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APCCMPD Award for Medical Education Research

The **APCCMPD Award for Medical Education Research** recognizes pulmonary, critical care, and pulmonary critical care medicine Training Program Directors, Associate Program Directors, Clinical Faculty, and Fellows-in-Training for their outstanding contributions and commitment to medical education research. The recipient is selected for conducting innovative research focused on undergraduate or graduate medical education in pulmonary, critical care, and pulmonary critical care medicine.

To ensure impartial evaluation, all submissions are anonymized before review. Reviewers assess each abstract without knowledge of the investigators or their institutional affiliations, ensuring a merit-based selection process.

The APCCMPD honors the contributions of all 2025 applicants:

Rutendo Jokomo-Nyakabau, MD
Cleveland Clinic

Congratulations to the 2025 awardee:

Mahmoud Alwakeel, MD
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Evaluating the Influence of the COVID-19 Pandemic on In-Training Exam Scores: A Retrospective Study of Pulmonary and Critical Care Medicine Fellows at the National Level

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BACKGROUND

Between 2020 and 2022, the COVID-19 pandemic affected health and economic systems worldwide, and it dramatically impacted education paradigms for learners of all ages, including medical trainees.(1) This period led to decreased or canceled outpatient clinics and increased time in inpatient and ICU services for many trainees.(2) As medical training typically follows an apprenticeship model, these changes raised concerns among trainees about their future preparedness for independent practice, progress toward career goals, and overall well-being. Although there were suggestions that these changes might hinder cognitive performance, the actual effects on trainees' clinical knowledge remain uncertain.(3) Understanding the impact of the COVID-19 pandemic on cognitive performance among medical trainees is crucial for developing educational strategies and supporting trainee well-being in future crises. This study aims to determine the pandemic's impact on the performance of Pulmonary Critical Care Medicine (PCCM) fellows on the in-training exam (ITE).

METHODS

This retrospective, national study included all PCCM fellows in the United States who completed the ITE from April 2015 to July 2022. Participants were categorized into three cohorts based on the exam date: Pre-pandemic (ITEs before March 1, 2020), 1st COVID wave (ITEs between March 1, 2020, and June 30, 2021), and 2nd COVID wave (ITEs after July 1, 2021). We used a linear mixed-effects model to analyze the relationship between the pandemic and ITE scores.

RESULTS

A total of 12,774 ITE scores from 8,391 PCCM fellows were analyzed. The average age across the cohorts was 32.5 years (SD 2.82), with 31.4% being female. We used a linear mixed-effects model to examine the relationship between pandemic stages and ITE scores (Table 1). During the first COVID wave (CW1), there was a 1% improvement in total ITE scores and a 2% improvement in pulmonary subsection scores compared to pre-pandemic (PP) levels [total ITE coefficient = 0.98 (95% CI 0.22 – 1.74, p=0.01); pulmonary ITE coefficient = 1.49 (95% CI 0.06 – 2.92, p=0.04)]. No significant changes were observed in the critical care subsection scores [coefficient = 0.19 (95% CI -0.73 – 1.11, p=0.68)]. Scores during the second COVID wave (CW2) did not differ significantly from the pre-pandemic period [total ITE coefficient = -0.61 (95% CI -1.46 – 0.24, p=0.16); pulmonary ITE = 0.17 (95% CI -1.33 – 1.68, p=0.81); critical care = -0.78 (95% CI -1.81 – 0.25, p=0.14)].(Figure 1)

CONCLUSION

In conclusion, Pandemic impacts on cognitive performance were minimal despite frequent disruptions to clinical and educational norms, likely buffered by enhanced self-study opportunities among trainees early on.

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FIGURE 1.

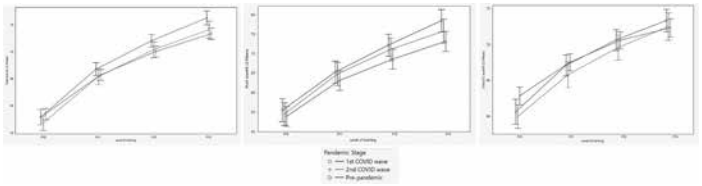
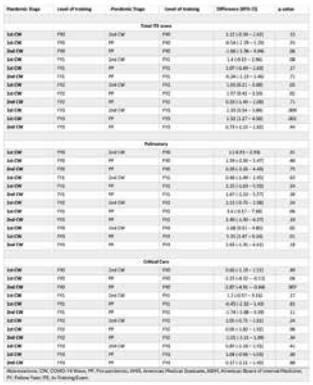


TABLE 1. Pairwise Comparison of Estimated Least Squares Means for Different Training Levels Across Various Pandemic Stages



A Multifaceted Simulation-Based Program to Enhance Internal Medicine Resident Procedural Training in the Medical Intensive Care Unit

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BACKGROUND

Simulation was first utilized in aviation and has expanded to encompass multiple disciplines including medical education.(1) In medicine, anesthesia was the first to incorporate simulation-based training as early as the 1950s. (1) Simulation-based medical education (SBME) is now widely accepted in internal medicine (IM) residency training to assess competency and remediate deficiencies particularly in procedural training.(1-3) It enables trainees to practice and perfect high-stakes procedures without risk to patients.(4-6) Schroedl et al(7) demonstrated that SBME significantly improves resident knowledge and skill in the medical intensive care unit (MICU), which translates to improved bedside patient care.

Creighton University Medical Center is an urban university-affiliated teaching hospital with 75 IM residents. Residents rotate through the MICU in one-month blocks and complete about four months in the MICU by the time they graduate. Yet, the majority of them report limited experience and comfort with routine MICU procedures at the end of their residency training. In a survey completed by PGY1-PGY3 residents in our institution, only 46% of PGY3 residents reported >10 procedures performed since their first year. 27.5% of all respondents stated they had never performed a procedure during their MICU rotation. 60% reported that they were not at all comfortable with internal jugular central line placement, 82% with femoral central lines and 42.2% with radial arterial lines. The number of procedures performed, and the comfort level did not significantly vary based on resident interest.

We developed this project to address this gap in competency and confidence among our residents. The project aimed to implement a comprehensive simulation-based training program to enhance the IM residency procedure training in the MICU, improve IM resident competency; and ultimately enhance patient safety.

METHODS

Simulation-based central venous catheter (CVC) placement training was led by IM chief residents, PCCM fellows, and faculty throughout the month that residents rotated in the MICU. This was achieved using a multifaceted approach that included PowerPoint presentations, video demonstrations and low-fidelity simulation-based hands-on sessions with real-time feedback. In the first week of the MICU rotation, residents completed an electronic pre-test form to assess their procedural knowledge prior to initiation of the simulation-based program. Residents then received introductive training through fellow-led PowerPoint presentations. After the initial introduction, residents were required to review videos developed by Creighton University PCCM faculty and fellows. Thereafter, residents received simulation-based CVC placement training using low-fidelity simulation models under direct supervision of MICU faculty and fellows. Faculty and fellows used a standardized check list to assess residents' competence and offer real-time feedback during the simulation session. In the last week of the rotation, residents completed a post-test survey to assess their medical knowledge at the end of the rotation. The mean change from pre to post was tested using paired-samples t-test.

RESULTS

A total number of 25 residents participated in the course between August 1, 2022 and February 1, 2023. Residents who completed the pre- and post-test out of order were excluded from analysis. A total of 23 residents were included in analysis. There was a statistically significant increase in objective knowledge from pre- to post- ($p = 0.03$); with a mean change of + 11% from pre- to post-test results (Figure 1).

CONCLUSION

This multifaceted procedure training course that incorporated PowerPoint presentations, video demonstrations and hands-on training with low fidelity simulation models was associated with a statistically significant increase in objective knowledge from pre- to post-test among IM residents who were rotating in the medical ICU. Such an approach can be applied in similarly sized residency programs to enhance critical care procedural training among IM residents and offer opportunities for PCCM fellows to engage in near-peer education.

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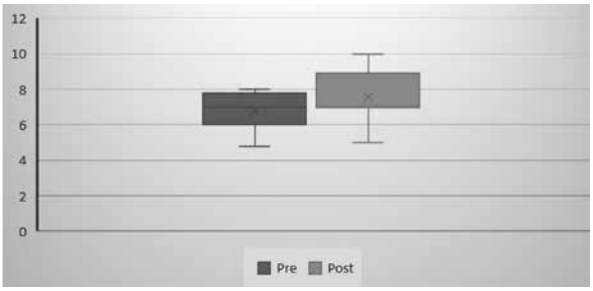
FIGURE 1. Summary of Pre- and post-test results for IM residents who completed MICU procedures Course



APCCMPD Award for Novel Medical Education Implementation

The **APCCMPD Award for Novel Medical Education Implementation** recognizes pulmonary, critical care, and pulmonary critical care medicine Training Program Directors, Associate Program Directors, Faculty, and Fellows-in-Training for their outstanding contributions and commitment to fellowship medical education and training. The recipient is selected for development of novel and innovative curricular development in their training program.

To ensure impartial evaluation, all submissions are anonymized before review. Reviewers assess each abstract without knowledge of the investigators or their institutional affiliations, ensuring a merit-based selection process.

Congratulations to the 2025 awardee:

James M. Walter, MD
Northwestern University
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The APCCMPD honors the contributions of all 2025 applicants:

Mary Barrosse-Antle, MD
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2025 AWARDEE

Simulation-Based Mastery Learning Improves Advanced Communication Skills in Critical Care Medicine Fellows and Advanced Practice Providers

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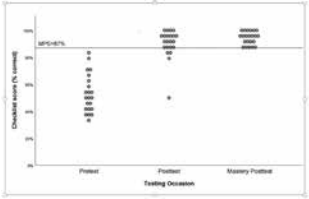
INTRODUCTION

Effective goals of care (GOC) conversations for critically ill patients are associated with positive outcomes including increased goal-concordant care and improved bereavement outcomes for caregivers. The Accreditation Council for Graduate Medical Education recognizes the importance of communication skills for critical care medicine (CCM) fellows, outlining core competencies in patient- and family-centered communication as well complex communication around serious illness. Despite this, there is no standard competency-based approach to ensure reliable skill acquisition for ICU clinicians. Simulation-based mastery learning (SBML) provides a compelling framework for competency-based education. In SBML, feedback and deliberate practice are used to ensure learners meet a series of performance benchmarks defined by a minimum passing standard (MPS). We have developed a SBML GOC curriculum for ICU clinicians which includes a robust communication skills assessment and a defensible MPS. The purpose of this study was to implement the SBML GOC curriculum for a cohort of CCM fellows and advanced practice providers (APPs) and demonstrate the feasibility of bringing all to mastery.

ABSTRACT PRESENTATION

Advanced practice providers and first year CCM fellows at an academic medical center participated in a one-day communication skills course. Participants completed a pretest encounter with a standardized patient, then received focused feedback using a 24-item standardized assessment tool with established inter-rater reliability. Next, they participated in an 8-hour workshop which included focused didactics, demonstrations by trained faculty, and deliberate practice informed by VitalTalk methodology. After the workshop, each participant completed a posttest encounter with a standardized patient. This was scored using the assessment tool. Those who did not meet the MPS received additional deliberate practice until the MPS was met on repeat post testing. Twenty-six participants (seven APPs and 19 CCM fellows) were eligible and 22 (85%) completed the curriculum. Two fellows did not provide consent, and two fellows were unable to complete all components (one due to illness and one due to a scheduling conflict). The final cohort included seven APPs and 15 CCM fellows. The majority (68%) were male and 55% reported previous training in GOC conversations. No participant met the MPS on pretesting (Figure 1). Participation in the curriculum significantly improved the communication skills of learners as assessed by our standardized assessment tool (Table 1). Checklist performance improved from a median score of 50% (IQR 41.67%, 63.54%) at pretest to 91.67% (IQR 87.50%, 95.83%) at initial posttest and 95.83% (IQR 90.63%, 100%) after reaching mastery (both $p<0.001$). All learners met the MPS after course completion. Four learners needed an additional session of deliberate practice to meet the MPS. Ninety-five percent of learners agreed or strongly agreed that they enjoyed the workshop and would recommend it to colleagues.

