ACGME Program Requirements for Graduate Medical Education in Chemical Pathology
Summary and Impact of Focused Requirement Revisions

Requirement #: I.D.1.a)-I.D.1.a).(3)

Requirement Revision (significant change only):

I.D.1.a) At the primary clinical site, the program must provide each fellow with:

I.D.1.a).(1) a designated work area; *(Core)*

I.D.1.a).(2) an individual computer with access to hospital and laboratory information systems, electronic health records, and the Internet; *(Core)*

I.D.1.a).(3) access to updated teaching materials, such as interesting case files and archived conference materials, or study sets, such as unusual serum protein electrophoresis cases and rare hemoglobin variants, encompassing the core curriculum areas of clinical pathology, as matches the program’s specialty concentration. *(Core)*

1. Describe the Review Committee’s rationale for this revision:
   The Review Committee added these to the core residency Program Requirements and all subspecialty Program Requirements (as applicable) to provide more consistency around the expectations for what resources must be available for fellow education.

2. How will the proposed requirement or revision improve resident/fellow education, patient safety, and/or patient care quality?
   This revision will improve fellow education by ensuring that fellows have access to all resources appropriate for the subspecialty, and that they have a designated work area and computer to complete their work.

3. How will the proposed requirement or revision impact continuity of patient care?
   This revision will not impact continuity of patient care.

4. Will the proposed requirement or revision necessitate additional institutional resources (e.g., facilities, organization of other services, addition of faculty members, financial support; volume and variety of patients), if so, how?
   This revision may necessitate additional institutional resources if programs do not already have the required equipment and technology. However, these are common in pathology, so most Pathology Departments and/or Sponsoring Institutions should already have these items, and the change will simply be making them available to fellows.

5. How will the proposed revision impact other accredited programs?
   This revision could have an impact on other accredited programs if any of those programs also use the equipment listed in the requirements. If so, the subspecialty program and other accredited core or subspecialty programs using the equipment will have to share access for residents/fellows/other learners.
### Requirement #: II.A.2.a)-II.A.2.a).(1).(c)

#### Requirement Revision (significant change only):

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<tr>
<th>Requirement</th>
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<tbody>
<tr>
<td>II.A.2.a)</td>
<td>The program director, and if applicable, the associate/assistant program director(s) must be provided appropriate protected time for program administrative duties as specified below. (Core)</td>
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<tr>
<td>II.A.2.a).(1)</td>
<td>This protected time must total:</td>
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<td>II.A.2.a).(1).(a)</td>
<td>0.20 FTE for programs approved for one to three fellows; (Core)</td>
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<td>II.A.2.a).(1).(b)</td>
<td>0.25 FTE for programs approved for four to six fellows; and, (Core)</td>
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<tr>
<td>II.A.1.a).(1).(c)</td>
<td>0.30 FTE for programs approved for seven or more fellows. (Core)</td>
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#### 1. Describe the Review Committee’s rationale for this revision:

The Review Committee added this scale for program director support to all of its subspecialty Program Requirements. The Committee felt that program director support for subspecialty programs should be based on program size, since more fellows means more work for the program director.

#### 2. How will the proposed requirement or revision improve resident/fellow education, patient safety, and/or patient care quality?

This revision will ensure the program director has enough protected time free from clinical and other duties to provide oversight of the fellowship and the education of the fellows.

#### 3. How will the proposed requirement or revision impact continuity of patient care?

This revision will not impact continuity of patient care.

#### 4. Will the proposed requirement or revision necessitate additional institutional resources (e.g., facilities, organization of other services, addition of faculty members, financial support; volume and variety of patients), if so, how?

This revision may necessitate more protected time for the program director if not already at the required number.

#### 5. How will the proposed revision impact other accredited programs?

This revision will not impact other accredited programs.

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### Requirement #: II.B.4.c) and II.B.4.c).(1)

#### Requirement Revision (significant change only):

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<th>Requirement</th>
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<tr>
<td>II.B.4.c)</td>
<td>There must be at least two core faculty members, one of whom must be the program director. (Core)</td>
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<tr>
<td>II.B.4.c).(1)</td>
<td>At least one core faculty member must be certified in chemical pathology by the ABPath. (Core)</td>
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#### 1. Describe the Review Committee’s rationale for this revision:
The Review Committee felt chemical pathology programs must have at least two core faculty members responsible for fellow education. Additionally, the Committee felt that at least one of those core faculty members should be certified in chemical pathology by the American Board of Pathology.

