



## **Certification in Medical Biochemical Genetics Logbook Requirements for 2025 Examination**

### **Purpose:**

The purpose of the logbook is to document that the applicant has had direct and meaningful involvement in the examination, diagnosis, communication of information, and management of biochemical genetics patients, and has received ongoing and appropriate clinical supervision. The logbook cases submitted must provide evidence of at least one year of clinical experience and evidence of well-rounded experience with a wide variety of inherited metabolic conditions. Disorders submitted in the logbook should represent the broad spectrum of prenatal, pediatric, and adult biochemical genetics experience.

### **Requirements:**

Logbooks must be completed in accordance with the instructions provided in this document with cases compiled using the ABMGG Logbook Excel Spreadsheet Tool. While the ABMGG expects ongoing review of cases by the program director (PD), the applicant should assure that all requirements have been fulfilled before submitting the final logbook to their PD for review. The PD must attest to the ABMGG that all logbook requirements for this subspecialty have been fulfilled and are clearly reflected in the logbook. When reviewing applications to sit for the certification examination in this subspecialty, the ABMGG reserves the right to audit a logbook and confirm that all requirements have been fulfilled. In this event, an applicant will be notified that they have been selected for audit and must submit the 150-case logbook using the ABMGG Logbook Excel Spreadsheet to the ABMGG within five business days.

### **Case Selection:**

1. All cases must be obtained through an ACGME-accredited fellowship program in medical biochemical genetics.
2. Supervision for case encounters must be provided by faculty who are certified by the ABMGG, ABGC, or CCMG. For cases obtained during rotations in outside services, e.g., a neurology clinic, it is recommended that supervisors be certified by their appropriate certifying board(s). All supervisors must be identified in the training program's accreditation documents as members of the training faculty.
3. All 150 cases must be obtained during the inclusive dates of the applicant's medical biochemical genetics training. No more than 5 cases can be obtained in any one day.
4. Logbook entries must reflect at least one (1) year of medical biochemical genetics experience. No more than 35 cases may be obtained in any 30-day period.

5. Up to 50 cases may be garnered from the second year of Medical Genetics and Genomics residency, but such cases cannot be double listed in both the Clinical Genetics and Genomics and Medical Biochemical Genetics logbooks.
6. Each logbook entry must document the applicant's role(s) in patient care, including examination, diagnosis and interpretation, communication of the test results, and management.
7. A given patient or family may appear at most three times in a logbook, once each for initial diagnosis, management in inpatient or emergency room setting, and outpatient visit.
8. For applicants seeking certification in more than one specialty (and therefore submitting more than one logbook), a given patient may only appear in a single logbook, regardless of the number of specimens processed or methodology used.

### **Description of Logbook Headings/Columns:**

- **Entry Number:** The logbook spreadsheet allows a trainee to enter an unlimited number of cases. For the final logbook, 150 cases should be selected that fulfill all the requirements. The applicant must be able to identify each case by its entry number if questions arise about a logbook entry. Patient names and bona fide hospital, laboratory, or clinic numbers may not be included. Logbooks containing specific information regarding the identity of any patient will not be reviewed.
- **Date:** The date in month/day/year [MM/DD/YYYY] format identifies when the patient was seen.
- **Primary Medical Biochemical Genetics Category:** For each case, use the numbers 1 through 4 as outlined below to identify the category that best describes the indication for seeing the patient. Observe limits per category where specified.

Category 1 **Diagnostic evaluation, new patient (outpatient):** Evaluation of infants, children, or adults initiated because of clinical signs, symptoms, positive family history or abnormal laboratory results (including newborn screening) suggesting a biochemical genetic condition. These may include prenatal cases not to exceed 5. At least 25 cases must be obtained in this category. Of these, no fewer than 5 and no more than 15 may involve newborn screening.

Category 2 **Diagnostic evaluation, new patient (inpatient):** Evaluation of infants, children, or adults initiated because of clinical signs, symptoms, or abnormal laboratory results (including newborn screening) in the inpatient setting. At least 20 cases must be obtained in this category.

Category 3 **Management/continuing care, routine (outpatient):** Medical management, consultation, or evaluation of patients previously diagnosed with a biochemical genetic condition. At least 75 cases must be obtained in this category.

Category 4 **Management/continuing care, emergent (inpatient or emergency room):** **Medical** management, consultation, or evaluation of inpatients previously diagnosed with a biochemical genetic condition. At least 10 cases must be obtained in this category.

- **Diagnoses:** The logbook cases must demonstrate experience with a variety of medical biochemical genetics cases. It is recommended that a maximum of 20 cases be any one diagnosis but more strictly it is *required* that no more than 25 cases be any one diagnosis, such as phenylketonuria or galactosemia. Variations of specific diagnoses (e.g., phenylketonuria and persistent hyperphenylalaninemia) **may not** be counted as separate diagnoses. A maximum of 35 cases may represent patients evaluated for a metabolic disorder who were determined to be normal.

Follow the instructions below when entering diagnoses in the online logbook:

1. Enter the diagnosis using the OMIM name or an OMIM alternative title. All cases representing the same condition should be entered using the same diagnosis name. For example: Enter all PKU cases as “PKU,” not “PKU” for some and “phenylketonuria” for others.
  2. For cases where no disorder is identified, list the primary reason for metabolic evaluation (e.g., cardiomyopathy, liver disease).
  3. For evaluations initiated because of family history or at-risk pregnancy, list the diagnosis first followed by the justification for classification in this category (e.g., OTC deficiency, positive family history).
  4. If more than one patient or family with the same biochemical genetic category, diagnosis, visit date, trainee role(s), and supervisor are recorded, clearly indicate that entries are not duplicated records or members of the same family, as follows: “Phenylketonuria, patient or family 1; Phenylketonuria, patient or family 2”.
- **Trainee’s Roles:** Check all of the boxes that indicate the nature of your involvement in the case. A breadth of experience must be reflected in the logbook. A minimum of three roles must be specified for at least 120 cases.
    1. **Patient encounter:** Collection and review of records, medical history, family history and physical examination. At least 45 cases must involve this role.
    2. **Evaluation plan/Diagnosis/Interpretation of results (new patients):** Pertinent background reading, evaluation of the clinical significance of findings, generating a differential diagnosis, recommending further testing, and summarizing the case. At least 20 cases must involve this role.
    3. **Ongoing management (follow-up patients):** Follow the disease progression with appropriate tests and medical management; provide appropriate counseling, psychosocial support, and anticipatory guidance to the family. At least 85 cases must involve this role.
    4. **Oral communication of results to other professionals:** Provide an oral and/or written discussion of results to health care providers who requested the testing or evaluation or to their designated contact. At least 50 cases must involve this role.
    5. **Oral communication of results to patients:** Provide an oral and/or written discussion of results and their significance to patients and families, including, as appropriate, results and

Updated: January 2024

implications of clinical examination, laboratory tests, procedures differential diagnosis and management options. At least 50 cases must involve this role.

6. **Laboratory testing:** Direct involvement in the clinical biochemical genetics laboratory, including interpretation of primary laboratory data, generating a differential diagnosis, and making a plan for evaluation of the patient. Data may be obtained from a laboratory not onsite of training program. At least 15 cases must involve this role.
- **Supervisor: Include** the full name, degree(s), and type of certification of the supervisor who was present and was directly responsible for activities involving each case.