FIGURE 1. GOC checklist performance for 22 intensivists at pretest, initial posttest, and mastery posttest.



DISCUSSION

We previously developed a rigorous SBML GOC curriculum for ICU clinicians. Here, we show that the implementation of this curriculum for a cohort of CCM fellows and APPs is feasible and results in improved communication skills with all participants achieving the predefined mastery standard. While over half of our learners reported previous training in leading GOC conversations, no participant met the MPS on pretesting. This highlights the importance of a competency-based approach to advanced communication skills training for ICU clinicians. Limitations of our study include its single-center design, the resource-intensive nature of our educational intervention, and the lack of long-term follow-up data including skills retention.

CONCLUSION

To our knowledge, we are the first to show that a SBML GOC curriculum can be successfully implemented for CCM fellows and APPs. Our approach provides a framework for rigorous competency-based communication skills training for ICU clinicians. We next plan to assess the impact of our curriculum on the quality of bedside communication and patient outcomes.

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TABLE 1. Number % of fellows and advanced practice providers performing each item correctly on the discussing late goals of care assessment tool.[a]

Item	Pretest correct (N=22)	Mastery posttest correct(N=22)	P-value
REMAP, no. (%)			
Creates rapport when first walking into room.	22 (100%)	19 (86%)	.23
Proposes agenda for the meeting	13 (59%)	20 (91%)	.04
Assesses patient/family understanding of the current medical situation	20 (91%)	22 (100%)	.48
Elicits an accurate understanding of the current medical situation OR provides any missing information	22 (100%)	20 (91%)	.48
Elicits patient/family understanding of what the current medical situation means about the future	11 (50%)	18 (82%)	.06
Reframe – Reframes incomplete patient/family understanding about the future OR elicits an accurate understanding	20 (91%)	22 (100%)	.48
First statement after the reframe is an empathic statement	4 (18%)	19 (86%)	<.001
Elicits the PATIENT'S values in the context of the reframe	12 (55%)	22 (100%)	<.001
Aligns with patient's values by summarizing AND confirms the summary is accurate	6 (27%)	21 (95%)	<.001
Asks permission to offer a recommendation	1 (5%)	20 (91%)	<.001
Gives a recommendation that is aligned with patient values, agrees with a family-provided value-based plan, or respects a desire to not receive a recommendation.	12 (55%)	22 (100%)	<.001
Positively frames medical	13 (59%)	21 (95%)	.009
Confirms agreement with plan.	21 (95%)	22 (100%)	-
General Patient-Centered Interviewing Skills, no. (%)			
Avoids medical jargon	14 (64%)	18 (82%)	.52
Only shares a specific prognostic estimate if patient/family asks or gives permission	20 (91%)	22 (100%)	.48
Gives information in small chunks	11 (50%)	22 (100%)	.002
Adjusts conversation pace based on patient/family readiness	16 (73%)	21 (95%)	.10
Avoids asking for a decision before discussing values	13 (59%)	22 (100%)	.001
Quality of Communication, no. (%)			
Verbally responding to the patient's emotion[b]	7 (32%)	21 (95%)	<.001
Non-verbally responding to the patient's emotions[b]	10 (45%)	22 (100%)	<.001
The clinician conveyed a clear and concise "reframe"[b]	1 (5%)	18 (82%)	<.001
The clinician elicited values to obtain a thorough picture of what was important to the patient within the context of the reframe[b]	2 (9%)	22 (100%)	<.001
The clinician was able to provide clear guidance on how to proceed that was based on the patient's values[b]	5 (23%)	20 (91%)	<.001
Overall, how would you rate this clinician's communication with the patient?[b]	4 (18%)	22 (100%)	<.001

[a] The assessment tool was previously developed and validated in an initial pilot program. The item descriptions below are abbreviated for space. The full tool can be referenced in the original pilot study (Walter reference).
[b] This item is scored on a 1-5 scale with behaviorally-based anchors. The wording of the anchors is available in the original pilot study.(Walter reference) Correct is defined a score of 4-5 on the scaled items.

Forget "Ready To Quit": A Behavioral Approach To Tobacco Use Disorder Treatment Education

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INTRODUCTION

A primary goal of Pulmonary and Critical Care Medicine (PCCM) fellowship is to train physicians to practice evidence-based medicine and reduce the burden of pulmonary disease in the population. Smoking is the leading cause of preventable disease and death in the United States and is known to disproportionately affect individuals with lower socioeconomic status.(1) Despite this, only two-thirds of patients are advised to quit by a health professional, and less than one-third use medications to aid cessation efforts.(2) One known barrier to engaging patients in tobacco use disorder (TUD) treatment is providers' belief that interventions have a low likelihood of success.(3) Existing TUD curricula in PCCM training are limited and may require significant time commitment from learners and local faculty experts, limiting feasibility. We hypothesized that a brief online curriculum, focused on reframing the way providers think about and counsel patients on nicotine dependence, followed by a clinic experience would improve fellows' knowledge and attitudes about TUD.

ABSTRACT PRESENTATION

We created a 35-minute, online, interactive module using Articulate Rise e-learning platform. The module emphasizes the nature of nicotine addiction, the importance of medication to facilitate readiness to quit, techniques to minimize medication side effects, and counseling strategies. Knowledge checks, reflection questions, simulated patient interactions, and videos of an expert demonstrating communication skills are placed throughout the module to encourage engagement and skill application. First-year PCCM fellows at the Hospital of the University of Pennsylvania were required to independently complete the module in the two weeks prior to attending a half-day session in TUD clinic. Before beginning the online module and after the clinic session, fellows were invited to complete a voluntary online assessment consisting of knowledge-based items and self-efficacy Likert-scale items related to TUD. A cumulative score was calculated for the four knowledge items, and differences in pre- and post-course assessments were analyzed using paired t-testing, with one-sided testing for composite knowledge score and two-sided testing for individual self-efficacy questions (as it is possible for confidence to decrease when learning more about a topic). A p-value of less than 0.05 was considered significant.

DISCUSSION

All nine eligible fellows participated in the curriculum between January and June of 2024, with eight completing both the pre-test and post-test assessments. At baseline, fellows reported less confidence in treating TUD compared to other pulmonary conditions, except interstitial lung disease (Table 1). Completion of the curriculum was associated with a significant increase in TUD knowledge scores (mean change +35.38%, p=0.0012). There were significant increases in Likert confidence ratings for ability to treat TUD (mean change +1.25, p = 0.0001224), troubleshoot side effects (mean change +2.13, p=0.00050845), and counsel patients (mean change +1.00, p=0.033), whereas confidence in having a successful interaction with a patient with TUD did not change (mean change +0.38, p=0.285) (Table 2). In response to free-text questions about the effectiveness of the curriculum, fellows appreciated the interactive nature of the online module. They felt that it paired well with the clinic session, in which they could apply the skills they had learned.

CONCLUSION

A brief online module followed by one TUD clinic session significantly improved fellows' knowledge and increased confidence in ability to treat TUD, troubleshoot side effects, and counsel patients. Further work is needed to understand whether these changes in attitudes translate to behavior changes, especially given the confidence in having a successful encounter with a patient with TUD did not change, and to explore alternatives for settings where clinic experience is not feasible. We plan to adapt and scale this intervention to different settings, including other institutions and different learner levels.

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TABLE 1. Relative Confidence in Ability to Treat TUD Compared to Other Pulmonary Conditions

Pulmonary condition	Confidence in ability to treat, mean (standard deviation)
Chronic obstructive pulmonary disease	4.22 (0.44)
Asthma	3.89 (0.60)
Interstitial lung disease	2.67 (0.50)
Community-acquired pneumonia	4.89 (0.33)
Venous thromboembolism	5.00 (0.00)
Solitary pulmonary nodule	4.22 (0.44)
TUD, pre-test	3.00 (0.71)
TUD, post-test	4.25 (0.71)

TABLE 2. Analysis of Pre- and Post-Test Assessment of Knowledge and Self-Efficacy Related to TUD

	Pre-test mean (standard deviation)	Post-test mean (standard deviation)	Mean difference	p-value*
Knowledge items composite score	49.78 (11.67)	85.13 (14.19)	35.38 (17.76)	**0.0012**
Successful interaction confidence	3.22 (0.97)	3.50 (1.07)	0.38 (0.92)	0.285
TUD treatment confidence	3.00 (0.71)	4.25 (0.71)	1.25 (0.46)	**0.0001224**
Troubleshooting side effects confidence	3.56 (1.51)	3.86 (0.83)	2.13 (0.99)	**0.00050845**
TUD counseling confidence	3.11 (1.27)	4.00 (0.53)	1 (1.07)	**0.033**

*Results of paired t-testing, with one-sided testing for knowledge items composite score and two-sided testing for confidence items

High-Acuity, Low-Occurrence Procedural Simulation Training For Pulmonary And Critical Care Medicine Fellows

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INTRODUCTION

High-acuity, low-occurrence (HALO) procedures are high-stakes interventions that occur rarely during routine patient care. Examples include gastroesophageal balloon tamponade device placement, endobronchial blocker placement, and needle decompression of a tension pneumothorax. These are essential skills for future critical care physicians to learn during their training since they may be expected to perform these procedures independently upon becoming an attending. In 2021, a national survey of Pulmonary and Critical Care Medicine (PCCM) and Critical Care Medicine program leadership revealed that most respondents' programs did not have dedicated training for HALO procedures. (1) Simulation is an ideal format for teaching and maintaining competency in HALO procedures given the need for hands-on training despite infrequent opportunities to practice in clinical settings. Procedural simulation has been shown to improve learners' procedural knowledge, confidence, skills, and behaviors, including for HALO events such as massive hemoptysis.(2,3) We hypothesized that a half-day simulation session spent practicing multiple HALO procedures would improve fellows' knowledge and confidence in performing these procedures.

ABSTRACT PRESENTATION

Twenty PCCM fellows at the Hospital of the University of Pennsylvania completed a needs assessment in which they ranked their interest in learning several HALO procedures in a simulation setting. We developed simulated procedural skills stations for the four procedures that were ranked as the top priority by the highest percent of fellows in the needs assessment: subclavian central line placement (35%), endobronchial blocker placement (10%), gastroesophageal balloon tamponade placement (10%), and needle decompression of a tension pneumothorax (10%). Each of the four 45-minute stations was proctored by an attending with expertise in performing the designated procedure. In the spring of 2024, PCCM fellows were invited to participate in the optional three-hour session. Before and after the simulation session, fellows completed an optional evaluation assessing knowledge and confidence in independently performing the designated procedures. Confidence was measured by a five-point Likert scale (1=very unconfident, 2=unconfident, 3=neither unconfident nor confident, 4=confident, 5=very confident). The post-session survey also elicited feedback on the quality of the session (1=very poor; 5=very good), appropriateness of the amount of time allotted for each procedure, and open-ended questions for general session feedback. Survey responses were reviewed to identify trends and signals in the data.

