



August 5, 2024

Lynne Tanoue, MD  
Chair, Pulmonary Disease Board

Laura Evans, MD  
Chair, Critical Care Medicine Board

American Board of Internal Medicine  
510 Walnut Street, Suite 1700  
Philadelphia, PA 19106

Dear Drs. Evans and Tanoue,

On behalf of the Association of Pulmonary and Critical Care Medicine Program Directors (APCCMPD), the American College of Chest Physicians (CHEST), the Society of Critical Care Medicine (SCCM), and the American Thoracic Society (ATS), we extend our gratitude for the opportunity to provide feedback to the American Board of Internal Medicine (ABIM) Pulmonary Disease Board and the Critical Care Medicine Board regarding the procedural requirements outlined in the ABIM Policies for Training and Procedural Requirements for Pulmonary Disease and Critical Care Medicine.

As noted in our June 10, 2024 letter, we developed a survey aligning with the Accreditation Council on Graduate Medical Education (ACGME) core requirements outlined in the ACGME Program Requirements for Graduate Medical Education in Pulmonary, Critical Care Medicine (CCM), and Pulmonary Critical Care Medicine (PCCM)<sup>1, 2, 3</sup>. These requirements stipulate that fellows must demonstrate knowledge of the indications, contraindications, and complications of various procedures rather than achieving competency as mandated by the ABIM Policies.

This survey was distributed to 288 Pulmonary Diseases, CCM, and PCCM fellowship training programs, with an overall response rate of 163 (57%). Per the ACGME Data Resource Book Academic Year 2022-2023<sup>4</sup>, there were 66 CCM training programs with 358 CCM fellows, 202 PCCM training programs with 2,268 PCCM fellows, and 22 Pulmonary training programs with 65 Pulmonary fellows in 2023. We present these program characteristics so that the data can be interpreted within the context of the number of trainees and training programs potentially impacted by future changes to procedural training requirements.

Each program was asked to provide their opinion on whether the ABIM should require fellows to perform each procedure competently before graduation, recommend competent performance, remove the procedure from the list of required procedures or ensure fellows have the opportunity to train in the procedure, and requiring only those fellows who intend to use a particular procedure in their future practice. Enclosed are the survey results (Appendix 1).

- The majority of respondents recommended requiring procedural competence in advanced cardiac life support, thoracentesis, chest tube placement and management, invasive and non-invasive ventilator management, endotracheal intubation, arterial and central venous catheter placement, POCUS for diagnosis and procedural guidance, diagnostic bronchoscopy with bronchoalveolar lavage, moderate sedation, and arterial blood gas sampling.

- The majority of respondents recommended providing opportunities to train in extracorporeal membrane oxygenation (ECMO), pericardiocentesis, temporary transvenous pacemaker insertion, continuous renal replacement therapy, and hemodialysis.
- The majority of total respondents recommend against requiring competence in bedside pulmonary artery catheter placement (77%). These responses varied slightly by program type. CCM (n=45; 64%), Pulmonary (n=8; 50%), and PCCM (n=109; 84%), however, only 23% of all respondents across CCM, Pulmonary, and PCCM felt that bedside pulmonary artery catheter placement should be required.
- Responses were divided on requiring calibration and operation of hemodynamic recording systems, interpretation of cardiopulmonary exercise testing, and supervision of technical aspects of pulmonary function testing.

Thank you for your attention and consideration. We appreciate our ongoing collaboration to ensure that procedural requirements are aligned with our educational and clinical practice standards. We look forward to learning more about the ABIM's findings.

Sincerely,



James Frank, MD  
APCCMPD President



Jack Buckley, MD, FCCP  
CHEST President



Irina Petrache, MD, ATSF  
ATS President



Lauren R. Sorce, PhD, RN, CPNP-AC/PC,  
FAAN, FCCM  
SCCM President

1. ACGME. (2024). ACGME Program Requirements for GME in Critical Care Medicine. ACGME, 24 (2024).
2. ACGME. (2024). ACGME Program Requirements for GME in Pulmonary Critical Care Medicine. ACGME, 2(2024).
3. ACGME. (2024). ACGME Program Requirements for GME in Pulmonary Disease. ACGME, 23 (2024).
4. Accreditation Council on Graduate Medical Education, Data Resource Book Academic Year 2022-2023

## Appendix 1

This survey was distributed to 288 Pulmonary Diseases, CCM, and PCCM fellowship training programs, with an overall response rate of 163 (57%). Per the Accreditation Council on Graduate Medical Education, Data Resource Book Academic Year 2022-2023<sup>1</sup>, there were 66 CCM training programs with 358 CCM fellows, 202 PCCM training programs with 2,268 PCCM fellows, and 22 Pulmonary training programs with 65 Pulmonary fellows in 2023. We present these program characteristics so that the data can be interpreted within the context of the number of trainees and training programs potentially impacted by future changes to procedural training requirements.

