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A “PalliPulm” framework to improve palliative care education and practice in pulmonary–critical care medicine: an official American Thoracic Society Workshop Report

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Abstract

Despite numerous calls to action, palliative care remains inadequately integrated into pulmonary–critical care medicine (PCCM) practice and is de-emphasized in PCCM education. Barriers to specialty palliative care demonstrate a clear need for efficient and effective primary palliative care delivered by PCCM clinicians with advanced training. This American Thoracic Society Workshop Report builds on our policy statement on the proactive integration of palliative care in serious respiratory illness with 2 goals: (1) Develop a scalable “PalliPulm” framework to improve palliative care education and practice in PCCM and (2) inform palliative care–focused education and training programs in PCCM to guide future initiatives. We convened an interdisciplinary and interprofessional group of experts between May 2024 and February 2025 over 4 phases: (1) hybrid workshop; (2) virtual breakout groups; (3) nominal group technique and rapid qualitative analysis; and (4) workshop report development. We identified core primary palliative care skills that PCCM trainees and clinicians should obtain and prioritized the most essential skills—that is, symptom management, serious illness communication, and caregiver support in ambulatory settings and serious illness communication, symptom management, palliative care fundamentals, and end of life care in inpatient settings. We describe pragmatic ways to integrate palliative care into PCCM education and offer advanced educational resources. We provide recommendations for framing palliative care to patients and caregivers, illustrate ways to deliver culturally appropriate palliative care, and offer a path for the future of PalliPulm. This report guides PCCM leaders, trainees, and clinicians to establish scalable PalliPulm educational and practice initiatives and improve its integration into practice.

Keywords palliative care, serious illness, symptom management, advance care planning, caregiver

This official Workshop Report of the American Thoracic Society was approved September 2025

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Introduction	Emerging concepts and future directions
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Overview

This American Thoracic Society (ATS) Workshop Report was developed by an interdisciplinary and interprofessional panel of experts and proposes a “PalliPulm” framework to improve palliative care education and practice in pulmonary–critical care medicine (PCCM) across the continuum from ambulatory practice to the intensive care unit (ICU). This is the next step of our multisociety-endorsed ATS Policy Statement, which identified palliative care

training and education in PCCM as a major gap in the implementation of proactive palliative care in serious respiratory illness.¹ This report identifies priority palliative care skills and describes pragmatic steps for PCCM clinical program and fellowship leaders, practicing clinicians, and policy makers to establish and disseminate educational and practice initiatives that cultivate proficiency at the interface of palliative care and PCCM. We centered our workshop on the perspectives of a patient (H.K.) and caregiver (R.T.) (Box 1 and Table 1).

Key Conclusions:

- Patients with serious respiratory and critical illness and their caregivers experience significant unmet symptom needs, poor prognostic awareness, caregiver burden, and complex care at the end of life (EoL) often not aligned with their values and wishes. Despite numerous calls to action, few receive palliative care at any point in their illness trajectory.
- Barriers to the implementation of specialty palliative care—that is, care delivered by clinicians with specialized certification—demonstrate a clear need for efficient and effective primary palliative care delivered by PCCM clinicians who develop their skills through advanced training to implement it in practice.
- Our “PalliPulm” framework includes an array of palliative care skills that all PCCM trainees and practicing interprofessional clinicians (eg, physicians, advanced practice providers, nurses, respiratory therapists, pharmacists, social work professionals) should obtain across care settings and are prioritized into the top 5 skills for both ambulatory and inpatient settings. These build upon a strong foundation of palliative care fundamentals (ie, definitions, scope, and basic principles).

- PCCM fellowship program leaders, trainees, and practicing clinicians interested in expanding expertise and building primary palliative care educational initiatives applicable to ambulatory settings should develop skills in the prioritized areas of symptom management, serious illness communication, and caregiver support.
- Interprofessional clinicians and leaders interested in enhancing their primary palliative care expertise and building initiatives for inpatient settings and ICUs should focus on the prioritized topics of serious illness communication, symptom management, palliative care fundamentals, and EoL care.
- Palliative care training in PCCM must be integrated alongside traditional procedure-based and didactic education, evolve over time, and include logging, practicing, and teaching. We suggest efficient models for pragmatic implementation in busy training and practice settings.
- A spectrum of palliative care educational resources exists from topic-specific continuing education to comprehensive primary palliative care training programs that can be achieved through accessible online modules, virtually facilitated certificate or degree programs, and midcareer fellowship programs.
- Framing palliative care as an additional layer of support to improve the management of distressing symptoms, ensure patient autonomy and family caregiver well-being, facilitate coping, and individualize care delivery may dispel common misconceptions (ie, that palliative care is synonymous with EoL care).
- Caring for people with serious respiratory and critical illnesses from marginalized, disadvantaged, and underrepresented groups warrants special consideration. An approach that embraces both structural competency and cultural humility is paramount.
- Future directions to improve palliative care education and practice in PCCM include standardizing triggers to improve proactive implementation, improving reimbursement for primary palliative care elements such as serious illness communication, developing and testing novel PalliPulm educational initiatives based on our framework, and continued prioritization by PCCM clinicians and professional societies.