DISCUSSION

The simulation session was limited to eight fellow participants to ensure adequate time for hands-on practice. Seven fellows (87.5%) completed the unpaired pre- and post-session surveys. We observed increases in the combined average score on the four knowledge questions (50.00% to 85.71%). In addition, we observed an increase in procedural confidence for endobronchial blockers (1.86 to 4.00), gastroesophageal balloon tamponade devices (2.00 to 3.86), subclavian central lines (1.71 to 3.14), and needle decompression of pneumothorax (2.57 to 4.14). 100% of respondents rated the quality of the session as "very good," and 71% of the respondents felt that the right amount of time was allotted to practicing the procedures.

CONCLUSION

Simulation training provides opportunities to improve knowledge and confidence in performance of several HALO procedures among PCCM fellows, including decompression of tension pneumothorax and placement of gastroesophageal balloon tamponade devices, bronchial blockers, and subclavian lines. Based on participant feedback, the simulation sessions have made a positive impact on existing fellowship training and fulfilled an unmet need in PCCM training for patients who are at high risk of morbidity and mortality.

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Innovative E-Learning for Mechanical Ventilation: A Solution for Standardized Training Across Resource-Limited and Diverse Backgrounds

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INTRODUCTION

Mechanical ventilation education is often inconsistent and fragmented. A meta-analysis of 15 studies found that trainees across various subspecialties expressed dissatisfaction with their mechanical ventilation training (Keller et al., 2019). We believe this is largely because most ventilator teaching occurs informally during bedside rounds. The time constraints inherent in bedside teaching make it difficult to create a standardized curriculum, leading to knowledge gaps among trainees. This prompted the medical education researchers to develop a standardized curriculum using a competency checklist, incorporating high-fidelity simulation, live lectures, and small group bedside teaching. While their results showed promise, the scalability of this approach presents significant challenges due to the economic and logistical burdens it places on institutions.

ABSTRACT PRESENTATION

We developed a novel, cost-free, self-sustaining e-learning platform based on the competency checklist published recently by Pervaiz et al. to provide a standardized mechanical ventilation curriculum without the economic and faculty time burdens. Our curriculum targeted fellows in pulmonary and critical care medicine. We created an e-learning simulator that mimicked the case scenarios used in the previous study by Pervaiz and colleagues but eliminated the need for high-fidelity simulation. All participating trainees completed a baseline knowledge pre-test prior to beginning the curriculum. We tracked each trainee's progress through Edpuzzle, an online platform that allows for interactive learning by pausing simulations and presenting questions to assess key competency checkpoints. This enabled us to closely monitor the development of specific skills in real time. In addition to the simulation, we produced high-quality, on-demand instructional videos using lightboard technology. These videos covered a broad spectrum of topics, ranging from respiratory mechanics and ventilator taxonomy to clinical applications. We used Edpuzzle to track video engagement, ensuring complete participation from all trainees.

DISCUSSION

One month after completing the e-learning modules, participants took a post-test and repeated the simulator exercise to assess knowledge retention and application. We have collaborated with an additional fellowship program to expand the participant pool, with the aim of improving the validation and transferability of this proposed curriculum. To date, we have fully implemented this curriculum with 12 pulmonary and critical care fellows. The mean score on the pre-test was 66.1 ± 10.81%, and the mean score on the post-test was 85 ± 13.37% with a p-value of 0.0010, showing a significant improvement in knowledge (Figure 1). All of our pre-test data is consistent with the baseline knowledge assessment done in the original pilot study by Pervaiz and colleagues. Amongst the 6 fellows who completed the virtual simulator assessment, the mean score on the pre-test was 46.56 ± 5.40% and the mean score on the post-test was 72.94 ± 6.86%, significant at a p-value of 0.000023 (Figure 2). Preliminary data suggests we are on track to meet or surpass the outcomes reported by Pervaiz et al., demonstrating that our e-learning platform can be effectively scaled to meet the needs of fellowship programs globally, particularly in resource-limited settings. Furthermore, by making the curriculum widely accessible and cost-free, we aim to enhance opportunities for trainees from underrepresented backgrounds, contributing to greater inclusivity and helping reduce disparities in educational access.

CONCLUSION

Our innovative e-learning platform offers a scalable, cost-effective solution to the challenges of mechanical ventilation education. By minimizing the need for high-fidelity simulation and extensive faculty involvement, we believe this curriculum has the potential to standardize training and address the gaps in mechanical ventilation education, particularly in institutions with limited resources and among trainees from diverse backgrounds.

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FIGURE 1. Mean (± standard deviation) pre- and post-training knowledge assessment scores of fellows (n=12) who participated in mechanical ventilator curriculum using paired samples t-test.

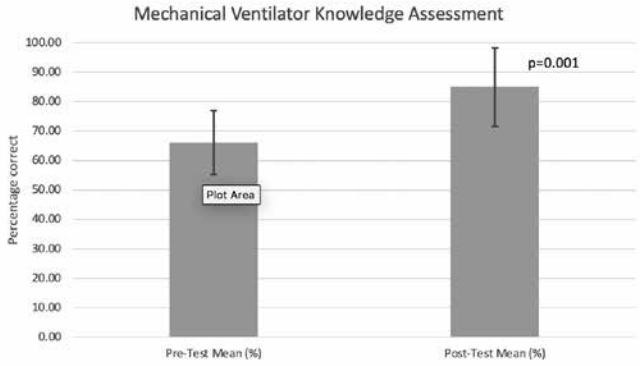
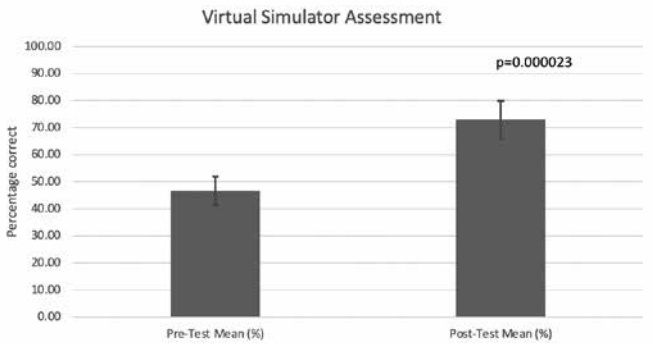


FIGURE 2. Mean (± standard deviation) pre- and post-training virtual simulator assessment scores of fellows (n=6) who participated in online mechanical ventilator curriculum using paired samples t-test.



Implementation of Sleep Continuity Clinic: Impact on Perceived Educational Benefits in a Pulmonary and Critical Care Fellowship

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INTRODUCTION

Training in sleep medicine is identified by the Accreditation Council for Graduate Medical Education (ACGME) as a core competency of pulmonary and critical care medicine (PCCM) training programs and represents ten percent of the pulmonary board exam. Core competencies include evaluation and management of sleep-disordered breathing, continuous positive airway pressure, and access to a diagnostic laboratory for sleep disorders. Despite these requirements, specific guidance to obtain sleep training is lacking. Here we explore the implementation of a continuity clinic in sleep medicine in conjunction with a designated sleep medicine rotation and the impact on graduates' confidence, core competency, and interest in sleep medicine.

ABSTRACT PRESENTATION

A sleep medicine continuity clinic was implemented at Mayo Clinic's PCCM fellowship in 2015. Continuity clinic in sleep medicine consisted of one half-day clinic per month during the second year of fellowship. All PCCM fellows rotated in a month-long sleep medicine rotation. Mayo Clinic PCCM graduates from the last ten years (2013-2023) were surveyed anonymously regarding their sleep training experience. Respondents were stratified by sleep continuity clinic plus sleep medicine rotation versus a sleep medicine rotation alone (Table 1). Questions were administered on a one-to-five-point Likert scale; one being "Poor," 3 "neutral", and 5 "Outstanding." This study was deemed exempt by the Institutional Review Board at Mayo Clinic. Sixty-eight PCCM graduates were surveyed with 42 (61.7%) respondents over the three-week survey period. Twenty-five respondents had a sleep medicine continuity clinic while 17 of respondents had a sleep medicine rotation alone. When asked about their comfort in "diagnosing sleep disorders," those with a sleep rotation alone averaged 3.11 and those with a sleep continuity clinic averaged 3.96 ($p=0.03$). When asked about their comfort in "managing sleep disorders," those with a sleep rotation alone averaged 2.76 and those with a sleep continuity clinic averaged 3.52 ($p=0.02$). Neither group felt their sleep education prepared them to practice sleep medicine (2.80 and 2.91, $p=0.58$) and neither group felt prepared to manage chronic respiratory failure with home-based mechanical ventilation (2.88 and 2.36, $p=0.23$). Both groups felt a sleep rotation was helpful for pulmonary board preparation (avg 4.00 and 4.08). The sleep continuity clinic group also felt it positively impacted board preparations (mean=3.56). Of all graduates surveyed, 38% practice some sleep medicine, while six (14 %) pursued sleep fellowship. Among both groups, sleep rotation and sleep continuity clinic had a positive impact to pursue sleep fellowship. Most respondents (90%), believe a sleep medicine rotation should be mandatory.

DISCUSSION

Qualitative assessment for our graduates over a ten-year period provides valuable insights into the sleep medicine experience of PCCM fellows during training. As sleep medicine training is highly variable across PCCM fellowship, this study provides valuable insight into the impact of a dedicated sleep medicine rotation as well as a sleep continuity clinic. Given the management of noninvasive ventilation and chronic ventilator management are frequently encountered in ICU care, the addition of a sleep rotation strengthens trainees foundations even if they do not pursue sleep medicine fellowship. Topics frequently covered in sleep training not covered elsewhere might include positive pressure titration, mask fitting, interpretation of sleep studies/overnight oximetry, insurance qualification for non-invasive devices, home mechanical ventilators, tracheostomy care, sleep physiology, restrictive/obstructive ventilatory failure, pharmacotherapy, and other sleep disorders.

CONCLUSION

Continuity clinic in sleep medicine had a statistically significant impact on graduates' confidence in diagnosing and managing sleep disorders. Our survey shows graduates of PCCM fellowship at Mayo Clinic believe a sleep medicine rotation and continuity clinic had a positive impact on board preparation, core competency, and basic diagnosis and management of sleep disorders. Fellowship training programs in PCCM should consider a structured curriculum on sleep medicine, focused on the ACGME core competencies, to include a sleep medicine rotation and continuity clinic experience. Training in home-based mechanical ventilation was identified as an additional important training need during PCCM fellowship.

TABLE 1. Sleep Survey Questions Average scores on One to Five Point Likert Scale.*

Question†	Sleep Rotation N=17	Sleep Rotation + CC N= 25	P= Value
A	3.11	3.96	0.027
B	2.76	3.52	0.022
C	2.8	2.91	0.58
D	2.88	2.36	0.23
E	4.00	4.08	0.71
F	n/a	3.56	
G	82% Mandatory	96 % Mandatory	

*All questions based on a 1 to 5-point Likert scale with 1 being "Definitely not," 3 neutral, and 5 being the highest with "definitely yes."

