Highlights of the Ninth Meeting of the
Secretary's Advisory Committee on Genetic Testing
May 2-3, 2001
Bethesda, MD

The ninth meeting of the Secretary's Advisory Committee on Genetic Testing (SACGT) was held in public session on May 2-3, 2001, in Bethesda, Maryland. The Committee was updated on FDA's progress on the development of a test review template and review processes and CDC activities on data information systems. The Committee also explored approaches to the development of clinical guidelines for genetic testing. In addition, SACGT heard progress reports from its five work groups on education, informed consent and IRBs, access, rare disease testing, and data.

DAY ONE

At the last SACGT meeting in February, FDA introduced a proposed review template specific to genetic tests that is intended to expedite the review process. The template was developed in conjunction through roundtable meetings with professional organizations in the private sector. The template included elements for data on analytical validity, clinical validity, quality control and quality assurance, and clinical interpretation. The template's function was demonstrated using data for a genetic test for Fragile X. At the May meeting, Dr. Steven Gutman, director of the Division of Clinical Laboratory Devices at FDA's Center for Devices and Radiological Health (CDRH), provided an update on FDA's progress in refining the template which was done in part by applying several other test models, including tests for Huntington disease, ornithine transcarbamylase deficiency, Tay-Sachs disease, and Canavan disease, to the template. Dr. Gutman discussed the multiple purposes of the template, FDA's plans for registration and listing of genetic tests, classification of genetic tests for review, and challenges in this new area. He also briefly reviewed FDA labeling regulations in reference to genetic tests.

The Committee also learned how well the template might apply to pharmacogenetic tests from Dr. Natalie Solomon of Abbott Laboratories. The pharmacogenetic example was based on an assay to identify individuals who are poor metabolizers of drugs that are extensively metabolized by the CYP2D6 gene and was developed through collaboration among FDA, Abbott and GlaxoSmithKline. Dr. Solomon indicated that the template seemed to be flexible enough to accommodate pharmacogenetic tests.

As another approach to ensuring the appropriate use of genetic testing, SACGT began exploring approaches to the development of clinical guidelines. Two speakers were invited to discuss their respective group's approaches to guideline development: Dr. David Atkins, coordinator for the U.S. Preventive Services Task Force, and Dr. Michael Watson, Executive Director of the American College of Medical Genetics. Dr. Wylie Burke, SACGT member, introduced the session and led the discussion following the presentations. The discussion focused on whether a *Points to Consider* document was needed to aid clinicians and policymakers in the development of clinical genetic testing guidelines and whether developing such a document would be an appropriate project for SACGT. The discussion highlighted the unique characteristics of genetic

testing, the limited knowledge about clinical validity of many tests and impact on health outcomes, and the multiple and sometimes conflicting guidelines regarding the use of a particular genetic test. Members indicated that a *Points to Consider* document would be useful to the various organizations developing clinical guidelines to ensure that certain substantive and procedural issues important in the use of genetic testing are considered during the guideline development process. The Committee also concluded that the development of a guide to guideline development would be an appropriate task for SACGT to undertake. The task was assigned to the Data Work Group.

The remainder of the first day was focused on activities of the Data Work Group, chaired by Dr. Burke. Dr. Burke first updated the Committee on the development of the provider summary template. In February, the Committee reviewed comments from individuals and organizations, including patient advocacy groups, academic organizations, and professional societies that were submitted in response to a *Federal Register* solicitation for comments. Overall, the comments were supportive of the goal of educating health professionals on genetic tests and their appropriate uses. Some of the concerns that were raised related to the burden on laboratories as the source of information for the majority of data elements. Dr. Burke outlined the Work Group's efforts to re-format the provider summary template into a user-friendlier, descriptive question & answer document.

Dr. Burke also discussed a Work Group proposal to convene a pre/post-market outreach meeting. The proposed objectives of the meeting are to develop consensus drafts in four areas: the pre-market review template and accompanying definitions for each data element; a model Q&A for health providers; core elements of a genetic test report; and a post-market data template. Meeting participants would include members of the Data Work Group, and representatives of HHS agencies, professional organizations (genetics and primary care), consumers, and private sector (insurance, biotechnology, and pharmaceutical). The Committee fully endorsed the Work Group meeting proposal and agreed that it should be scheduled to coincide with SACGT's August meeting and that the outcomes of the meeting should be presented to the full committee during its meeting.