Box 1 Summary of patient and caregiver expert discussion

H.K. is a 57-year-old woman who underwent a bilateral lung transplant in 2019 for idiopathic pulmonary fibrosis (IPF), and R.T. is her husband.

“It started with a dry cough that didn’t resolve after antibiotics. The cough persisted. It interrupted my conversations and drove my husband crazy. I went to my doctor who ordered a chest x-ray. I prayed it was not “scarring.” My father and grandfather both died from IPF. My father died 4 months after he was diagnosed. I was only in my mid 40s—too young to die.

After a visit with a community pulmonologist, I ended up referring myself to a IPF lung center. My husband, Rick, researched IPF and knew the only cure was a new set of lungs. When the time came for needing oxygen, it was an extremely hard milestone to cross. It was isolating. In 2016, I was diagnosed with oral squamous cell carcinoma, which prolonged my lung transplant evaluation. Thankfully, the cancer was removed through surgery.

After a few years I completed the transplant evaluation, and I was transplanted before I had been 5 years cancer-free. The first conversation I had after my transplant was the nurse coming in to tell me, “So you’re on a feeding tube for life?” As you can imagine, I went through all the stages of grief. Rick’s caregiving duties ramped up. On the wall in the hospital room was a list of the training that he needed before taking me home. It was overwhelming. I had the feeding tube for two years. Then I started getting out of the house and, with my team’s permission, dabbling in food, which opened my life again.

Those first two years were challenging. I had excellent care, but there’s just a gap. It’s frustrating to me as a patient that there is such a gap. Clinicians, please listen to your patients and know that even if they’re telling you they’re “OK,” it’s not “OK.” It is a very poor quality of life. It’s just so hard. All along there were so many touch points for palliative care where it would have been so helpful to me to manage the symptoms and to understand what the journey was, but nobody brought up the importance or availability of palliative care.

If someone had told me early on in my journey there’s this thing called palliative care, I think I would have received it differently. I think it should have been part of my discussion at diagnosis and really would have been helpful to me pre-transplant. I absolutely believe it should have been part of the patient education piece during transplant evaluation. People should understand what palliative care is, what the benefits are, and where you can go to receive it. There were absolutely opportunities along the way for palliative care to be presented to me, for example when I received supplemental oxygen or had a diagnosis of cancer. Early on in my diagnosis, I would have appreciated it so much.”

Introduction

The misconception that palliative care can only be implemented as EoL or hospice care,² in addition to numerous other barriers, has limited its proactive integration in routine PCCM practice and further de-emphasized it in PCCM education.³ Palliative care is holistic care appropriate at the time of diagnosis of seri-

ous illness that aims to reduce serious health-related suffering, manage complex symptoms, engage in proactive values-based communication regarding person- and family-centered goals and wishes for the EoL, deliver high-quality EoL care, and facilitate caregiver engagement, respite, and support.^{4,5} Specialty palliative care is delivered by clinicians with hospice and palliative medicine board or accredited professional certification, while

Table 1 Centering the patient and family perspective on needs and the potential for palliative care.

Theme	Exemplary quotes
Unmet palliative care needs	“Despite all my medical issues, I was not referred to palliative care. Nobody brought up the importance or the availability of palliative care. That’s super frustrating to us.”
Physical symptoms—persistent cough and fatigue	“The endless coughing, it never went away and wore me out to the point of where I thought I’d break a rib or throw up. It’s draining. It’s depressing. It just takes away everything.” “I couldn’t take a shower without recovering for an hour or two afterwards.”
Emotional symptoms—fear, anxiety, grief, and depression	“My worst fear was realized—it was scarring.” “Waiting for the transplant—it was emotional and frustrating.”
Spirituality—loss of self-identity	“I was in my prime earning year as a leader in the banking industry. I had to leave my job. I was exhausted.”
Prognostication/Communication	“When I was told I needed oxygen, I burst into tears. My world was shattered. This was the first time I was going to be publicly sick.” “At one of my doctor appointments, I was told ‘you don’t have another year or two to live.’” “Nobody had prepared me that I could need a feeding tube for life.”
Caregiving role	“Rick [caregiver] came to every doctor visit—it was important for the medical team to get to know him.”
Caregiving preparation—education and training	“I needed a liquid diet due to oral cancer recovery. This was Rick’s first foray into 24/7 caregiving, from taking me to doctor appts to blending food and doing everything.” “Rick looked at the list of tasks on the wall and said ‘Oh my gosh, how I am going to learn all that and go home with somebody that’s currently got all these wires and things hooked up to her. I was just so nervous. She went from taking a few pills to over 40 pills a day.’”

primary palliative care is delivered by any healthcare professional (eg, physicians, advanced practice providers, nurses, respiratory therapists, pharmacists, social work professionals) not board-certified in palliative care who receives advanced training to implement it in practice.^{6,7}

Serious illness communication is an essential palliative care skill within the broader palliative care armamentarium and is a core Accreditation Council for Graduate Medical Education (ACGME) competency in PCCM fellowship. Unfortunately, few programs have dedicated curricula in this or any element of palliative care.³ Thus, many PCCM clinicians leave fellowship feeling uncomfortable delivering the full breadth of palliative care due to major training gaps in at least 3 palliative care content areas: (1) proactive values-based serious illness conversations regarding prognosis and treatment decisions; (2) comprehensive symptom assessment and management; and (3) caregiver support. Therefore, it is of critical importance that PCCM clinicians and members of the interprofessional teams who care for these patients improve their primary palliative care skills and knowledge across these domains.

