration desk)	$ 45	

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Card Type	☐ Visa ☐ MasterCard ☐ Amex	Name on Card			
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Refund Policy: Written cancellation of registration by March 7, 2014 will be subject to a $50 processing fee. No refunds will be given after this date. Special Needs: In accordance with the Americans with Disabilities Act, every effort has been made to make this conference accessible to people of all capabilities. **Please list any ADA-compliant accommodations you may require below (including dietary restrictions).**

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May 2013

MEFACOOG Corporate Partnership Council

Our thanks to these companies for their valuable assistance in partnering with the MEFACOOG to foster continuing improvements in women's health care.

The Corporate Partnership Council of the Medical Education Foundation of the American College of Osteopathic Obstetricians and Gynecologists Mission Statement is:

The mission of the CPC of the MEFACOOG is to enhance and improve the quality of women's health care through collaborative partnerships.

We will accomplish our mission by:

1. Education of:
   - Physicians
   - Residents and other related
   - Health care professionals
2. Increasing industry awareness of the uniquely osteopathic educational model
3. Improving industry access to physicians and the patients they serve
4. Collaboratively identifying, developing and implementing educational programs in women's health care and thereby,
5. Improving the lives of women through education

2012-2013 Corporate Partnership Council (CPC) Members are:

PLATINUM $25,000+

GOLD $10,000-25,000

Noven Pharmaceuticals

BRONZE $5,000 - $9,999

Pfizer Inc.
Verinata Health, Inc.

MEFACOOG WOULD LIKE TO THANK THE FORMER CORPORATE PARTNERSHIP COUNCIL COMPANIES FOR THEIR PAST PARTICIPATION IN THE MEFACOOG CPC.

Barr Laboratories /TEVA Pharmaceuticals
Bayer HealthCare Pharmaceuticals
Boehringer Ingelheim Pharmaceuticals
Hologic, Inc.
Ortho-Women's Health & Urology
NextGen HealthCare
Solvay Pharmaceuticals

MEFACOOG Donation Form

I would like to donate $_____ to help support the following program:

_____ MEFACOOG General Support Donation

_____ MEFACOOG/Wyeth Gail Goldsmith Memorial Lecture (Annual Conference)

_____ Barbara Hawkes and Honorary Fellows Address (Annual Conference)

_____ MEFACOOG Distinguished Lecture (Annual Conference)

_____ Past President's Honorary Lecture (Fall Conference)

_____ National Student Society of the ACOOG

_____ Visiting Professor Program

_____ MEFACOOG Fall Service Project

_____ In Honor or In Memory of _____

Address: _____

Donor Information (please print or type)

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State	
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Telephone (home)	
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Expiration date	
Authorized signature	

Acknowledgement Information

Please use the following name (s) in all acknowledgements:

____ I wish to have our donation remain anonymous.

Signature
Date

Please make checks, corporate matches, other gifts or in honor or in memory gifts payable to:

MEFACOOG
8851 Camp Bowie West, Suite 275
Fort Worth, Texas 76116

MEFACOOG
Medical Education Foundation of the
American College of Osteopathic
Obstetricians and Gynecologists
8851 Camp Bowie West, Suite 275
Fort Worth, TX 76116