† Question References:

A. How comfortable were you as a graduating PCCM fellow in diagnosing sleep disorders?
B. How comfortable were you as a graduating PCCM fellow in managing sleep disorders?
C. Do you feel the sleep medicine education you received during your PCCM fellowship appropriately prepared you to practice sleep medicine overall?
D. Do you feel the sleep medicine education you received during your PCCM fellowship appropriately prepared you to manage patients with chronic respiratory failure requiring home based mechanical ventilation?
E. Do you feel the sleep medicine rotation made a difference in your preparations for pulmonary boards?
F. Do you feel the sleep medicine continuity clinic made a difference in your preparations for pulmonary boards?
G. In your opinion, as part of the PCCM fellowship education, should a sleep medicine rotation be mandatory or elective?

Bridging the Gap in POCUS Education: Novel Ultrasound E-Learning Modules

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INTRODUCTION

Point-of-care ultrasound (POCUS) has transformed pulmonary and critical care medicine, offering unparalleled versatility and immediate insights that enhance clinical decision-making. Recognizing its significance, the Accreditation Council for Graduate Medical Education (ACGME) now requires pulmonary and critical care (PCCM) fellows to achieve proficiency in POCUS. Despite this, a considerable gap persists between required competencies and provided training. A recent survey found fewer than 60% of PCCM programs offer formal POCUS training, with less than 50% of fellows feeling confident in advanced sonographic applications, citing the absence for structured POCUS curricula as the primary obstacle.(1) This educational gap highlights an urgent need for innovative solutions.

ABSTRACT PRESENTATION

To bridge this gap, we developed novel POCUS e-learning modules in April 2022, specifically designed for PCCM fellows and aligned with our larger POCUS curriculum. The modules consist of 52 lessons, built on the Microsoft Forms(2) platform, and delivered weekly via email or QR code, offering real-time feedback after completion. It was created in collaboration among POCUS faculty, sonographers, and medical educators. This interdisciplinary approach ensures fellows receive a comprehensive education, covering both clinical and technical aspects of POCUS. Leveraging the team's diverse expertise, we aligned the modules with the National Board of Echocardiography (NBE) Critical Care Echocardiography exam (CCExAM) blueprint and optimized them for effective learning. The learning modules are a mix of quizzes and detailed explanations beginning with foundational concepts, including transducer movements and basic cardiac POCUS views such as the parasternal long axis, parasternal short axis, apical 4-chamber, and subcostal 4-chamber views. As fellows advance, they are introduced to more complex cardiac views, including apical 2, 3, and 5-chamber views. The modules also encompass advanced ultrasound modalities, such as M-mode and spectral Doppler. Specialized topics, such as diastology, cardiac output, and right ventricular systolic pressure estimation, are integrated to further develop fellows' skills. In addition to the core cardiac-focused modules, the curriculum includes Venous Excess Ultrasound (VExUS), vascular ultrasound, lung ultrasound, introduction to critical care transesophageal echocardiography (cc-TEE), and instruction on ultrasound coding and billing. Further support is provided through 'POCUS 1-on-1,' a series of one-hour scanning sessions where fellows work individually with NBE Critical Care Echo board-certified faculty to refine their skills. Figure 1 demonstrates the innovative use of scannable QR codes embedded in weekly email updates, enabling fellows to access quizzes and training materials on-demand. This feature facilitated the integration of our modules into the fellows' busy schedules, promoting higher engagement rates and enabling asynchronous learning. A preliminary analysis of 10 pilot fellows who used the modules for one year showed significant improvement in POCUS knowledge (Figure 2). Fellows completed an average of 41 out of 52 modules, each taking 14 minutes. Post-test scores showed a significant improvement of 25%, increasing from a pre-test mean of 59% to 84% ($p = 0.002$). Additionally, fellows reported increased confidence and proficiency in performing bedside POCUS, with improved clinical application during patient care.

DISCUSSION

Our e-learning modules offer a solution to address persistent gaps in POCUS training for PCCM fellows. Unlike traditional in-person training programs, often constrained by faculty availability and resources, our approach leverages digital platforms to deliver consistent, high-quality education, regardless of location. It has significantly improved POCUS exam scores and bedside scanning performance, with fellows reporting increased confidence, proficiency, and interest in POCUS.

CONCLUSION

Our novel ultrasound e-learning modules address gaps in POCUS education within PCCM fellowships and provide a model for scalable, accessible training that is freely available to institutions, providing a strong foundation for programs looking to develop or improve their POCUS training.

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FIGURE 1. Active scannable QR coes and hyperlinks: A) Week 1 quiz parasternal long axis B) Week 33 normal renal vein Doppler C) Week 23 RSVP estimation D) POCUS Reimbursement Run Down

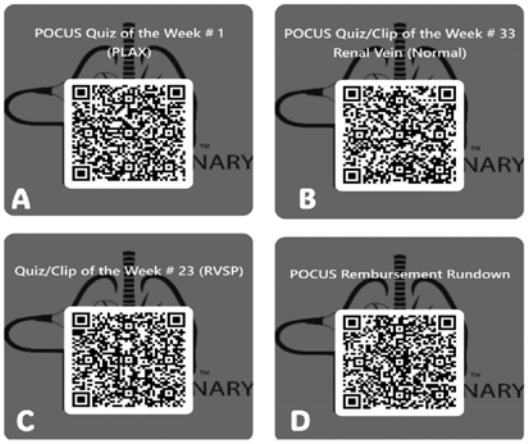
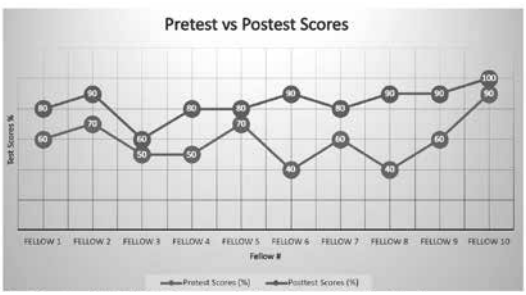


FIGURE 2. Comparison of Pre-Test and Post-Test Scores Among PCCM Fellows Before and After One Year of E-Learning.



Introducing In-Situ Mirror Simulation into Pulmonary and Critical Care Medicine Fellowship to Enhance Airway Management Training

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INTRODUCTION

Successfully managing an airway event and conducting emergent intubations are core competencies required of fellows in Pulmonary (PCCM) and Critical Care Medicine (CCM). A lack of realism in traditional lab-based simulations and a limit to the number of cases for experiential learning are potential barriers to achieving mastery during training. In-situ simulation programs may overcome some of these barriers. We aim to describe the success of such a program with the added benefit of incorporating into fellows' clinical experience and which engages the motivations of the learner by mirroring their own patient.

ABSTRACT PRESENTATION

We evaluated the efficacy of an in-situ mirror simulation (ISMS) program as a novel instrument in PCCM and CCM fellows' medical training. Learner confidence surrounding performance of technical and nontechnical skills for airway management was assessed. To our knowledge, the implementation of ISMS is an unexplored methodology of training in adult airway management education, though the concept has been previously applied in pediatrics education. First-year fellows during their first critical care service rotation engaged in an unannounced ISMS event. Set-up included use of a vacant MICU room, where a mannequin was configured to mirror the condition of a current intensive care unit (ICU) patient including intravenous access, drips, medications, bed placement, and airway devices. Pre- and post-surveys assessing confidence and a course evaluation survey were completed by the learners. A skills competency checklist was completed by an observing educator.

DISCUSSION

Eight first-year PCCM or CCM fellows participated in the patient mirrored simulation with one fellow excluded from analysis due to incomplete surveys. Descriptive statistics were used to analyze the results. The average change in confidence of technical skills was +0.23, while the average change in non-technical skills was +0.43 (Table 1). The greatest improvement in confidence level was in leadership skills with a >0.71 increase in confidence leading during an airway. The only skill set that demonstrated a decrease in confidence was knowledge of protocols for intubation-(0.14). In the course evaluation survey, fellows were asked to evaluate how the simulation would influence their future practice of airway management and what was most valuable about the simulation. 8 fellows (100%) responded, with a total of 15 comments (Table 2). A majority (40%) of the comments discussed the value of the activity being a good opportunity to practice intubation, as well as aspects of the procedure they would be more conscious of after having done the simulation. Participants appreciated how realistic the simulation was, with some highlighting their appreciation of practicing on a case that resembled their patient (27%). Others reported feeling more competent in certain skills after the activity (30%).

CONCLUSION

In-situ mirror simulation is a novel, engaging, and well-received methodology for training fellows to handle emergent airway events when integrated into their clinical schedules. Fellows gained confidence in their abilities for all technical and nontechnical skills, except for their knowledge in airway management protocol. The negative deflection of confidence in this category suggests that the learners gained insight into their limited knowledge of the set-up protocol. This conclusion is supported by the fellows' comments provided regarding their experience. Next steps include continuing and expanding the educational program across adult critical care learners at this institution and at additional centers.

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TABLE 1. Change in Confidence Level Pre- and Post-Mirror in Situ Simulation

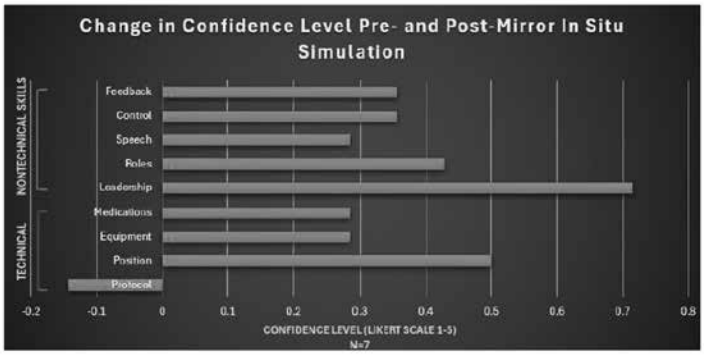
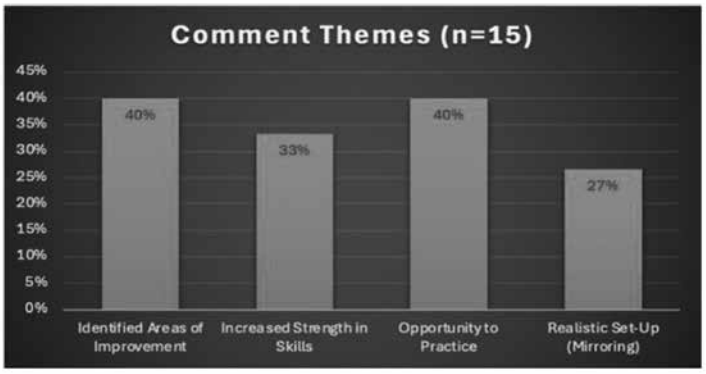


TABLE 2. Comment Themes



Early and Late Tracheostomy Emergencies: A High-Fidelity Realistic Simulation-Based Curriculum

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INTRODUCTION

Over 100,000 tracheostomies are performed annually in the United States(1), with complications occurring immediately, early (0-7 days), or late (>7 days) post-procedure. These complications include tube obstruction, decannulation, bleeding, and fistula formation, and are associated with significant morbidity and mortality.(2) The National Audit Project-4 found that over half of life-threatening airway complications in ICU patients involved existing tracheostomies(3), with inadequate training contributing in 58% of cases. Training for tracheostomy emergencies remains inadequate. We aimed to develop a curriculum to address this educational gap.