This report builds on our ongoing efforts to enhance palliative care integration across the care continuum for patients with serious illness. Prior steps included numerous calls to action and an ATS policy statement that identified a major need for improved palliative care education in PCCM.^{1,8–10} We now set out to achieve 2 goals: (1) to develop a “PalliPulm” framework to improve palliative care education and practice in PCCM, and (2) to inform palliative care-focused education and training programs in PCCM to guide future initiatives better aligned with ACGME priorities.

Methods

We convened an interdisciplinary and interprofessional group of 30 experts from PCCM, palliative care, geriatrics, nursing, medical education, pharmacy, social work, psychology, research, and

policy. Two of our panelists (R.A.G. and B.H.) were dual trained in PCCM and palliative care and one in PCCM and geriatrics (L.J.W.). Our panelists included pulmonologists, intensivists, advanced practice providers, nurse scientists, fellowship program leaders, trainees, and career professionals across stages. We also included a person living with a serious respiratory illness and their caregiver as experts. We conducted a multiphase, hybrid workshop process between May 2024 and February 2025 and identified core content in the following areas: (1) core palliative care skills for PCCM clinicians; (2) medical education strategies and models to guide palliative care educational initiatives in PCCM; and (3) dissemination strategies to support palliative care implementation in PCCM (Figure 1).

Phase 1: hybrid workshop

We conducted phase 1 (hybrid workshop) at the 2024 ATS International Conference in May 2024. Participants attended a 4-hour hybrid workshop that included goals and presentations on the following topics: (1) “Pathways to Palliative Medicine” (L.D.); (2) “Teaching How to Teach: How Can PCCM Trainees and Clinicians Learn Palliative Care Skills?” (L.S.); (3) “The Patient and Caregiver Experience” (H.K. and R.T.); (4) “Disseminating Palliative Care Education—Lessons from the Center to Advance Palliative Care” (B.B.); and (5) “Disseminating Palliative Care Education—Lessons from EoL Nursing Education Consortium” (B.F.).

Phase 2: virtual breakout groups

We conducted phase 2 (virtual breakout groups) in June 2024. The co-chairs (A.S.I., D.R.S., and L.F.R.) identified co-leads for breakout groups in the following areas: (1) “Palliative Care Skills in Ambulatory Settings” (J.H. and A.G.); (2) “Palliative Care Skills in Inpatient Settings” (E.K. and J.S.); and (3) “Teaching Palliative Care—the Who, What, Where, When, and How” (L.W.,

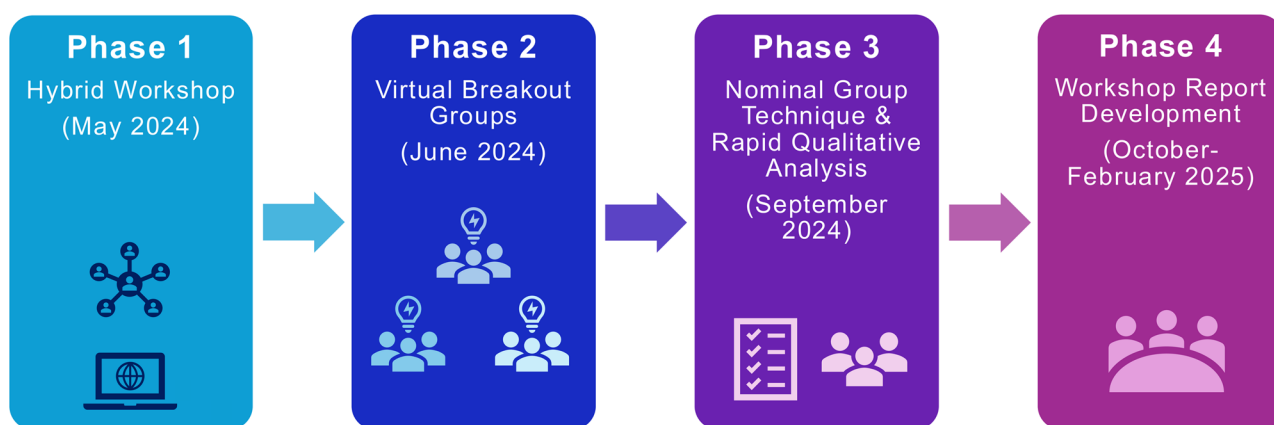


Figure 1 Multiphase development of the workshop report. This American Thoracic Society (ATS) Workshop Report was developed over 4 phases between May 2024 to February 2025. Phase 1: hybrid workshop at the 2024 ATS International Conference with didactics, a presentation by a patient expert and caregiver, and discussion. Phase 2: virtual breakout groups explored broad themes on primary palliative care in pulmonary–critical care medicine. Phase 3: two nominal group technique sessions followed by rapid qualitative analysis identified priority palliative care skills in ambulatory and inpatient settings. Phase 4: workshop report development and generation of recommendations.

