American Association for Bronchology and Interventional Pulmonology

445 Minnesota/ Suite 1500
St. Paul, MN 55101

Phone ▪ (651) 256-9506
info@aabronchology.org
www.aabronchology.org

TO: Thomas Nasca, MD, MACP
President and Chief Executive Officer, ACGME

FROM: George Eapen, MD
President, American Association for Bronchology and Interventional Pulmonology

Neeraj Desai, MD
President, Association of Interventional Pulmonology Program Directors

DATE: October 15, 2021

SUBJECT: Proposal for ACGME Recognition of a New Sub-subspecialty in Interventional Pulmonary Medicine

Enclosed is a joint proposal from the American Association for Bronchology and Interventional Pulmonology (AABIP) and Association of Interventional Pulmonology Program Directors (AIPPD) requesting approval from the ACGME Board of Directors to accredit a sub-subspecialty fellowship in Interventional Pulmonary Medicine under the parent specialty of adult pulmonary medicine.

Interventional pulmonology is a subspecialty that focuses on the evaluation and management of thoracic diseases primarily involving the airways, lung parenchyma, and pleural space with a focus on minimally-invasive diagnostic and therapeutic procedural skills beyond the scope of adult pulmonary medicine fellowship requirements. Currently, interventional pulmonology fellowships provide advanced training for 12 months after completion of a standard fellowship in pulmonary medicine to allow a fellow to acquire competency in the sub-subspecialty with sufficient expertise to act as an independent consultant and expert provider of advanced diagnostic and therapeutic interventional bronchoscopic and pleural procedures. Since 2016, interventional pulmonology fellowship programs have been accredited according to a standard created jointly by the major pulmonary medical societies: AABIP, AIPPD, American Thoracic Society (ATS), American College of Chest Physicians (ACCP), and Association of Pulmonary and Critical Care Medicine Program Directors (APCCMPD).

We now request that the ACGME consider assuming the role of accreditor of interventional pulmonology fellowship training in the United States. All interventional pulmonology fellowship programs are required to be colocated with and fall within the education infrastructure of an ACGME-accredited pulmonary or pulmonary and critical care fellowship program. As such, ACGME-accreditation will allow for more uniform surveillance and standard adherence and thereby enhance the uniformity and quality of interventional pulmonology training.

This proposal provides documentation of the professional and scientific status of the new sub-subspecialty for each of the criteria delineated in the ACGME Policies and Procedures Manual. Supporting documentation for each of these criteria along with letters supporting this initiative from each of the major pulmonary professional societies in the United States, and a copy of the current joint accreditation standard for interventional pulmonology fellowship training are included.

George Eapen, MD, President

American Association for Bronchology and Interventional Pulmonology

Neeraj Desai, MD, President

Association of Interventional Pulmonology Program Directors

1.) The clinical care and safety of patients will be improved through the recognition of the discipline

Interventional pulmonology is a subspecialty of pulmonary medicine devoted to the early detection, diagnosis, staging, treatment with intent to cure, and treatment with intent to palliate diseases of the airways, lungs, and pleural space. Core principles and procedures of the interventional pulmonologist date to the late 19th century; however, they have been successively enhanced, expanded, and rendered less invasive while becoming safer, more accurate, and more widely available. A primary goal of interventional pulmonary training and practice is to leverage the knowledge gained during pulmonary fellowship to understand, to design, and to employ safer and less invasive treatments for diseases of the chest. A recent example of this is the adoption of endobronchial ultrasound which has greatly reduced the need for the more invasive mediastinoscopy while simultaneously enhancing diagnostic access and expediting care. Other significant contributions include the use of endobronchial valves to effect endobronchial lung volume reduction in COPD, use of tunneled pleural catheters for management of symptomatic pleural effusions, intrapleural thrombolysis for management of pleural space infections, and use of endobronchial ablative techniques and airway stenting to optimize performance status in patients with malignant central airway obstruction thereby improving their candidacy for definitive chemotherapy and radiotherapy. Additional efforts are ongoing to develop safer and more accurate ways to bronchoscopically localize, diagnose, and treat peripheral lung lesions using latest generation imaging and robotic tools. As these procedures have already become more sophisticated, physicians with dedicated training for the practice of interventional pulmonology have become invaluable clinicians, researchers, educators, and leaders nationwide. Their availability promises to enhance patient safety, reduce health care cost, and improve patient care through access to less invasive treatments within the thorax.

Yasufuku K, Pierre A, Darling G, et al. A prospective controlled trial of endobronchial ultrasound-guided transbronchial needle aspiration compared with mediastinoscopy for mediastinal lymph node staging of lung cancer. J Thorac Cardiovasc Surg 2011;142:1393–1400

Criner GJ, Sue R, Wright S, et al. A Multicenter Randomized Controlled Trial of Zephyr Endobronchial Valve Treatment in Heterogeneous Emphysema (LIBERATE). Am J Respir Crit Care Med 2018; 198 (9):1151–1164

Davies HE, Mishra EK, Kahan BC, et al. Effect of an Indwelling Pleural Catheter vs Chest Tube and Talc Pleurodesis for Relieving Dyspnea in Patients With Malignant Pleural Effusion: The TIME2 Randomized Controlled Trial. JAMA 2012; 307(22): 2383-2389

Rahman NM, Maskell NA, West A, et al. Intrapleural Use of Tissue Plasminogen Activator and DNase in Pleural Infection, N Eng J Med 2011;365:518-26.

Chhajed PN, Baty F, Pless M, et al. Outcome of Treated Advanced Nonsmall
Cell Lung Cancer With and Without Central Airway Obstruction. CHEST 2006; 130:1803–1807

Chen AC, Pastis NJ, Mahajan AK, et al. Robotic Bronchoscopy for Peripheral Pulmonary Lesions: A Multicenter Pilot and Feasibility Study (BENEFIT). CHEST 2021; 159 (2): 845-852

2.) The existence of a body of scientific medical knowledge underlying the sub-subspecialty that is clinically distinct from other areas in which accreditation is already offered

Training and practice of interventional pulmonology requires a sound understanding of pulmonary medicine with an additional in-depth and up to date knowledge of the rapidly expanding literature in interventional pulmonology itself. An approach to interventional pulmonary fellowship training was defined with principles and objectives, structure, and curriculum to further distinguish the sub-subspecialty. Interventional pulmonologists remain abreast of advances through a myriad of professional publications to include the Journal of Bronchology and Interventional Pulmonology (ISSN: 19446586, 19488270), Respirology (ISSN:1440-1843), and Respiration (ISSN: 0025-7931) as well as dedicated subsections in the journals CHEST (ISSN: 0012-3692), The American Journal of Respiratory and Critical Care Medicine (ISSN: 1073-449X), and the Annals of the American Thoracic Society (ISSN: 2329-6933). Twenty-three textbooks dedicated to interventional pulmonology are currently in print. The mean H-Index score for interventional pulmonary faculty is 3.88 and for professors' career H-index of 27. These H-index scores are comparable or higher than other procedural based sub-specialties such as otolaryngology, emergency medicine, and plastic surgery. Likewise, the World Congress of Bronchoscopy and Interventional Pulmonology has been held biennially since 1978 dedicated entirely to advances in the field of interventional pulmonology. Due to the unique and specialized knowledge set of interventional pulmonologists, the AABIP has offered a board certifying exam in interventional pulmonology yearly since 2014 with 423 current diplomates nationwide. There have already been several published studies demonstrating a difference in knowledge base between interventional pulmonologists and adult pulmonologists . In a survey conducted prior to the recommendation of house staff duty hour restrictions, there was a gap of procedural training opportunities in adult pulmonary training which has only increased over time. This procedural and didactic training gap is further magnified due to the complexity and evolving aspects of IP and supports the concept of IP as a distinct sub-subspecialty.

Lamb CR, Feller-Kopman D, Ernst A, et al An Approach to Interventional Pulmonary Fellowship Training. Chest 2010; 137(1): 195-199.

Lee HJ, Feller-Kopman D, Shepherd RW, et al. Validation of an Interventional Pulmonary Exam. Chest 2013; 143: 1667-70.

Miller RJ, Mudambi L, Vial MR, et al. Evaluation of Appropriate Mediastinal Staging among Endobronchial Ultrasound Bronchoscopists. Ann Am Thorac Soc. 2017;14:1162-1168.

Pastis NJ, Nietert PJ, Silvestri GA. American College of Chest Physicians Interventional Chest/Diagnostic Procedures Network Steering Committee. Variation in training for interventional pulmonary procedures among US pulmonary/critical care fellowships: a survey of fellowship directors. Chest 2005; 127: 1614 - 1621.

Yarmus L, Feller-Kopman D, Imad M, et al. Procedural volume and structure of interventional pulmonary fellowships: a survey of fellows and fellowship program directors. Chest. 2013; 12:935-939.

