**New Application: Thoracic Surgery - Independent**

**Review Committee for Thoracic Surgery**

**ACGME**

**Program Duration**

The application is for which program format? Select only one.

1. Twenty-four or 36 months of thoracic surgery education, preceded by successful completion of a surgery, vascular surgery, cardiac surgery, or thoracic surgery residency program that satisfies the requirements in III.A.1. [PR Int.C.1.]

a) 24-month format [ ]

b) 36- month format [ ]

If program is applying for 36-month format, provide educational rationale [PR Int.C.1.a)] (Limit response to 400 words)

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**Oversight**

**Sponsoring Institution**

1. Indicate the availability of the following for each site: [PR I.B.1.a)]

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| Time period covered (one complete academic year ): | From: Click here to enter a date. | To: Click here to enter a date. |

|  | **Sponsoring Institution #1** | **Site Name** | **Site Name** | **Site Name** | **Site Name** |
| --- | --- | --- | --- | --- | --- |
| Name of chief of thoracic surgery | Name | Name | Name | Name | Name |
| Name of individual responsible for general thoracic surgery | Name | Name | Name | Name | Name |
| Patient facilities - total number of: |
| a) hospital beds | # | # | # | # | # |
| b) cardiothoracic surgical beds | # | # | # | # | # |
| c) operating rooms | # | # | # | # | # |
| d) operating rooms dedicated to cardiothoracic surgery | # | # | # | # | # |
| e) dedicated cardiothoracic intensive care unit beds | # | # | # | # | # |
| Laboratory facilities - does site offer: |
| a) cardiac catheterization? | [ ]  YES[ ]  NO | [ ]  YES[ ]  NO | [ ]  YES[ ]  NO | [ ]  YES[ ]  NO | [ ]  YES[ ]  NO |
| b) cardiothoracic surgical research? | [ ]  YES[ ]  NO | [ ]  YES[ ]  NO | [ ]  YES[ ]  NO | [ ]  YES[ ]  NO | [ ]  YES[ ]  NO |

**Participating Sites**

1. Is there a Program Letter of Agreement (PLA) between the program and each participating site that provides a required assignment? [PR I.B.2] ☐ YES ☐ NO

2. Will the program director designate one faculty member who is accountable for fellow education at each participating site? [PR I.B.3.a)] ☐ YES ☐ NO

3. Describe how the program will engage in practices that focus on the recruitment and retention of a diverse and inclusive workforce of residents, fellows, faculty members, senior administrative staff members, and other relevant members of its academic community. [PR I.C.] (Limit response to 400 words)

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**Resources**

1. Will the program in partnership with its Sponsoring Institution, ensure the availability of adequate resources for fellow education including the following:

1. Information services that include [PR I.D.1.a)]:
2. The electronic retrieval of patient information [PR I.D.1.a).(1)] [ ]  YES [ ]  NO
3. A comprehensive database for thoracic, adult cardiac, and congenital cardiac disease
[PR I.D.1.a).(2)] [ ]  YES [ ]  NO
4. Learning resources laboratory for fellow education and remediation [PR I.D.1.b)]
 [ ]  YES [ ]  NO

**Other Learners and Other Care Providers**

1. Identify all learners in both ACGME-accredited and non-accredited programs at the Sponsoring Institution and participating sites that might affect the educational experience of the thoracic surgery fellows. [PR I.E.1.a)]

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| **ACGME-accredited and non-accredited programs at Sponsoring Institution and participating sites** | **Number of learners** | **Relationship to thoracic surgery fellows**  |
| General surgery residents | # |  |
| Residents from other specialties | # |  |
| Non-accredited learners | # |  |

**Personnel**

**Program Director**

1. Will the program director be provided with support and adequate protected time to accomplish the administrative duties of overseeing and managing the educational program? [PR II.A.2.a)] [ ]  YES [ ]  NO

If NO, explain.(Limit response to 400 words)

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2. Will there be support for an associate program director for a program with 10 or more fellows? [PR II.A.2.b)] [ ]  YES [ ]  NO [ ]  N/A

If NO, explain.

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3. Will program directors who oversee residency and fellowship programs with 10 or more learners in both programs combined appoint an associate program director? [PR II.A.2.c)

 [ ]  YES [ ]  NO [ ]  N/A

If NO, explain.

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4. Describe the program director’s experience educating thoracic surgery residents/fellows. [PR II.A.3.c)] (Limit response to 400 words)

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5. Does the program director have documented participation in a national thoracic surgery educational association (e.g., the Thoracic Surgery Directors Association)? [PR II.A.3.d)] [ ]  YES [ ]  NO

If NO, explain.