K.A.). Using breakout rooms on the virtual platform, we divided the panel into 3 groups. All panelists rotated through each breakout group at 30 minutes per session, followed by a report out of key findings and discussion. Breakout group co-leads reviewed audio recordings and summarized key findings into broad themes.

Phase 3: nominal group technique and rapid qualitative analysis

We conducted phase 3 (nominal group technique [NGT] and rapid quantitative analysis [RQA]) between September and October 2024 and engaged a subgroup from our panel to identify priority palliative care skills for PCCM clinicians. Informed by our NGT experience,^{11,12} we hosted 2 virtual sessions split by inpatient and ambulatory experts. Participants logged in to the virtual platform and simultaneously accessed an online voting platform hosted by the University of Alabama at Birmingham Division of Continuing Medical Education, which we have used previously. An experienced NGT moderator (R.O.) posed a single question refined prior to the sessions to each group: (1) “What is the most important palliative care skill for PCCM clinicians in the ambulatory setting?” and (2) “What is the most important palliative care skill for PCCM clinicians in the inpatient setting?” Participants wrote down their responses to the question during a brief, silent idea generation phase. The moderator then sought individual responses from participants in a round-robin fashion in multiple rounds until all responses were presented and entered into the NGT platform. We utilized member checking to refine statements and achieve a shared understanding of each statement. Participants then selected their top 5 most important statements in the NGT platform in the first round and ranked those 5 statements in the second round, with each vote given a weight of 5 for highest and 1 for lowest. Statements were scored and ranked for each of the 2 NGT groups (ambulatory and inpatient), and a final spreadsheet with full statement rankings was generated for each group. To commence the RQA phase, A.S.I. and D.R.S. used broad themes from the breakout groups and

the spreadsheets from the NGT sessions to generate a preliminary codebook of broad themes and subthemes and separately coded broad themes and subthemes for all ranked statements. L.F.R. mediated any areas of disagreement in themes and developed the final list of themes and subthemes encompassing all ranked statements.^{11,13,14}

Phase 4: workshop report development

A core writing group drafted and edited the workshop report asynchronously. Panelists summarized results and recommendations. We then submitted the report for external peer review, revision, review, and approval by the ATS Board of Directors.

Results

Primary palliative care in PCCM: results from focus groups and nominal group technique sessions

We identified an array of primary palliative care skills that PCCM clinicians should develop regardless of setting and those that support more focused development based on practice location. Based on breakout group discussion, primary palliative care skills in PCCM fall into 3 thematic areas: (1) foundation in palliative care fundamentals, that is, definitions, scope, and basic principles; (2) self-efficacy in assessing and managing common disease-driven and EoL symptoms, for example, dyspnea, cough, fatigue, pain, anxiety, and psychological distress; and (3) ability to communicate effectively about prognosis and treatment options across the illness trajectory.

Panelists discussed that PCCM clinicians need time and resources to exercise the broad array of primary palliative care skills to the best of their abilities. Central to this is building skills in identifying and coordinating interprofessional care as well as developing expertise in addressing patients’ spiritual needs and delivering culturally appropriate palliative care. As some participants noted,

understanding best-practice palliative care billing strategies and financial models could support sustainable palliative care practice in the ambulatory setting, while honing skills in navigating high-stakes situations and building patient-family-clinician rapport are essential primary palliative care skills in the ICU setting.

Participants noted that interprofessional collaboration and care coordination require intentional strategies and communication across specialties to create a foundation for cohesive, person-centered care across the continuum. They discussed that PCCM clinicians need access to spiritual care professionals and language interpreters. In the ICU, reducing stress and enhancing coping through music and pet therapy as well as patient- and family-centered physical space design promote care aligned with pal-

liative care principles. In ambulatory and post-acute care settings, participants emphasized that educating PCCM clinicians to implement primary palliative care involves strengthening collaboration with specialty palliative care clinicians to navigate complex long-term decision-making, such as discontinuing antifibrotic medications in interstitial lung disease or considering lung transplant. Collaboration in the clinic can also help to build trust, elicit values, identify cultural influences, discuss prognosis, and introduce hospice services, as appropriate.

The NGT and RQA process then identified prioritized palliative care skills that PCCM clinicians must have in ambulatory and inpatient settings. Nine of 12 (75%) panelists invited to each NGT session attended. [Table 2](#) shows all statements that panelists

Table 2 Priority palliative care skills for pulmonary–critical care clinicians by nominal group technique: broad themes and exemplary statements.