3.) The existence of a sufficiently large group of physicians who concentrate their practice in the proposed new sub-subspecialty

Since 2014 the AABIP has certified physicians in the US and Canada in interventional pulmonology. An annual high stakes examination based upon psychometric parameters is conducted and certified by Scantron Corporation (Eagan, MN, USA), a recognized licensure and certification testing company. The examination is open only to those who maintain a current medical license and hold certifications in internal medicine and pulmonary medicine through the American Board of Internal Medicine (ABIM). Until 2016 those currently in the practice of interventional pulmonology who met the above criteria were eligible to sit for the examination once sufficient evidence of ongoing practice in interventional pulmonology was provided. Thereafter, only graduates of accredited interventional pulmonology fellowships are eligible for board certification, and IP fellowship training is open only to graduates of ACGME accredited pulmonary or pulmonary and critical fellowships. As of January 2021, there are 423 current diplomates in interventional pulmonology nationwide in the United States and Canada. Although this certification is not recognized by ABMS, it is recognized by members of the interventional pulmonology community and hospital credentials committees. The current labor market consistently shows a high demand for graduating fellows with employment in our sub-specialty consistently above 95% despite an increasing number of graduates annually. This stems from the continued demand for interventional pulmonology practitioners through an increase in new interventional pulmonology programs and expansion of existing interventional pulmonary programs.

Lee HJ, Feller-Kopman D, Islam S, et al. Analysis of employment data for interventional pulmonary fellowship graduates. Ann Am Thorac Soc. 2015;12: 549-52.

4.) The existence of national medical societies with a principal interest in the proposed new sub-subspecialty

Within the United States and Canada, the AABIP is the primary proponent medical society for interventional pulmonology. Independent of the AABIP, the primary proponent for interventional pulmonology fellowship training is the AIPPD. The ACCP and ATS likewise have dedicated sections and networks devoted to interventional pulmonology. In 2016, an interventional pulmonology fellowship accreditation standard was created through the joint efforts of the AABIP, AIPPD, ATS, ACCP and APCCMPD. The accreditation standard is currently in effect and enforced by a joint committee of the AABIP and AIPPD.

Mullon JJ, Burkhart KM, Silvestri G, et al. Interventional Pulmonary Fellowship Accreditation Standards: Executive Summary of the Multisociety Interventional Pulmonary Fellowship Accreditation Committee. CHEST 2017; 151 (5): 1114-1121

5.) The regular presence in academic units and health care organizations of educational programs, research activities, and clinical services such that the sub-subspecialty is broadly available nationally

Although the exact number of interventional pulmonology practices across the United States and Canada is not fully known, it is clear the number and availability of interventional pulmonology services are growing. This is accurately reflected in the growing number of accredited interventional pulmonology fellowship programs nationwide. From 1996-2001 there was just a single interventional pulmonology fellowship in North America. By 2005 that number had grown to five programs. Since 2012, interventional pulmonology has participated in the National Residency Match Program (NRMP) which helped standardize the application process for IP fellowship training in America. There are currently 41 AABIP/AIPPD-accredited fellowships in the United States and one non-accredited fellowship in Canada encompassing 48 training positions which are geographically diverse across the nation. The current programs are:

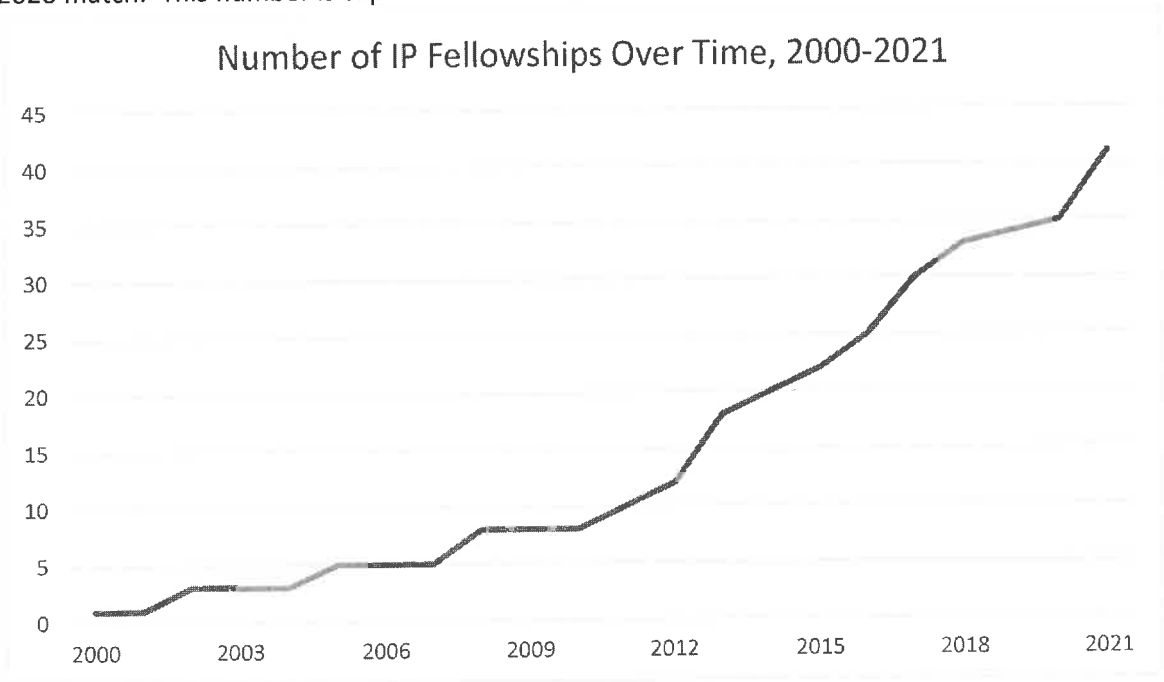
1. Cleveland Clinic Foundation
2. Cooper University
3. Duke University
4. Emory University
5. Harvard Combined Beth Israel Deaconess-Massachusetts General Hospital
6. Henry Ford Hospital
7. ICAHN SOM Mount Sinai, New York City
8. Johns Hopkins University
9. Lahey Hospital and Medical Center
10. Mayo Clinic
11. Medical College of Georgia
12. Medstar Franklin Square Medical Center
13. Memorial Sloan Kettering Cancer Center
14. New York University Langone Medical Center
15. Northwestern University
16. Ohio State University
17. Penn State University
18. Stanford University
19. University of Alabama at Birmingham
20. University of Arkansas
21. University of California in Los Angeles
22. University of California in San Francisco
23. University of Chicago
24. University of Cincinnati
25. University of Colorado
26. University of Florida, Gainesville
27. University of Illinois in Chicago
28. University of Kentucky
29. University of Maryland
30. University of Minnesota
31. University of Montreal
32. University of North Carolina

33. University of Pennsylvania
34. University of Southern California
35. University of South Florida
36. University of Texas MD Anderson Cancer Center
37. University of Utah
38. University of Wisconsin
39. Vanderbilt University
40. Virginia Commonwealth University
41. Washington University in Saint Louis
42. Yale University

IP Fellowship Locations

6.) A projected number of programs sufficient to ensure that ACGME accreditation is an effective method for quality evaluation

In 2005 there were five fellowship programs in interventional pulmonology in North America. By 2013 that number had grown to eighteen. Since 2013 the number of programs has grown to the current number of 41 accredited programs. There are currently two additional programs in various stages of applying for fellowship accreditation. We would expect a continued growth in the near future of fellowship programs across the country based on our continued specialty growth, demand for graduates with formal training, and current interest from other medical centers initiating an interventional pulmonary fellowship. Additionally, interventional pulmonology has participated in the NRMP since 2012. In December 2020, forty of the 45 fellowship positions were offered through the NRMP with 55 applicants applying. In total 100% of positions offered through the match filled with 27.3% of applicants failing to match. This reflects 1.4 applicants per position offered. The number of applicants has more than doubled from 23 in the 2012 match to the current 55 in the 2020 match. This number is expected to continue to increase.



7.) The duration and sub-subspecialty program are at least one year beyond education in the core specialty

The duration of interventional pulmonology fellowship training has always been at least one year beyond training in pulmonary medicine. That remains unchanged with one accredited program offering two years of training, one of which is clinical and the other devoted to funded research. The existing requirement for fellowship accreditation states:

"The educational program in interventional pulmonology must be at least 12 months in length. As such these program requirements are written based on an expected 12-month clinical experience."

8.) The educational program is primarily clinical

The educational program in interventional pulmonology is primarily clinical with a minimum of 9 months of clinical interventional pulmonology training required. The remaining three months are available for rotations with other pertinent specialties (i.e. thoracic surgery, otolaryngology, etc.), research, conferences, vacation, institution-directed activities, and remediation if necessary.

