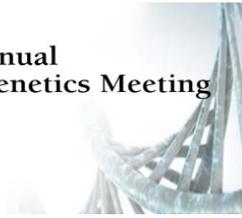




2017 | ACMG Annual
Clinical Genetics Meeting



Prenatal Diagnostic Dilemmas

Held in Phoenix, Arizona, March 21-25, 2017

Date of Release: April 3, 2017

Expiration Date: April 3, 2020 (CME, NSGC, P.A.C.E.®)

Estimate Time of Completion: 1.5 hours

Course must be completed by the expiration dates

COURSE DESCRIPTION

This session to be presented in the Diagnostic Dilemma format was created in an effort to increase the quantity and quality of Prenatal/Perinatal genetic educational opportunities. The session will be an interactive session which will allow genetics professionals to present cases of rare knowns and unknowns. These will include cases that are rare knowns of prenatally diagnosed malformations, genetic syndromes, or potential genetic syndromes and include ultrasound findings, management, and if available, postnatal findings. The rare knowns presentation may be of assistance to others in practice. The session will also provide an opportunity for individuals to present cases of unknowns for assistance with management suggestions or potential diagnoses. It will also be a time to illustrate the need for a multidisciplinary approach and communication for optimal care of patients and families. Additionally, this provides a forum to discuss cases of maternal genetic disorders and the complications/management of pregnancy and potential implications to offspring.

LEARNING OBJECTIVES

At the conclusion of this course, participants should be able to:

- Identify rare knowns and seek possible suggestions about unknown cases seen on prenatal ultrasound
- Compare prenatal findings of rare knowns or unknown cases with postnatal findings in an open forum
- Create an interactive atmosphere to discuss the management of complicated genetic conditions/malformations identified on ultrasound
- Identify strategies for postnatal management of prenatally diagnosed malformations or genetic disorders
- Discuss specific cases of management of pregnancy/implications to offspring when pregnancy is complicated by a maternal genetic disorder
- Prenatal Diagnostic Dilemma Alobar Holoprosencephaly- Laura Otto, CGC

TARGET AUDIENCE

All healthcare professionals interested in the diagnosis, management, treatment and prevention of genetic conditions and increasing their understanding of the genetic basis of common, chronic health problems affecting both children and adults will find the programming applicable to their practice. These select sessions from the ACMG Annual Meeting are targeted for the following professionals:

- Medical and clinical geneticists
- Physicians of all specialties with an interest in genetics, genomics and the genetic basis of disease
- Genetic counselors
- Laboratory geneticists, directors, technicians and technologists
- Researchers
- Pathologists
- Educators
- Nurses
- Dietitians
- Physician assistants
- Biotechnology and pharmaceutical development professionals
- Fellows, Trainees and Students
- Public health professionals
- Genetic/consumer advocates
- Others with an interest in the science and art of medical genetics and genomics

SESSIONS

- Three Strikes and You're Out- Lisa Gill, MD
- Prenatal Diagnostic Dilemma Case Presentation- L. Bernhard, MD
- Prenatal Diagnostic Dilemma Severe Microcephaly in 3rd Trimester-Myra Wick, MD
- Prenatal Diagnostic Dilemma IUGR Neonatal Lactic Acidosis- Erin Conboy, MD
- Expanded Carrier Screening- Dawn Pekarek, MD
- Prenatal Dilemmas- Jelena Martinovic, MD
- Prenatal Diagnostic Dilemma Alobar Holoprosencephaly- Laura Otto, CGC

Accreditation:

The American College of Medical Genetics and Genomics is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to provide continuing medical education for physicians.

Credit Designation:

The American College of Medical Genetics and Genomics designates this activity for a maximum of 1.5 *AMA PRA Category 1 Credits*[™]. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

Genetic Counselor Credit

The National Society of Genetic Counselors (NSGC) has authorized American College of Medical Genetics and Genomics to offer up to 1.5 Category 1 contact hours for this OnDemand course. The American Board of Genetic Counseling (ABGC) will accept CEUs earned for this course for the purposes of genetic counselor certification and recertification. Reporting of credits is sent to NSGC quarterly. Additional fee (~\$25) applies for NSGC credit that is billed by NSGC.