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5. Describe the program director’s formal faculty development activities in education and teaching, such as participation at local and national program director workshops and other educational activities. [PR II.A.3.e)]

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**Faculty**

1. Will the facultyinclude one designated cardiothoracic faculty member who will be responsible for coordinating multidisciplinary clinical conferences and organizing instruction and research in general thoracic surgery? [PR II.B.1.a)] [ ]  YES [ ]  NO

If NO, explain.

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2. Will the faculty include qualified cardiothoracic surgeons and other faculty members in related disciplines who will direct conferences? [PR II.B.1.b)] [ ]  YES [ ]  NO

If NO, explain.

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3. Will the faculty devote sufficient time to the educational program to fulfill their supervisory and teaching responsibilities? [PR II.B.2.c)] [ ]  YES [ ]  NO

If NO, explain.

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4. Will the faculty regularly participate in organized clinical discussions, rounds, journal clubs, and conferences? [PR II.B.2.e)] ☐ YES ☐ NO

If NO, explain.

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1. Will the faculty pursue faculty development designed to enhance their skills at least annually? [PR II.B.2.f)] ☐ YES ☐ NO

If NO, explain.

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**Program Coordinator**

1. Describe the administrative support available for program coordination. [PR II.C.2.a)] (Limit response to 400 words)

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**Other Program Personnel**

1. Are there sufficient professional, technical, and clerical personnel for the effective administration of the program? [PR II.D.] [ ]  YES [ ]  NO

**Fellow Appointments**

**Number of Fellows**

1. Will the program appoint one thoracic surgery fellow in each year of the program to provide for sufficient peer interaction? [PR III.B.1.a)] [ ]  YES [ ]  NO

If NO, explain.

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**Fellow Transfers**

1. Will there be documentation of each transferring fellow’s summative evaluation that includes an assessment of the fellow’s performance to date, a summary of the evaluations of the fellow by faculty members and other evaluators, a current Milestones assessment, assessment of the operative Case Logs, and the fellow’s comprehensive rotation schedule listing all rotations completed during the educational program? [PR III.C.1.] [ ]  YES [ ]  NO

If NO, explain.

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**Educational Program**

1. Will the curriculum contain a set of program aims consistent with the Sponsoring Institution’s mission, the needs of the community it serves, and the desired distinctive capabilities of its graduates? [PR IV.A.1] [ ]  YES [ ]  NO
	1. Will the program’s aims must be made available to program applicants, fellows, and faculty members? [PR IV.A.1.a)] [ ]  YES [ ]  NO
2. Will the curriculum contain competency-based goals and objectives for each educational experience designed to promote progress on a trajectory to autonomous practice to autonomous practice. Will they be distributed, reviewed, and available to fellows and faculty members? [PR IV.A.2.] [ ]  YES [ ]  NO
3. Will the curriculum delineate fellow responsibilities for patient care, progressive responsibility for patient management, and graded supervision? [PR IV.A.3] [ ]  YES [ ]  NO

If NO explain.

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**ACGME Competencies**

**Professionalism**

1. Describe the learning activity, other than lecture, through which fellows demonstrate a commitment to professionalism and an adherence to ethical principles. [PR IV.B.1.a) (Limit response to 400 words)

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**Patient Care and Procedural Skills**

1. Describe how fellows will demonstrate high standards of ethical behavior; continuity of care (pre-operative, operative, and post-operative); sensitivity to age, gender, culture, and other differences; and honesty, dependability, and commitment. [PR IV.B.1.b).(1).(a)] (Limit response to 400 words)

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1. Describe how fellows will demonstrate the ability to analyze personal practice outcomes and apply quality improvement methodologies to optimize patient care and enhance patient safety. [PR IV.B.1.b).(1).(b)] (Limit response to 400 words)

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1. Will fellows practice cost-effective and high-quality care, promote disease prevention, demonstrate the ability to conduct a risk-benefit analysis, and know how different practice systems operate to deliver care? [PR IV.B.1.b).(1).(c)] [ ]  YES [ ]  NO
2. Will the program document its active participation in clinical databases/registries used to assess and improve patient outcomes? [PR IV.B.1.b).(1).(d)] [ ]  YES [ ]  NO
3. Indicate the settings and activities in which fellows will demonstrate the ability to competently perform all medical, diagnostic, and surgical procedures considered essential. Indicate the method(s) that will be used to assess competence. [PR IV.B.1.b).(2)]

