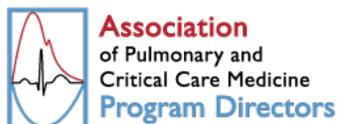




EXCELLENCE IN PULMONARY AND OR CRITICAL CARE MEDICAL EDUCATION 2015 Award Highlights



The Association of Pulmonary and Critical Care Medicine Program Directors (APCCMPD) inspires, develops, and supports teaching

excellence in pulmonary and or critical care medicine fellowship programs.

The APCCMPD recognizes and invests in educators to

share transformative teaching practices and to support the development of novel teaching formats that advance the profession.

About us

APCCMPD Origins

In 1984 the APCCMPD was organized with the basic mission of improving communications amongst program directors, providing a mechanism of communication among stakeholder organizations relative to matters involving training, the quality of training, the possibility of accreditation and the funding of individuals seeking training in pulmonary medicine.

The American College of Chest Physicians generously provided administrative support. In 2009 the APCCMPD incorporated to form a 501(c)(6) not-for-profit organization.

APCCMPD Today

In 2014 the APCCMPD became an independent operated 501(c)(6). APCCMPD's leadership and support of Pulmonary and Critical Care Medicine Training Programs and faculty is widely recognized. The APCCMPD aspires to foster excellence in training and mentoring of the next generation of educators in pulmonary and critical care medicine. We value Education as a Profession, Responsiveness, Supportiveness, Inclusiveness, and Advocacy.

Building on that foundation, APCCMPD offers a broad array of services and resources to help training programs provide high-quality training and education.

559 West Diversey Parkway | Chicago, IL 60614 | (877) 301-6800

apccmpd.org

APCCMPD Awards Programs

APCCMPD, CHEST, and ATS Education Research Award

The APCCMPD, American College of Chest Physicians (CHEST), and American Thoracic Society (ATS) Education Research Award (AERA) is a \$25,000 grant bestowed every other year to fund projects that further the field of pulmonary and critical care medicine fellow training.

Proposals encompass any aspect of graduate medical education. Suggested topics, which are not meant to be exclusive, include:

- Identifying/validating processes for assessing competency of trainees.
- Validating novel training methods or outcomes in pulmonary/critical care medicine.
- Identifying methods and measures to allow translation of medical education into providing quality care.
- Identifying relationships between organizational change/medical education and patient care.
- Development of new educational methods using novel technologies.

Applications may be submitted by a fellow-in-training, junior faculty within 5 years of program completion, associate program directors, or program directors.

The APCCMPD congratulates our 2014 awardees:

Gabriel T. Bosslet, M.D., Indiana University

Subani Chandra, M.D., Columbia University

The APCCMPD honors the contributions all applicants are making to advance the next generation educators:

Alice Gallo de Moraes, M.D., Mayo Clinic

Sabiha Hussain, M.D. and Sugeet Jagpal, M.D., Robert Wood Johnson University Hospital

Rajeev Patel, M.D. and Sahar Ahmad, M.D., State University of New York at Stony Brook

Darlene Buczak Award for Educational Excellence

The Darlene Buczak Award for Educational Excellence recognizes pulmonary and critical care medicine training program directors for their outstanding contributions and commitment to medical education and training.

This award is bestowed to one APCCMPD member each year. Applicants must submit an abstract describing a successful innovative educational method they have applied in their training programs.

The selected awardee receives a \$500 award and travel to the annual conference.

The APCCMPD congratulates our 2015 awardee:

Stacey Kassutto, M.D., University of Pennsylvania

The APCCMPD honors the contributions all applicants are making to advance the next generation educators:

Darlene Nelson, M.D., Mayo Clinic

APCCMPD, CHEST, and ATS Education Research Award

Development and Internal Validation of an Objective Scoring Tool for Pulmonary and Critical Care Fellowship Candidate Screening and Selection Using a Simplified Analytic Hierarchy Process



*Gabriel T. Bosslet, M.D.
Assistant Professor of Clinical Medicine
Associate Program Director*

*Indiana University School of Medicine
Indianapolis, IN*

Fellowship programs are tasked each year with selection of candidates for interview and ranking within the National Residency Match Program (NRMP). The application for these programs, the Electronic Residency Application Service (ERAS), is a standardized application that is used by all Pulmonary and Critical Care Fellowships for evaluation of candidates. This project attempts to develop and validate a process for residency/fellowship application weighting and create an evaluation tool that could be implemented across a variety of specialties and training programs named the ERAS Application Scoring Tool (the EAST). This pilot project will develop the EAST, and validate it with both intra-rater agreement and inter-rater reliability. It will then be compared with usual methods of fellowship candidate selection and ranking for correlation. If this is successful, this process will be simplified by development of a computer program to make the process of weighting and scoring more user-friendly, so that program directors in other programs and at other centers would be able to easily implement and use the tool. Once this scoring tool is developed and validated, the long-term goal would be to correlate graduating fellow performance to the scoring tool to establish and further refine what aspects of the application process help to establish fellow success.