P.A.C.E. CEUs – Laboratory Directors and Laboratory Personnel

ACMG is approved as a provider of continuing education programs in the clinical laboratory sciences by the American Society for Clinical Laboratory Science (ASCLS) Professional Acknowledgment for Continuing Education (P.A.C.E.®) Program. The American College of Medical Genetics and Genomics designates this course for a maximum of 1.5 contact hours. ACMG is approved by the Florida Board of Clinical Laboratory Personnel as CE Provider. ACMG is approved by the California Department of Health Services through the ASCLS P.A.C.E.® Program as CE Provider #275.

HIPAA Compliance

The ACMG supports medical information privacy. While the ACMG is not a “covered entity” under HIPAA 1996 and therefore is not required to meet these standards, ACMG wishes to take reasonable steps to ensure that the presentation of individually identifiable health information at ACMG-sponsored events has been properly authorized. All presenters have completed a form indicating whether they intend to present any form of individually identifiable healthcare information. If so, they were asked either to attest that a HIPAA-compliant consent form is on file at their institution, or to send ACMG a copy of the ACMG HIPAA compliance form. This information is on record at the ACMG Administrative Office and will be made available on request.

Content Validation

ACMG follows the ACCME policy on Content Validation for CME activities, which requires:

Content Validation and Fair Balance

1. ACMG follows the ACCME policy on Content Validation for CME activities, which requires:
 - a) All recommendations involving clinical medicine must be based on evidence that is accepted within the profession of medicine as adequate justification for their indications and contraindications in the care of patients.
 - b) All scientific research referred to, reported or used in CME in support or justification of patient care recommendations must conform to the generally accepted standards of experimental design, data collection and analysis.
2. Activities that fall outside the definition of CME/CE; “Educational activities that serve to maintain, develop, or increase the knowledge, skills, and professional performance and relationships that a physician uses to provide services for patients, the public, or the profession” (source: ACCME and AMA) will not be certified for credit. CME activities that promote recommendations, treatment, or manners of practicing medicine or pharmacy that are not within the definition of CME/CE or, are known to have risks or dangers that outweigh the benefits or, are known to be ineffective in the treatment of patients.
3. Presentations and CME/CE activity materials must give a balanced view of therapeutic options; use of generic names will contribute to this impartiality. If the CME/CE educational materials or content includes trade names, where available, trade names from several companies must be used.

Off-label Uses of Products

When an off-label use of a product, or an investigational use not yet approved for any purpose, is discussed during an educational activity, the accredited sponsor shall require the speaker to disclose that the product is not labeled for the use under discussion, or that the product is still investigational. Discussions of such uses shall focus on those uses that have been subject of objective investigation.

Disclaimer: *ACMG educational programs are designed primarily as an educational tool for health care providers who wish to increase their understanding of the application of genomic technologies to patient care. The ACMG does not endorse, or recommend the use of this educational program to make patient diagnoses, particular by individuals not trained in medical genetics. Adherence to the information provided in these programs does not necessarily ensure a*

successful diagnostic outcome. The program should not be considered inclusive of all proper procedures and tests or exclusive of other procedures and tests that are reasonably directed at obtaining the same results. In determining the propriety of any specific procedure or test, a healthcare provider should apply his or her own professional judgment to the specific clinical circumstances presented by the individual patient or specimen.

2017 ACMG Program and Education Committee Members Disclosures

Members of the ACMG Staff, Education and Program Committees involved in planning the 2017 ACMG Annual Clinical Genetics Meeting are required to disclose relevant relationships which could be perceived by some as a real or apparent conflict of interest in planning. All disclosures have been reviewed and conflicts of interest resolved by the Education Committee COI sub-committee or the Executive Director and CME Associate Director and conflicts of interest are disclosed. In the cases where a conflict existed then the committee member refrained from the discussion.