In summary, the AABIP and AIPPD, with support from the other major professional organizations representing the practice of pulmonary medicine in the United States, request approval from the ACGME Board of Directors to accredit a sub-subspecialty fellowship in interventional pulmonary medicine under the parent specialty of adult pulmonary medicine. Interventional pulmonology represents a discrete skillset beyond that acquired through traditional pulmonary fellowship training. An approach to interventional pulmonary fellowship training is well defined with principles and objectives, structure, and curriculum to further distinguish the sub-subspecialty. The number of interventional pulmonology fellowship training programs continues to increase at a rapid rate and programs are distributed nationwide. A distinct body of scientific medical knowledge defines the specialty and is further advanced through multiple medical publications and peer-reviewed journals. It is the firm belief of AABIP and AIPPD that clinical care and safety of patients will be improved through the recognition of interventional pulmonology. Thank you for your consideration.

AABIP/ACCP/AIPPD Program Requirements for Graduate Medical Education in Interventional Pulmonology

Introduction

A. These program requirements represent a collaborative effort between the American Association for Bronchology and Interventional Pulmonology (AABIP), American College of Chest Physicians (ACCP), and the Association of Interventional Pulmonology Program Directors (AIPPD) with the intent to standardize Interventional Pulmonology (IP) fellowship training in the United States.

B. Interventional pulmonology is a subspecialty of pulmonary and critical care medicine that focuses on the evaluation and management of thoracic diseases primarily involving the airways, lung parenchyma, and pleural space, with focus on minimally invasive diagnostic and therapeutic procedural skills beyond the scope of standard pulmonary medicine fellowship requirements. Interventional pulmonology fellowships provide advanced training after completion of a standard fellowship in pulmonary medicine to allow a fellow to acquire competency in the subspecialty with sufficient expertise to act as an independent consultant and expert provider of complex and advanced interventional procedures.

This document outlines the minimum core knowledge and procedural skills deemed essential to the practice of IP, and specifies a minimum didactic and experiential exposure required of IP fellowship training programs.

C. Residency and fellowship programs are essential dimensions of the transformation of the medical student into an independent practitioner along the continuum of medical education. They are physically, emotionally, and intellectually demanding, and require longitudinally-concentrated effort on the part of the resident or fellow. The specialty education of physicians to practice independently is experiential, and necessarily occurs within the context of the healthcare delivery system. Developing the skills, knowledge, and attitudes leading to proficiency in all the domains of clinical competency requires the resident and fellow physician to assume personal responsibility for the care of individual patients. For the resident and fellow, the essential learning activity is interaction with patients under the guidance and supervision of faculty members who give value, context, and meaning to those interactions. As residents and fellows gain experience and demonstrate growth in their ability to care for patients, they assume roles that permit them to exercise those skills with greater independence. This concept—graded and progressive responsibility—is one of the core tenets of American graduate medical education. Supervision in the setting of graduate medical education has the goals of assuring

the provision of safe and effective care to the individual patient; assuring each resident's and fellow's development of the skills, knowledge, and attitudes required to enter the unsupervised practice of medicine; and establishing a foundation for continued professional growth.
D. The educational program in interventional pulmonology must be at least 12 months in length. As such these program requirements are written based on an expected 12 month clinical experience.

I. Institutions

I.A. Sponsoring Institution

One sponsoring institution must assume ultimate responsibility for the program, as described in the Institutional Requirements, and this responsibility extends to fellow assignments at all participating sites.

The sponsoring institution and the program must ensure that the program director has sufficient protected time and financial support for his or her educational and administrative responsibilities to the program.

I.A.1. An interventional pulmonology fellowship program must function as an integral part of an ACGME-accredited fellowship program in pulmonary disease.

I.A.2. The sponsoring institution must provide the program director with adequate support for the administrative activities of the fellowship.

I.A.2.a) The program director must not be required to generate clinical or other income to provide this administrative support.

I.A.2.b) This support must be no less than 10% of the program director's salary, or protected time and directly devoted to program administration and curriculum development.

I.A.3. The sponsoring institution and participating sites must share appropriate inpatient and outpatient faculty performance data with the program director.

I.B. Participating Sites

I.B.1. There must be a program letter of agreement (PLA) between the program and each participating site outlining the details of the IP fellowship. The PLA must be renewed at least every five years.

The PLA must:

I.B.1.a) identify the faculty who will assume both educational and supervisory responsibilities for fellows;

I.B.1.b) specify their responsibilities for teaching, supervision, and formal evaluation of fellows, as specified later in this document;

I.B.1.c) specify the duration and content of the educational experience; and,

I.B.1.d) state the policies and procedures that will govern fellow education during the assignment.

I.B.2. The program director must submit any additions or deletions of participating sites routinely providing an educational experience, required for all fellows, of one month full time equivalent (FTE) or more in writing to the Fellowship Review Subcommittee of the American Association for Bronchology and Interventional Pulmonology (AABIP) annually as part of their annual report.

II. Program Personnel and Resources

II.A. Fellowship Program Director

II.A.1. There must be a single fellowship program director with authority and accountability for the operation of the program. The sponsoring institution’s GMEC must approve a change in program director.

II.A.1.a) The program director must submit this change to the AABIP within one month of the effective date of the change.

II.A.2. Qualifications of the program director must include:

II.A.2.a) requisite specialty expertise and documented educational and administrative experience acceptable to the GMEC; and

II.A.2.a).(1) at least five years of participation as an active faculty member in an ACGME-accredited internal medicine pulmonary disease fellowship; and

II.A.2.b) current board certification in Interventional Pulmonology by the American Association for Bronchology and Interventional Pulmonology (AABIP); and

II.A.2 c) devote a minimum of 50% of their clinical, research, administrative, and/or education time to the practice of IP; and

II.A.2.d) current medical licensure and appropriate medical staff appointment.

II.A.3. The program director must administer and maintain an educational environment conducive to educating the fellows in each of the ACGME competency areas and in accordance with established milestones. ACGME competency areas include:

1. Medical knowledge
2. Patient Care and Procedural Skill
3. Communication and Interpersonal Skills
4. Professionalism
5. Practice Based Learning and Improvement
6. Systems Based Practice

The program director must:

II.A.3.a) prepare and submit all information required and requested by the AABIP;

II.A.3.b) be familiar with and oversee compliance with AABIP and Fellowship Review Subcommittee policies and procedures.

II.A.3.c) obtain review and approval of the sponsoring institution's Graduate Medical Education Committee (GMEC)/Designated Institutional Official (DIO) before submitting information or requests to the AABIP, including:

II.A.3.c).(1) all applications for AABIP accreditation of new programs;

II.A.3.c).(2) changes in fellow complement;

II.A.3.c).(3) major changes in program structure or length of training;

II.A.3.c).(4) progress reports requested by the AABIP Fellowship Review Subcommittee;

II.A.3.c).(5) responses to all proposed adverse actions;

II.A.3.c).(6) voluntary withdrawals of ACGME-accredited parent Pulmonary Medicine fellowship programs;

II.A.3.c).(7) requests for appeal of an adverse action; and,

II.A.3.d) obtain DIO review and co-signature on all program application forms, as well as any correspondence or document submitted to the AABIP Fellowship Review Committee that addresses:

II.A.3.d).(1) program citations; and/or,

II.A.3.d).(2) request for changes in the program that would have significant impact, including financial, on the program or institution.

II.A.3.e) ensure that fellows' service responsibilities are predominantly limited to patients for whom the IP service has diagnostic and therapeutic responsibility;

II.A.3.f) have a close working relationship with the program director of the pulmonary disease fellowship program, and a reporting responsibility to the GMEC to ensure compliance with this document , institutional, and ACGME accreditation standards; and,

II.A.3.g) be available at the primary clinical site.

II.B. Faculty

II.B.1. There must be a sufficient number of faculty with documented qualifications to instruct and supervise all fellows. A minimum of two faculty are required, one of which is the Program Director and the other designated as Key Clinical Faculty (see II.B.9 for further description of Key Clinical Faculty).

II.B.2. The faculty must devote sufficient time to the educational program to fulfill their supervisory and teaching responsibilities and demonstrate a strong interest in the education of fellows.

II.B.3. The faculty must administer and maintain an educational environment conductive to educating fellows in each of the ACGME competency areas.

II.B.4. The physician faculty must have current certification in their primary subspecialty by the American Board of Internal Medicine, or possess qualifications judged acceptable to the Fellowship Review Committee. Faculty should be certified in Interventional Pulmonology by the AABIP.

II.B.5. The physician faculty must possess current medical licensure and appropriate medical staff appointment.

II.B.6. The physician faculty must meet professional standards of ethical behavior.

II.B.7. The nonphysician faculty must have appropriate qualifications in their field and hold appropriate institutional appointments.

II.B.8. The faculty must establish and maintain an environment of inquiry and scholarship with an active research component.

