

**ACGME Program Requirements for Graduate Medical Education
in Chemical Pathology**

Line Number(s): 303-454

Requirement Revision (major revisions only):

IV.A.2. ACGME Competencies

The program must integrate the following ACGME competencies into the curriculum:

IV.A.2.a) Patient Care

Fellows must be able to provide patient care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health. Fellows:

~~must have instruction and experience in clinical laboratory consultation and interpretation of data in the areas of electrolytes and acid-base, protein markers, lipids, renal function, hepatic function, gastro-intestinal function, cardiac function, therapeutic drug monitoring & toxicology, autoimmune disease, endocrinology, and metabolic diseases;~~

IV.A.2.a).(1) must demonstrate competence in advising clinicians on the selection, instrumentation and methodology, and interpretation of clinical chemistry tests (as they apply to all body systems), including tests sent to a reference laboratory facility.

IV.A.2.a).(1).(a) These must include: electrolytes and acid base enzymes and other proteins; lipids; hormones; therapeutic drug monitoring; toxicology; tumor markers; function tests, infectious disease markers (including hepatitis testing); metabolites associated with metabolic diseases; and autoimmune disease markers.

IV.A.2.a).(2) must demonstrate competence in managing and directing a clinical chemistry laboratory, including:

IV.A.2.a).(2).(a) selecting and using appropriate statistical tests;

IV.A.2.a).(2).(b) selecting and developing new clinical chemistry tests;

IV.A.2.a).(2).(c) evaluating and selecting new equipment;

IV.A.2.a).(2).(d) using quality assurance procedures;

IV.A.2.a).(2).(e)	<u>adhering to safety, federal and state regulations; and</u>
IV.A.2.a).(2).(f)	<u>using informatics.</u>
IV.A.2.a).(3)	must acquire the competency of a specialist in chemical pathology. The analytical repertoire of the laboratory must be distributed satisfactorily within the various categories and subdivisions of chemical pathology to provide experience at a sufficient level;
IV.A.2.a).(4)	must have clinical training in relation to chemical pathology, including the use and interpretation of chemical analyses in clinical diagnosis and management;
IV.A.2.a).(5)	must develop knowledge and skills relating to analytical chemical pathology, both basic and applied.
IV.A.2.b)	Medical Knowledge
	Fellows must demonstrate knowledge of established and evolving biomedical, clinical, epidemiological and social-behavioral sciences, as well as the application of this knowledge to patient care. Fellows:
IV.A.2.b).(1)	<u>must demonstrate expertise in their knowledge of all areas of chemical pathology necessary to achieve competence in patient care.</u>
IV.A.2.b).(2)	When tests are sent to a reference laboratory facility, the fellow should understand the methods used to perform the assays and the interpretation of test results. have a broad education in chemical pathology through didactic instruction and practical experience.
IV.A.2.c)	Practice-based Learning and Improvement
	Fellows are expected to develop skills and habits to be able to meet the following goals:
IV.A.2.c).(1)	systematically analyze practice using quality improvement methods, and implement changes with the goal of practice improvement;
IV.A.2.c).(2)	locate, appraise, and assimilate evidence from scientific studies related to their patients' health problems.
IV.A.2.d)	Interpersonal and Communication Skills
	Fellows must demonstrate interpersonal and communication skills that result in the effective exchange of information and collaboration with patients, their families, and health professionals.

IV.A.2.d).(1) Fellows must demonstrate competence in providing appropriate and effective consultations to other physicians and health professionals, both intra- and inter-departmental.

Consultations should include providing medical advice on the diagnosis and management of chemical pathology issues.

IV.A.2.e) Professionalism

Fellows must demonstrate a commitment to carrying out professional responsibilities and an adherence to ethical principles.

IV.A.2.f) Systems-based Practice

Fellows must demonstrate an awareness of and responsiveness to the larger context and system of health care, as well as the ability to call effectively on other resources in the system to provide optimal health care.

IV.A.2.f).(1) The program must provide structured instruction and experience in the administration, management, and direction of a chemical pathology laboratory, including quality assurance, safety, regulations, and the use of laboratory and hospital data systems.

IV.A.3. Curriculum Organization and Fellow Experiences

IV.A.3.a) Fellows' clinical experience should be augmented through didactic sessions, review of the medical literature in the subspecialty area, and the use of study sets of unusual cases.

IV.A.3.b) The program must provide structured instruction and experience in the administration, management, and direction of a chemical pathology laboratory, including quality assurance, safety, regulations, and the use of laboratory and hospital data systems.

IV.A.3.c) The didactic curriculum must include teaching conferences in chemical pathology, journal clubs, and joint conferences with the pathology department as well as with clinical services involved in the diagnosis and management of patient care utilizing chemical pathology.

IV.A.3.c).(1) Fellows should participate in conferences on average at least once per month and should give a minimum of two presentations per year.

IV.A.3.c).(2) Didactic topics must include review of the current and most

cost-effective methods of determination for all chemical pathology tests.

Describe, as appropriate, how the revision:

- 1) impacts the quality and safety of patient care;

The proposed changes will improve patient care by emphasizing diagnostic competence, and competence in laboratory management and oversight. The new requirements are more specific in types of medical knowledge that are required. There is new emphasis on laboratory management, quality improvement activities, identification of system errors, and implementing potential systems solutions, all of these contributing to quality and safety.

- 2) improves the quality of resident education;

The proposed changes provide more specific information on all of the competencies, including the didactic curriculum and medical knowledge and expectations of the fellow. There is also more specific information on program resources which matches the data that will be required on the program information form. The expectations for scholarly activity are specified now and were vague before. The proposed change (V.C.3.) related to board pass rate should promote high quality fellowship education and may increase the emphasis on education in those programs with low board pass rates.

- 3) affects the way the resident, the service, and the staff provide patients with continuing care;

The proposed changes provide more specific information on several competencies including systems based practice, quality improvement activities, and communication skills that should result in improved patient care.

- 4) requires a change in institutional resources (e.g., facilities; organization of other services; addition of faculty; financial impact);

The proposed changes are more specific regarding program resources and faculty time devoted to the fellowship. However, these are resources that were already in place in quality fellowship programs so this should have minimal impact. The proposed change (V.C.3.) related to board pass rate may require additional institutional resources for those programs with a low board pass rate.

- 5) may change the volume and variety of patients required to provide proper educational resources in the institution(s); and

Little change is expected from the proposed changes as there is no change in types of patient specimens. The proposed changes have slightly different wording to reflect current chemistry and molecular technologies and are also reordered to match competencies, but were very similar in current requirements.

- 6) impacts residency education in other specialties.

The proposed changes may improve residency education in other specialties as there is emphasis on joint conferences with other departments involved in diagnosis and management of patient care utilizing the chemistry laboratory (IV.A.3.c) and more emphasis on effective consultation to other physicians and health-care providers (IV.A.2.e.1). Otherwise little impact is expected.