Improving Pulmonary/Critical Care Ultrasonography Skills Among Fellows with an Interactive Digital Educational Program



*Subani Chandra, M.D.
Assistant Professor of Medicine*

*Columbia University College of Physicians and Surgeons
New York, NY*

Training in pulmonary/critical care ultrasonography (PCCUS), including screening echocardiography, is of high priority to both fellows and pulmonary/critical care fellowship programs. Despite this, most programs struggle to train fellows to competency in diagnostic PCCUS beyond its use for procedural guidance.

Instruction in PCCUS and its application in real clinical situations require frequent, direct interaction between learners and faculty. They have to meet at the bedside to learn image acquisition techniques. Ideally, image interpretation and application of that information should also occur at bedside to provide clinical context. Due to constraints of time and schedules, this happens only sporadically, once initial training is complete. Image review often occurs distant from image acquisition, away from the bedside, and without the benefit of a clinical context.

Dr. Chandra proposes to validate a digital educational program for PCCUS that allows direct interaction between faculty and trainees even when they are separated physically in space and time.

This PCCUS educational program will include new interactive digital components, which will allow integration of ultrasound images and clinical histories. It will also provide a platform for faculty and trainees to interact in real time in the digital space. By being readily accessible and allowing a dialogue, this innovative program will facilitate interaction between fellows and faculty even when they cannot be physically present in the same room at the same time. The ability to link the clinical history with ultrasound images will enable integration of image acquisition and interpretation skills with application in real clinical scenarios encountered by fellows in their daily practice. By creating a portfolio of PCCUS studies performed by each fellow it will document their progress and inform competency assessments.

Simulation-Based Flexible Bronchoscopy Project for Critical Care



*Alice Gallo de Moraes, M.D.
Fellow, Critical Care Medicine*

*Mayo Clinic
Rochester MN*

The field of Critical Care Medicine is constantly evolving, and requires knowledge and skills to perform multiple procedures. The need to train physicians in those different procedures is an important component of fellowship programs. Standardizing bronchoscopy training and practicing in a safe environment are keys to master the technique and decrease potential errors when performing it on patients. Dr. Gallo de Moraes and the educational project team has developed a standardized simulation-based mastery learning course in flexible bronchoscopy for IM-CCM fellows. The aim is for fellows to understand the technique and ultimately to decrease procedural time, and improve performance. Those skills will all reflect on patient care and outcomes: less procedural time equals less anesthesia and its side effects, less complications including mucosal damage, bleeding and pneumothorax, higher yield bronchoalveolar lavage (BAL) samples collected by non-pulmonary trained fellows.

The key significance of this project is that implementing simulation-based bronchoscopy on a standardized fashion, with assessment tools that will provide constructive and outcome validity will ultimately decrease errors and increase the yield of bronchoscope procedures performed by IM-CCM trained fellows.

Teaching Disaster Preparedness to Medical Critical Care Fellows

Sabiha Hussain, M.D.

Assistant Professor of Medicine

Program Director

Sugeet Jagpal, M.D.

Instructor of Medicine

Robert Wood Johnson University Hospital

New Brunswick, NJ

A training gap in disaster medicine has been identified amongst medical critical care fellows. This program aims to develop a disaster medicine education curriculum that emphasizes education about and a prepared response to chemical, biological, radionuclear, explosive disasters, and naturally occurring disasters that would impact hospitals and intensive care units. It is hoped that critical care fellows would then be involved in developing an organized intensive care unit response to different disasters, and then participating in drills at both an ICU and hospital wide level to build practical (behavioral) competence.

A Novel Teaching Paradigm for Critical Care Ultrasound Education



*Rajeev Patel, M.D.
Assistant Professor of Medicine
Associate Program Director*



*Sahar Ahmad, M.D.
Assistant Professor of Medicine
Director of Pulmonary Ultrasound*

*State University of New York at Stony Brook
Stony Brook, NY*

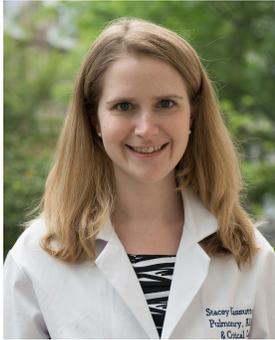
Since 2012, the Accreditation Counsel on Graduate Medical Education (ACGME) has mandated that all graduates of a pulmonary and critical care fellowship (PCCM) should be trained in ultrasound (US) for procedural and diagnostic use in the critically ill patient. At this time, no proven or comprehensive paradigm exists for US training at the PCCM fellowship level.