Following is a list of program and education committee members who have disclosed one or more such relationships and names of companies with which those relationships exist:

EC = Education Committee; PC = Program Committee; S = ACMG Staff

<ol style="list-style-type: none"> 1. Major stockholder/ownership interest 2. Grant/Research Support (External) 3. Salary/Employment/Royalty(ies)/Honoraria 4. Consultant/consulting fees/other remuneration 5. Speakers' bureau 	<ol style="list-style-type: none"> 6. Non-remunerative positions of influence such as officer, board member, trustee, or public spokesperson (All Committee Members Below are on ACMG Committees –Members with other affiliations are listed) 7. Receipt of intellectual property 8. Other
---	---

Georgianne L. Arnold, MD, FACMG - Horizon, 2; Recordati, 2; Biomarin, 2; Actelion, 2; SIMD, 6; ACGME, 6; AAP, 6; ASHG, 6 (PC)

Karen W. Gripp, MD, FACMG – Wiley Publishing Inc., 3; FDNA, 4; Novartis, 4 (PC)

Fuki M. Hisama, MD, FACMG – Horizon Pharmaceuticals, 4; ABMGG, 6 (PC)

Christine A. Curtis, PhD, FACMG - CSI Laboratories, 3 (EC)

Thomas E. Mullen, PhD, MS, FACMG - Good Start Genetics Inc., 3 (EC)

Christian P. Schaaf, MD, PhD, FACMG - Springer Publishing Company, 3 (PC), (EC)

Katrina M. Dipple, MD, PhD, FACMG – ACGME, 6; AAP, 6; ASHG, 6; LA BioMed DSMB, 4; SIMD 6 (PC)

Following is a list of committee, education members and staff who have no relationships to disclose:

Liming Bao, PhD, FACMG (EC)

Monica A. Giovanni, MS (EC)

Chad Haldeman-Englert, MD, FACMG (EC)

Abbas Padeganeh, PhD, MS (EC)

Amy E. Roberts, MD, FACMG (EC)

Barrie Suskin Kaplan, MD (EC)

Tracey Weiler, PhD, MS (EC)

Jansson White (EC)

Anne M. Slavotinek, MBBS, PhD, FACMG (EC)

Christopher M. Cunniff, MD, FACMG (PC)

Gerald Feldman, MD, PhD, FACMG (PC)

Helga V. Toriello, PhD, FACMG (PC)

Hope Northrup, MD, FACMG (PC)

Jennelle C. Hodge, PhD, FACMG (PC)

Jessica Smith, MD (PC)

Joanne Nguyen, MD, FACMG (PC)

Myra Wick, MD, PhD, FACMG (PC)

Omar Abdul-Rahman, MD, FACMG (PC)

Pilar L. Magoulas, MS, CGC (PC)

Robert Hagelstrom, PhD, MBA, FACMG (PC)

Tuya Pal, MD, FACMG (PC)

Monica Giovanni, MS, CGC (PC)

Jane Dahlroth, CEM, CMP-HC (PC), (EC), (S)

Jane Radford, MHA, CHCP (PC), (EC), (S)

Michael S. Watson, PhD, FACMG (PC), (EC), (S)

Penelope Freire, CMP (PC), (S)

SPEAKERS AND MODERATORS

Faculty Disclosures:

As a sponsor accredited by the ACCME, the American College of Medical Genetics and Genomics must ensure balance, independence, objectivity and scientific rigor in all its sponsored educational activities. All faculty participating in a CME-certified activity are expected to disclose to the audience any relevant financial interest(s) or other relationship(s) with the manufacturer(s) of any commercial product(s), provider(s) of commercial services or any commercial supporters, including diagnostic laboratories, of the activity discussed in an educational presentation. Relevant financial interest(s) or other relationship(s) can include such things as grants or research support, consultancy, major stock holder, etc. The intent of this disclosure is not to prevent a planner or speaker with a relevant financial or other relationship from course planning or making a presentation, but rather to provide learners with information on which they can make their own judgments. It remains for the audience to determine whether the speaker's interests or relationships may influence the presentation with regard to exposition or conclusion. All conflicts of interests have been reviewed and resolved by the education and CME subcommittee.