1. [Accreditation Council on Graduate Medical Education, Data Resource Book Academic Year 2022-2023](#)

### Response Rates:

- Pulmonary Critical Care Medicine Fellowship Programs: 109 (53%)
- Critical Care Medicine Fellowship Programs: 45 (67%)
- Pulmonary Disease Fellowship Programs: 9 (53%)
- Total: 163 (57%)

| <b>Table 1: Pericardiocentesis</b> |  |  |   |  |                   |
|------------------------------------|--|--|---|--|-------------------|
| Fellowship Program Type            | ABIM should <b>require</b> all fellows competently perform the procedure | ABIM should <b>recommend</b> all fellows competently perform the procedure | <b>Opportunity to train:</b> All fellows should be required to have knowledge of indications, contraindications, limitations, complications, techniques, and interpretation of procedure results. Only fellows who intend to use this in future practice should be required to competently perform. | ABIM should <b>remove</b> from the list of required procedures | <b>Total</b>      |
| CCM                                | 1 (2%)   | 7 (16%)  | 34 (75%)  | 3 (7%)   | <b>45 (100%)</b>  |
| PCCM                               | 2 (2%)   | 6 (6%)   | 78 (71%)  | 23 (21%)   | <b>109 (100%)</b> |
| Pulmonary*                         |  |  |   |  |                   |
| <b>Total</b>                       | <b>3 (2%)</b>  | <b>13 (8%)</b>   | <b>112 (73%)</b>  | <b>26 (17%)</b>  | <b>154 (100%)</b> |

\*This procedure is not currently required by the ABIM Pulmonary Disease Board. Pulmonary Programs did not see this procedure.

| <b>Table 2: Temporary transvenous pacemaker insertion</b> |  |  |   |  |                   |
|---|--|--|---|--|-------------------|
| Fellowship Program Type                                   | ABIM should <b>require</b> all fellows competently perform the procedure | ABIM should <b>recommend</b> all fellows competently perform the procedure | <b>Opportunity to train:</b> All fellows should be required to have knowledge of indications, contraindications, limitations, complications, techniques, and interpretation of procedure results. Only fellows who intend to use this in future practice should be required to competently perform. | ABIM should <b>remove</b> from the list of required procedures | <b>Total</b>      |
| CCM   | 5 (11%)  | 10 (22%)   | 30 (67%)  | 0  | <b>45 (100%)</b>  |
| PCCM  | 4 (4%)   | 11 (10%)   | 81 (74%)  | 13 (12%)   | <b>109 (100%)</b> |
| Pulmonary*  |  |  |   |  |                   |
| <b>Total</b>  | <b>9 (5%)</b>  | <b>21 (14%)</b>  | <b>111 (72%)</b>  | <b>13 (9%)</b>   | <b>154 (100%)</b> |

\*This procedure is not currently required by the ABIM Pulmonary Disease Board. Pulmonary Programs did not see this procedure.

| <b>Table 3: Continuous renal replacement therapy</b> |  |  |   |  |                   |
|--|--|--|---|--|-------------------|
| Fellowship Program Type                              | ABIM should <b>require</b> all fellows competently perform the procedure | ABIM should <b>recommend</b> all fellows competently perform the procedure | <b>Opportunity to train:</b> All fellows should be required to have knowledge of indications, contraindications, limitations, complications, techniques, and interpretation of procedure results. Only fellows who intend to use this in future practice should be required to competently perform. | ABIM should <b>remove</b> from the list of required procedures | <b>Total</b>      |
| CCM  | 1 (2%)   | 10 (22%)   | 31 (69%)  | 3 (7%)   | <b>45 (100%)</b>  |
| PCCM   | 10 (9%)  | 13 (12%)   | 75 (69%)  | 11 (10%)   | <b>109 (100%)</b> |
| Pulmonary*   |  |  |   |  |                   |
| <b>Total</b>   | <b>11 (7%)</b>   | <b>23 (15%)</b>  | <b>106 (69%)</b>  | <b>14 (9%)</b>   | <b>154 (100%)</b> |