2. How will the proposed requirement or revision improve resident/fellow education, patient safety, and/or patient care quality?
   **This revision will ensure there are enough core faculty members in the program to supervise fellows and provide adequate education.**

3. How will the proposed requirement or revision impact continuity of patient care?
   **This revision will not impact continuity of patient care.**

4. Will the proposed requirement or revision necessitate additional institutional resources (e.g., facilities, organization of other services, addition of faculty members, financial support; volume and variety of patients), if so, how?
   **This revision may necessitate more core faculty members for the program if not already at the required amount.**

5. How will the proposed revision impact other accredited programs?
   **This revision will not impact other accredited programs.**

### Requirement #: II.C.2.a)-II.C.2.c)

**Requirement Revision (significant change only):**

II.C.2.a) Programs approved for three or fewer fellows must have at least 0.2 FTE program coordinator support. *(Core)*

II.C.2.b) Programs approved for four to nine fellows must have at least 0.3 FTE program coordinator support. *(Core)*

II.C.2.c) Programs approved for 10 or more fellows must have at least 0.4 FTE program coordinator support. *(Core)*

1. Describe the Review Committee’s rationale for this revision:
   **The Review Committee felt there should be defined amounts of time that coordinators have to spend on each subspecialty program. Since the amount of work increases with the number of fellows in each program, the Committee developed a sliding scale based on program size.**

2. How will the proposed requirement or revision improve resident/fellow education, patient safety, and/or patient care quality?
   **This revision will not impact fellow education, patient safety, or patient care quality.**

3. How will the proposed requirement or revision impact continuity of patient care?
   **This revision will not impact continuity of patient care.**

4. Will the proposed requirement or revision necessitate additional institutional resources (e.g., facilities, organization of other services, addition of faculty members, financial support; volume and variety of patients), if so, how?
This revision may necessitate the reassignment of coordinator duties and/or hiring of additional program coordinators, depending on how duties and FTE responsibilities are currently assigned at the Sponsoring Institution.

5. How will the proposed revision impact other accredited programs?
   This revision will not impact other accredited programs.


Requirement Revision (significant change only):

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

IV.B.1.b).1.(a).1. These must include the following analytes:

- amino acids, peptides, and base balance, autoimmune disease markers, electrolytes, enzymes, and other proteins; (Core)
- body fluids; (Core)
- carbohydrates; (Core)
- clinical toxicology tests; (Core)
- electrolytes and blood gases; (Core)
- erythrocyte enzymes; (Core)
- function tests; (Core)
- hemoglobin, iron, and bilirubin; (Core)
- hormones; (Core)
- infectious disease markers tests, (including e.g., for hepatitis or testing HIV); (Core)
- kidney function; (Core)
- lipids, lipoproteins, and apolipoproteins; (Core)
- metabolites associated with metabolic diseases; (Core)
- molecular diagnostics for genetics, tumor genomics, and microbiology; (Core)
IV.B.1.b).(1).(a).(i).(o) porphyrins; (Core)

IV.B.1.b).(1).(a).(i).(p) serum enzymes; (Core)

IV.B.1.b).(1).(a).(i).(q) therapeutic drugs monitoring; (Core)

IV.B.1.b).(1).(a).(i).(r) toxicology elements; and, (Core)

IV.B.1.b).(1).(a).(i).(s) tumor markers; and, (Core)

IV.B.1.b).(1).(a).(i).(t) vitamins. (Core)

IV.B.1.b).(1).(b) Fellows must demonstrate competence in assessment of the following organ functions and pathophysiologic states:

IV.B.1.b).(1).(b).(i) adrenal cortex; (Core)

IV.B.1.b).(1).(b).(ii) adrenal medulla; (Core)

IV.B.1.b).(1).(b).(iii) cardiac function; (Core)

IV.B.1.b).(1).(b).(iv) diabetes mellitus; (Core)

IV.B.1.b).(1).(b).(v) disorders of the immune system; (Core)