Ambulatory	Inpatient
What is the most important palliative care skill for pulmonary–critical care clinicians in the ambulatory setting? Palliative care fundamentals • Knowledge of the basic principles of palliative care; ensure provider can distinguish between primary palliative care, specialty palliative care, and hospice • Provider should believe that palliative care is pulmonary care • Knowing when to refer the patient for extra support, and who to refer to • Working knowledge of advance care planning tools and documents Serious illness communication • Conducting values-based goals of care discussions throughout the disease course • Compassionate skills for early communication about serious illness • Self-awareness and empathy on the part of the clinician Symptom management • Symptomatic management of shortness of breath and cough • Basic toolkit for psychological distress and coping, including the ability to assess and manage anxiety, depression, loneliness, and social isolation • Manage refractory breathlessness using interprofessional interventions Building prognostic awareness • The ability to prognosticate, especially about life expectancy • Anticipatory guidance for living with pulmonary disease Caregiver support • Supporting families and caregivers to reduce their burden and distress Advanced pulmonary devices • Role of oxygen and other respiratory support devices as life-sustaining treatments Culturally appropriate palliative care • Cultural humility Interprofessional collaboration • Multidisciplinary and interprofessional teamwork and collaboration	What is the most important palliative care skill for pulmonary–critical care clinicians in the inpatient setting? Serious illness communication • Clear and empathic communication with patients and caregivers • Elicit patients’ goals and values • How to structure communications with seriously ill patients and their families including the timing, setting, content and word choice • Communication skills training • Empathetically connect with patients and families to address patients’ preferences and goals of care • Assuring non-abandonment End-of-life care • The process of terminal extubation and withdrawing life-sustaining treatments • Recognizing when a patient is at the end of their life and when they are acutely dying • Management and care of the acutely dying patient • Managing burdensome symptoms near the end of life Symptom management • Basic symptom management for pain, dyspnea, and anxiety • Addressing various symptoms for multiple comorbidities • Identifying and alleviating sources of suffering Interprofessional collaboration • Knowing when to engage specialists in palliative care vs manage on our own • Interdisciplinary collaboration Palliative care fundamentals • Knowledge of the basic principles of palliative care • Identify the legal next of kin and the person who the patient will want to make decisions for them

Includes all exemplary statements that were thematically analyzed. Exemplary statements were generated by participants over multiple rounds and are not ranked in any order. The bulk of exemplary statements in the ambulatory setting were generated within the theme of “Palliative care fundamentals,” in contrast to the theme of “Serious illness communication” in the inpatient setting.

Table 3 Priority palliative care skills for pulmonary–critical care clinicians by nominal group technique: top 5 prioritized statements by site.

Rank	Ambulatory	Inpatient
1	Symptomatic management of shortness of breath and cough Theme: Symptom management Subtheme: Managing respiratory symptoms	Clear and empathic communication with patients and caregiver Theme: Serious illness communication Subtheme: Compassionate communication skills
2	Conducting values-based goals of care discussions throughout the disease course Theme: Serious illness communication Subtheme: Eliciting goals and values	Basic symptom management for pain, dyspnea, and anxiety Theme: Symptom management Subtheme: Managing pain, dyspnea, and anxiety
3	Basic toolkit for psychological distress and coping, including the ability to assess and manage anxiety, depression, loneliness, and social isolation Theme: Symptom management Subtheme: Assessing and managing social and emotional aspects of disease	Knowledge of the basic principles of palliative care Theme: Palliative care fundamentals Subtheme: Basic palliative care principles
4	Compassionate skills for early communication about serious illness Theme: Serious illness communication Subtheme: Compassionate communication skills	Elicit patients' goals and values Theme: Serious illness communication Subtheme: Eliciting goals and values
5	Supporting families and caregivers to reduce their burden and distress Theme: Caregiver support Subtheme: Reducing caregiver burden and distress	The process of terminal extubation and withdrawing life-sustaining treatments Theme: End-of-life care Subtheme: Care for the person who is dying

Shows the top 5 exemplary statements chosen by participants over 2 rounds of nominal group technique voting in ambulatory and inpatient settings, along with their corresponding theme and subtheme.

generated grouped by themes, irrespective of prioritization. Participants in the ambulatory session recorded 24 total statements and ranked 20, with most of these statements falling into the broad theme of “palliative care fundamentals.” Experts in the inpatient session recorded 20 total statements and ranked all statements, with most falling into the broad theme of “serious illness communication.” Panelists then prioritized the top 5 skills that trainees and clinicians must have in each setting, as shown in Table 3.

Key recommendations

A “PalliPulm” framework to improve palliative care education and practice in PCCM

Figure 2 illustrates our panel’s recommendations for a comprehensive “PalliPulm” framework to improve palliative care education and practice in PCCM across the care continuum. This framework includes the spectrum of primary palliative care skills in PCCM as highlighted by breakout group discussions (Figure 2A) and the most essential skills across settings as prioritized by the NGT process (Figure 2B). We envision PCCM fellowship program directors, clinic and ICU leaders, and interprofessional team members using this practical and scalable framework to design comprehensive palliative care educational and clinical initiatives to ultimately improve its implementation in PCCM practice. In ambulatory settings, for example, clinic leaders interested in building palliative care educational initiatives or filling their training gaps should focus on the prioritized topics of symptom management (ie, managing respiratory symptoms and assessing and managing

social and emotional aspects of disease), serious illness communication (ie, eliciting goals and values and compassionate communication skills), and caregiver support (ie, reducing caregiver burden and distress). In the inpatient environment, ICU leaders and clinicians should design palliative care educational initiatives and gain training in serious illness communication (ie, compassionate communication skills and eliciting goals and values), symptom management (ie, managing pain, dyspnea, and anxiety), palliative care fundamentals (ie, basic palliative care principles), and EoL care (ie, care of the person who is dying) (Figure 2).