DAY TWO

The morning focused on presentations from CDC on the development of coordinated genetic testing information systems. Dr. Muin Khoury, Director of CDC's Office of Genetics and Disease Prevention (OGDP), reviewed the phases of data development of genetic tests and provided an update on CDC activities including the Foundation for Blood Research project and the Human Genome Epidemiology Information System (HuGeNET). Mr. Tim Baker, Deputy Director of OGDP, described how the coordinated information systems might function and discussed two overarching challenges to data collection and dissemination of information on genetic testing: 1) how to improve HHS and non-HHS data collection, coordination, and management; and 2) how to improve access to available information. Mr. Baker outlined possible options for each challenge and emphasized that it was unlikely that one system could meet the many needs and uses for such information. Both presentations highlighted that the transition from pre-market to post-market data collection could be viewed as a continuum with no clear boundary between the two stages. Both presenters indicated that the data outreach

meeting in August would help further define how continuing data collection processes could be achieved.

Dr. Joann Boughman, Chair of the Genetics Education Work Group, reported on the Group's activities on analyzing the status of efforts to enhance the genetics education of health professionals. In February, Dr. Boughman described the development of a background report and literature review on genetics education of health professionals. However, it was soon realized that only limited information could be obtained through professional publications or the Internet. In order to make an informed assessment of whether gaps exist in genetics education, the Group decided that a more direct approach was needed to collect information and understand the full range of activities in genetics education of the various groups and stakeholders. Dr. Boughman proposed that SACGT convene an Education Summit and invite members of various health professions and disciplines to discuss current activities in genetics education, identify gaps, and develop recommendations to address the gaps. She suggested that the summit be held in conjunction with the November SACGT meeting. The Committee endorsed the idea of a summit, but requested that data already gathered be summarized and presented to the Committee at the August meeting for review and discussion.

Dr. Pat Charache, liaison to the CLIAC, briefly updated the Committee on the next steps regarding CLIA's proposed regulations for genetic testing. CDC and HCFA are currently developing a Notice for Proposed Rule-Making (NPRM) to be published in the *Federal Register* for public comment. Dr. Charache asked the Committee to consider writing a letter to the Secretary to speed the clearance of the NPRM through the Department. SACGT agreed to consider sending such a letter as soon as the two agencies had completed development of the NPRM.

In the afternoon, the chairs of the remaining work groups reported to the Committee on their group's progress. Dr. Michael Watson, Co-Chair of the Rare Disease Testing Work Group briefly outlined a major data collection effort. The group will focus on several areas including current standards and definitions of rare disease, marketing and development incentives for rare disease testing, access issues related to rare disease testing (in conjunction with the Access Work Group), and technical assistance for rare disease testing laboratories.

Dr. Judy Lewis, Chair of the Access Work Group, discussed the Group's efforts to address reimbursement and health care disparities issues as they relate to genetic testing. Dr. Lewis reported on the development of a white paper on billing and reimbursement of patient genetics education and counseling services as well as guidance principles for health care payers regarding coverage of genetic tests and services, both of which will be presented to the full Committee at a future meeting. The Work Group will also begin gathering information on agency efforts to address health disparities relating to genetic testing.

Dr. Barbara Koenig, Co-Chair of the Informed Consent/IRB Work Group, reported on several of the Group's current projects. The Group is in the process of developing an informational brochure that will describe general concepts about genetic tests and informed consent issues in a format appropriate for the general public. The Work Group is also developing a white paper on the principles for informed consent in the clinical setting with specific attention to criteria for

determining the level of consent that should be required for different kinds of genetic tests. The overarching principles of informed consent for genetic testing in clinical practice will include criteria to identify which types of tests warrant documentation of informed consent process and what levels of and approaches to consent should be required for different types of test. The Group will meet on May 4 to discuss these two issues in depth.

At the next meeting in August, the Committee will hear a report on the discussion and outcomes of the Data Work Group Outreach meeting and review background materials in preparation for the Education Summit in November.