\*This procedure is not currently required by the ABIM Pulmonary Disease Board. Pulmonary Programs did not see this procedure.

| <b>Table 4: Advanced cardiac life support</b> |  |  |   |  |                   |
|---|--|--|---|--|-------------------|
| Fellowship Program Type                       | ABIM should <b>require</b> all fellows competently perform the procedure | ABIM should <b>recommend</b> all fellows competently perform the procedure | <b>Opportunity to train:</b> All fellows should be required to have knowledge of indications, contraindications, limitations, complications, techniques, and interpretation of procedure results. Only fellows who intend to use this in future practice should be required to competently perform. | ABIM should <b>remove</b> from the list of required procedures | <b>Total</b>      |
| CCM   | 40 (89%)   | 3 (7%)   | 2 (4%)  | 0  | <b>45 (100%)</b>  |
| PCCM  | 102 (93%)  | 4 (4%)   | 3 (3%)  | 0  | <b>109 (100%)</b> |
| Pulmonary*                                    |  |  |   |  |                   |
| <b>Total</b>                                  | <b>142 (92%)</b>   | <b>7 (5%)</b>  | <b>5 (3%)</b>   | <b>0</b>   | <b>154 (100%)</b> |

\*This procedure is not currently required by the ABIM Pulmonary Disease Board. Pulmonary Programs did not see this procedure.

| <b>Table 5: Hemodialysis</b> |  |  |   |  |                   |
|------------------------------|--|--|---|--|-------------------|
| Fellowship Program Type      | ABIM should <b>require</b> all fellows competently perform the procedure | ABIM should <b>recommend</b> all fellows competently perform the procedure | <b>Opportunity to train:</b> All fellows should be required to have knowledge of indications, contraindications, limitations, complications, techniques, and interpretation of procedure results. Only fellows who intend to use this in future practice should be required to competently perform. | ABIM should <b>remove</b> from the list of required procedures | <b>Total</b>      |
| CCM                          | 3 (7%)   | 8 (18%)  | 32 (71%)  | 2 (4%)   | <b>45 (100%)</b>  |
| PCCM                         | 22 (20%)   | 12 (11%)   | 71 (65%)  | 4 (4%)   | <b>109 (100%)</b> |
| Pulmonary*                   |  |  |   |  |                   |
| <b>Total</b>                 | <b>25 (16%)</b>  | <b>20 (13%)</b>  | <b>103 (67%)</b>  | <b>6 (4%)</b>  | <b>154 (100%)</b> |

\*This procedure is not currently required by the ABIM Pulmonary Disease Board. Pulmonary Programs did not see this procedure.

| <b>Table 6: Thoracentesis</b> |  |  |   |  |                   |
|-------------------------------|--|--|---|--|-------------------|
| Fellowship Program Type       | ABIM should <b>require</b> all fellows competently perform the procedure | ABIM should <b>recommend</b> all fellows competently perform the procedure | <b>Opportunity to train:</b> All fellows should be required to have knowledge of indications, contraindications, limitations, complications, techniques, and interpretation of procedure results. Only fellows who intend to use this in future practice should be required to competently perform. | ABIM should <b>remove</b> from the list of required procedures | <b>Total</b>      |
| CCM                           | 44 (99%)   | 1 (1%)   | 0   | 0  | <b>45 (100%)</b>  |
| PCCM                          | 108 (99%)  | 1 (1%)   | 0   | 0  | <b>109 (100%)</b> |
| Pulmonary*                    |  |  |   |  |                   |
| <b>Total</b>                  | <b>152 (99%)</b>   | <b>2 (1%)</b>  | <b>0</b>  | <b>0</b>   | <b>154 (100%)</b> |

\*This procedure is not currently required by the ABIM Pulmonary Disease Board. Pulmonary Programs did not see this procedure.