IV.B.1.b).(1).(b).(vi) disorders of water, electrolytes, and acid-base metabolism; (Core)

IV.B.1.b).(1).(b).(vii) gastric, pancreatic, and intestinal function; (Core)

IV.B.1.b).(1).(b).(viii) kidney disease; (Core)

IV.B.1.b).(1).(b).(ix) liver disease; (Core)

IV.B.1.b).(1).(b).(x) newborn screening and inborn errors of metabolism; (Core)

IV.B.1.b).(1).(b).(xi) pregnancy; (Core)

IV.B.1.b).(1).(b).(xii) reproductive endocrinology; and, (Core)

IV.B.1.b).(1).(b).(xiii) thyroid disorders. (Core)

IV.B.1.b).(1).(c) Fellows must demonstrate competence in managing and directing a chemical pathology laboratory, including:

IV.B.1.b).(1).(c).(i) adhering to safety, federal, and state regulations; (Core)

IV.B.1.b).(1).(c).(ii) evaluating and selecting new equipment; (Core)

IV.B.1.b).(1).(c).(iii) selecting and developing new clinical chemistry tests; (Core)

IV.B.1.b).(1).(c).(iv) selecting and using appropriate statistical tests; (Core)
IV.B.1.b).(1).(c).(v) using quality assurance procedures; and, (Core)

IV.B.1.b).(1).(c).(vi) using informatics. (Core)

IV.B.1.b).(1).(d) Fellows must demonstrate competence in providing appropriate and effective patient care consultations to physicians and other health professionals, both intra- and inter-departmentally. (Core)

IV.B.1.b).(1).(d).(i) Consultations should include providing medical advice on the diagnosis and management of chemical pathology issues. (Detail)

1. Describe the Review Committee's rationale for this revision:
   The Review Committee felt these elements were essential to the education of a chemical pathology fellow. These topics align with those in the Tietz Textbook of Clinical Chemistry and Molecular Diagnostics.

2. How will the proposed requirement or revision improve resident/fellow education, patient safety, and/or patient care quality?
   This revision will ensure that fellows are able to demonstrate competence in all relevant patient-care-related areas of chemical pathology. Additionally, this revision will improve patient care quality as fellows will be required to focus on consultation with the goal of effective patient care.

3. How will the proposed requirement or revision impact continuity of patient care?
   This revision will not impact continuity of patient care.

4. Will the proposed requirement or revision necessitate additional institutional resources (e.g., facilities, organization of other services, addition of faculty members, financial support; volume and variety of patients), if so, how?
   This revision should not necessitate additional institutional resources.

5. How will the proposed revision impact other accredited programs?
   This revision will not impact other accredited programs.

Requirement #: IV.B.1.b).(2).(a)

Requirement Revision (significant change only):

Fellows should be able to perform the patient and laboratory procedures for which they supervise ancillary staff members. (Core)

1. Describe the Review Committee's rationale for this revision:
   The Review Committee felt that if fellows were supervising ancillary staff members performing certain procedures, the fellows themselves should be familiar with those procedures and how to perform them to provide appropriate oversight and guidance to the ancillary staff members.

2. How will the proposed requirement or revision improve resident/fellow education, patient safety, and/or patient care quality?
   This revision will ensure that fellows are able to perform all procedures in which they are involved, even if only in a supervisory capacity to ancillary staff members.
3. **How will the proposed requirement or revision impact continuity of patient care?**  
   *This revision will not impact continuity of patient care.*

4. **Will the proposed requirement or revision necessitate additional institutional resources (e.g., facilities, organization of other services, addition of faculty members, financial support; volume and variety of patients), if so, how?**  
   *This revision should not necessitate additional institutional resources.*

5. **How will the proposed revision impact other accredited programs?**  
   *This revision will not impact other accredited programs.*

