Understanding Your Genome: Genomics in Clinical Practice

Date of Release: November 1, 2013
Review Date: November 1, 2015
Expiry Date: November 1, 2017
Estimate Time of Completion: (3.45 hours)

Overview and Activity Description
A video, Understanding Your Genome focuses on the evolution of genomic testing from its predicate technologies of targeted genetic testing and includes information on patient selection and test uses, genetic counseling and informed consent, sequencing and bioinformatics in the generation of results, and the reporting and delivery of patient results. A series of case-based scenarios demonstrate the clinical application of genomics.

– Evolution of Genetic Testing (Bruce Korf, MD, PhD, FACMG)
– Genomic Screening and Testing: Patient Selection and Test Uses (Wayne Grody, MD, PhD, FACMG)
– Genetic Counseling and Informed Consent (Naghmeh Doranni, MS, LCGC)
– Whole Genome/Exome Sequencing, Associated Bioinformatics and Result Interpretation (Wayne Grody, MD, PhD, FACMG)
– Reporting and Delivery of Results (Jason Vassy, MD, MPH, SM)
– Bringing it All Together in Case-Based Scenarios (Bruce Korf, MD, PhD, FACMG and Faculty)

The ACMG’s Genomics in Clinical Practice is supported by an educational grant from Illumina, Inc.

Learning Objectives
At the conclusion, of this activity participants should be able to:

1. Describe the spectrum of genetic testing from targeted gene tests to testing and screening of whole genomes and exomes
2. Explain the process of clinical genome and exome sequencing including intended uses, patient education and consent, sequencing technologies, bioinformatics, and interpretation of genetic variation
3. Recognize situations in which genetic and genomic testing can have utility for their patients
4. Explain the requirements for test ordering, the structure of result reports and their delivery to the patient

Target Audience
– Medical and clinical geneticists; genetic counselors; pediatric, obstetric, and maternal-fetal specialists; and all medical practitioners who are providing comprehensive diagnostic, management, and counseling services for patients with, or at risk for, genetically influenced health problems
– Laboratory directors and technicians who conduct genetic testing
– Researchers involved in the discovery of genetic disorders and treatments
– Any healthcare and public health professionals who have an interest in medical and clinical genetics and genomics

Faculty

Naghmeh Dorrani, MS, LCGC
Medical Genetics and Molecular Pathology
UCLA School of Medicine

Wayne W. Grody, MD, PhD, FACMG
Professor, Departments of Pathology & Laboratory Medicine, Pediatrics, and Human Genetics
Director, Molecular Diagnostic Laboratories and the Clinical Genomics Center
UCLA School of Medicine

Bruce R. Korf, MD, PhD, FACMG
Wayne H. and Sara Crews Finley Chair in Medical Genetics
Professor and Chair, Department of Genetics
Director, Heflin Center for Genomic Sciences
University of Alabama at Birmingham

Jason Vassy, MD, MPH, SM
General Internal Medicine, VA Boston Health Care System
General Medicine, Brigham and Women’s Hospital, Harvard Medical School

Disclosure Statement

In accordance with the Accreditation Council for Continuing Medical Education and the policy of the American College of Medical Genetics, all individuals responsible for the content of this program have disclosed the existence of any financial interest and/or other relationship(s) they might have with any manufacturer(s) or provider(s) of any commercial product(s) or service(s) discussed in this program: receiving a salary, royalty, intellectual property rights, consulting fee, honoraria, ownership interest (e.g., stocks, stock options or other ownership interest, excluding diversified mutual funds), or other financial benefit. Financial benefits are usually associated with roles such as employment, management position, independent contractor (including contracted research), consulting, speaking and teaching, membership on advisory committees or review panels, board membership, and other activities for which remuneration is received or expected.

The following faculty members do not have any conflicts to report:

Naghmeh Dorrani, MS, LCGC
Wayne W. Grody, MD, PhD, FACMG
Jason Vassy, MD, MPH, SM

Staff Members at ACMG

The following faculty member discloses the following:

Bruce R. Korf, MD, PhD, FACMG
Medical Advisory Board – Accolade
President – ACMG Foundation for Genetic and Genomic Medicine
HIPAA Compliance by Speakers and Presenters

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 upon request.

Accreditation:

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

Credit Designation:

The American College of Medical Genetics and Genomics designates this enduring material for a maximum of 3.75 AMA PRA Category 1 Credits™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

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.
If this course offers Education Credit the following applies -

The **CME certificate fee is $30 for each webinar**. In order to register for CME credits, please click on the course with a Fee for Educational Credits. You are required to complete the entire webinar, take a short test and complete an evaluation in order to receive your certificate.

**Technical Requirements**

Your browser needs to support JavaScript and Chrome. Your browser also needs to accept cookies. Adobe Acrobat Reader version 5.0 or higher must be installed on your computer in order to view Adobe PDF documents. You need Flash Player and you will be able to check your system as you log-in.

**Disclaimer**

ACMG educational courses 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.
References