| <b>Table 7: Chest tube placement</b> |  |  |   |  |                   |
|--------------------------------------|--|--|---|--|-------------------|
| Fellowship Program Type              | ABIM should <b>require</b> all fellows competently perform the procedure | ABIM should <b>recommend</b> all fellows competently perform the procedure | <b>Opportunity to train:</b> All fellows should be required to have knowledge of indications, contraindications, limitations, complications, techniques, and interpretation of procedure results. Only fellows who intend to use this in future practice should be required to competently perform. | ABIM should <b>remove</b> from the list of required procedures | <b>Total</b>      |
| CCM                                  | 39 (87%)   | 6 (13%)  | 0   | 0  | <b>45 (100%)</b>  |
| PCCM                                 | 96 (88%)   | 12 (11%)   | 1 (1%)  | 0  | <b>109 (100%)</b> |
| Pulmonary                            | 6 (66%)  | 3 (33%)  | 0   | 0  | <b>9 (100%)</b>   |
| <b>Total</b>                         | <b>141 (86%)</b>   | <b>21 (13%)</b>  | <b>1 (1%)</b>   | <b>0</b>   | <b>163 (100%)</b> |

| <b>Table 8: Chest tube management</b> |  |  |   |  |                   |
|---------------------------------------|--|--|---|--|-------------------|
| Fellowship Program Type               | ABIM should <b>require</b> all fellows competently perform the procedure | ABIM should <b>recommend</b> all fellows competently perform the procedure | <b>Opportunity to train:</b> All fellows should be required to have knowledge of indications, contraindications, limitations, complications, techniques, and interpretation of procedure results. Only fellows who intend to use this in future practice should be required to competently perform. | ABIM should <b>remove</b> from the list of required procedures | <b>Total</b>      |
| CCM                                   | 44 (98%)   | 1 (2%)   | 0   | 0  | <b>45 (100%)</b>  |
| PCCM                                  | 106 (97%)  | 2 (2%)   | 0   | 1 (1%)   | <b>109 (100%)</b> |
| Pulmonary                             | 8 (89%)  | 1 (11%)  | 0   | 0  | <b>9 (100%)</b>   |
| <b>Total</b>                          | <b>158 (97%)</b>   | <b>4 (2%)</b>  | <b>0</b>  | <b>1 (1%)</b>  | <b>163 (100%)</b> |

| <b>Table 9: Noninvasive ventilator management</b> |  |  |   |  |                   |
|---|--|--|---|--|-------------------|
| Fellowship Program Type                           | ABIM should <b>require</b> all fellows competently perform the procedure | ABIM should <b>recommend</b> all fellows competently perform the procedure | <b>Opportunity to train:</b> All fellows should be required to have knowledge of indications, contraindications, limitations, complications, techniques, and interpretation of procedure results. Only fellows who intend to use this in future practice should be required to competently perform. | ABIM should <b>remove</b> from the list of required procedures | <b>Total</b>      |
| CCM   | 44 (99%)   | 1 (1%)   | 0   | 0  | <b>45 (100%)</b>  |
| PCCM  | 109 (100%)   | 0  | 0   | 0  | <b>109 (100%)</b> |
| Pulmonary   | 9 (100%)   | 0  | 0   | 0  | <b>9 (100%)</b>   |
| <b>Total</b>                                      | <b>162 (99%)</b>   | <b>1 (1%)</b>  | <b>0</b>  | <b>0</b>   | <b>163 (100%)</b> |

| <b>Table 10: Invasive ventilator management</b> |  |  |   |  |                   |
|---|--|--|---|--|-------------------|
| Fellowship Program Type                         | ABIM should <b>require</b> all fellows competently perform the procedure | ABIM should <b>recommend</b> all fellows competently perform the procedure | <b>Opportunity to train:</b> All fellows should be required to have knowledge of indications, contraindications, limitations, complications, techniques, and interpretation of procedure results. Only fellows who intend to use this in future practice should be required to competently perform. | ABIM should <b>remove</b> from the list of required procedures | <b>Total</b>      |
| CCM   | 44 (98%)   | 1 (2%)   | 0   | 0  | <b>45 (100%)</b>  |
| PCCM  | 109 (100%)   | 0  | 0   | 0  | <b>109 (100%)</b> |
| Pulmonary                                       | 9 (100%)   | 0  | 0   | 0  | <b>9 (100%)</b>   |
| <b>Total</b>                                    | <b>162 (99%)</b>   | <b>1 (1%)</b>  | <b>0</b>  | <b>0</b>   | <b>163 (100%)</b> |