Recently, many methods have been reviewed for the effectiveness of teaching bedside US imaging techniques to medical trainees. Bedside US image recognition has been taught with successful retention of knowledge by online didactics (Krishnan et al 2013). Proctored instruction is effective at teaching image acquisition (Noble et al, 2007). Simulation training has been used successfully for US guided procedural training (Wayne et al, 2008) and the combination of multimedia and proctored hands-on instruction has been implemented with success in echocardiography training (Sekiguchi et al, 2012).

Dr.'s Patel and Ahmad aim to design, implement, and validate a comprehensive and multi-faceted curriculum delivered over a yearlong educational program. The program will incorporate many proven methods of US training including; simulation training, targeted and interactive didactics, escalating portfolio development, deliberate practice and real-time patient scanning. The program is novel in that it addresses major barriers to effective training in PCCM fellowships and engages the motivations of its trainees. It offers what is anticipated to be an effective instructional paradigm to US education and create a formalized dedicated curriculum for US training at the fellowship level for Pulmonary and Critical Care Medicine.

Darlene Buczak Award for Educational Excellence- Abstracts

Implementation of an Outpatient Pulmonary Fellowship Curriculum



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Introduction

The Accreditation Council for Graduate Medical Education has set forth core competencies and curricular milestones for trainees in pulmonary medicine. These milestones require that fellows work, communicate and transition care effectively across multiple health care settings, assimilate evidence from the literature into clinical practice, and demonstrate competence in the diagnosis, care, and treatment of patients with over sixty different clinical conditions in various disease stages.

The medical knowledge and patient care competencies outline many topics and disease states that are primarily seen in the outpatient clinic. However, most clinical training currently occurs in the inpatient setting. To the best of our knowledge, no standardized outpatient pulmonary curriculum is currently available for pulmonary fellowship training. We hypothesized that a structured case and evidence-based outpatient curriculum will provide a more robust and educational outpatient experience for the pulmonary fellow as assessed by a survey of trainees following the curriculum implementation.

Abstract Presentation

The outpatient fellows' curriculum consists of thirty-minute case-based conferences held bi-weekly before clinic. The pulmonary faculty of the Perelman School of Medicine at the University of Pennsylvania authored and facilitated the conferences. Faculty followed a teaching script format based on the previously published "Yale Office-Based Medicine Curriculum." The conferences were open to all fellows, regardless of training cohort.

A list of twenty core topics was generated based on fellow feedback and current expected pulmonary fellowship trainee competencies (see Table I). The teaching scripts with answers to case-based questions and citations to key references in the literature were provided at the end of each conference.

Discussion

Prior to the curriculum implementation, study participants were asked to complete an electronic survey regarding impressions of the existing outpatient pulmonary fellowship curriculum and provide a self-assessment of individual competence as outpatient pulmonologists. Participants were surveyed at six-month intervals thereafter. Conference attendance was also tracked and correlated with participant survey responses.

Twelve (71%; 4 female, 8 male) out of seventeen eligible fellows agreed to participate. Five (42%) of the participants were first year fellows and seven were from upper year cohorts. When asked on the pre-implementation survey about likelihood to attend a pre-clinic conference dedicated to outpatient pulmonary medicine topics, 92% (n=11) of fellows agreed or strongly agreed that they were likely to attend and 10 (82%) fellows felt that outpatient pulmonary clinic is crucial to overall pulmonary fellowship education. However, only 6 fellows (50%) agreed that the current instruction and teaching on clinically relevant outpatient pulmonary topics was adequate and only 5 (42%) fellows indicated that their current outpatient educational experience had prepared them well for independent pulmonary practice. Attendance among all fellows at the first six conferences was 55%. Among first year fellows, attendance was 92%. Assessment of the curriculum is ongoing. However, the pre-implementation survey results and conference attendance suggests that the curriculum's content and structure satisfies an otherwise unmet educational need.