| **Competency Area** | **Settings/Activities** | **Assessment Method(s)** |
| --- | --- | --- |
| Demonstrate competence in the development and execution of patient care plans, including obtaining informed consent and developing the goals of care[PR IV.B.1.b).(2).(a)] | Click here to enter text. | Click here to enter text. |
| Demonstrate competence in the use of information technology as it pertains to and supports patient care[PR IV.B.1.b).(2).(b)] | Click here to enter text. | Click here to enter text. |
| Demonstrate competence in pre- and post-operative care, including experience in the immediate post-operative period, continuity of care through recovery, and, when necessary, long-term management and follow-up [PR IV.B.1.b).(2).(c).(i)] | Click here to enter text. | Click here to enter text. |
| Demonstrate competence in evaluation of diagnostic studies[PR IV.B.1.b).(2).(d)] | Click here to enter text. | Click here to enter text. |
| Demonstrate competence in providing pre-operative management, including the selection and timing of operative intervention and the selection of appropriate operative procedures[PR IV.B.1.b).(2).(e).(i)] | Click here to enter text. | Click here to enter text. |
| Demonstrate competence in providing peri- and post-operative management of thoracic and cardiovascular patients[PR IV.B.1.b).(2).(e).(ii)] | Click here to enter text. | Click here to enter text. |
| Demonstrate competence in providing critical care to patients with thoracic and cardiovascular surgical disorders, including trauma patients, whether or not operative intervention is required[PR IV.B.1.b).(2).(e).(iii)] | Click here to enter text. | Click here to enter text. |
| Demonstrate competence in correlating the pathologic and diagnostic aspects of cardiothoracic disorders, demonstrating skill in diagnostic procedures (e.g., bronchoscopy and esophagoscopy), and interpreting appropriate imaging studies (e.g., ultrasound, computed tomography, roentgenographic, radionuclide, cardiac catheterization, pulmonary function, and esophageal function studies)[PR IV.B.1.b).(2).(e).(iv)] | Click here to enter text. | Click here to enter text. |

**Medical Knowledge**

1. Indicate the activities (clinical teaching rounds, conferences, journal clubs, lectures, etc.) in which fellows will demonstrate knowledge of the following areas. Also indicate the method(s) that will be used to assess competence. [PR IV.B.1.c)]

| **Area of Knowledge** | **Settings/Activities** | **Assessment Method(s)** |
| --- | --- | --- |
| Demonstrate the ability to critically evaluate scientific and medical literature and integrate knowledge into clinical care[PR IV.B.1.c).(1)] | Click here to enter text. | Click here to enter text. |
| Demonstrate the knowledge in the use of cardiac and respiratory support devices[PR IV.B.1.c).(2)] | Click here to enter text. | Click here to enter text. |

**Practice-based Learning and Improvement**

1. Describe one learning activity in which fellows will demonstrate the ability to investigate and evaluate their care of patients, to appraise and assimilate scientific evidence, and to continuously improve patient care based on constant self-evaluation and lifelong learning. [PR IV.B.1.d)] (Limit response to 400 words)

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**Interpersonal and Communication Skills**

1. Describe one learning activity in which fellows will demonstrate interpersonal and communication skills that result in the effective exchange of information and collaboration with patients, their families, and health professionals. [PR IV.B.1.e)] (Limit response to 400 words)

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**Systems-based Practice**

1. Describe the learning activities through which fellows will demonstrate an awareness of and responsiveness to the larger context and system of health care, including the structural and social determinants of health, as well as the ability to effectively call on other resources in the system to provide optimal health care. [PR IV.B.1.f)] (Limit response to 400 words)

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**Curriculum Organization and Fellow Experiences**

1. Will the program provide separate and regularly scheduled teaching conferences, morbidity and mortality conferences, rounds, and other educational activities in which both the thoracic surgery faculty members and the fellows attend and participate? [PR IV.C.3.] [ ]  YES [ ]  NO

If NO, explain.

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List regularly scheduled teaching rounds, conferences, seminars, journal club, etc., that will be provided by the program director and/or faculty. Provide the name and frequency of the didactic sessions, whether it is mandatory or elective, and the individual(s) or department responsible for the organization of the sessions. Add rows as necessary. [PR IV.C.3.]

| **Name of Conference (teaching conference, morbidity and mortality, rounds, seminar, journal club, etc.)** | **Frequency (weekly, monthly, etc.)** | **Mandatory (M) or Elective (E)** | **Individual(s) or Department Responsible for Organization of Sessions** |
| --- | --- | --- | --- |
| Click here to enter text. | Frequency | M or E | Click here to enter text. |
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1. Will the program maintain conference records to document fellow and faculty member attendance? [PR IV.C.3.a)] [ ]  YES [ ]  NO
2. Will the program provide an organized and comprehensive block diagram demonstrating the overall educational construct for each track (i.e., thoracic surgery, cardiovascular surgery) of the program and for each year of training for all clinical assignments? [PR IV.C.4.] [ ]  YES [ ]  NO

If NO, explain.