| <b>Table 11: Endotracheal intubation</b> |  |  |   |  |                   |
|--|--|--|---|--|-------------------|
| Fellowship Program Type                  | ABIM should <b>require</b> all fellows competently perform the procedure | ABIM should <b>recommend</b> all fellows competently perform the procedure | <b>Opportunity to train:</b> All fellows should be required to have knowledge of indications, contraindications, limitations, complications, techniques, and interpretation of procedure results. Only fellows who intend to use this in future practice should be required to competently perform. | ABIM should <b>remove</b> from the list of required procedures | <b>Total</b>      |
| CCM                                      | 41 (91%)   | 4 (9%)   | 0   | 0  | <b>45 (100%)</b>  |
| PCCM                                     | 96 (88%)   | 12 (11%)   | 1 (1%)  | 0  | <b>109 (100%)</b> |
| Pulmonary                                | 7 (87%)  | 1 (13%)  | 0   | 0  | <b>8 (100%)</b>   |
| <b>Total</b>                             | <b>144 (89%)</b>   | <b>17 (10%)</b>  | <b>1 (1%)</b>   | <b>0</b>   | <b>162 (100%)</b> |

| <b>Table 12: Arterial catheter placement</b> |  |  |   |  |                   |
|--|--|--|---|--|-------------------|
| Fellowship Program Type                      | ABIM should <b>require</b> all fellows competently perform the procedure | ABIM should <b>recommend</b> all fellows competently perform the procedure | <b>Opportunity to train:</b> All fellows should be required to have knowledge of indications, contraindications, limitations, complications, techniques, and interpretation of procedure results. Only fellows who intend to use this in future practice should be required to competently perform. | ABIM should <b>remove</b> from the list of required procedures | <b>Total</b>      |
| CCM  | 43 (96%)   | 2 (4%)   | 0   | 0  | <b>45 (100%)</b>  |
| PCCM   | 108 (99%)  | 1 (1%)   | 0   | 0  | <b>109 (100%)</b> |
| Pulmonary                                    | 5 (62%)  | 2 (25%)  | 1 (13%)   | 0  | <b>8 (100%)</b>   |
| <b>Total</b>                                 | <b>156 (96%)</b>   | <b>5 (3%)</b>  | <b>1 (1%)</b>   | <b>0</b>   | <b>162 (100%)</b> |

| Fellowship Program Type | ABIM should <b>require</b> all fellows competently perform the procedure | ABIM should <b>recommend</b> all fellows competently perform the procedure | <b>Opportunity to train:</b> All fellows should be required to have knowledge of indications, contraindications, limitations, complications, techniques, and interpretation of procedure results. Only fellows who intend to use this in future practice should be required to competently perform. | ABIM should <b>remove</b> from the list of required procedures | <b>Total</b>      |
|-------------------------|--|--|---|--|-------------------|
| CCM                     | 44 (98%)   | 1 (2%)   | 0   | 0  | <b>45 (100%)</b>  |
| PCCM                    | 109 (100%)   | 0  | 0   | 0  | <b>109 (100%)</b> |
| Pulmonary               | 6 (75%)  | 2 (25%)  | 0   | 0  | <b>8 (100%)</b>   |
| <b>Total</b>            | <b>159 (98%)</b>   | <b>3 (2%)</b>  | <b>0</b>  | <b>0</b>   | <b>162 (100%)</b> |

| Fellowship Program Type | ABIM should <b>require</b> all fellows competently perform the procedure | ABIM should <b>recommend</b> all fellows competently perform the procedure | <b>Opportunity to train:</b> All fellows should be required to have knowledge of indications, contraindications, limitations, complications, techniques, and interpretation of procedure results. Only fellows who intend to use this in future practice should be required to competently perform. | ABIM should <b>remove</b> from the list of required procedures | <b>Total</b>      |
|-------------------------|--|--|---|--|-------------------|
| CCM                     | 16 (36%)   | 15 (33%)   | 13 (29%)  | 1 (2%)   | <b>45 (100%)</b>  |
| PCCM                    | 18 (16%)   | 29 (27%)   | 59 (54%)  | 3 (3%)   | <b>109 (100%)</b> |
| Pulmonary               | 4 (50%)  | 0  | 4 (50%)   | 0  | <b>8 (100%)</b>   |
| <b>Total</b>            | <b>38 (23%)</b>  | <b>44 (27%)</b>  | <b>76 (47%)</b>   | <b>4 (3%)</b>  | <b>162 (100%)</b> |