II.B.8.a) The faculty must regularly participate in organized clinical discussions, rounds, journal clubs, and conferences.

II.B.8.b) Some members of the faculty should also demonstrate scholarship by one or more of the following:

II.B.8.b).(1) protected time for research;

II.B.8.b).(2) publication of original research or review articles in peer-reviewed journals or chapters in textbooks;

II.B.8.b).(3) publication or presentation of scientific abstracts at local, regional, or national professional and scientific society meetings; or,

II.B.8.b).(4) participation in national committees or educational organizations.

II.B.8.c) Faculty should encourage and support fellows in scholarly activities.

II.B.9. Key Clinical Faculty

II.B.9.a) In addition to the program director, programs with up to two fellows are required to have at least one Key Clinical Faculty (KCF).

II.B.9.b) For programs with more than two fellows additional KCF are required as follows:

- 3-4 fellows: Three KCF, including the Program Director
- 5-6 fellows: Four KCF, including the Program Director

II.B.9.c) KCF are attending physicians who dedicate, on average, a minimum of 5 hours per week throughout the year to the program. KCF may practice associated specialties such as Pulmonary Medicine or Thoracic Surgery, however are actively engaged in the practice interventional pulmonology and maintain a regular supervisory responsibility for the interventional pulmonology fellow(s)

II.B.9.d) Each KCF member involved in supervising fellows in the performance of interventional procedures must be actively engaged in the practice of interventional pulmonology. As such all KCF members must devote a minimum of 33% of their clinical, administrative, research, and/or educational time to interventional pulmonology.

II.B.9.e) Key Clinical Faculty Qualifications

II.B.9.e).(1) KCF must be active clinicians with knowledge of, experience with, and commitment to interventional pulmonology as a discipline.

II.B.9.e).(2) KCF must be prepared to serve as the fellowship program director in the event the program director becomes unavailable for any reason. As such the KCF must meet the requirements set forth for the program director (paragraph II.A.2), to include the requirement of board certification in interventional pulmonology.

II.B.9.f) Key Clinical Faculty Responsibilities

II.B.9.f).(1) In addition to the responsibilities of all individual faculty members, the KCF and the program director are responsible for the planning, implementation, monitoring, and evaluation of the fellows' clinical and research education.

II.B.9.f).(2) the KCF must demonstrate evidence of productivity in scholarship, specifically, peer-reviewed funding; publication of original research, review articles, editorials, or case reports in peer-reviewed journals; or chapters in textbooks.

II.B.10. Other Required Faculty

II.B.10.a) Access to and interaction with faculty who have expertise in lung transplant, thoracic surgery, otolaryngology head and neck surgery, thoracic oncology, thoracic pathology, radiation oncology, anesthesiology, congenital and acquired complex airway diseases, pleural diseases, pharmacology, radiation and laser safety, and clinical, bench or translational research is required.

II.C. Other Program Personnel

The institution and the program must jointly ensure the availability of all necessary professional, technical, and clerical personnel for the effective administration of the program.

II.C.1. There must be services available from other healthcare professionals, including speech and language pathologists, respiratory therapists, dietitians, language interpreters, nurses, occupational therapists, physical therapists, and social workers.

II.C.2. There must be appropriate and timely consultation from other specialties.

II.D. Resources

The institution and the program must jointly ensure the availability of adequate resources for fellow education.

II.D.1. Space and Equipment

There must be space and equipment for the program, including meeting rooms, examination rooms, computers, visual and other educational aids, and work/study space.

II.D.2. Facilities

II.D.2.a) Inpatient and outpatient administrative support must be in place to prevent fellows from regularly performing routine clerical functions, such as scheduling tests and appointments, and retrieving records and letters.

II.D.2.b) The sponsoring institution must provide the broad range of facilities and clinical support services required to provide comprehensive care of adult patients.

II.D.2.c) Fellows must have access to a lounge facility during assigned duty hours.

II.D.2.d) When fellows are in the hospital, assigned night duty, or called in from home, they must be provided with a secure space for their belongings.

II.D.3. Laboratory Services

Each of the following must be present at the primary clinical site:

II.D.3.a) interventional pulmonary laboratories or suites, each equipped with fluoroscopic equipment, digital imaging, recording devices, and resuscitative equipment.

II.D.4. Other Support Services

The following must be present at the primary clinical site:

II.D.4.a) active thoracic surgery, otolaryngology head and neck surgery, radiation oncology, and thoracic oncology programs;

II.D.4.b) surgical and medical intensive care units;

II.D.4.c) anatomic and cytopathology programs; and

II.D.4.d) diagnostic radiology programs.

II.D.5. Medical Records

Access to an electronic health record must be provided.

II.D.6. Patient Population

II.D.6.a) The patient population must have a variety of clinical problems and stages of diseases pertinent to the practice of IP.

II.D.6.b) There must be patients of each gender, with a broad age range, including geriatric patients.

II.D.6.c) A sufficient number of patients must be available to enable each fellow to achieve the required educational outcomes and procedural volumes stipulated in section IV.

II.E. Medical Information Access

Fellows must have ready access to specialty-specific and other appropriate reference material in print or electronic format. Electronic medical literature databases with search capabilities must be available.

III. Fellow Appointments

III.A. Eligibility Criteria

Each fellow must successfully complete an ACGME-accredited pulmonary or pulmonary-critical care fellowship program, or a Royal College of Physicians and Surgeons of Canada (RCPSC)-accredited pulmonary or pulmonary-critical care fellowship program.

III.A.1. The program must document that each fellow has met the eligibility criteria.

III.A.1.a) Prior to appointment in the fellowship, fellows should have completed a three-year ACGME-accredited pulmonary and critical care or two-year pulmonary disease program, and be ABIM board-certified or eligible in at least pulmonary medicine. Successful completion of a Royal College of Physicians and Surgeons of Canada (RCPSC)-accredited pulmonary or pulmonary-critical care fellowship program is considered equivalent.

III.B. Number of Fellows

The program's educational resources must be adequate to support adequate patient and procedural exposure for each of the fellows appointed to the program.

III.B.1. The program director may not appoint more fellows than approved by the AABIP Fellowship Review Subcommittee. Any request to increase the number of fellows must be approved in writing by the sponsoring institution's Graduate Medical Education Committee (GMEC)/Designated Institutional Official (DIO) before submitting information or requests to the AABIP Fellowship Review Subcommittee.

IV. Educational Program

IV.A. The curriculum must contain the following educational components:

IV.A.1. Skills and competencies the fellow will be able to demonstrate at the conclusion of the program. The program must provide a description of these skills and competencies to fellows and faculty at least annually, in either written or electronic form.

IV.A.2. ACGME Competencies

Interventional pulmonology involves the care patients with both non-malignant and malignant airway, pleural, mediastinal and parenchymal lung diseases. Accredited training programs in interventional pulmonology must provide a broad exposure to patients suffering from both malignant and non-malignant diseases of the thorax.

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

IV.A.2.a) Patient Care and Procedural Skills

Technical and procedural skills comprise a principle component of IP.

Fellows must:

IV.A.2.a).(1) demonstrate proficiency in the understanding and communicate the indications, contraindications, technical aspects, available alternative treatment options, and complications of IP procedures.

IV.A.2.a).(2) be able to provide patient care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health

IV.A.2.a).(3). demonstrate an understanding of the principles of palliative care and end of life decision making

IV.A.2.a).(4) demonstrate competence in the practice of health promotion, disease prevention, diagnosis, care, and treatment of patients of each gender, from adolescence to old age, during health and all stages of illness

IV.A.2.a).(5) Fellows must be able to competently perform all medical, diagnostic, and surgical procedures considered essential for the practice of IP. When available validated assessment tools are to be utilized and documented in assessing procedural competence, however a minimum number of each procedure is also required to ensure adequate exposure to relevant patient factors and complications. Although minimum numbers are required they do not replace program director assessment of procedural mastery.

Fellows must demonstrate competence in the performance of:

IV.A.2.a).(5).(i) Rigid bronchoscopy with the following associated procedures (minimum 50 required). Rigid intubation without a subsequent qualifying associated procedure is insufficient.