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1. Will the program encourage fellows to engage in peer interaction with residents/fellows in related specialties at all participating sites? [PR IV.C.5.] [ ]  YES [ ]  NO

If NO, explain.

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1. Describe how guidelines will be established for the assignment of clinical responsibilities for fellows across the continuum of care, including clinic volume, on-call frequency, and back-up requirements, as well as the appropriate role for fellows in surgical procedures. [PR IV.C.6.] (Limit response to 400 words)

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1. Describe how fellow experiences will be structured to ensure graded levels of responsibility, continuity in patient care, a balance between education and clinical service, and progressive clinical experiences. [PR IV.C.7] (Limit response to 400 words)

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1. Will the program ensure that fellows will have a minimum operative experience that includes: [PR IV.C.8.]

a. 24-month programs: a minimum of 125 major cardiothoracic procedures during each year, for a total of 250 major cases; [ ]  YES [ ]  NO

b. 36-month programs: a minimum of 125 major cardiothoracic procedures during each year, for a total of 375 major cases; [ ]  YES [ ]  NO

c. 4/3 joint programs: a minimum of 125 major cardiothoracic procedures during each of the last two years of training, for a total of 250 major cases; [ ]  YES [ ]  NO

1. Will each fellow’s operative experience reflect an adequate volume, distribution of categories, and complexity of procedures to ensure a balanced and equivalent clinical education? [PR IV.C.9]
 [ ]  YES [ ]  NO

If NO, explain.

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1. Will the program have documented operative experience attesting that fellows
2. participate in the risk assessment, diagnosis, pre-operative planning, and selection of operation for a patient? [PR IV.C.10.a)] [ ]  YES [ ]  NO
3. perform technical manipulations that constitute the essential parts of a patient's operation? [PR IV.C.10.b)] [ ]  YES [ ]  NO
4. have significant involvement in post-operative care? [PR IV.C.10.c)] [ ]  YES [ ]  NO
5. are supervised by the responsible faculty member(s)? [PR IV.C.10.d)] [ ]  YES [ ]  NO

If NO to any of the above, explain.

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| Click here to enter text. |

1. Will the program ensure that assignments to non-procedural areas must be limited to a maximum of three months during an independent program, or at any time during the cardiothoracic component of a 4+3 program? [PR IV.C.11] [ ]  YES [ ]  NO

If NO, explain.

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| Click here to enter text. |

1. Will the program ensure that the chief year rotations must take place at the primary clinical site or at an approved participating site? [IV.C.12] [ ]  YES [ ]  NO

If NO, explain.

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1. Will the program ensure that fellows in the final year of thoracic surgery have primary management of patients throughout the continuum of care? [IV.C.13] [ ]  YES [ ]  NO

If NO, explain.

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1. Will the program ensure elective rotations will be limited to a maximum of six months in the final years of the program, including: [PR V.C.14] [ ]  YES [ ]  NO
	1. a maximum of three months in each year for a two-year fellowship and a maximum of three months each in the second and third years of a three-year program? [PR IV.C.14.a)]
	 [ ]  YES [ ]  NO
	2. a maximum of three months each in the second and third years of thoracic surgery education in a 4+3 program? [PR IV.C.14.b)] ☐ YES ☐ NO

If NO to any of the above, explain.

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1. Will the program ensure outpatient responsibilities include the opportunity to examine a patient pre-operatively, consult with the attending surgeon regarding operative care, and participate in the surgery and post-operative care of that patient? [PR IV.C.15.a)] [ ]  YES [ ]  NO

If NO, explain.

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1. Will the program ensure outpatient responsibilities include seeing most patients personally in an outpatient setting? When a fellow cannot personally see a patient pre- or post-operatively, he or she will communicate with the attending surgeon to ensure continuity of care for the patient? [PR IV.C.15.b)– b).(1)] [ ]  YES [ ]  NO

If NO, explain.

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| Click here to enter text. |

**Scholarship**

**Program Responsibilities**

1. Will the Sponsoring Institution and program provide support for fellows’ attendance at national professional meetings? [PR IV.D.1.b).(1)] [ ]  YES [ ]  NO

If NO, explain.