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<tr>
<th>Requirement #: IV.C.1.a)</th>
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<tbody>
<tr>
<td><strong>Requirement Revision (significant change only):</strong></td>
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<tr>
<td>Each rotation or experience should have one faculty member who is responsible for the educational experience on that rotation to ensure supervisory continuity of the experience.</td>
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</table>
| **1.** Describe the Review Committee’s rationale for this revision:  
  The Review Committee felt it was important that fellows have a designated faculty member they can approach on each rotation or experience, regardless of site, to ensure that fellows are receiving adequate education and are being supervised during transitions and hand-offs. |
| **2.** How will the proposed requirement or revision improve resident/fellow education, patient safety, and/or patient care quality?  
  *This revision will ensure that fellows have supervisory continuity at every rotation/experience at every site, since there must be a faculty member overseeing each experience.* |
| **3.** How will the proposed requirement or revision impact continuity of patient care?  
  *This revision will not impact continuity of patient care.* |
| **4.** Will the proposed requirement or revision necessitate additional institutional resources (e.g., facilities, organization of other services, addition of faculty members, financial support; volume and variety of patients), if so, how?  
  *This revision will not necessitate additional institutional resources.* |
| **5.** How will the proposed revision impact other accredited programs?  
  *This revision will not impact other accredited programs.* |

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<th>Requirement #: IV.C.3.</th>
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<tr>
<td><strong>Requirement Revision (significant change only):</strong></td>
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<td>Fellow experiences must be designed to allow appropriate faculty supervision such that fellows progress to the performance of assigned clinical responsibilities under oversight in order to</td>
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demonstrate their ability to enter the autonomous practice of chemical pathology prior to completion of the program. (Core)

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<tr>
<th>Requirement #:</th>
<th>IV.C.7.</th>
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<tbody>
<tr>
<td>Requirement Revision (significant change only):</td>
<td>Fellows should participate in laboratory quality assurance activities and inspections. (Detail)</td>
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<tr>
<td>1. Describe the Review Committee’s rationale for this revision:</td>
<td>Since chemical pathology fellows are expected to demonstrate competence in facets of laboratory management, the Review Committee felt they should gain experience in laboratory quality assurance activities and laboratory inspections.</td>
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<tr>
<td>2. How will the proposed requirement or revision improve resident/fellow education, patient safety, and/or patient care quality?</td>
<td>This revision will encourage programs to provide fellows with exposure to these key areas of laboratory management during the educational program.</td>
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<tr>
<td>3. How will the proposed requirement or revision impact continuity of patient care?</td>
<td>This revision will not impact continuity of patient care.</td>
</tr>
<tr>
<td>4. Will the proposed requirement or revision necessitate additional institutional resources (e.g., facilities, organization of other services, addition of faculty members, financial support; volume and variety of patients), if so, how?</td>
<td>This revision will not necessitate additional institutional resources.</td>
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<tr>
<td>5. How will the proposed revision impact other accredited programs?</td>
<td>This revision will not impact other accredited programs.</td>
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 Requirement #: IV.E.-IV.E.2.

Requirement Revision (significant change only):

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<th>Requirement</th>
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<tr>
<td>IV.E.2</td>
<td>Fellowship programs may assign fellows to engage in the independent practice of their core specialty during their fellowship program.</td>
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<tr>
<td>IV.E.1</td>
<td>If programs permit their fellows to utilize the independent practice option, it must not exceed 20 percent of their time per week or 10 weeks of an academic year. (Core)</td>
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<tr>
<td>IV.E.2</td>
<td>The assignment of independent practice must be designed to enhance fellows’ maturation and competence in their core specialty. (Core)</td>
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1. Describe the Review Committee’s rationale for this revision:
   The Review Committee decided to allow independent practice to allow fellows to continue to hone the skills learned in residency. The Committee feels that this option should only be utilized for educational purposes, and not simply to fill a service need.

2. How will the proposed requirement or revision improve resident/fellow education, patient safety, and/or patient care quality?
   This revision will allow fellows to continue to develop and mature the skills learned during residency, as well as to practice these learned skills alongside the development of skills specific to chemical pathology.

3. How will the proposed requirement or revision impact continuity of patient care?
   This revision will not impact continuity of patient care.

4. Will the proposed requirement or revision necessitate additional institutional resources (e.g., facilities, organization of other services, addition of faculty members, financial support; volume and variety of patients), if so, how?
   This revision will not necessitate additional institutional resources.

5. How will the proposed revision impact other accredited programs?
   This revision may impact accredited core pathology residency programs, as these fellows would be allowed to practice alongside those residents.