I. Rigid core debulking
II. Placement and removal of endobronchial stents (silicone, hybrid, dynamic)
III. Rigid sequential dilation
IV. Mechanical debulking (core, microdebridement, etc)
V. Foreign body removal
VI. Management of massive hemoptysis

IV.A.2.a).(5).(ii) Endobronchial stenting, silicone or self-expanding (minimum 20 required)

IV.A.2.a).(5).(iii) Pleuroscopy/medical thoracoscopy (minimum 20 required)

IV.A.2.a).(5).(iv) Bronchoscopic navigation by one or a combination of, but not limited to the following techniques (minimum 20 required)

I. Electromagnetic / virtual bronchoscopic navigation
II. Radial endobronchial ultrasound
III. CT-correlated computer-assisted

IV.A.2.a).(5).(v) Mediastinal and hilar lymph node sampling using convex endobronchial ultrasound (minimum 100 required)

IV.A.2.a).(5).(vi) Endobronchial ablative techniques (employed via rigid or flexible bronchoscope) using one or more of, although not limited to the following devices (minimum 50 required)

I. Laser
II. Argon plasma coagulation
III. Electrocautery
IV. Cryotherapy
V. Photodynamic therapy

IV.A.2.a).(5).(vii) Ultrasound-guided thoracostomy tube placement and management (minimum 20)

IV.A.2.a).(5).(viii) Tunneled indwelling pleural catheter placement (minimum 20)

In addition to the above required procedures fellowships may choose to train fellows in the optional procedures as listed below. If taught a minimum number of procedures must be performed as indicated.

IV.A.2.a).(6).(i) Percutaneous dilational tracheostomy placement, management (minimum 20)

IV.A.2.a).(6).(ii) Percutaneous endoscopic gastrostomy tube placement (minimum 20)

IV.A.2.a).(6).(iii) Bronchial thermoplasty (minimum 6)

IV.A.2.a).(6).(iv) Endobronchial management of bronchopleural fistula or lung volume reduction or LVRS (minimum 5)

IV.A.2.a).(6).(v) Endoscopic Ultrasound (EUS) (minimum 30)

IV.A.2.a).(6).(vi) Transtracheal oxygen catheter placement and management (minimum 5)

IV.A.2.a).(7) An important aspect of procedural quality improvement involves the maintenance of meticulous procedural records. All fellows must longitudinally maintain and be prepared to

present their individual HIPPA compliant procedure log which, at a minimum, must include comprehensive data pertaining to:

I. Specific procedural volumes
II. Diagnostic yield
III. Patient outcomes to include complications

IV.A.2.b) Medical Knowledge

Fellows must demonstrate in depth knowledge of IP-related disease processes as well as established and evolving biomedical, clinical, epidemiological and social-behavioral sciences, and demonstrate the ability to apply this knowledge to patient care. A didactic lecture series is required with a minimum of once monthly lectures delivered by faculty. Fellows:

IV.A.2.b).(1) must demonstrate knowledge of the scientific method of problem solving and evidence-based decision making. This must include knowledge of study design, research ethics, and medical biostatistics.

IV.A.2.b).(2) must demonstrate a knowledge of indications, contraindications, limitations, complications, techniques, and interpretation of results of those diagnostic and therapeutic procedures integral to the discipline, including the appropriate indication for and use of screening tests/procedures as well as the risks and benefits of alternative procedures;

IV.A.2.b).(3) must demonstrate knowledge of anatomic, physiologic, and physical principles as they pertain to the practice of IP. Included is an understanding of:

IV.A.2.b).(3).(i) detailed tracheal, bronchial, vascular, lymphatic, pulmonary, and cardiac anatomy, physiology and pathophysiology;

IV.A.2.b).(3).(ii) pathophysiology of central airway obstruction;

IV.A.2.b).(3).(iii) wound healing and host factor responses to injury

IV.A.2.b).(3).(iv) Properties of endobronchial thermal and ablative treatment technologies to include:

I. Laser therapy (Nd:YAG, KTP, CO2, YAP, etc)
II. Electrocautery
III. Argon plasma coagulation
IV. Cryotherapy
V. Photodynamic therapy

IV.A.2.b).(3).(v) Principles and physical properties of airway stents

IV.A.2.b).(3).(vi) Principles of advanced airway, mediastinal, and lung parenchymal imaging enhancement techniques to include but not limited to:

I. Autofluorescence
II. Narrow band imaging
III. Confocal bronchoscopy
IV. Optical coherence tomography
V. Endoscopic radial and convex ultrasound
VI. Transthoracic ultrasound

IV.A.2.b).(3).(vii) Thoracic imaging modalities to include CT, MRI, PET, thoracic ultrasound

IV.A.2.b).(3).(viii) Pathophysiology and natural history of tracheal stenosis, tracheobronchomalacia, and excessive dynamic airway collapse

IV.A.2.b).(3).(ix) Diagnosis, staging, and natural history of thoracic malignancies to include, but not limited to, lung cancer, mesothelioma, thymoma

IV.A.2.b).(3).(x) Basic principles of radiotherapy to include brachytherapy

IV.A.2.b).(3).(xi) Basic principles of chemotherapy as they apply to thoracic malignancies

IV.A.2.b).(3).(xii) Evaluation, diagnosis, and management of pleural disease to include malignant pleural effusion, recurrent benign pleural effusion and pleuritis, pneumothorax, pleural space infection

IV.A.2.b).(3).(xiii). Managing moderate sedation

IV.A.2.b).(4) must demonstrate knowledge of the prevention, evaluation, and management of both inpatients and outpatients with specific disease entities pertinent to the practice of IP. Included in this is knowledge of:

IV.A.2.b).(4).(i) malignant airway obstruction, secondary to:

I. Intrinsic/endoluminal tumor
II. Extrinsic/extraluminal compression by tumor
III. Mixed intrinsic and extrinsic obstructing tumor

IV.A.2.b).(4).(ii) non-malignant airway obstruction secondary to but not limited to:

I. Foreign body
II. Vocal cord disorders
III. Tracheal/bronchial obstruction secondary to granulomatosis with polyangiitis, post-intubation/tracheostomy, tuberculosis, sarcoidosis, amyloidosis, recurrent respiratory papillomatosis, broncholithiasis, etc
IV. Tracheal/bronchial malacia / excessive dynamic airway collapse secondary to relapsing polychondritis, Mounier-Kuhn syndrome, COPD, etc
V. Airway complications following airway surgery/lung transplant to include anastomotic strictures/granulation
VI. Airway stent-associated granulation tissue
VII. Extrinsic compression from goiter, mediastinal cyst, lymphadenopathy, etc

IV.A.2.b).(4).(iii) Loss of airway integrity secondary to but not limited to;

I. Anastomotic dehiscence
II. Tracheo/bronchial-esophageal fistula
III. Bronchopleural / alveolar-pleural fistula

IV.A.2.b).(4).(iv) Pre-malignant and early stage malignant airway disease

IV.A.2.b).(4).(v) Undiagnosed mediastinal and hilar lymphadenopathy

IV.A.2.b).(4).(vi) Massive hemoptysis

IV.A.2.b).(4).(vii) Solitary pulmonary nodules

IV.A.2.b).(4).(viii) Undiagnosed pleural effusions

IV .A.2.b).(4).(ix) Pneumothorax

IV .A.2.b).(4).(x) Parapneumonic effusion / Empyema

IV .A.2.b).(4).(xi) Malignant pleural effusion

IV .A.2.b).(4).(xii) Chylothorax

IV .A.2.b).(4).(xiii) Hepatic hydrothorax / effusions due to refractory congestive heart failure

IV.A.2.b).(5) must demonstrate competence in the prevention and management of mechanical complications of interventional pulmonary procedures, which may include:

IV.A.2.b).(5).(i). Simple and tension pneumothorax, hemothorax

IV.A.2.b).(5).(ii). Airway disruption, perforation, tear

IV.A.2.b).(5).(iii). Massive hemoptysis

IV.A.2.b).(5).(iv). Refractory hypoxia / respiratory failure

IV.A.2.b).(5).(v). Injury to adjacent organs, e.g. esophageal perforation during percutaneous dilational tracheostomy placement

IV.A.2.b).(5).(vi). Airway fire

IV.A.2.b).(5).(vii). Secondary tracheal stenosis (post tracheostomy) and secondary bronchial/tracheal strictures from laser/EC /mechanical trauma/ anastomotic complications

IV.A.2.b).(6). must demonstrate knowledge of the safety, administrative, and business aspects pertinent to the practice of IP, to include:

IV.A.2.b).(6).(i). Procedural quality control management. Pursuant to this the fellow must maintain and produce a comprehensive procedural log that includes underlying diagnosis, outcomes, diagnostic yield, and complications.

IV.A.2.b).(6).(ii). Equipment maintenance and procedural suite design

IV.A.2.b).(6).(iii). OSHA and infection control regulations and policies as they pertain to procedural suite design, ventilation, isolation, etc

IV.A.2.b).(6).(iv) radiation physics, biology, and safety related to the use of x-ray imaging equipment;

IV.A.2.b).(6).(v) laser physics and safety

IV.A.2.c) Practice-based Learning and Improvement

Fellows are expected to develop skills and habits to be able to meet the following goals:

IV.A.2.c).(1) systematically analyze practice using quality improvement methods, and implement changes with the goal of practice improvement; and,

IV.A.2.c).(2) locate, appraise, and assimilate evidence from scientific studies related to their patients' health problems.