Teaching palliative care to PCCM clinicians and trainees

Figure 3 illustrates panelist recommendations on the evolution of palliative care education for PCCM clinicians and trainees. PCCM educators and clinical leaders should guide trainees and clinicians in their development of primary palliative care skills with a specific focus on evolving the core skills we identified (Figure 2).¹⁵ Taking serious illness communication skills as an example, while beginners learn to hold a high-quality family meeting in the ICU, faculty or supervisors should oversee these meetings, explore when things do not “land” as intended, and help trainees assess what participants gathered from the conversation.³ Along this spectrum, clinicians should reflect on their own areas for growth in palliative care education. A life-long commitment to improving palliative care skills, such as via routine debriefing with team members or intentional, case-based, and interprofessional communication exercises, is invaluable to cultivate a culture of best practices for palliative care education. PCCM clinicians must also know their limitations and

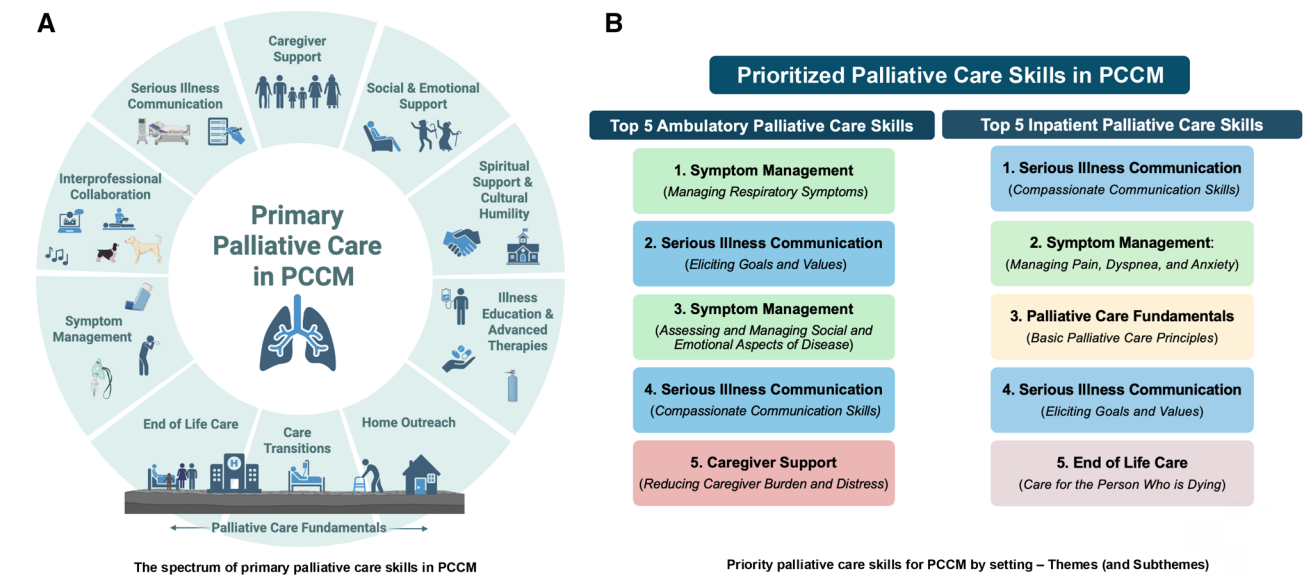


Figure 2 A PalliPulm framework to improve palliative care education and practice in pulmonary–critical care medicine (PCCM) across the care continuum. This figure illustrates a comprehensive PalliPulm framework to improve the integration of palliative care into PCCM education and practice. This framework provides a pragmatic and scalable path to guide PCCM trainees, leaders, clinicians, and policy leaders in developing and pursuing educational and practice initiatives in this space. (A) The broad spectrum of primary palliative care skills in PCCM that emerged from the virtual breakout group discussions. PCCM leaders and clinicians could use these themes to design comprehensive PalliPulm training and clinical programs across the care continuum. (B) The top 5 prioritized skills for PCCM trainees and clinicians in ambulatory and inpatient settings, which emerged from the themes and subthemes of ranked statements in the nominal group technique sessions and rapid qualitative analysis. In busy ambulatory or inpatient settings and during fellowship or clinician onboarding, we envision PCCM leaders, fellowship program directors, unit leaders, and clinicians using this framework to identify their training gaps and prioritize areas where they must develop training as well as prioritize areas for course development, lectures, conferences, or other modalities on high-yield topics such as symptom management in the ambulatory setting and serious illness communication in the inpatient setting.