ABSTRACT PRESENTATION

Educational Intervention: Tracheostomy emergencies are high-acuity, low-occurrence events requiring cognitive and procedural expertise, making simulation-based training an ideal approach. After conducting a literature review and national program director survey, we identified five tracheostomy-related emergencies for simulation development: 1. Cuff leak (chronic tracheostomy); 2. Obstructed inner cannula (fresh tracheostomy); 3. Complete tracheostomy tube displacement (post-total laryngectomy patient); 4. Fresh tracheostomy displacement into a false subcutaneous passage; 5. Tracheoinnominate fistula bleeding. Collaborating with a medical model company, we designed a modular task trainer blending physical realism with the flexibility to present multiple tracheostomy complications rapidly. Evolving vital signs conveyed conceptual and emotional realism, and an embedded participant provided relevant history. Rapid-cycle debriefing followed each case, led by an intensivist using a "3W framework" (What type of tracheostomy? When was it placed? Why was it placed?). Standardized scripts, instructor guides, and checklists ensured simulation consistency.

DISCUSSION

Data Collection and Analysis: The primary objective was to improve learners' knowledge, confidence, and skill in managing tracheostomy emergencies. In a pilot program, senior pulmonary/critical care medicine (PCCM) fellows and senior anesthesiology residents completed pre-session surveys on demographics, confidence, prior education, and experience with tracheostomy emergencies. Post-simulation, they assessed the realism, usability, and educational value of the curriculum. These results supported the program's face, content, and construct validity. Next, PGY-3 anesthesiology residents underwent the formative simulation and completed a post-session survey documenting perceived knowledge gains. They participated in a summative session 3-4 months later with the same simulation cases. Both sessions were videotaped with performance rated by experts using high-reliability checklists.

Results: Fifteen trainees (7 PCCM fellows and eight anesthesiology residents) completed the pilot. Pre-course surveys showed 67% had prior education on tracheostomy emergencies. Mean perceived adequacy of prior training was 2.9/5, and baseline confidence in emergency management was 2.8/5 (1=Strongly Disagree and 5=Strongly Agree). Post-course surveys rated highly physical realism (4.8/5 anatomic realism, 4.6/5 tactile sensation) and scenario realism (4.8/5). Trainees reported substantial increases in skill and confidence (4.9/5 for both). Twenty PGY-3 anesthesiology residents subsequently participated. Post-formative session surveys reflected similar low baseline comfort (2/5), high usability and realism (5/5), and high educational value (5/5). Checklist scores for the combined five cases improved significantly from the formative to summative sessions (group mean increase from 13.1 to 19.4/33, $p<0.01$). Representative free-text comment: "Revolutionized my trach educational experience, everyone should train on this."

CONCLUSION

Tracheostomy emergencies demand expeditious evaluation and management. Pre-course surveys perceived inadequate training and low confidence, underscoring the need for structured training. Simulation effectively supports skill acquisition by combining physical, conceptual, and emotional realism in a safe learning environment. Our training program significantly improved confidence and competence in managing tracheostomy emergencies. We have since expanded the program to all PCCM fellows, hospitalists, and surgical residents, with plans to include additional interprofessional groups to promote a collaborative approach to care.

Our simulation-based curriculum addresses a critical need for training in early and late tracheostomy emergency management. Using realistic scenarios, an innovative modular task trainer, and focused debriefing, this program enhances confidence and competency, offering a generalizable model for preparing healthcare professionals to manage tracheostomy emergencies.

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Addressing Education in Systems-Based Practice With Gamification: Pulmonary Critical Care Fellows Tackle Friday Night at the ER®

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INTRODUCTION

Systems-based practice (SBP) is a core competency of the Accreditation Council for Graduate Medical Education (ACGME), and encompasses the role providers play in the larger context of the healthcare system. When addressing the pulmonary/critical care medicine (PCCM) fellowship milestones under this core competency, it includes how fellows utilize resources in patient care, recognize patient safety events, facilitate quality improvement projects, and coordinate with healthcare staff and specialties from within their healthcare system as well as out-of-network hospital systems. Though the importance of SBP is supported by literature, especially in identifying systemic change to better patient outcomes, how to integrate such a broad topic into medical education is not well established.(1)

ABSTRACT PRESENTATION

To promote engaging and effective SBP education, we used the commercially developed tabletop board game Friday Night at the ER® to simulate a night of resource allocation, collaboration, triaging, and fast-paced decision-making required of manager-leaders in healthcare. Participants experience roles leading different departments of the hospital. As patients pour into each department each simulated hour for 24 hours, learners must room patients, assign staff, discharge/transfer patients, and complete paperwork for their units. A debriefing process follows the end of the game, detailing financial costs, quality of care, and covering barriers to collaboration, exploration into team innovations, and how data affected decisions in the game. Lastly, for quantitative feedback on this experience, ten PGY (post graduate year)-4 PCCM fellows completed an anonymous pre-game and post-debriefing Systems Thinking Scale (STS), a tool to measure a system's thinking in quality improvement work.(2)

DISCUSSION

Gamification in medical education has increased in popularity, given its potential to augment learning by providing tasks that are challenging (but obtainable) and creating a sense of friendly competition between peers.(3) Friday Night at the ER® creates an experience where the learner is prompted to juggle many aspects of the complex system of healthcare. Learners increase their chance of "winning" the game through mastering interactions with other departments and advocating for increased quality of patient care and cost effectiveness. These topics directly correlate with higher-level milestones under the ACGME core competency of SBE. As seen in Figure 1 below, in our cohort of learners, higher STS scores on average were achieved after the game was played and players were debriefed. Pregame STS mean score was 58.4, and postgame mean score was 67.9. These compare favorably with separate studies in which scores between 45-79 are associated with healthcare providers with five or more years of quality improvement experience.(2) Our findings are limited by a small study population (n=10), and the improvement from pregame to postgame STS scores may or may not correlate to changes in actual systems-based practice. However, improvement in average score post-game supports use of gamification in teaching SBE principles.

CONCLUSION

No standardized method of teaching systems-based practice is used in medical education, though it is an ACGME core competency across all medical specialties. We employed Friday Night at the ER® as an interactive simulated atmosphere that requires PCCM fellows to engage in inter-professional coordination, resource allocation, and quality improvement in patient care. After the simulation, participant scores increased on the Systems-Thinking Scale.

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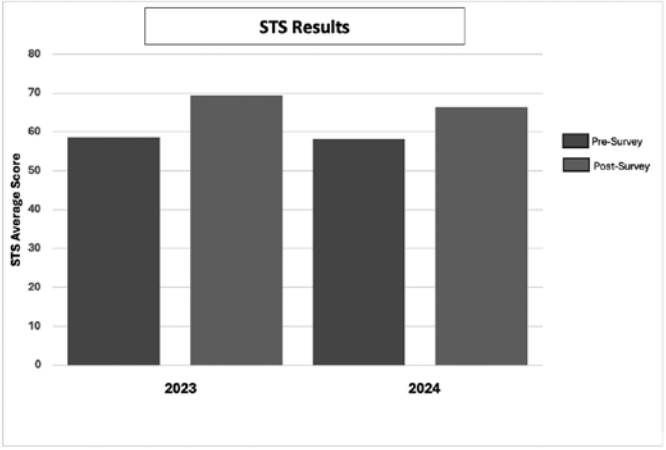
FIGURE 1. Systems Thinking Scale (STS) Results



Pre and post-survey average scores on STS from 2023 and 2024 PCCM fellows during Friday Night at the ER® gameplay. Abbreviations: STS, systems thinking scale.

Development, Implementation, and Evaluation of A Novel Pulmonary Hypertension Curriculum

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INTRODUCTION

Training in the diagnosis and management of pulmonary hypertension (PH) is a core requirement of Pulmonary and Critical Care (PCCM) Fellowships and is tested on the American Board of Internal Medicine's Pulmonology and Critical Care Board Exams. After extensive literature review, no published curricula or validated evaluation tools were found. As robust and standardized PH-related education is needed, our PHA-Accredited Comprehensive Care Center faculty developed a novel curriculum and a vigorously vetted assessment tool. After implementation of the curriculum, the tool was used to evaluate the impact on fellow's knowledge and confidence in the care of patients with PH.

ABSTRACT PRESENTATION

We developed a two-week PH curriculum focusing on PH classification, diagnosis, risk assessment, and management. This curriculum was piloted with first year PCCM fellows and consisted of inpatient PH consultation, outpatient subspecialty clinic, right heart catheterizations (RHCs), and asynchronous video didactics. The video didactics were created to ensure robust and consistent review of PH topics independent of faculty interests or service census. Video didactics included: Introduction to PH, Risk Assessment for Pulmonary Arterial Hypertension (PAH), PAH-Directed Therapies, Groups I - IV PH, Echocardiography, RHC and Waveform Interpretation, VQ Scan Interpretation, and Management of PH in the ICU.

An internal task force comprising of PH content experts, medical education experts, and a curriculum end-user (PCCM fellow), was convened to develop a tool to evaluate the following constructs: knowledge, confidence, and satisfaction. To evaluate knowledge, we developed single best answer multiple choice questions (SBA MCQs) mapped to curriculum learning objectives and ACGME milestones. We utilized best practices in SBA MCQ development including extensive literature review, incorporating clinical vignettes, avoiding cueing/bias, and ensuring clear and consistent language.(1-3) To strengthen our tool, the SBA MCQs underwent iterative revisions following: internal peer review, cognitive interviewing of end-users, pilot testing a sample population, and external peer review by 5 nationally recognized experts in PH and question writing (Figure 1). Questions were edited based on feedback regarding clarity and relevance. Creation of the subjective confidence and satisfaction Likert scale instrument was anchored to best practices in survey design (avoiding double-barreled, vague, or negatively worded questions) (1-3) and underwent a similar revision process with exception of external peer review. The final tool consisted of twenty-one SBA MCQs assessing PH clinical knowledge, and eighteen 5-point Likert scale questions assessing confidence in the application of that knowledge to patient care. The post-curriculum survey included additional questions aimed at curriculum improvement (six 5-point Likert scale and four free-response satisfaction questions). The post-curriculum knowledge and confidence assessment was repeated at six months to assess retention. This pilot study was not powered for statistical significance, so descriptive statistical analysis was used.

DISCUSSION

All participants (n=5) showed improvement in PH knowledge post-curriculum (p=0.0625) and at six months (p=0.0625). Median pre-test knowledge score of 52% improved to 90%. The pre-test aggregate median of 0.6 (not confident to slightly confident) improved to an aggregate median of 2.9 (quite confident) on the post-test and to 2.3 (moderately to quite confident) at six months (Figure 2). Curriculum satisfaction responses averaged between 3.5 - 4.0 (extremely satisfied).

CONCLUSION

This innovative PH curriculum confers a trend toward increased knowledge and confidence in the classification, diagnosis, risk assessment, and management of PH, which is maintained at six months. The asynchronous video didactics make the curriculum easily transferable, ensuring a robust, standardized, and sustainable PH education for fellows in any program. It can also serve as model for the development of future subspecialty curricula. With further increases in sample size, via subsequent fellowship classes, expansion to Cardiology fellowship programs and outside institutions, we seek to confirm that this curriculum improves knowledge and confidence during subspecialty training.