IV.A.2.d) Interpersonal and Communication Skills

Fellows must demonstrate interpersonal and communication skills that result in the effective exchange of information and collaboration with patients, their families, and health professionals.

IV.A.2.d).(1) Fellows must demonstrate competence in providing consultation and obtaining informed consent.

IV.A.2.d).(2) Fellows must demonstrate competence in addressing end of life discussions.

IV.A.2.e) Professionalism

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

IV.A.2.e).(1) Fellows must demonstrate high standards of ethical behavior, including maintaining appropriate professional boundaries and relationships with patients, other physicians, and other health care team members, and avoiding conflicts of interest.

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

IV.A.2.f).(1) Fellows must demonstrate an awareness of and responsiveness to the larger context and system of health care, as well as the ability to call effectively on other resources in the system to provide optimal health care.

IV.A.2.f).(2) Fellows must be knowledgeable about the organization or a bronchoscopy/advanced procedural suite including business and personnel management, care and maintenance of equipment, quality control, and specimen handling.

IV.A.3. Curriculum Organization and Fellow Experiences

IV.A.3.a) All 12 months must include clinical experiences and appropriate protected time for research.

IV.A.3.b) Fellows must participate in training using simulation.

IV.A.3.c) The core curriculum must include a didactic program based upon the core knowledge content in the subspecialty area as described in section IV.A.2.b.

IV.A.3.c).(1) The program must afford each fellow an opportunity to review topics covered in conferences that he or she was unable to attend.

IV.A.3.c).(2) Fellows must participate in weekly clinical case conferences, journal clubs, research conferences, and morbidity and mortality or quality improvement conferences.

IV.A.3.c).(3) A multidisciplinary thoracic tumor board must be conducted at the sponsoring or a participating institution at least weekly. A multidisciplinary complex airway conference must also be conducted at least monthly, although may be combined with the multidisciplinary tumor board. The fellow must attend this board regularly (at least 70% of available meetings).

IV.A.3.c).(4) All core conferences must have at least one faculty member present, and must be scheduled as to ensure peer-peer and peer-faculty interaction.

IV.A.3.d) Fellows must be instructed in practice management relevant to interventional pulmonology.

IV.A.3.e) Fellows must attend an outpatient clinic to provide pre-procedural evaluation and follow-up care for patients at least one-half day per week.

IV.A.3.f) Procedures and Technical Skills

IV.A.3.f).(1) Direct supervision of procedures performed by each fellow must occur until proficiency has been acquired and documented by the program director.

IV.A.3.f).(2) Faculty members must teach and supervise the fellows in the performance and interpretation of procedures, which must be documented in each fellow's record, including indications, outcomes, diagnoses, and supervisor(s).

IV.A.3.f).(3) All fellows must:

IV.A.3.f).(3).(i) participate in pre-procedural planning, including the indications for the procedure, and the selection of the appropriate procedure or instruments;

IV.A.3.f).(3).(ii) perform the critical technical manipulations of the procedure; and,

IV.A.3.f).(3).(iii) demonstrate substantial involvement in post-procedure care.

IV.B. Fellows' Scholarly Activities

IV.B.1. Each program must provide an opportunity for fellows to participate in research or other scholarly activities, including:

IV.B.1.a) a research project (with faculty mentorship); or,

IV.B.1.b) participation with the faculty in the initiation and conduct of clinical trials within the department; or,

IV.B.1.c) participation in quality assurance/quality improvement or process improvement projects; or,

IV.B.1.d) submit and present original investigation or case reports at regional, national, or international meetings; or,

IV.B.1.e) submit original investigation in the field of IP for publication in a peer-reviewed journal

V. Evaluation

V.A. Fellow Evaluation

V.A.1. The program director must appoint a Clinical Competency Committee.

V.A.1.a) At a minimum the Clinical Competency Committee must be composed of two members of the program faculty who practice IP.

V.A.1.a).(1) Others eligible for appointment to the committee include faculty from other divisions / departments and non-physician members of the health care team.

V.A.1.b) There must be a written description of the responsibilities of the Clinical Competency Committee.

V.A.1.b).(1) The Clinical Competency Committee should:

V.A.1.b).(1).(a) review all fellow evaluations semi-annually;

V.A.1.b).(1).(b) advise the program director regarding fellow progress, including promotion, remediation, and dismissal.

V.A.2. Formative Evaluation

V.A.2.a) The faculty must evaluate fellow performance in a timely manner.

V.A.2.a).(1) The faculty must discuss evaluations with each fellow at least every three months. A quarterly summary must accompany these discussions, be signed by the faculty member and fellow, and become part of the fellow's personal file.

V.A.2.a).(2) Assessment of procedural competence must include a formal evaluation process and not be based solely on a minimum number of procedures performed.

V.A.2.b) The program must:

V.A.2.b).(1) provide assessments of competence in patient care and procedural skills, medical knowledge, practice-based learning and improvement, interpersonal and communication skills, professionalism, and systems-based practice based on the specialty-specific Milestones;

V.A.2.b).(1).(a) Patient Care

The program must assess the fellow in data gathering, clinical reasoning, patient management, and procedures in both the inpatient and outpatient setting.

V.A.2.b).(1).(a).(i) This assessment must involve direct observation of fellow-patient encounters.

V.A.2.b).(1).(a).(ii) Each program must define criteria for competence for all required and elective procedures.

V.A.2.b).(1).(a).(iii) The record of evaluation must include the fellow's logbook or an equivalent method to demonstrate that each fellow has achieved competence in the performance of required procedures.

V.A.2.b).(1).(b) Medical Knowledge

The program must use an objective formative assessment method. The same formative assessment method must be administered at least twice during the program.

V.A.2.b).(1).(c) Practice-based Learning and Improvement

The program must use performance data to assess the fellow in:

V.A.2.b).(1).(c).(i) application of evidence to patient care;

V.A.2.b).(1).(c).(ii) practice improvement;

V.A.2.b).(1).(c).(iii) teaching skills involving peers and patients;

V.A.2.b).(1).(c).(iv) 5.d) scholarship.

V.A.2.b).(1).(d) Interpersonal and Communication Skills

The program must use both direct observation and multi-source evaluation, including patients, peers and non-physician team members, to assess fellow performance in:

V.A.2.b).(1).(d).(i) communication with patient and family;

V.A.2.b).(1).(d).(ii) teamwork;

V.A.2.b).(1).(d).(iii) communication with peers, including transitions in care; and,

V.A.2.b).(1).(d).(iv) record keeping.

V.A.2.b).(1).(e) Professionalism

The program must use multi-source evaluation, including patients, peers, and non-physician team members, to assess each fellow:

V.A.2.b).(1).(e).(i) honesty and integrity;

V.A.2.b).(1).(e).(ii) ability to meet professional responsibilities;

V.A.2.b).(1).(e).(iii) ability to maintain appropriate professional relationships with patients and colleagues; and,

V.A.2.b).(1).(e).(iv) commitment to self-improvement.

V.A.2.b).(1).(f) Systems-based Practice

The program must use multi-source evaluation, including peers, and non-physician team members, to assess each fellow's:

V.A.2.b).(1).(f).(i) ability to provide care coordination, including transition of care;

V.A.2.b).(1).(f).(ii) ability to work in interdisciplinary teams;

V.A.2.b).(1).(f).(iii) advocacy for quality of care; and,

V.A.2.b).(1).(f).(iv) ability to identify system problems and participate in improvement activities.

V.A.2.b).(2) use multiple evaluators (e.g., faculty, peers, patients, self, and other professional staff); and,

V.A.2.b).(3) provide each fellow with documented semiannual evaluation of performance with feedback.

V.A.2.c) The evaluations of fellow performance must be accessible for review by the fellow, in accordance with institutional policy.

V.A.2.d) In the event of substandard fellow performance the program must provide a clear remediation plan in both verbal and written form. The remediation plan must clearly articulate the area of concern, stipulate a timeline for remediation, and outline a course of action to achieve remediation. The document must be signed by both the fellow and program director, and stored in the fellow's performance file.

V.A.3. Summative Evaluation

V.A.3.a) The specialty-specific Milestones must be used as one of the tools to ensure fellows are able to practice core professional activities without supervision upon completion of the program.

V.A.3.b) The program director must provide a summative evaluation for each fellow upon completion of the program.

This evaluation must:

V.A.3.b).(1) become part of the fellow's permanent record maintained by the institution, and must be accessible for review by the fellow in accordance with institutional policy;

V.A.3.b).(2) document the fellow's performance during their education; and,

V.A.3.b).(3) verify that the fellow has demonstrated sufficient competence to enter practice without direct supervision.

V.B. Faculty Evaluation

V.B.1. At least annually, the program must evaluate faculty performance as it relates to the educational program.

V.B.2. These evaluations should include a review of the faculty's clinical teaching abilities, commitment to the educational program, clinical knowledge, professionalism, and scholarly activities.