Beginner				Intermediate				Advanced			
Serious Illness Communication Skills				• Ask-Tell-Ask • Understand basic structure of family meeting • Summarize clinical situation in meaningful way to patient/family • Respond to emotion with NURSE statements • Start family meeting with introductions, sharing headline, and responding to emotion		• Ask values-based questions (mapping) anchored to clinical situation • Continue to respond to emotions throughout meeting • Incorporate reflective statements • Align ascertained values and make recommendations		• Conduct meeting without input • Teach basic communication concepts to residents and medical students • Recognize limitation of skills in hosting complex family meetings that exhibit discordance or involve multiple disciplines and know when to include palliative care specialists			
Symptom Management Skills				• Learn to take a symptom history • Develop differential for symptoms, eg, pain, dyspnea, nausea/vomiting, anxiety • Plan for above symptoms with assistance • Describe role of palliative care in symptom management • Learn basic assessment of religion and spirituality • Identify end-of-life symptoms and key management		• Plan for symptoms without assistance • Consider plan for transition to outpatient/home setting • Describe end-of-life symptoms to patient or family members • Recognize when palliative care specialists would be beneficial for symptom management support		• Teach symptom assessment/management and end-of-life care management to medical students and residents			
Faculty/Supervisor Role				• Introduce symptom assessment and management • Introduce communication tools (SPIKES, REMAP or NURSE) for emotion responses • Help formulate headline • Supervise family meeting, intervene early if needed • Debrief after each meeting		• Provide ongoing direct supervision during family meetings with support during preparation and debrief/feedback • Demonstrate new skills being taught		• Encourage trainee independence but be available for support if needed • Debriefing after meetings when not present			

Figure 3 Evolution of palliative care skills development in PCCM. Figure illustrates palliative care skills development in PCCM in the broad categories of serious illness communication and symptom management from beginner to advanced stages. Trainees and early career clinicians are supported along the way in their development by faculty and supervisors who help them progress through each stage. Logging primary palliative care as a procedure and recognizing limitations in skills are important elements of primary palliative care skills development. Abbreviations: NURSE, Naming, Understanding, Respecting, Supporting, Exploring; PCCM, pulmonary–critical care medicine; REMAP, Reframe, Expect emotion, Map out patient goals, Align with goals, and Propose a plan protocol; SPIKES, Setting, Perception/Perspective, Invitation, Knowledge, Empathy/Emotion, Summary/Strategy.

when specialty palliative care referral is necessary for complex family dynamics (Figure 3).^{10,16} A “Top 10” list, as published by Campbell et al. could prove useful in structuring how to develop skills in holding family meetings.¹⁷

Panelists emphasized that compassionate or empathic communication, a core ACGME competency, receives little to no prioritization in comparison to traditional procedure-based education in PCCM, despite its ubiquitous presence in the clinic

Table 4 Practical considerations for palliative care education delivery and reception in PCCM training and practice.

Task	Details	Key personnel	Limitations
Train the trainer	Develop skills for local champions who return to home institutions to cultivate a serious illness communication community Critical Care Communication (C3), a VitalTalk-based course for ICU fellows	Career professionals and supervisors	Time away for the trainer Costs of travel and training (virtual option exists) Uncertain measures to ensure enduring competency of the trainer
Didactics	High-yield topics for trainees and clinicians, either standalone lectures for conferences and ICU rotations or embedded into existing lectures, eg, primary palliative care modules on https://palliativemedicine.ucsf.edu/education/ppcc/teaching-materials or https://atsedplus.thoracic.org/capc/palliative-care-for-patients	Palliative care and communication experts, PCCM faculty, interprofessional experts	Requires commitment to dedicated protected time
Clinical experiences	Just-in-time “microskills” ⁵⁴ One-minute precepting Teaching communication skills in real time on rounds or during family meetings Required palliative care rotations	PCCM and palliative care faculty, interprofessional experts	Requires buy-in and expertise of supervising faculty or supervisors Requiring palliative care rotations in PCCM fellowship or residency may be complex but not impossible
Palliative care “procedural” training	Training in clear and empathic communication, eliciting goals values, prognostication with patients and families, and conducting family meetings Add these elements to trainee procedural logs	PCCM and palliative care and communication experts	Inadequate level of expertise among faculty for all learners Requires measures of proficiency Competing priorities for PCCM trainees and clinicians

Abbreviations: ICU, intensive care unit; PCCM, pulmonary–critical care medicine.

and ICU. Correspondingly, the American Academy of Nursing–endorsed Competencies and Recommendations for Educating Nursing Students (CARES) include effective, respectful, and compassionate communication as an entry-level competency.¹⁸ We recommend that the PCCM medical education community must similarly incorporate serious illness communication as a procedure into trainee education and include procedure logging and high-quality practice under qualified supervision until competency is achieved. Focusing communication training on talking about serious illness, using prognostication language, and avoiding “never words” (eg, “withdrawal of care” or “going palliative”) can dispel myths while fortifying essential skills for PCCM trainees.^{19–21} Classroom-based introductions to palliative care–related frameworks as well as vocabulary and cognitive roadmaps to guide family meetings, such as SPIKES (Setting, Perception/Perspective, Invitation, Knowledge, Empathy/Emotion, Summary/Strategy), NURSE (Naming, Understanding, Respecting, Supporting, Exploring), or REMAP (Reframe, Expect emotion, Map out patient goals, Align with goals, and Propose a plan protocol), can serve as great foundations.^{22–24}

Call-and-response drills in small-group workshops offer further opportunities to experiment with different communication techniques in safe, low-stakes, nonclinical environments.²⁵ Where resources permit, we recommend that communication training with role-play, simulated patients, and surrogate decision makers offers invaluable practice for specific communication skills.^{26,27} While family meetings in the ICU provide an area for communication skills training and feedback in a high-stakes environment, PCCM faculty and supervisors should also help trainees find opportunities to gain experience in communicating about illness understanding and prognostic awareness longitudinally in pulmonary clinics (Table 4 and Figure 3).^{1,28}