REFERENCES

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2. Lawrence RH, Tomolo AM. Development and preliminary evaluation of a practice-based learning and improvement tool for assessing resident competence and guiding curriculum development. J Grad Med Educ. 2011;3(1):41-48. doi:10.4300/JGME-D-10-00102.1
3. Sullivan GM. Deconstructing quality in education research. J Grad Med Educ. 2011;3(2):121-124. doi:10.4300/JGME-D-11-00083.1

FIGURE 1. Multiple Choice Question Development Process

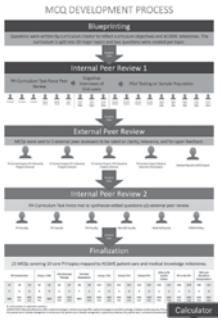
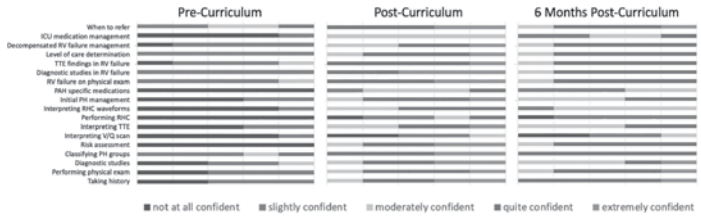


FIGURE 2. Comparison of Pre, Post, and 6-Month Post-Curriculum Clinical Confidence Levels



APCCMPD Award for Excellence in Fellowship Program Administration

The **APCCMPD Award for Excellence in Fellowship Program Administration** recognizes Program Administrators and equivalent roles for outstanding contributions to fellowship program administration through the development of best practices or processes that have been successfully applied to the administrative operations of a pulmonary, critical care, or PCCM fellowship program.

To ensure impartial evaluation, all submissions are anonymized before review. Reviewers assess each abstract without knowledge of the investigators or their institutional affiliations, ensuring a merit-based selection process.

The APCCMPD honors the contributions of all 2025 applicants:

Oddett Foreman, MS
Nuvance Health Vassar Brothers Medical Center

Christina Olsson, BSW
The Ohio State University

Vanessa Trafas, MS
University of California San Francisco

Congratulations to the 2025 awardee:

Jami Simpson, MS, ACC, TICC
University of Wisconsin
School of Medicine and Public Health

Program Coordinator: A New Kind of Life Coach for Graduate Medical Education Trainees

Jami Simpson, MS, ACC, TICC
University of Wisconsin School of Medicine and Public Health

PROBLEM/BACKGROUND

Coordinators of Pulmonary Critical Care Medicine (PCCM) Fellowship Programs, who worked during the pandemic, saw trainees they cared about struggle. We watched our trainees' previous ambitions put on hold. We listened to their strained voices, as their compassion was challenged by arguments about lifesaving medicine. What kind of wellness program would be holistic enough to touch the parts of a trainee the pandemic damaged? That become my question in 2021. I assumed trainees would lean upon their mentor's guidance to create wellness practices. To find out if that was true, I sent a survey to residents and fellows in the Department of Medicine (DOM), which included my PCCM fellows. The survey assessed if wellness was discussed during mentoring conversations, and if they were satisfied with the overall mentor relationship. In 2021, of the 57 trainees who took the survey, 44% did not have a mentor. Those who did, reported 55% mixed feelings about the experience. None of the trainees selected wellness from a list of topics discussed regularly, and 20% selected "personalized wellness attention" when asked what do you want more of? This became my mission, to create a personalized wellness program for PCCM fellows, as well as any trainee in our DOM.

SOLUTION

While reviewing literature of wellness programs, specifically offered to medical providers, I discovered professional coaching. Both individual and group coaching programs had demonstrated an increase in phycological wellbeing measures.(1) Another study reported medical providers who received coaching, experienced a significant reduction in emotional exhaustion, burnout symptoms, and saw improvements in their overall quality of life.(2) To see similar results for my clientele, I would need to become a certified professional coach. With this literature and my survey data in hand, I applied and was awarded a professional development grant through the DOM. With these funds, and my division's willingness to pay the remaining balance of my tuition, I found myself a graduate of a coaching program and a certified professional coach in May 2022. My employers, also eager to improve access to wellness, gave me 10% protected time to coach DOM trainees during work hours. The only problem now was advertising my service. I created a Google site (Table 1) to introduce myself, demonstrate the benefits of coaching, and provided a link for scheduling sessions. I then sent mass emails to trainees in my programs and the trainees in the whole DOM. By the end of the month, I had only two clients. After six months of this slow trickle, I asked if I could advertise my service to the entire graduate medical education (GME) community. This was approved by DOM, but the GME office requested I get permission from the hospital's Business Integrity Office, to ensure my coaching services were in compliance with their policies. Since I was not conducting coaching in a personal business, I was given their permission and then circulated emails to trainees in the whole GME system. Today I have coached 73 GME trainees, roughly 183 hours of coaching time during my 10% protected time.

TABLE 1. Sample from my Google site: sites.google.com/wisc.edu/coachgmetrainees/home

RESULTS

Evaluating my coaching service's value presented many changes. One, coaching is 100% confidential and often very personal. Two, the survey I started with focused on the trainee's relationship with a mentor, not enough data was collected about their experience of wellness support. Three, of the 73 clients I coached, 41% were from the DOM, the remainder came from other departments with no pre-intervention data collected. Four, I didn't send evaluations during the first year of coaching, and missed collecting nearly 29% of the total possible. Five, and the hardest of all, I have no experience collecting, assessing, and synthesizing data. And data is what I needed to continue coaching and to help it grow. In a desperate attempt to collect some data, I sent my clients an anonymous survey. The questions on the survey asked about changes coaches hope their clients experience during the relationship. 32 clients received the survey and 10 completed it. Of the takers, 100% indicated they experienced a new awareness on the topic(s) explored. 100% indicated they experienced a behavior change as a result of coaching. 100% used the free text option to elaborate on the new awareness and behavior that changed. 100% of the clients would recommend coaching to their peers. Even though only 13% of my clients took the survey, the results were unanimously positively. Here is an example of a resident's new awareness and behavior change that resulted: "I became aware of the barriers holding me back. Identifying the real barriers to my problem allowed me to create an action plan addressing the real issue, not the problem I thought I had." Here are some common themes clients identified in the free text space: a lacking of internal recognition, recognized their highly critical inner voice, and accepting themselves without judgment. For more details, see Table 2.

REPLICATION

To create a coaching program within a department or division is a slow process. A person must first have the interest, then protected time to take the classes necessary, the financial support of their department/division, the peer support to cover other work while they get training, and then the protected time to coach during work hours. Coaching during work hours is critical for all involved. The trainees need the help where and when it happens, at work. All of this is feasible when those in power are committed to offering a personalized wellness solution. It is not easy or cheap in the early phases, but over time, the system is creating an incredibly valuable, in-house resource, that if hired outside, would cost tens of thousands of dollars. Coaching, on average costs anywhere between 100-150 dollars an hour for individual clients, or 300-500 dollars per hour for group or executive coaching programs. Once a coach has been embedded into the framework of the system, so many opportunities for the service can be explored. For example, our division has started intensive care unit team coaching, which impacts the interprofessional relationships, as well as the connection between the families and patients.

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TABLE 2. Sampling of Evaluation Data – from 1:1 Coaching Participants

Steps Towards Wellness: How a Walking Path Can Promote a Healthier Lifestyle

Oddett Foreman, MS
Nuvance Health Vassar Brothers Medical Center

PROBLEM/BACKGROUND

Implementing a walking path within the corridors of hospitals can promote a healthier lifestyle among staff by reducing burnout and creating a more positive work environment. A sedentary lifestyle characterized by prolonged periods of inactivity, is associated with numerous health risks. Research consistently shows that sitting for extended periods of time can contribute to obesity, cardiovascular disease, type 2 diabetes and even mental health issues like depression and anxiety. Implementing a walking path within the halls of our hospitals is convenient and can help to combat these risks by encouraging physical activity. Walking during breaks or throughout the workday can eventually lead to a healthier, happier, and more productive work environment.

SOLUTION

We decided to implement a walking path within our hospital to help our staff improve physical health. Even short walks can:

- Improve circulation, reduce the risk of heart disease, and help regulate blood sugar levels. It can also help maintain a healthy weight.
- Boost Mental Health: Walking has been shown to reduce stress, boost mood and improve cognitive function. This can increase productivity and workplace morale.
- Prevents Physical Discomfort: Regular movements helps prevent stiffness and discomfort caused by sitting for too long. It can reduce back pain and improve posture.
- Encourages Social Interaction: Walking paths can promote informal interactions between employees, fostering better teamwork and communication.
- Increase Energy Levels: Physical activity during the day can combat fatigue, helping employees stay more alert and engaged.

According to an article in Inc.com by Jessica Stillman, Steve Jobs swore that this 10-minute rule made him smarter. "If you are facing a difficult problem at work, and even though you have been sitting at your desk for the last 10 minutes straining your brain to think of a solution and you are still coming up blank. Stand up and go for a walk".(1)

To begin the process of implementing the walking path, a proposal was sent to facilities/security of our institution outlining the proposal. The proposal included:

- The proposed route of the walking path
- The length of the path
- The signage to be used to indicate the direction of the path.

After approval from the necessary authorities, we identified stickers to be used as visual cues to indicate the direction of the path. We made sure the stickers were user friendly with clear directions for individuals who wish to follow the path. Stickers were placed on the base molding along the corridor to indicate the direction of the path. Posters with a brief description of the path were placed at both ends of the route.

One main challenge that we encountered was getting funding to cover the cost of printing and installing the signs and stickers. The Wellness Committee which I am a part of, funded part of the project, and the remainder was generously donated by Timely Signs, the company that we hired to do the job.

RESULTS

The next step in this project is to get feedback from users of the path. We are planning to install QR codes on the signs, that when scanned will take users of the path to a survey. This is still a work in progress.

REPLICATION

Implementing a walking path within the halls of a hospital is generally feasible and has potential benefits for both patients and staff. These are some key considerations for implementation.

- Design and accessibility: Paths should be designed with clear signage, wide walkways, and wheelchair accessibility to accommodate diverse staff and patient mobility needs.
- Space and Location: Paths must be clear of obstacles and not interfere with emergency routes. Should have slip resistance surface and sufficient lighting.
- Cost and funding: Cost include design and implementation. Funding may come from hospital budgets or community donors or grants.

REFERENCE

1. Stillman, Jessica, "Steve Jobs Swore the 10-Minute Rule Made Him Smarter. Modern Neuroscience Is Discovering He Was Right Stuck on a tough problem? Do what Jobs would have done and follow the 10-minute rule.", Inc.com @entrylevelrebel Sept 26, 2024

FIGURE 1. Posters

FIGURE 2. Signs placed at both ends of the walking path.

FIGURE 3. Decals placed on baseboards of the hospital corridor base molding to indicate the direction of the path.

Alignment of Fellow Self-Reflection and Portfolio Sheets With a Structured Semiannual Meeting Format

Christina Olsson, BSW
Avraham Z. Cooper, MD
Megan Conroy, MD, MAEd
Joshua Englert, MD
Jennifer McCallister, MD
Emily McCartney
Stella Ogake, MD
The Ohio State University

PROBLEM/BACKGROUND

As part of our ongoing fellowship career development efforts, lack of a standardized semiannual meeting structure with fellows was identified as an area for improvement. Specifically, there was a lack of alignment with the fellow self-reflection forms (that fellows complete before their semiannual meetings with PDs) and the way in which each PD approached the meetings. We developed an updated process for the structure of the meetings, ensuring alignment with the self-reflection forms.