| Fellowship Program Type | ABIM should <b>require</b> all fellows competently perform the procedure | ABIM should <b>recommend</b> all fellows competently perform the procedure | <b>Opportunity to train:</b> All fellows should be required to have knowledge of indications, contraindications, limitations, complications, techniques, and interpretation of procedure results. Only fellows who intend to use this in future practice should be required to competently perform. | ABIM should <b>remove</b> from the list of required procedures | <b>Total</b>      |
|-------------------------|--|--|---|--|-------------------|
| CCM                     | 42 (93%)   | 3 (7%)   | 0   | 0  | <b>45 (100%)</b>  |
| PCCM                    | 107 (98%)  | 1 (1%)   | 1 (1%)  | 0  | <b>109 (100%)</b> |
| Pulmonary               | 7 (88%)  | 1 (12%)  | 0   | 0  | <b>8 (100%)</b>   |
| <b>Total</b>            | <b>156 (96%)</b>   | <b>5 (3%)</b>  | <b>1 (1%)</b>   | <b>0</b>   | <b>162 (100%)</b> |

| Fellowship Program Type | ABIM should <b>require</b> all fellows competently perform the procedure | ABIM should <b>recommend</b> all fellows competently perform the procedure | <b>Opportunity to train:</b> All fellows should be required to have knowledge of indications, contraindications, limitations, complications, techniques, and interpretation of procedure results. Only fellows who intend to use this in future practice should be required to competently perform. | ABIM should <b>remove</b> from the list of required procedures | <b>Total</b>      |
|-------------------------|--|--|---|--|-------------------|
| CCM                     | 35 (78%)   | 9 (20%)  | 1 (2%)  | 0  | <b>45 (100%)</b>  |
| PCCM                    | 81 (74%)   | 22 (20%)   | 6 (6%)  | 0  | <b>109 (100%)</b> |
| Pulmonary               | 5 (63%)  | 2 (25%)  | 1 (12%)   | 0  | <b>8 (100%)</b>   |
| <b>Total</b>            | <b>121 (75%)</b>   | <b>33 (20%)</b>  | <b>8 (5%)</b>   | <b>0</b>   | <b>162 (100%)</b> |

| Fellowship Program Type | ABIM should <b>require</b> all fellows competently perform the procedure | ABIM should <b>recommend</b> all fellows competently perform the procedure | <b>Opportunity to train:</b> All fellows should be required to have knowledge of indications, contraindications, limitations, complications, techniques, and interpretation of procedure results. Only fellows who intend to use this in future practice should be required to competently perform. | ABIM should <b>remove</b> from the list of required procedures | <b>Total</b>      |
|-------------------------|--|--|---|--|-------------------|
| CCM                     | 19 (42%)   | 13 (29%)   | 11 (25%)  | 2 (4%)   | <b>45 (100%)</b>  |
| PCCM                    | 41 (38%)   | 30 (28%)   | 35 (32%)  | 3 (2%)   | <b>109 (100%)</b> |
| Pulmonary*              |  |  |   |  |                   |
| <b>Total</b>            | <b>60 (39%)</b>  | <b>43 (28%)</b>  | <b>46 (30%)</b>   | <b>5 (3%)</b>  | <b>154 (100%)</b> |

\*This procedure is not currently required by the ABIM Pulmonary Disease Board. Pulmonary Programs did not see this procedure.

| Fellowship Program Type | ABIM should <b>require</b> all fellows competently perform the procedure | ABIM should <b>recommend</b> all fellows competently perform the procedure | <b>Opportunity to train:</b> All fellows should be required to have knowledge of indications, contraindications, limitations, complications, techniques, and interpretation of procedure results. Only fellows who intend to use this in future practice should be required to competently perform. | ABIM should <b>remove</b> from the list of required procedures | <b>Total</b>      |
|-------------------------|--|--|---|--|-------------------|
| CCM                     | 7 (16%)  | 9 (20%)  | 27 (60%)  | 2 (4%)   | <b>45 (100%)</b>  |
| PCCM                    | 15 (14%)   | 23 (21%)   | 68 (62%)  | 3 (3%)   | <b>109 (100%)</b> |
| Pulmonary*              |  |  |   |  |                   |
| <b>Total</b>            | <b>22 (14%)</b>  | <b>32 (21%)</b>  | <b>95 (62%)</b>   | <b>5 (3%)</b>  | <b>154 (100%)</b> |