Moderator: Dawn Pekarek, MD, FACOG, FACMG
Clinical Assistant Professor, Stanford University
No financial relationships to disclose.



Dr. Pekarek is a Maternal Fetal Medicine physician boarded in Genetics. She has accepted a new position in New Orleans starting in April.

Moderator: Britton Rink, MD, MS
Director Perinatal Genetics, Mount Carmel Health Systems
No financial relationships to disclose.



Dr. Rink is Director of Perinatal Genetics in the Mount Carmel Health System, Columbus, Ohio. She is dual board certified in Maternal Fetal Medicine and Genetics and maintains a practice in both subspecialties. Dr. Rink is the incoming Chair to the ACOG Committee on Genetics after serving on the committee for several years and most

recently as the Vice Chair. She has particular interest in prenatal diagnosis, advanced fetal imaging, fetal therapy and recurrent pregnancy loss. Dr. Rink has authored several book chapters and publications on genetic testing and screening in pregnancy. She resides in Columbus, Ohio with her husband and four children.

Speaker: Lisa Gill, MD, FACMG

University of Minnesota Department of Obstetrics and Gynecology

No financial relationships to disclose.



Dr. Lisa Gill is an obstetrician-gynecologist in Minneapolis, Minnesota. She received her medical degree from University of Colorado Denver School of Medicine and completed her residency at Mayo Clinic, Rochester, MN.

Speaker: L. Bernhard, MD

Washington University in St. Louis School of Medicine

No financial relationships to disclose



Dr. Lisa Bernhard, a New Orleans native, earned a Doctor of Medicine degree from Louisiana State University School of Medicine located in New Orleans, LA. She then completed an Obstetrics and Gynecology Residency followed by a Medical Genetics Fellowship at Washington University in St. Louis, MO. Dr. Bernhard practiced in St. Louis for 30 years before returning to Louisiana. Dr. Bernhard is board certified by the American Board of Obstetrics and Gynecology. She is also a member of several organizations such as the American College of Obstetrics and Gynecology, Maternity Hospital Society, American Institute of Ultrasound in Medicine, and the American College of Medical Genetics and Genomics. Dr. Bernhard's special areas of interest are prenatal diagnosis, obstetric ultrasound, and gynecologic ultrasound.

Speaker: Myra Wick, MD
Medical Geneticist Gynecologist, Mayo Clinic
No financial relationships to disclose



Myra Wick, MD, PhD, is an Assistant Professor in the Departments of Obstetrics and Gynecology, Medical Genetics, and Laboratory Medicine at Mayo Clinic in Rochester, Minnesota. She is board certified by the American Board of Obstetricians and Gynecologists and the American Board of Medical Genetics. Dr. Wick received her doctor of philosophy degree from Mayo Graduate School of Medicine and her doctor of medicine degree from Mayo Medical School. She completed residencies through Mayo Graduate School in the Departments of Obstetrics and Gynecology and Medical Genetics. Dr. Wick's clinical practice focuses on prenatal genetics and the genetics of hereditary cancer syndromes, particularly the syndromes associated with gynecologic cancer.

Speaker: Erin Conboy, MD
Medical Genetics Resident, Mayo Clinic
No financial relationships to disclose



Dr. Erin Conboy received her medical degree from Penn State College of Medicine

Speaker: Dawn Pekarek, MD
Clinical Assistant Professor, Stanford Children's Health
No financial relationships to disclose



Dawn Pekarek, MD is a native of Westlake, Ohio. She completed a combined BS/MD program through the University of Akron/Northeastern Ohio Universities College of Medicine (now NEOMED). Subsequent to this, she completed an Obstetrics and Gynecology residency at Summa Health System in Akron, Ohio and a combined Genetics residency and Maternal Fetal Medicine fellowship at the University of Alabama at Birmingham. She has practiced in various settings since completion of her fellowship in 2009 and joined the faculty at Stanford in 2014. Dr. Pekarek is board certified in Obstetrics and Gynecology, Maternal Fetal Medicine, and Clinical Genetics.