V.B.3. Fellows must have the opportunity to provide written evaluations of each supervising faculty member at the end of each rotation.

V.B.4. These evaluations must be reviewed with each faculty member at least every six months.

V.B.5. The program must designate a non-faculty member as an ombudsman to whom the fellow can address concerns about faculty without the fear of reprisals. This individual must also conduct and document an independent exit interview with the fellow prior to departure.

V.C. Program Evaluation and Improvement

V.C.1. The program director must appoint the Program Evaluation Committee (PEC).

V.C.1.a) The Program Evaluation Committee:

V.C.1.a).(1) must be composed of at least two program faculty members and should include at least one fellow;

V.C.1.a).(2) must have a written description of its responsibilities; and,

V.C.1.a).(3) should participate actively in:

V.C.1.a).(3).(a) planning, developing, implementing, and evaluating educational activities of the program;

V.C.1.a).(3).(b) reviewing and making recommendations for revision of competency-based curriculum goals and objectives;

V.C.1.a).(3).(c) reviewing the program annually using evaluations of faculty, fellows, and others, as specified below.

V.C.2. The program, through the PEC, must document formal, systematic evaluation of the curriculum at least annually, and is responsible for rendering a written and Annual Program Evaluation (APE).

The program must monitor and track each of the following areas:

V.C.2.a) fellow performance;

V.C.2.b) faculty development;

V.C.2.c) progress on the previous year's action plan(s); and,

V.C.2.d) graduate performance, including performance of program graduates on the certification examination.

VI. Fellow Duty Hours in the Learning and Working Environment

VI.A. Professionalism, Personal Responsibility, and Patient Safety

VI.A.1. Programs and sponsoring institutions must educate fellows and faculty members concerning the professional responsibilities of physicians to appear for duty appropriately rested and fit to provide the services required by their patients.

VI.A.2. The program must be committed to and responsible for promoting patient safety and fellow well-being in a supportive educational environment.

VI.A.3. The program director must ensure that fellows are integrated and actively participate in interdisciplinary clinical quality improvement and patient safety programs.

VI.A.4. The learning objectives of the program must:

VI.A.4.a) be accomplished through an appropriate blend of supervised patient care responsibilities, clinical teaching, and didactic educational events; and,

VI.A.4.b) not be compromised by excessive reliance on fellows to fulfill non-physician service obligations.

VI.A.5. The program director and sponsoring institution must ensure a culture of professionalism that supports patient safety and personal responsibility.

VI.A.6. Fellows and faculty members must demonstrate an understanding and acceptance of their personal role in the following:

VI.A.6.a) assurance of the safety and welfare of patients entrusted to their care;

VI.A.6.b) provision of patient- and family-centered care;

VI.A.6.c) assurance of their fitness for duty;

VI.A.6.d) management of their time before, during, and after clinical assignments;

VI.A.6.e) recognition of impairment, including illness and fatigue, in themselves and in their peers;

VI.A.6.f) attention to lifelong learning;

VI.A.6.g) the monitoring of their patient care performance improvement indicators; and,

VI.A.6.h) honest and accurate reporting of duty hours, patient outcomes, and clinical experience data.

VI.A.7. All fellows and faculty members must demonstrate responsiveness to patient needs that supersedes self-interest. They must recognize that under certain circumstances, the best interests of the patient may be served by transitioning that patient’s care to another qualified and rested provider.

VI.B. Transitions of Care

VI.B.1. Programs must design clinical assignments to minimize the number of transitions in patient care.

VI.B.2. Sponsoring institutions and programs must ensure and monitor effective, structured hand-over processes to facilitate both continuity of care and patient safety.

VI.B.3. Programs must ensure that fellows are competent in communicating with team members in the hand-over process.

VI.B.4. The sponsoring institution must ensure the availability of schedules that inform all members of the health care team of attending physicians and fellows currently responsible for each patient's care.

VI.C. Alertness Management/Fatigue Mitigation

VI.C.1. The program must:

VI.C.1.a) educate all faculty members and fellows to recognize the signs of fatigue and sleep deprivation;

VI.C.1.b) educate all faculty members and fellows in alertness management and fatigue mitigation processes; and,

VI.C.1.c) adopt fatigue mitigation processes to manage the potential negative effects of fatigue on patient care and learning, such as naps or back-up call schedules.

VI.C.2. Each program must have a process to ensure continuity of patient care in the event that a fellow may be unable to perform his/her patient care duties.

VI.C.3. The sponsoring institution must provide adequate sleep facilities and/or safe transportation options for fellows who may be too fatigued to safely return home.

VI.D. Supervision of Fellows

VI.D.1. In the clinical learning environment, each patient must have an identifiable, appropriately-credentialed and privileged attending physician (or licensed independent practitioner as approved by each Review Committee) who is ultimately responsible for that patient's care.

VI.D.1.a) This information should be available to fellows, faculty members, and patients.

VI.D.1.b) Fellows and faculty members should inform patients of their respective roles in each patient's care.

VI.D.2. The program must demonstrate that the appropriate level of supervision is in place for all fellows who care for patients. Supervision may be exercised through a variety of methods. Some activities require the physical presence of the supervising faculty member. For many aspects of patient care, the supervising physician may be a more advanced fellow. Other portions of care provided by the fellow can be adequately supervised by the immediate availability of the supervising faculty member or fellow physician, either in the institution, or by means of telephonic and/or electronic modalities. In some circumstances, supervision may include post-hoc review of fellow-delivered care with feedback as to the appropriateness of that care.

VI.D.3. Levels of Supervision

To ensure oversight of fellow supervision and graded authority and responsibility, the program must use the following classification of supervision:

VI.D.3.a) Direct Supervision – the supervising physician is physically present with the fellow and patient.

VI.D.3.b) Indirect Supervision:

VI.D.3.b).(1) with direct supervision immediately available – the supervising physician is physically within the hospital or other site of patient care, and is immediately available to provide Direct Supervision.

VI.D.3.b).(2) with direct supervision available – the supervising physician is not physically present within the hospital or other site of patient care, but is immediately available by means of telephonic and/or electronic modalities, and is available to provide Direct Supervision.

VI.D.3.c) Oversight – the supervising physician is available to provide review of procedures/encounters with feedback provided after care is delivered.

VI.D.4. The privilege of progressive authority and responsibility, conditional independence, and a supervisory role in patient care delegated to each fellow must be assigned by the program director and faculty members.

VI.D.4.a) The program director must evaluate each fellow's abilities based on specific criteria. When available, evaluation should be guided by specific national standards-based criteria.

VI.D.4.b) Faculty members functioning as supervising physicians should delegate portions of care to fellows, based on the needs of the patient and the skills of the fellows.

VI.D.4.c) Fellows should serve in a supervisory role of residents or junior fellows in recognition of their progress toward independence, based on the needs of each patient and the skills of the individual fellow.

VI.D.5. Programs must set guidelines for circumstances and events in which fellows must communicate with appropriate supervising faculty members, such as the transfer of a patient to an intensive care unit, or end-of-life decisions.

VI.D.5.a) Each fellow must know the limits of his/her scope of authority, and the circumstances under which he/she is permitted to act with conditional independence.

VI.D.6. Faculty supervision assignments should be of sufficient duration to assess the knowledge and skills of each fellow and delegate to him/her the appropriate level of patient care authority and responsibility.

VI.E. Clinical Responsibilities

The clinical responsibilities for each fellow must be based on PGY-level, patient safety, fellow education, severity and complexity of patient illness/condition and available support services.

VI.F. Teamwork

Fellows must care for patients in an environment that maximizes effective communication. This must include the opportunity to work as a member of effective interprofessional teams that are appropriate to the delivery of care in the specialty.

VI.G. Fellow Duty Hours

VI.G.1. Maximum Hours of Work per Week

Duty hours must be limited to 80 hours per week, averaged over a four-week period, inclusive of all in-house call activities and all moonlighting.

VI.G.2. Moonlighting

VI.G.2.a) Moonlighting must not interfere with the ability of the fellow to achieve the goals and objectives of the educational program.

VI.G.2.b) Time spent by fellows in Internal and External Moonlighting (as defined in the ACGME Glossary of Terms) must be counted towards the 80-hour Maximum Weekly Hour Limit.

VI.G.3. Mandatory Time Free of Duty

Fellows must be scheduled for a minimum of one day free of duty every 7-day week (when averaged over four weeks). At-home call cannot be assigned on these free days.

VI.G.4. Maximum Duty Period Length

Duty periods of fellows may be scheduled to a maximum of 24 hours of continuous duty in the hospital.

VI.G.4.a) Programs must encourage fellows to use alertness management strategies in the context of patient care responsibilities. Strategic napping, especially after 16 hours of continuous duty and between the hours of 10:00 p.m. and 8:00 a.m., is strongly suggested.