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| Click here to enter text. |

**Faculty Scholarly Activity**

1. Will the program demonstrate accomplishments in at least three of the domains of scholarly activity as delineated in PR IV.D.2.a)? YES ☐ NO

**Resident Scholarly Activity**

1. Will the program ensure that fellows will not have a protected research rotation during the program? [PR IV.D.3.c)] [ ]  YES [ ]  NO

If NO, explain.

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| Click here to enter text. |

1. Will the program ensure that each fellow demonstrates annual scholarship that results in one or more of the domains of scholarly activity as delineated in PR IV.D.3.c).(1) – (5)? [ ]  YES [ ]  NO

If NO, explain.

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**Evaluation**

1. Will the program ensure that faculty members directly observe, evaluate, and frequently provide feedback on fellow performance during each rotation or similar educational assignment and document evaluations at the completion of each assignment? [PR V.A.1.a)-b)] ☐ YES ☐ NO
2. Will the program provide an objective performance evaluation based on the Competencies and the specialty-specific Milestones? [PR V.A.1.c)] ☐ YES ☐ NO
3. Will the program use multiple evaluators (e.g., faculty members, peers, patients, self, and other professional staff members)? [PR V.A.1.c).(1)] ☐ YES ☐ NO

If NO” to any of the above, explain.

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**The Learning and Working Environment**

**Patient Safety**

1. Will the program ensure that fellows participate as team members in real and/or simulated interprofessional clinical patient safety activities, such as root cause analyses or other activities that include analysis, as well as formulation and implementation of actions? [PR VI.A.1.a).(2).(b)]
 [ ]  YES [ ]  NO

If NO, explain.

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| Click here to enter text. |

**Quality Improvement**

* 1. Will the program ensure that fellows and faculty members receive data on quality metrics and benchmarks related to their patient populations? [PR VI.A.1.a).(3).(a)] [ ]  YES [ ]  NO

If NO, explain.

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**Supervision and Accountability**

* 1. Describe how the program will ensure that the appropriate level of supervision is in place for all fellows based on each fellow’s level of education and ability, as well as patient complexity and acuity. [PR VI.A.2.a).(2)] (Limit response to 400 words)

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* 1. Will the program set guidelines for circumstances and events in which residents must communicate with the supervising faculty member(s)? [PR VI.A.2.e)] [ ]  YES [ ]  NO

If NO, explain.

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| Click here to enter text. |

**Professionalism**

1. Will the program ensure that the learning objectives of the program be accomplished without excessive reliance on fellows to fulfill non-physician obligations? [PR VI.B.2.a)] [ ]  YES [ ]  NO

If NO, explain.

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**Teamwork**

* 1. Describe how the program will ensure that residents/fellows will collaborate with residents/fellows in other specialties in the multidisciplinary management of thoracic surgery patients. [PR VI.E.2.a)] (Limit response to 400 words)

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**In-House Night Float**

1. What is the maximum number of consecutive weeks fellows are assigned night float? [PR VI.F.6.a)]
 [ # ]

2. How many months per year will fellows be assigned night float? [PR VI.F.6.a).] [ # ]

 **Insitutional Operative Experience**

1. The Operative Experience Report for sites is used to provide information on the operative procedures available on the thoracic surgery service for resident education. It is assumed that the totals provided for all participating sites would be equivalent to that for the total program. It is important that this form is used; do not submit computerized lists of procedures and do not add additional procedures to the list.

The period cited for the report should show the most complete academic year.

2. In compiling data, only one operative procedure may be listed for each patient visit to the operating room. If multiple procedures are performed, only the primary procedure should be listed, except in the case of endoscopies. Endoscopic procedures, including mediastinoscopies, may be counted for credit whether they are performed as independent procedures or immediately preceding a thoracic operation.

3. For each participating site, provide the total number of cases available for fellow education in the "Total Cases" column. List “Other” procedures in an appendix, with each procedure specified.

4. In completing the last column "Total: All Sites," provide the total for all operative procedures performed on the thoracic surgery service.

For the most recent complete academic year provide the data requested below regarding the number of procedures performed at each site that participates in the program. If there are more than four participating sites in the program, duplicate this form before completing it.