SOLUTION

In the 2023-2024 academic year, the fellowship leadership and administration team developed three new semiannual meeting documents:

1. Fall Fellow Portfolio and Self-Reflection (Sheet 1)
2. Spring Fellow Portfolio and Self-Reflection (Sheet 2)
3. Program Director semiannual meeting summary (Sheet 3)

Each document anchors the self-reflection and semiannual meeting discussion along the same seven domains:

1. Clinical training
2. Scholarly activity and research
3. Utilization of Fellowship Program, Medical Center, and University resources
4. Mentorship
5. Fellowship track
6. Feedback for the Program
7. Self-care and maintenance of wellbeing.

The Program Coordinator in particular was instrumental in streamlining the process for how these documents are shared with and collected from fellows, and advocated for producing as concise and user-friendly sheets as possible. For each domain, the fellows are asked to perform a self-assessment of current status/ progress and/or performance to date, as well as objectives for the rest of the current academic year (in the fall) or for the next academic year (in the spring). For clinical training and scholarly activity/research, the fellows are asked to enunciate long term goals. For feedback for the program, fellows are asked about ways in which they have felt adequately supported by the program and ways in which they feel the program could better support them. The Program Director (PD) semiannual meeting discussion sheet guides the PD and Associate Program Directors (APDs) in discussion with each fellow along the same seven domains, with an additional domain focused on adherence to program requirements. Feedback on milestones is incorporated into applicable domains. Prior to each fellow's semiannual meeting, the program coordinator transposes the responses from their last meeting onto the applicable document (eg, fall onto spring sheet or spring onto fall sheet) and sends out to each fellow to complete/update.

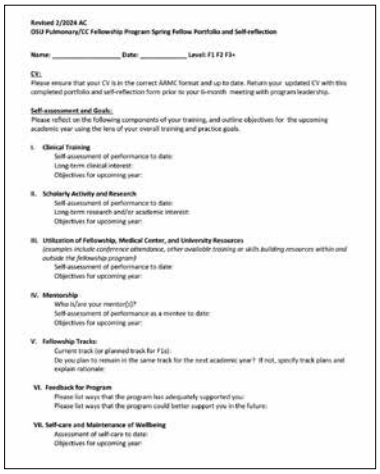
RESULTS

We have received positive feedback from fellows about the new reflection sheets and semiannual meeting discussion format. We will assess feedback from the fellows on our annual, end-of-year internal fellow survey about programmatic support and career development.

REPLICATION

We believe the self-reflection sheets and the Program Director semiannual meeting discussion sheet and structure would be replicable by other programs.

SHEET 1.



Revised 2/2024 AC
OSU Pulmonary/CC Fellowship Program Spring Fellow Portfolio and Self-reflection

Name: _____ Date: _____ Level: F1 F2 F3+

CV:
Please ensure that your CV is in the correct AAMC format and up to date. Return your updated CV with this completed portfolio and self-reflection form prior to your 6-month meeting with program leadership.

Self-assessment and Goals:
Please reflect on the following components of your training, and outline objectives for the upcoming academic year using the lens of your overall training and practice goals.

I. Clinical Training
Self-assessment of performance to date:
Long-term clinical interest:
Objectives for upcoming year:

II. Scholarly Activity and Research
Self-assessment of performance to date:
Long-term research and/or academic interest:
Objectives for upcoming year:

III. Utilization of Fellowship, Medical Center, and University Resources
(examples include conference attendance, other available training or skills building resources within and outside the fellowship program)
Self-assessment of performance to date:
Objectives for upcoming year:

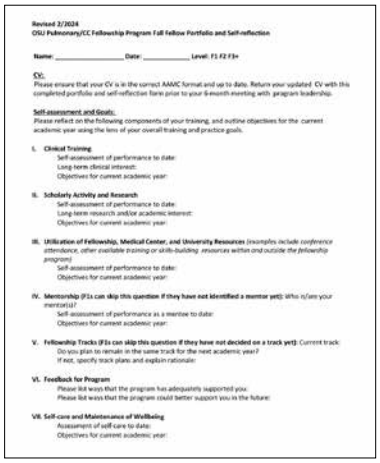
IV. Mentorship
Who is/are your mentor(s)?
Self-assessment of performance as a mentee to date:
Objectives for upcoming year:

V. Fellowship Tracks:
Current track (or planned track for F1s):
Do you plan to remain in the same track for the next academic year? If not, specify track plans and explain rationale:

VI. Feedback for Program
Please list ways that the program has adequately supported you:
Please list ways that the program could better support you in the future:

VII. Self-care and Maintenance of Wellbeing
Assessment of self-care to date:
Objectives for upcoming year:

SHEET 2.



Revised 2/2024
OSU Pulmonary/CC Fellowship Program Fall Fellow Portfolio and Self-reflection

Name: _____ Date: _____ Level: F1 F2 F3+

CV:
Please ensure that your CV is in the correct AAMC format and up to date. Return your updated CV with this completed portfolio and self-reflection form prior to your 6-month meeting with program leadership.

Self-assessment and Goals:
Please reflect on the following components of your training, and outline objectives for the current academic year using the lens of your overall training and practice goals.

I. Clinical Training
Self-assessment of performance to date:
Long-term clinical interest:
Objectives for current academic year:

II. Scholarly Activity and Research
Self-assessment of performance to date:
Long-term research and/or academic interest:
Objectives for current academic year:

III. Utilization of Fellowship, Medical Center, and University Resources *(examples include conference attendance, other available training or skills-building resources within and outside the fellowship program)*
Self-assessment of performance to date:
Objectives for current academic year:

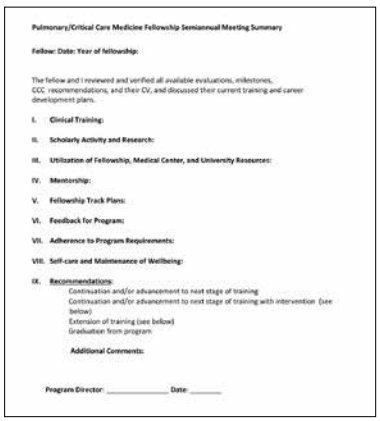
IV. Mentorship (F1s can skip this question if they have not identified a mentor yet): Who is/are your mentor(s)?
Self-assessment of performance as a mentee to date:
Objectives for current academic year:

V. Fellowship Tracks (F1s can skip this question if they have not decided on a track yet): Current track:
Do you plan to remain in the same track for the next academic year?
If not, specify track plans and explain rationale:

VI. Feedback for Program
Please list ways that the program has adequately supported you:
Please list ways that the program could better support you in the future:

VII. Self-care and Maintenance of Wellbeing
Assessment of self-care to date:
Objectives for current academic year:

SHEET 3.



Pulmonary/Critical Care Medicine Fellowship Semiannual Meeting Summary

Fellow: Date: Year of fellowship:

The fellow and I reviewed and verified all available evaluations, milestones, CCC recommendations, and their CV, and discussed their current training and career development plans.

I. Clinical Training:

II. Scholarly Activity and Research:

III. Utilization of Fellowship, Medical Center, and University Resources:

IV. Mentorship:

V. Fellowship Track Plans:

VI. Feedback for Program:

VII. Adherence to Program Requirements:

VIII. Self-care and Maintenance of Wellbeing:

IX. Recommendations:
Continuation and/or advancement to next stage of training
Continuation and/or advancement to next stage of training with intervention (see below)
Extension of training (see below)
Graduation from program

Additional Comments:

Program Director: _____ Date: _____

Fellow Funding Management: Tools for Navigating Fellow Funding

Vanessa Trafas, MS
University of California San Francisco

PROBLEM/BACKGROUND
Funding mechanisms and management of funding can be different between programs within the same institution. With multiple fellows and funding mechanisms it is challenging to keep track and plan fellow funding appropriately. Due to these differences across programs, it has been difficult to create a standardized procedure for funding management. For large programs it is essential to implement tools to track funding.

SOLUTION
Tools were implemented by previous program administrators in collaboration with the finance team. I inherited these tools and have worked to improve them to act as a record for funding to ensure accuracy, plan future changes, and provide historical reference. One Excel file was created to project expenses for salary, health insurance, and the breakdown of expenses between different funding mechanisms. This excel is updated monthly with actual expenses to make sure no corrections need to be made and to project amounts that will be charged to sponsored funds (T32/F32). This excel was built in collaboration with the finance team with equations and functions to bring in downloaded data from other systems (salary and insurance expenses). For projections of funding mechanisms (T32/F32) another excel was created to show funding paths for all active fellows. This excel is updated by the program administrator with input from the program director, chief, and finance team to determine possible lack of funding mechanisms, overlapping research interests (related to funding restraints), available T32 slots or lack thereof, etc. Between these two excels we have an overall view of current and future expenses/projections to allow the program and division to project expenses more accurately. This also helps to identify potential short falls and remedy those shortfalls. Challenges for implementation of these tools were minimal and those that come up can be remedied quickly as the program admin team and the finance team are in continuous communication and review these files on a regular basis.

RESULTS
Before the implementation of these tools there was no larger overview of funding for all fellows within the program, this was resolved with these tools. Previously, funding issues/corrections were not discovered in a timely manner causing late expense transfers and inaccurate expense reporting. It was also difficult to identify potential lack of funding or slots on the T32 that were unfilled. With the implementation of the funding mechanism excel we were able to better plan for recruitment of post-docs to fill these slots. Success is measured by the continuous use of these tools and decrease in the uncertainty of funding mechanisms and budgeting. We have been able to successfully predict potential funding issues and actively work to resolve them.

REPLICATION
To replicate this process at other institutions it's important to have collaboration between the finance, program administration, and leadership teams within the division. Without this collaboration it's possible the tool would not be as effective in accurately projecting expenses. There are functions within the funding projection/distribution excel that must be maintained and checked for accuracy. Currently this is done by the finance team and an advanced understanding of excel functions is required. If this collaboration between teams exists it is possible for these to be adopted for other institutions. It would still be possible to implement similar excels without the excel functions, however, this would mean a more manual process susceptible to human error. The funding mechanism excel does not require an advanced level knowledge of excel and therefore even easier to implement.

Outstanding Educator Award

APCCMPD members work diligently to foster excellence through training and mentoring of the next generation of pulmonary, critical care, and pulmonary critical care physicians. One way to honor peers who demonstrate excellence in the development of future physicians is through the annual **Outstanding Educator Award** (OEA). This aspirational award recognizes an individual who has devoted a major portion of their professional life to enhancing the practice and profession of pulmonary, critical care, and pulmonary critical care medicine through education. The awardee has cultivated achievements for which peer medical educators can aspire. The educator selected for this award has made significant, innovative, and cumulatively outstanding contributions to education. These contributions should include excellence in education beyond the local level, with widespread recognition of the recipient's excellence, which may include teaching, directing, mentoring, writing and speaking abilities, ideally to multiple levels of audiences including medical students, residents and fellowships.

Congratulations to the 2025 awardee:

Gabriel Bosslet, MD, MA
Professor of Clinical Medicine
Indiana University School of Medicine

Gabriel Bosslet, MD, MA is Professor of Clinical Medicine in the Department of Pulmonary, Critical Care, Sleep and Occupational Medicine and is Assistant Dean for Faculty Affairs and Professional Development at Indiana University School of Medicine. He is the former Fellowship Director for Pulmonary and Critical Care Medicine (2010-2023), and an affiliate faculty member at the Charles Warren Fairbanks Center for Medical Ethics.