Conclusion

There is a need to provide more robust training in outpatient pulmonology for the fellowship trainee. Case-based conferences are a feasible method for introducing a structured curriculum to address this educational need

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Fessler HE, et al. Entrustable Professional Activities And Curricular Milestones For Fellowship Training In Pulmonary and Critical Care Medicine: Report Of A Multi-Society Working Group. Chest 2014;146(3):813-834

In Yale Office-based Medicine Curriculum, eds. Julie R Rosenbaum, Seonaid Hay, Laura Whitman, 8th edition. New Haven, CT: Yale University. <http://yobm.yale.edu/>

Internal Medicine Subspecialty Milestones. The Accreditation Council for Graduate Medical Education and the American Board of Internal Medicine. October 2014. <https://www.acgme.org/acgmeweb/>

Table 1- Topics Included in Outpatient Fellowship Curriculum

COPD I	• Approach to inhaled medical therapies
COPD II	• Advanced therapies including chronic azithromycin, roflumilast and lung volume reduction surgery
Oxygen delivery equipment/Inhaler Techniques	• Review of oxygen delivery modalities and instructional approaches for teaching patients proper inhaler technique
Pleural Effusion	• Outpatient management of pleural effusion and indications for indwelling pleural catheters
Asthma in pregnancy	• Therapeutic approaches for the pregnant patient with asthma
Chronic Venous Thromboembolic Disease	• Review of management strategies and indications for lifelong anticoagulation
Introduction to Lung Transplantation	• Indications for lung transplant referral
Asthma	• Review of step-up asthma therapy and approach to severe, poorly controlled disease
Chart Documentation	• Instruction on how to communicate effectively to other health care providers through the written note
Management of Bronchiectasis	• Review of differential diagnosis, airway clearance techniques and therapeutic approaches in bronchiectasis
Chronic Cough Management	• Diagnostic and therapeutic strategies for chronic cough
Pulmonary Hypertension Management	• Review of initial evaluation of pulmonary hypertension for the general pulmonologist
Introduction to Interstitial Lung Disease	• Initial diagnostic approach and differential considerations in ILD
Reactive Airways Dysfunction Syndrome	• Evaluation and treatment strategies
Outpatient Pulmonary Palliative Care	• Approach to medical management of dyspnea at the end of life
Initial Evaluation of Hemoptysis	• Diagnostic and therapeutic strategies for patients with hemoptysis
Evaluation of the Pulmonary Nodule	• Review of Fleischner Society Criteria and indications for tissue biopsy
Chronic Non-Invasive Ventilation	• Management of Chronic Respiratory Failure
Sarcoidosis	• Therapeutic strategies and monitoring practices
Neuromuscular Pulmonary Disease	• Initial evaluation and differential considerations

Incorporation and Impact of a Formalized Mentoring Program for First Year Fellows in Pulmonary and Critical Care Medicine Fellowship Training



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Introduction

Mentorship is vital to success in any field of medicine. It is recognized as an important influence on career selection, academic advancement and productivity, promotion and satisfaction. Despite this, mentorship is often undervalued in academic medicine and, the development of these vital relationships is challenged by increasing clinical, research and administrative demands. To address these issues, we devised and incorporated an innovative mentorship program for our first year fellows. The program was designed based on results from a comprehensive mentoring survey administered to current faculty, fellows and past fellows. The survey assessed the current state of mentoring and identified barriers and characteristics needed to help promote an effective mentoring relationship. We then evaluated the impact after successfully implementing the mentorship program.

Abstract Presentation

A baseline survey was conducted among current fellows (n=16) and faculty (n=50), and past fellows (n=19) within the PCCM division to assess the importance of mentorship and identify barriers to successfully implement an effective mentorship program. Surveys were received from 62/85 participants (72.9%). A formalized mentoring program was then initiated for the incoming first year PCCM fellows to help meet the following objectives: goal setting, career planning, address work-life balance, increase the fellows academic productivity and career satisfaction during fellowship.

Initially, the fellows career interests and plans, goals and objectives with the mentorship, along with their personality characteristics were identified by the program leadership to aid in pairing them with interested faculty. A one hour mentoring workshop was conducted at the beginning of the program for both mentors and mentees. Effectiveness of the program was assessed through quarterly surveys, a validated evaluation form (Berk 2005), semi-structured interviews at the end of one year and review of fellows curriculum vitas for publications.

Discussion

Baseline mentoring surveys identified several themes. First, mentoring was identified as important in medicine (100%) and influenced career choice (60%). Areas of greatest perceived importance were in academic promotion (77%), career planning (80%), and goal achievement (80%). Past fellows expressed a desire to have been matched with a mentor during fellowship (90%) and preferred more help with career planning (56%). Among current fellows, 28% did not identify a mentor and 90% desired more help with career planning. Faculty and fellows differed in the perceived benefit of mentoring related to institutional politics (74% faculty vs. 56% fellows) and work-life balance (85% fellow vs 55% faculty), demonstrating how the focus of mentoring relationships may change over time. Several barriers to effective mentorship were identified, including lack of familiarity with faculty interests, not knowing how to initiate a mentoring relationship and time commitment. (Chart 1) These barriers were addressed as we devised and incorporated our mentorship program for the first year fellows.