Provide data in the column labeled “Fellow Cases” only if the institution already sponsors an ACGME-accredited thoracic surgery program in a different format.

|  |  |
| --- | --- |
| Dates of One Complete Academic Year Covered: | Click here to enter a date. Click here to enter a date. |
| Which track will residents pursue? | [ ]  General Thoracic | [ ]  Cardiothoracic |

| **TYPE OF OPERATION** | **Sponsoring Institution** | **Site Name** | **Site Name** | **Total** |
| --- | --- | --- | --- | --- |
| **Total\* Cases** | **Fellow Cases** | **Total\* Cases** | **Fellow Cases** | **Total\* Cases** | **Fellow Cases** | **All Sites** | **All Fellows** |
| **MAJOR GENERAL THORACIC PROCEDURES** |
| **Chest Wall** |  |  |  |  |  |  |  |  |
| Resection of tumor | # | # | # | # | # | # | # | # |
| Debridement/rewiring sternum | # | # | # | # | # | # | # | # |
| Repair of pectus excavatum carinatum | # | # | # | # | # | # | # | # |
| Thoracic outlet | # | # | # | # | # | # | # | # |
| Repair of sternal or rib fractures | # | # | # | # | # | # | # | # |
| Thoracoplasty | # | # | # | # | # | # | # | # |
| Others: **Specify.** | # | # | # | # | # | # | # | # |
| **TOTAL** | # | # | # | # | # | # | # | # |
| **Lung and Pleura** |  |  |  |  |  |  |  |  |
| Pneumonectomy | # | # | # | # | # | # | # | # |
| Pneumonectomy with sleeve resection | # | # | # | # | # | # | # | # |
| Extrapleural pneumonectomy | # | # | # | # | # | # | # | # |
| Lobectomy | # | # | # | # | # | # | # | # |
| Lobectomy with video-assisted thoracic surgery (VATS) | # | # | # | # | # | # | # | # |
| Lobectomy with sleeve resection | # | # | # | # | # | # | # | # |
| Segmental resection | # | # | # | # | # | # | # | # |
| Segmental resection with VATS |  |  |  |  |  |  |  |  |
| Pulmonary resection with en bloc chest wall | # | # | # | # | # | # | # | # |
| Wedge resection with VATS | # | # | # | # | # | # | # | # |
| Lung volume reduction surgery | # | # | # | # | # | # | # | # |
| Thoracotomy for exploration and biopsy | # | # | # | # | # | # | # | # |
| Decortication | # | # | # | # | # | # | # | # |
| Decortication with VATS | # | # | # | # | # | # | # | # |
| Pleurectomy/pleurodesis | # | # | # | # | # | # | # | # |
| Pleurectomy pleurodesis (with or without bleb resection) | # | # | # | # | # | # | # | # |
| Pleurectomy pleurodesis with VATS | # | # | # | # | # | # | # | # |
| Closure of broncho-pleural fistula | # | # | # | # | # | # | # | # |
| Drainage of lung abscess/empyema | # | # | # | # | # | # | # | # |
| Resection of pulmonary cyst or sequestration | # | # | # | # | # | # | # | # |
| Others **Specify.** | # | # | # | # | # | # | # | # |
| **TOTAL** | # | # | # | # | # | # | # | # |
| **Tracheobronchial** |  |  |  |  |  |  |  |  |
| Resection of stricture | # | # | # | # | # | # | # | # |
| Resection of tumor | # | # | # | # | # | # | # | # |
| Repair of rupture or laceration | # | # | # | # | # | # | # | # |
| Others **Specify.** | # | # | # | # | # | # | # | # |
| **TOTAL** | # | # | # | # | # | # | # | # |
| **Mediastinum** |  |  |  |  |  |  |  |  |
| Excision of tumor or cyst | # | # | # | # | # | # | # | # |
| Excision of tumor cyst with VATS | # | # | # | # | # | # | # | # |
| Thymectomy | # | # | # | # | # | # | # | # |
| Mediastinotomy | # | # | # | # | # | # | # | # |
| Ligation of thoracic duct | # | # | # | # | # | # | # | # |
| Others **Specify.** | # | # | # | # | # | # | # | # |
| **TOTAL** | # | # | # | # | # | # | # | # |
| **Diaphragm** |  |  |  |  |  |  |  |  |
| Repair of congenital hernia | # | # | # | # | # | # | # | # |
| Repair of traumatic hernia | # | # | # | # | # | # | # | # |
| Plication | # | # | # | # | # | # | # | # |
| Others **Specify.** | # | # | # | # | # | # | # | # |
| **TOTAL** | # | # | # | # | # | # | # | # |
| **Esophagus** |  |  |  |  |  |  |  |  |
| Esophagectomy | # | # | # | # | # | # | # | # |