\*This procedure is not currently required by the ABIM Pulmonary Disease Board. Pulmonary Programs did not see this procedure.

| Fellowship Program Type | ABIM should <b>require</b> all fellows competently perform the procedure | ABIM should <b>recommend</b> all fellows competently perform the procedure | <b>Opportunity to train:</b> All fellows should be required to have knowledge of indications, contraindications, limitations, complications, techniques, and interpretation of procedure results. Only fellows who intend to use this in future practice should be required to competently perform. | ABIM should <b>remove</b> from the list of required procedures | <b>Total</b>      |
|-------------------------|--|--|---|--|-------------------|
| CCM                     | 7 (16%)  | 9 (20%)  | 27 (60%)  | 2 (4%)   | <b>45 (100%)</b>  |
| PCCM                    | 8 (7%)   | 23 (21%)   | 76 (70%)  | 2 (2%)   | <b>109 (100%)</b> |
| Pulmonary*              |  |  |   |  |                   |
| <b>Total</b>            | <b>15 (10%)</b>  | <b>32 (20%)</b>  | <b>103 (67%)</b>  | <b>4 (3%)</b>  | <b>154 (100%)</b> |

\*This procedure is not currently required by the ABIM Pulmonary Disease Board. Pulmonary Programs did not see this procedure.

| Fellowship Program Type | ABIM should <b>require</b> all fellows competently perform the procedure | ABIM should <b>recommend</b> all fellows competently perform the procedure | <b>Opportunity to train:</b> All fellows should be required to have knowledge of indications, contraindications, limitations, complications, techniques, and interpretation of procedure results. Only fellows who intend to use this in future practice should be required to competently perform. | ABIM should <b>remove</b> from the list of required procedures | <b>Total</b>      |
|-------------------------|--|--|---|--|-------------------|
| CCM*                    |  |  |   |  |                   |
| PCCM                    | 109 (100%)   | 0  | 0   | 0  | <b>109 (100%)</b> |
| Pulmonary               | 8 (100%)   | 0  | 0   | 0  | <b>8 (100%)</b>   |
| <b>Total</b>            | <b>117 (100%)</b>  | <b>0</b>   | <b>0</b>  | <b>0</b>   | <b>117 (100%)</b> |

\*This procedure is not currently required by the ABIM CCM Board. CCM Programs did not see this procedure.

| Fellowship Program Type | ABIM should <b>require</b> all fellows competently perform the procedure | ABIM should <b>recommend</b> all fellows competently perform the procedure | <b>Opportunity to train:</b> All fellows should be required to have knowledge of indications, contraindications, limitations, complications, techniques, and interpretation of procedure results. Only fellows who intend to use this in future practice should be required to competently perform. | ABIM should <b>remove</b> from the list of required procedures | <b>Total</b>      |
|-------------------------|--|--|---|--|-------------------|
| CCM*                    |  |  |   |  |                   |
| PCCM                    | 104 (94%)  | 4 (%)  | 1 (1%)  | 0  | <b>109 (100%)</b> |
| Pulmonary               | 6 (75%)  | 0  | 2 (25%)   | 0  | <b>8 (100%)</b>   |
| <b>Total</b>            | <b>110 (94%)</b>   | <b>4 (3%)</b>  | <b>3 (3%)</b>   | <b>0</b>   | <b>117 (100%)</b> |

\*This procedure is not currently required by the ABIM CCM Board. CCM Programs did not see this procedure.