Mentoring effectiveness was assessed after one year using a previously validated tool (Berk 2005). This scale assesses twelve essential mentoring characteristics and can be used to help evaluate and provide feedback on mentoring. The median score and interquartile range for each item is listed in table 1. Academic productivity over the first year of fellowship increased (18 vs 2 publications, $p=0.02$) after the initiation of the mentoring program. Semi-structured qualitative interviews demonstrated increased satisfaction by all fellows involved. Statements from involved fellows included *“My mentor provided a safe environment for me to ask questions and discuss big decisions, I would not have had the opportunities or productivity I have had without my mentor”*.

Conclusion

We successfully developed and incorporated an effective mentorship program for our PCCM fellows after identifying and addressing barriers. It is now an established and integral part of our PCCM fellowship program.

Chart 1: Fellow perceived Barriers to Mentorship (Pareto chart)

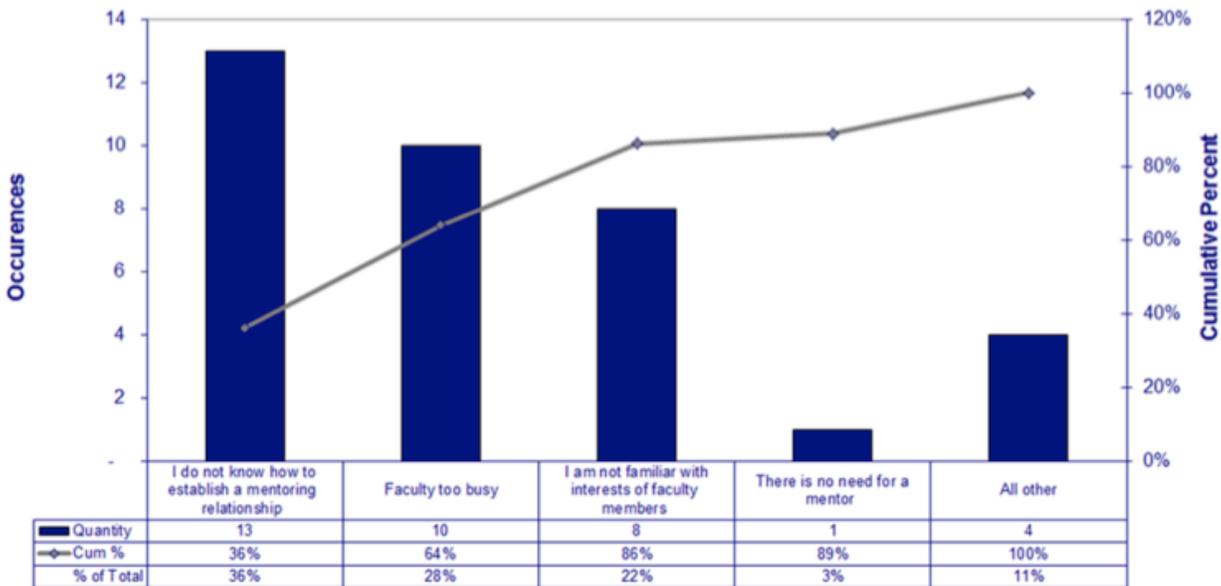
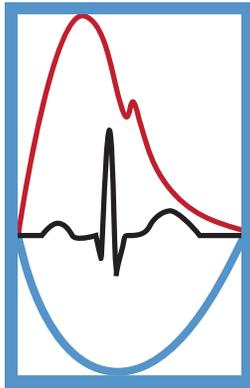


Table 1: Mentoring Evaluation Tool (Berk 2005)

Mentoring characteristic	Median (IQR)
Accessible	5 (4.75-5)
Professional Integrity	5 (5-5)
Content Expertise	5 (3.75-5)
Approachable	5 (5-5)
Supportive and Encouraging	5 (5-5)
Instructive and Useful Critique	5 (5-5)
Increased motivation	5 (5-5)
Helpful in providing direction	5 (5-5)
Answering questions satisfactorily	5 (5-5)
Acknowledge my contributions	5 (5-5)
Suggested approachable resources	5 (5-5)
Challenged me to extend abilities	5 (5-5)

Tool uses a Likert scale to rate agreement with the statement (0=strongly disagree, 5= strongly agree)



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