| Correction of reflux or stricture | # | # | # | # | # | # | # | # |
| Correction of reflux or stricture with VATS | # | # | # | # | # | # | # | # |
| Repair paraesophageal hernia | # | # | # | # | # | # | # | # |
| Excision of diverticulum | # | # | # | # | # | # | # | # |
| Myotomy and reflux procedure | # | # | # | # | # | # | # | # |
| Myotomy with VATS | # | # | # | # | # | # | # | # |
| Myotomy w/laparoscopy | # | # | # | # | # | # | # | # |
| Closure of fistula | # | # | # | # | # | # | # | # |
| Repair/drainage of perforation or rupture | # | # | # | # | # | # | # | # |
| Others **Specify.** | # | # | # | # | # | # | # | # |
| **TOTAL** | # | # | # | # | # | # | # | # |
| **Video-Assisted Thoracoscopic Procedures (VATS)** |  |  |  |  |  |  |  |  |
| Diagnostic thoracoscopy/biopsy/pleurodesis | # | # | # | # | # | # | # | # |
| Pericardial window | # | # | # | # | # | # | # | # |
| Drainage of empyema/hemothorax | # | # | # | # | # | # | # | # |
| Sympathectomy | # | # | # | # | # | # | # | # |
| Others (VATS) **Specify.** | # | # | # | # | # | # | # | # |
| **TOTAL** | # | # | # | # | # | # | # | # |
| ***TOTAL Major General Thoracic Procedures*** | # | # | # | # | # | # | # | # |
| **MAJOR CARDIOVASCULAR PROCEDURES** |
| **Closed Operations for Congenital Heart** | # | # | # | # | # | # | # | # |
| Patent ductus arteriosus | # | # | # | # | # | # | # | # |
| Coarctation of aorta | # | # | # | # | # | # | # | # |
| Shunting procedure | # | # | # | # | # | # | # | # |
| Bidirectional Glenn shunt | # | # | # | # | # | # | # | # |
| Others **Specify.** | # | # | # | # | # | # | # | # |
| **TOTAL** | # | # | # | # | # | # | # | # |
| **Open Operations for Congenital Heart**  |  |  |  |  |  |  |  |  |
| Tetralogy of Fallot | # | # | # | # | # | # | # | # |
| Transposition | # | # | # | # | # | # | # | # |
| Truncus arteriosus | # | # | # | # | # | # | # | # |
| Atrioventricular septal defect | # | # | # | # | # | # | # | # |
| Anomalous pulmonary venous drainage | # | # | # | # | # | # | # | # |
| Ventricular septal defect | # | # | # | # | # | # | # | # |
| Atrial septum defect | # | # | # | # | # | # | # | # |
| Bidirectional Glenn shunt | # | # | # | # | # | # | # | # |
| RVOT reconstruction | # | # | # | # | # | # | # | # |
| Interrupted arch/hypoplastic left heart | # | # | # | # | # | # | # | # |
| Fontan procedure | # | # | # | # | # | # | # | # |
| Others **Specify.** | # | # | # | # | # | # | # | # |
| **TOTAL** | # | # | # | # | # | # | # | # |
| **Valvular Heart Disease** |  |  |  |  |  |  |  |  |
| Mitral/aortic valve repair | # | # | # | # | # | # | # | # |
| Valve replacement | # | # | # | # | # | # | # | # |
| Re-operation for valvular disease | # | # | # | # | # | # | # | # |
| Aortic root replacement | # | # | # | # | # | # | # | # |
| Others **Specify.** | # | # | # | # | # | # | # | # |
| **TOTAL** | # | # | # | # | # | # | # | # |
| **Resection of Cardiac Tumor** | # | # | # | # | # | # | # | # |
| **TOTAL** | # | # | # | # | # | # | # | # |
| **Operations for Coronary Atherosclerosis** |  |  |  |  |  |  |  |  |
| Primary bypass | # | # | # | # | # | # | # | # |
| Reoperation recurrent disease | # | # | # | # | # | # | # | # |
| Ventricular aneurysm | # | # | # | # | # | # | # | # |
| Acquired ventricular septal defect | # | # | # | # | # | # | # | # |
| Coronary anomalies and/or fistulae  | # | # | # | # | # | # | # | # |
| Others **Specify.** | # | # | # | # | # | # | # | # |
| **TOTAL** | # | # | # | # | # | # | # | # |
| **Pericardium** |  |  |  |  |  |  |  |  |
| Pericardial window | # | # | # | # | # | # | # | # |
| Pericardiectomy | # | # | # | # | # | # | # | # |
| Others **Specify.** | # | # | # | # | # | # | # | # |
| **TOTAL** | # | # | # | # | # | # | # | # |
| **Other Cardiac Procedures** |  |  |  |  |  |  |  |  |