Dr. Bosslet received his bachelor's degree from the University of Notre Dame and his M.D. from The Ohio State University. He completed his residency in internal medicine and pediatrics at The Ohio State University/Columbus Children's Hospital in Columbus, Ohio. Dr. Bosslet completed his fellowship in Pulmonary and Critical Care Medicine at Indiana University. During this time, he completed the Clinical Ethics Fellowship at the Charles Warren Fairbanks Center for Medical Ethics, and a Master of Arts in Philosophy and Bioethics.

Dr. Bosslet is also a co-founder and president of the Good Trouble Coalition, a grassroots coalition of Hoosier healthcare and public health stakeholders who collaborate to educate, empower, and facilitate political advocacy to improve life in Indiana in the areas of patient-centered care, public health, and health equity. He lives with his wife and 4 kids and enjoys running, reading, and hanging out with his family.

The APCCMPD honors the contributions of all 2025 nominees:

Başak Çoruh, MD
Associate Professor of Medicine
University of Washington School of Medicine

Daniel R. Crouch, MD
Clinical Professor of Medicine
University of California San Diego School of Medicine

Mid-Career Educator Award

The **Mid-Career Educator Award** (MCEA) honors mid-career individuals who are actively engaged in enhancing the practice and profession of pulmonary, critical care, and pulmonary critical care medicine through education. The medical educator selected for this award is actively making significant and innovative contributions to education. These contributions should include excellence in education beyond the local level, with recognition of the recipient's excellence, which may include teaching, directing, mentoring, writing and speaking abilities, ideally to multiple levels of audiences including medical students, residents and fellowships at the local, regional and national levels. Candidates should be within 5-15 years of fellowship.

The APCCMPD honors the contributions of all 2025 nominees:

Sahar Ahmad, MD
Associate Professor of Medicine
Renaissance School of Medicine at Stony Brook University

Jason L. Bartock, MD
Associate Professor of Medicine
Cooper Medical School of Rowan University

Deepak Pradhan, MD, MHPE
Associate Professor of Medicine
NYU Grossman School of Medicine

Briana T. Short, MD
Assistant Professor of Medicine
Columbia University College of Physicians and Surgeons

Andres Zirlinger, MD
Program Director/USF Professor
Lehigh Valley Health Network

Congratulations to the 2025 awardees:

Mauricio Danckers, MD
Associate Professor of Clinical Medicine
Nova Southeastern University Dr. Kiran C. Patel College of Allopathic Medicine

Mauricio Danckers, MD is a graduate of Universidad Mayor San Marcos in Lima, Peru. He completed his internal medicine residency and chief residency at Mount Sinai West/Morningside and his pulmonary and critical care medicine fellowship and chief fellowship at New York University. Dr. Danckers is board certified in internal medicine, pulmonary medicine, and critical care medicine.

Dr. Danckers is the medical director of the Intensive Care Unit at HCA Florida Aventura Hospital. His areas of interest involve clinical quality improvement and innovation in medical education. He is an Associate Professor of Clinical Medicine at Nova Southeastern University's Dr. Kiran C. Patel College of Allopathic Medicine. Dr. Danckers has been awarded in several opportunities for his teaching skills and commitment to graduate medical education at his institution.

Lekshmi Santhosh, MD, MAEd
Associate Professor of Medicine
University of California San Francisco

Lekshmi Santhosh, MD, MAEd is an Associate Professor in Pulmonary/Critical Care Medicine and Hospital Medicine at the University of California San Francisco (UCSF). She serves as the inaugural DOM Associate Chair for People Development and Mentorship. She received her MD from Harvard Medical School and completed her Internal Medicine residency, Chief Residency, and Pulmonary Critical Care Medicine Fellowship at UCSF. During her fellowship training, she received a Master's in Education from UC Berkeley. Clinically, she attends in the Medical ICU, the Neuro-ICU, the Hospital Medicine teaching service, and in the outpatient Pulmonary clinic. She is also the founder and former medical director of the post-ICU/post-COVID OPTIMAL clinic.

Her educational leadership roles at UCSF include Associate Program Director for the Internal Medicine Residency, Associate Program Director for our Pulmonary Critical Care Medicine Fellowship, and Director of the Department of Medicine Grand Rounds. She has published extensively in the realm of medical education and issues around equity in medicine; her primary scholarly interests are related to ICU transitions of care, women in leadership, clinical reasoning, and subspecialty career choice. Nationally, she is one of the inaugural National Academy of Medicine Scholars in Diagnostic Excellence and is the Chair-Elect for the American Thoracic Society Section on Medical Education. She has recently been awarded the Gold-Headed Cane Endowed Education Chair in Internal Medicine.

Emerging Educator Award

The APCCMPD honors one or two up-and-coming medical educators through its **Emerging Educator Award**. Awardees excel in delivering and promoting medical education through various means at the local and regional levels. Awardees are a pulmonary, critical care or pulmonary critical care clinician at the level of Instructor or Assistant Professor (or equivalent), within 1-4 years of fellowship, who spends a majority of their time serving as a clinician-educator.

The APCCMPD honors the contributions of all 2025 nominees:

Erin Covert, MD
Associate Professor of Medicine
Cleveland Clinic

Steven Fox, MD
Assistant Professor of Medicine
University of Alabama at Birmingham

Congratulations to the 2025 awardee:

Stella Ogake, MD
Assistant Professor of Medicine
The Ohio State University
College of Medicine

Stella Ogake, MD is an Assistant Professor of Medicine in the Division of Pulmonary, Critical Care, and Sleep Medicine at The Ohio State University. She serves as Associate Program Director for Procedural Training and Diversity in the PCCM Fellowship, where she oversees the procedural curriculum and leads efforts to diversify the fellowship program. Passionate about medical education, Dr. Ogake is keen on creating innovative training experiences while fostering an inclusive and supportive environment for trainees. She developed and co-directs the LEAD@OSU program, a leadership training program for GME trainees designed to foster scholarly output in health equity while developing leaders who will champion diversity and health equity in medicine. Dr. Ogake's work focuses on advancing health equity, medical education, community service, and addressing health disparities within pulmonary and critical care medicine. Through her leadership in medical education, she mentors trainees to develop the skills necessary to provide equitable care to diverse populations. She also serves as an interprofessional education champion for the College of Medicine, strengthening cross-disciplinary collaborations. Dr. Ogake is an active member of multiple national professional organizations, including the Ambulatory Curriculum Workgroup of the APCCMPD.

CHEST and APCCMPD Medical Educator Diversity Scholar Fellowship Award

The **CHEST and APCCMPD Medical Educator Diversity Scholar Fellowship Award** provides support and funding for fellow-in-training pursuing a career in medical education, and whose personal experiences and/or project goals will significantly contribute to the diversity of the medical educator community. It focuses on creating mentorship opportunities for fellows at institutions with limited resources to train in teaching, formal medical education curricula, and medical education research.

Congratulations to the 2025 Mentors:

Tristan Huie, MD
University of Colorado
Anschutz School of Medicine

Tristan Huie, MD is an Associate Professor of Medicine in the Division of Pulmonary and Critical Care Medicine at the University of Colorado and National Jewish Health. He has directed the Fellowship Program at the University of Colorado since 2017. He specializes in the care of patients with interstitial lung disease and was the Clinical Director for ILD at National Jewish Health from 2013-17. He still enjoys attending in the ICU and is passionate about medical education. Dr. Huie graduated from Gonzaga University, attended Georgetown University for medical school and residency, and completed his fellowship training in Denver.

Anna Neumeier, MD
University of Colorado
Anschutz School of Medicine

Anna Neumeier, MD is an Associate Professor of Medicine within the Division of Pulmonary Sciences and Critical Care Medicine at the University of Colorado. She is the Associate Program Director for Education for the Pulmonary Sciences and Critical Care Medicine Fellowship and is the director of the University of Colorado School of Medicine Trek Basecamp Curriculum, a longitudinal clinical transitions curriculum. Her education research focuses on advancing learning across the continuum of training focusing on innovative teaching methods, learning climate, and curriculum development.

Congratulations to the 2025 Mentee:

Arnulfo Duarte, DO
University of Pennsylvania

Arnulfo Duarte, DO grew up in the Rio Grande Valley of South Texas. He completed his medical training at the Burrell College of Osteopathic Medicine and his internal medicine residency at the University of Texas at Tyler. He is particularly interested in bedside procedures, point-of-care ultrasound, interventional pulmonology, and academic medicine. Outside of medicine, he enjoys playing tennis, wrestling with his dogs, and trying new restaurants with his wife.

APCCMPD, CHEST and ATS Education Research Award

The **APCCMPD, CHEST and ATS Education Research Award** is a monetary grant awarded to Fellows-in-training, junior faculty within 5-years of program completion, Associate Program Directors and/or Program Directors, to fund research projects that further the field of pulmonary and critical care graduate medical education research.

The APCCMPD honors the contributions of all 2025 nominees:

Sahar Ahmad, MD
Renaissance School of Medicine at Stony Brook University
A Longitudinal Crossover Study of Mirrored In-Situ Simulation for Emergency Endotracheal Intubation Training in Pulmonary and Critical Care Fellowship

Stella Ogake, MD
The Ohio State University College of Medicine
Incorporating Health Equity Education into a Pulmonary and Critical Care Medicine Fellows' Core Curriculum

Saikou O. Saidy, MD
Sidney Kimmel Medical College at Thomas Jefferson University
Implementation of an Innovative Airway Management Curriculum Aimed to Improve The Overall Confidence and Proficiency of Pulmonary and Critical Care Fellows in Performing Rapid Sequence Intubation

James H. Wykowski, MD
University of Colorado Anschutz School of Medicine
Development, Validation and Implementation of a Novel Adult Airway Entrustment Tool

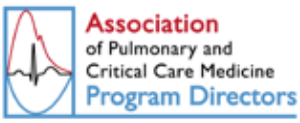
Congratulations to the 2025 awardee:

Amarpreet K. Ahluwalia, MD, MEd
National Institutes of Health Clinical Center
AI-Assisted Mastery Development in Mechanical Ventilation Education: Enhancing Ventilator Waveform Analysis for Pulmonary and Critical Care Physicians

Amarpreet K. Ahluwalia, MD, MEd is a Pulmonary and Critical Care fellow at the NIH Clinical Center and the University of Maryland. She earned her MD from the Pennsylvania State University College of Medicine and completed her Internal Medicine residency at Johns Hopkins Bayview Medical Center. With a Master's in Education and a robust background in medical education, Dr. Ahluwalia has contributed to numerous initiatives to enhance curriculum design and bedside teaching. She has served in roles at both the UME and GME levels and has led several innovative projects, including revitalizing preclinical courses and designing electives that integrate clinical reasoning and point-of-care ultrasound. Currently, Dr. Ahluwalia facilitates teaching sessions for medical students and residents in ICU physiology and serves as a preceptor for fellows in the national mechanical ventilator course. Her passion lies in leveraging educational strategies and AI tools to improve training in critical care medicine while simultaneously advocating for inclusivity and equity.

PROJECT SUMMARY

Management of mechanical ventilation (MV) is a complex foundational skill for Pulmonary and Critical Care Medicine (PCCM) and Critical Care Medicine (CCM) practitioners. However, prior studies have shown that practicing intensivists are only able to identify a third of common patient-ventilator asynchronies, which has major clinical consequences. There are several factors currently precluding global dissemination of a curriculum designed for mastery development in MV. This project is for development of a pilot program for an AI coach to assist with learner identification of key ventilator-asynchronies.


Association
of Pulmonary and
Critical Care Medicine
Program Directors