| Fellowship Program Type | ABIM should <b>require</b> all fellows competently perform the procedure | ABIM should <b>recommend</b> all fellows competently perform the procedure | <b>Opportunity to train:</b> All fellows should be required to have knowledge of indications, contraindications, limitations, complications, techniques, and interpretation of procedure results. Only fellows who intend to use this in future practice should be required to competently perform. | ABIM should <b>remove</b> from the list of required procedures | <b>Total</b>      |
|-------------------------|--|--|---|--|-------------------|
| CCM*                    |  |  |   |  |                   |
| PCCM                    | 61 (56%)   | 23 (21%)   | 20 (18%)  | 5 (5%)   | <b>109 (100%)</b> |
| Pulmonary               | 5 (63%)  | 2 (25%)  | 1 (12%)   | 0  | <b>8 (100%)</b>   |
| <b>Total</b>            | <b>66 (56%)</b>  | <b>25 (22%)</b>  | <b>21 (18%)</b>   | <b>5 (4%)</b>  | <b>117 (100%)</b> |

\*This procedure is not currently required by the ABIM CCM Board. CCM Programs did not see this procedure.

| <b>Table 23: Supervision of technical aspects of cardiopulmonary exercise testing</b> |  |  |   |  |                   |
|---|--|--|---|--|-------------------|
| Fellowship Program Type   | ABIM should <b>require</b> all fellows competently perform the procedure | ABIM should <b>recommend</b> all fellows competently perform the procedure | <b>Opportunity to train:</b> All fellows should be required to have knowledge of indications, contraindications, limitations, complications, techniques, and interpretation of procedure results. Only fellows who intend to use this in future practice should be required to competently perform. | ABIM should <b>remove</b> from the list of required procedures | <b>Total</b>      |
| CCM*  |  |  |   |  |                   |
| PCCM  | 42 (39%)   | 27 (25%)   | 34 (31%)  | 6 (5%)   | <b>109 (100%)</b> |
| Pulmonary   | 3 (38%)  | 2 (25%)  | 2 (25%)   | 1 (12%)  | <b>8 (100%)</b>   |
| <b>Total</b>  | <b>45 (38%)</b>  | <b>29 (25%)</b>  | <b>36 (31%)</b>   | <b>7 (6%)</b>  | <b>117 (100%)</b> |

\*This procedure is not currently required by the ABIM CCM Board. CCM Programs did not see this procedure.

| <b>Table 24: Interpretation of cardiopulmonary exercise testing results</b> |  |  |   |  |                   |
|---|--|--|---|--|-------------------|
| Fellowship Program Type   | ABIM should <b>require</b> all fellows competently perform the procedure | ABIM should <b>recommend</b> all fellows competently perform the procedure | <b>Opportunity to train:</b> All fellows should be required to have knowledge of indications, contraindications, limitations, complications, techniques, and interpretation of procedure results. Only fellows who intend to use this in future practice should be required to competently perform. | ABIM should <b>remove</b> from the list of required procedures | <b>Total</b>      |
| CCM*  |  |  |   |  |                   |
| PCCM  | 56 (51%)   | 32 (29%)   | 19 (18%)  | 2 (2%)   | <b>109 (100%)</b> |
| Pulmonary   | 3 (37.5%)  | 3 (37.5%)  | 2 (25%)   | 0  | <b>8 (100%)</b>   |
| <b>Total</b>  | <b>59 (50%)</b>  | <b>35 (30%)</b>  | <b>21 (18%)</b>   | <b>2 (2%)</b>  | <b>117 (100%)</b> |

\*This procedure is not currently required by the ABIM CCM Board. CCM Programs did not see this procedure.

| <b>Table 25: Arterial blood gas</b> |  |  |   |  |                   |
|-------------------------------------|--|--|---|--|-------------------|
| Fellowship Program Type             | ABIM should <b>require</b> all fellows competently perform the procedure | ABIM should <b>recommend</b> all fellows competently perform the procedure | <b>Opportunity to train:</b> All fellows should be required to have knowledge of indications, contraindications, limitations, complications, techniques, and interpretation of procedure results. Only fellows who intend to use this in future practice should be required to competently perform. | ABIM should <b>remove</b> from the list of required procedures | <b>Total</b>      |
| CCM*                                |  |  |   |  |                   |
| PCCM                                | 106 (97%)  | 3 (3%)   | 0   | 0  | <b>109 (100%)</b> |
| Pulmonary                           | 8 (100%)   | 0  | 0   | 0  | <b>8 (100%)</b>   |
| <b>Total</b>                        | <b>114 (97%)</b>   | <b>3 (3%)</b>  | <b>0</b>  | <b>0</b>   | <b>117 (100%)</b> |

\*This procedure is not currently required by the ABIM CCM Board. CCM Programs did not see this procedure.