| Arrhythmia surgery | # | # | # | # | # | # | # | # |
| Insertion epicardial electrical device | # | # | # | # | # | # | # | # |
| Insertion/removal of cardiac assist device | # | # | # | # | # | # | # | # |
| Removal of intra-cardiac foreign body | # | # | # | # | # | # | # | # |
| Repair cardiac trauma | # | # | # | # | # | # | # | # |
| Minimally invasive surgery | # | # | # | # | # | # | # | # |
| Others **Specify.** | # | # | # | # | # | # | # | # |
| **TOTAL** | # | # | # | # | # | # | # | # |
| **Thoracic Vascular** |  |  |  |  |  |  |  |  |
| Open repair traumatic injury | # | # | # | # | # | # | # | # |
| Repair ascending aneurysm | # | # | # | # | # | # | # | # |
| Repair descending aneurysm | # | # | # | # | # | # | # | # |
| Repair thoracoabdominal aneurysm | # | # | # | # | # | # | # | # |
| Pulmonary embolectomy endarterectomy | # | # | # | # | # | # | # | # |
| Others **Specify.** | # | # | # | # | # | # | # | # |
| **TOTAL** | # | # | # | # | # | # | # | # |
| **Transplantation** |  |  |  |  |  |  |  |  |
| Heart | # | # | # | # | # | # | # | # |
| Lung | # | # | # | # | # | # | # | # |
| Heart/lung | # | # | # | # | # | # | # | # |
| Procurement of heart | # | # | # | # | # | # | # | # |
| Procurement of heart/lung | # | # | # | # | # | # | # | # |
| Others **Specify.** | # | # | # | # | # | # | # | # |
| **TOTAL** | # | # | # | # | # | # | # | # |
| ***TOTAL Major Cardiovascular Procedures*** | # | # | # | # | # | # | # | # |
| **MINOR GENERAL THORACIC AND CARDIOVASCULAR PROCEDURES** |
| **Minor Thoracic and Cardiovascular** |  |  |  |  |  |  |  |  |
| Bronchoscopy | # | # | # | # | # | # | # | # |
| Bronchoscopy w/ intervention | # | # | # | # | # | # | # | # |
| Endobronchial ultrasound (EBUS) | # | # | # | # | # | # | # | # |
| Esophagoscopy | # | # | # | # | # | # | # | # |
| Esophagoscopy w/ intervention | # | # | # | # | # | # | # | # |
| Endoscopic ultrasound (EUS) | # | # | # | # | # | # | # | # |
| Mediastinoscopy | # | # | # | # | # | # | # | # |
| Tracheostomy | # | # | # | # | # | # | # | # |
| Catheter drainage of pericardium | # | # | # | # | # | # | # | # |
| Insertion transvenous device  | # | # | # | # | # | # | # | # |
| Insertion/removal of intra-aortic balloon pump | # | # | # | # | # | # | # | # |
| Insertion tunneled pleural catheter | # | # | # | # | # | # | # | # |
| Echocardiography | # | # | # | # | # | # | # | # |
| Insertion/removal of cardiac assist device | # | # | # | # | # | # | # | # |
| Others **Specify.** | # | # | # | # | # | # | # | # |
| **Endovascular** | # | # | # | # | # | # | # | # |
| **Critical Care-Case Management** |  |  |  |  |  |  |  |  |
| Bleeding (Non-trauma) less than three units (thoracic) | # | # | # | # | # | # | # | # |
| Dysrhythmia (thoracic) | # | # | # | # | # | # | # | # |
| Hemodynamic instability (thoracic) | # | # | # | # | # | # | # | # |
| Invasive line management/monitoring (thoracic) | # | # | # | # | # | # | # | # |
| Nutrition (thoracic) | # | # | # | # | # | # | # | # |
| Organ dysfunction/failure (thoracic)  | # | # | # | # | # | # | # | # |
| Ventilatory management (thoracic) | # | # | # | # | # | # | # | # |
| Bleeding (Non-trauma) less than three units (cardiac)  | # | # | # | # | # | # | # | # |
| Dysrhythmia (cardiac) | # | # | # | # | # | # | # | # |
| Hemodynamic instability (cardiac) | # | # | # | # | # | # | # | # |
| Invasive line management/monitoring (cardiac) | # | # | # | # | # | # | # | # |
| Nutrition (cardiac) | # | # | # | # | # | # | # | # |
| Organ dysfunction/failure (cardiac) | # | # | # | # | # | # | # | # |
| Ventilatory management (cardiac) | # | # | # | # | # | # | # | # |
| **Cardiopulmonary Bypass**  | # | # | # | # | # | # | # | # |
| ***TOTAL Minor Procedures*** | # | # | # | # | # | # | # | # |
| ***TOTAL General Thoracic and Cardiovascular Procedures*** | # | # | # | # | # | # | # | # |