VI.G.4.b) It is essential for patient safety and fellow education that effective transitions in care occur. Fellows may be allowed to remain on-site in order to accomplish these tasks; however, this period of time must be no longer than an additional four hours.

VI.G.4.c) Fellows must not be assigned additional clinical responsibilities after 24 hours of continuous in-house duty.

VI.G.4.d) In unusual circumstances, fellows, on their own initiative, may remain beyond their scheduled period of duty to continue to provide care to a single patient. Justifications for such extensions of duty are limited to reasons of required continuity for a severely ill or unstable patient, academic importance of the events transpiring, or humanistic attention to the needs of a patient or family.

VI.G.4.d).(1) Under those circumstances, the fellow must:

VI.G.4.d).(1).(a) appropriately hand over the care of all other patients to the team responsible for their continuing care; and,

VI.G.4.d).(1).(b) document the reasons for remaining to care for the patient in question and submit that documentation in every circumstance to the program director.

VI.G.4.d).(2) The program director must review each submission of additional service, and track both individual fellow and program-wide episodes of additional duty.

VI.G.5. Minimum Time Off between Scheduled Duty Periods

VI.G.5.a) Fellows must be prepared to enter the unsupervised practice of medicine and care for patients over irregular or extended periods.

Internal medicine subspecialty fellows are considered to be in the final years of education.

VI.G.5.a).(1) This preparation must occur within the context of the 80-hour, maximum duty period length, and one-day-off-in-seven standards. While it is desirable that fellows have eight hours free of duty between scheduled duty periods, there may be circumstances when these fellows must stay on duty to care for their patients or return to the hospital with fewer than eight hours free of duty.

VI.G.5.a).(1).(a) Circumstances of return-to-hospital activities with fewer than eight hours away from the hospital by fellows must be monitored by the program director.

VI.G.5.a).(1).(b) In unusual circumstances, fellows may remain beyond their scheduled period of duty or return after their scheduled period of duty to provide care to a single patient. Justifications for such extensions of duty are limited to reasons of required continuity of care for a severely ill or unstable patient, academic importance of the events transpiring, or humanistic attention to the needs of the patient or family. Such episodes should be rare, must be of the fellows' own initiative, and need not initiate a new 'off-duty period' nor require a change in the scheduled 'off-duty period.'

VI.G.5.a).(1).(c) Under such circumstances, the fellow must appropriately hand over care of all other patients to the team responsible for their continuing care, and document the reasons for remaining or returning to care for the patient in question and submit that documentation to the program director.

VI.G.5.a).(1).(d) The program director must review each submission of additional service and track both individual fellows' and program-wide episodes of additional duty.

VI.G.6. Maximum Frequency of In-House Night Float

Fellows must not be scheduled for more than six consecutive nights of night float.

VI.G.7. Maximum In-House On-Call Frequency

Fellows must be scheduled for in-house call no more frequently than every-third-night

VI.G.8. At-Home Call

VI.G.8.a) Time spent in the hospital by fellows on at-home call must count towards the 80-hour maximum weekly hour limit. The frequency of at-home call is not subject to the every-third-night limitation, but must satisfy the requirement for one-day-in-seven free of duty, when averaged over four weeks.

VI.G.8.a).(1) At-home call must not be so frequent or taxing as to preclude rest or reasonable personal time for each fellow.

VI.G.8.b) Fellows are permitted to return to the hospital while on at-home call to care for new or established patients. Each episode of this type of care, while it must be included in the 80-hour weekly maximum, will not initiate a new “off-duty period”.

ATS American Thoracic Society

25 Broadway, 4th Floor, New York, NY 10004
Phone: 212-315-8600 Fax: 212-315-6498
thoracic.org

October 5, 2021

Thomas Nasca, MD, MACP
President and Chief Executive Officer
Accreditation Council for Graduate Medical Education
401 North Michigan Avenue, Suite 2000
Chicago, IL 60611
Email: tnasca@acgme.org

Dear Dr. Nasca:

This letter is to inform you that the American Thoracic Society fully supports the joint proposal from the American Association for Bronchology and Interventional Pulmonology (AABIP) and Association of Interventional Pulmonology Program Directors (AIPPD) for ACGME approval of a sub-subspecialty fellowship in Interventional Pulmonary Medicine under the parent specialty of adult pulmonary medicine. The American Thoracic Society participated in the development of training standards for the growing numbers of these interventional pulmonary programs and appreciate the need now for the ACGME to consider taking on the role of accreditor.

Please let us know if you need anything additional.

Best,

Lynn M. Schnapp, MD, ATSF
President
American Thoracic Society

Cc:

George Eapen, MD
President, American Association for Bronchology and Interventional Pulmonology

Neeraj Desai, MD

President, Association of Interventional Pulmonology Program Directors

ATS
25 Broadway, 4th Floor, New York, NY 10004
Phone: 212-315-8600 Fax: 212-315-6498
thoracic.org

CHEST
AMERICAN COLLEGE of CHEST PHYSICIANS

2595 Patriot Boulevard
Glenview, Illinois 60026
USA
+1 (224) 521-9800

chestnet.org

June 28, 2021

Thomas Nasca, MD, MACP
President and Chief Executive Officer
ACGME

Dear Dr. Nasca,

We are writing on behalf of the American College of Chest Physicians (CHEST) to express our organizational support for the proposal from the American Association for Bronchology and Interventional Pulmonology (AABIP) and Association of Interventional Pulmonology Program Directors (AIPPD) for ACGME recognition of a new sub-subspecialty in interventional pulmonary medicine.

Interventional pulmonology is a sub-subspecialty of Pulmonary Medicine that focuses on the evaluation and management of thoracic diseases primarily involving the airways, lung parenchyma and pleural space, with a focus on minimally invasive diagnostic and therapeutic procedural skills that is beyond the scope of adult Pulmonary Medicine fellowship requirements. Currently, interventional pulmonology fellowships provide advanced training for 12 months after completion of a standard fellowship in pulmonary medicine to allow a fellow to acquire competency in the subspecialty. Through the accreditation process, successful standardized training and practices have been established that benefit patients and since 2010, there has been a rapid and continued increase in the number of interventional pulmonology fellowship programs nationwide.

We support the proposal that a coordinated approach to procedural training and practice is desirable across the entire spectrum of pulmonary medicine and agree that this effort would be best orchestrated through the oversight of ACGME.

Sincerely,

Steven Q. Simpson, MD, FCCP
CHEST President

Robert Musacchio, PhD
CHEST Executive Vice President and CEO

Association of Pulmonary and Critical Care Medicine Program Directors

July 21, 2021

Thomas Nasca, MD, MACP
President and Chief Executive Officer
Accreditation Council for Graduate Medical Education
401 North Michigan Avenue; Suite 2000
Chicago, IL 60611

Dear Dr. Nasca,

On behalf of the Association of Pulmonary and Critical Care Medicine Program Directors (APCCMPD) Board of Directors (BOD) we are writing this letter in support of the submitted proposal for recognition of a new sub-subspeciality in Interventional Pulmonology (IP). The APCCMPD represents 96% of all ACGME Accredited Pulmonary, Critical Care Medicine (CCM) and Combined Pulmonary Critical Care Medicine Programs (PCCM).

As the number of IP training programs grow, the APCCMPD appreciates the need to formalize IP training program accreditation through the ACGME. ACGME accreditation will stipulate program requirements that ensure IP training programs have the appropriate resources, procedural expertise, and caseloads to train IP specialists. This will allow for IP training programs to operate with more established structure and oversight. Ultimately, allowing for more uniformity in IP training.

Moreover, as IP training is predicated on pulmonary or PCCM training, ACGME accreditation will provide the ability for IP Training Programs to better coordinate their training and procedural components with the primary ACGME accredited Pulmonary or PCCM training program. The APCCMPD feels that ACGME accreditation will ensure the seamless integration of IP training into the training that precedes it, reducing overlap in training and coordinating procedural experiences and caseloads to ensure adequate procedural volume for primary ACGME accredited Pulmonary or PCCM Fellowship, as well as the ACGME accredited IP Fellowship.

With this, the APCCMPD offers this letter in support of the submitted proposal for recognition of a new sub-subspeciality in IP. The APCCMPD believes that ACGME accreditation will establish structure and oversight within IP training, allow for better coordination with the pulmonary and PCCM training programs that precede IP training, and finally ensure that alternative paths to competence are explicitly acknowledged.

The APCCMPD looks forward to providing input to this process and future IP Program requirements.

Sincerely,

Maryl Kreider, MD
President, APCCMPD

APCCMPD
2506 North Clark Street
Suite 431
Chicago, IL 60614
Phone: (877) 301-6800

Email: joycereitzner@apccmpd.org
www.apccmpd.org
@APCCMPD