Speaker: Jelena Martinovic, MD
South Paris Medical School France
No financial relationships to disclose

Speaker: Laura Otto, CGC
Genetic Counselor, Mayo Clinic
No financial relationships to disclose

Participation Instructions

1. Participant logs into ondemand.acmg.net
2. Once logged in the participant will access the session they would like to view. They will be asked if they would like to claim credit for the meeting, or if they will not claim credit for the meeting. Then, this information (Course description) will appear, and participant will have to attest that they have read the information. They will then click Continue.
3. After that, the participant will be able to select the credit types to claim.
4. For each session with a post-test, the participant will need to mark and complete the matching pre-test.
5. Then the participant will watch the session presentations.
6. Participant will complete viewing all session content. "Check marks" indicate which presentations have been viewed.
7. After viewing all presentations within a session, participant will click the "Claim Credit for Session" button under the CME dropdown at the top of the page.
8. Participant should take and then successfully pass the post-test. If they do not pass with a score of 80% or higher, they will have unlimited tries to pass the post-test.
9. Participant will continue the steps above to earn credits for additional sessions.
10. If a session does not have a test attached, the participant will not need to take a pre- or posttest, but will have to complete a Concurrent or Plenary session-specific evaluation to claim credit.
11. To print their certificate, the participant will click the "Print Certificate" button under the CME dropdown at the top of the page. Participant must complete the meeting evaluation (one time only) before they can

access their certificate. Participant will then choose their certificate(s). The certificate(s) will be automatically updated as they earn new credits.

Stream Requirements

Network

For best results, use a hardwired network connection instead of wireless

Full Screen Viewing

If you would like to view the webcast full screen, display the tool bar at the bottom and click the double arrow in the far right corner. The screen will enlarge to the full screen of your system. To restore the size, press the "ESC" key

Refresh Browser Window

If the webcast freezes and does not recover in 3-4 seconds, refresh browser window

Freezing or Stuttering Issues

Adjust the amount of bandwidth needed by putting your mouse anywhere over the video window. A tool bar will appear at the bottom. On the right side you will see a "HD" button, click on that button and you will see a list of options. The top is "auto", with decreasing numbers below. Select a lower bandwidth (such as 360p) to see if your webcast improves

For Technical Support call

1-800-504-5379

Mobile Viewing Requirements

Android Devices

Android 2.3+ with Adobe Flash Player 10.2 or better installed
[Install Flash Player](#)

Apple Devices

iOS 4+

Online Viewing Requirements

Bandwidth

512kbps

Required Hardware and Software	Screen resolution of 1024X768 or larger Sound card and speakers/headphones
Browser	Microsoft Internet Explorer 7.0 or better Mozilla Firefox 4 or better Safari 5 or better
Windows	Operating System: Windows 8 desktop mode, Windows 7; Windows Vista; Windows XP Service Pack 2 or 3 x86 or x64 (Browsers must be in 32-bit mode) 1.6-gigahertz (GHz) or higher processor 512MB of RAM
Mac OS	Operating System: Apple Mac OS X 10.4.8 or above Intel Core™ Duo 1.83GHz or faster processor 512MB of RAM

Registration and Fees

ondemand.acmg.net

ACMG Members and ACMG Trainees: (\$50)

Non-members (\$60)

Additional fee (~\$25) applies for NSGC credit that is billed by NSGC.

Questions regarding CE credit should be directed to education@acmg.net.

7101 Wisconsin Avenue, Suite 1101 | Bethesda, MD 20814

Telephone: 301-718-9603 | Fax: 301-718-9604 | E-mail: education@acmg.net | Website: www.acmg.net/education

© 2001-2017 American College of Medical Genetics and Genomics All rights reserved.