In addition to communication-related themes, our panel recommends that trainees and practicing clinicians should also be taught about common symptoms in serious respiratory illness and prevalent symptoms at the EoL (eg, pain, dyspnea, anxiety, and thirst).²⁹

³⁰ Building skills in symptom assessment and management can follow a similar progression to serious illness communication, as shown in Figure 3. High-quality symptom management begins with high-quality symptom assessment and knowing which tools are being implemented in one’s clinic or ICU, the various modalities for delivery (eg, verbal, observational on the ventilator, or proxy-based), and potential areas for improvement, especially for patients with complex EoL symptoms.²⁹ Finally, we suggest that simulation of terminal extubations could give trainees and practicing clinicians practice in this complex procedure at EoL, ensuring high-quality symptom assessment and management and person-centered care.³¹

Exemplar palliative care educational opportunities for pulmonary–critical care clinicians and trainees

Despite a lack of standardized palliative care inclusion in PCCM training programs, our panel identified many existing educational resources from topic-specific continuing education to comprehensive primary palliative care training programs, which could have broad applicability in PCCM (see Table 3 in the ATS Policy Statement by Sullivan et al.). The Center to Advance Palliative Care (CAPC),^{32–34} the End-of-Life Nursing Education Consortium (ELNEC),³⁵ the Serious Illness Care Program,^{36–39} and VitalTalk⁴⁰ all offer online continuing education in core palliative care skills such as communication and symptom management, many of which

are asynchronous and accessible to busy clinicians. A recent collaboration between CAPC and ATS that grew from our policy statement and this workshop seeks to develop and disseminate PalliPulm-specific training courses for ATS members. (Online interactive educational modules can be found here: <https://attedplus.thoracic.org/capc/palliative-care-for-patients>.) Other options exist such as “Fast Facts,” offered by the Palliative Care Network of Wisconsin,^{41–43} which provides concise, up-to-date information on palliative care clinical best practices and can be integrated into ongoing PCCM team learning activities. Any of these continuing educational resources may be used to drive targeted palliative care quality improvement projects on PCCM teams to address common patient needs.

More comprehensive palliative care education for PCCM clinicians can also be achieved through virtually facilitated, longitudinal certificate or degree programs such as those offered through the Colorado State University Shiley Haynes Institute for Palliative Care, the University of Colorado, and the University of Maryland. While requiring substantial financial and time investment from learners, these programs equip clinicians to be “pal-

liative care champions” in their teams or practices. Furthermore, for practicing PCCM physicians interested in specialty palliative care training, novel midcareer fellowship programs offer a path to board eligibility. For example, the University of Colorado Community-Based Hospice and Palliative Medicine Fellowship allows physicians enrolled in the master’s degree program to complete additional clinical training in their local communities.⁴⁴ The competency-based, time-variable fellowship program led by the University of Pennsylvania and offered at 7 training sites across the country provides physicians the opportunity to pursue fellowship training part time while maintaining existing PCCM practices.⁴⁵

Recommendations for PCCM clinicians on how to talk about palliative care with patients and their caregivers

Panelists recognized that the role of palliative care is often misunderstood not only by PCCM clinicians but also by the broader public, thus leaving its potential benefits underutilized.⁴⁶

Table 5 Suggestions for discussing palliative care concepts in pulmonary–critical care medicine with patients and their families across the care continuum.

Timepoint	Illness trajectory	Clinician statement	Skills/considerations
Initial consultation (ambulatory setting)	Mild-moderate respiratory illness	• “What is your understanding of what is happening right now?” • “Can you tell me about what you are hoping for?” • “Can I share some thoughts/concerns about your respiratory illness?”	• Listen to the patient’s story • Help patients reframe values and goals; tailor responses to patients’ needs to meet the realities at hand • Introduce ACP concepts: establish a surrogate decision maker and engage caregivers • Discuss physical and psychological symptom burden • Discuss prognosis and how information should be delivered • As appropriate based on presentation at initial consultation, introduce potential benefits of specialty palliative care; describe the discipline and team
Hospitalization/ICU admission	Moderate-severe respiratory illness	• “Tell me the most important thing I need to know about you to take the best possible care of you.” • “We want to be sure we know who should be making healthcare decisions for you in the event that you are unable to make them yourself.” • “What is most important to you today?” • “If we could help you achieve one goal today, what would it be?” • “We worry that we are not in the same place we were previously. It is important for us to know how you are doing emotionally. Please tell us what you want us to know.”	• Continue ACP: Review surrogate decision-maker and EoL care plan • Discuss need for a dyspnea crisis plan • Introduce potential benefits of specialty palliative care, eg, “extra layer of support”; describe the discipline and team • Assess and address spiritual and emotional concerns
EoL	Very severe respiratory illness	• “What do you need right now that we aren’t doing for you?” • “Do you have any spiritual or religious practices that we can help arrange for you?”	• Enact and share EoL care plan with clinical team • Ensure patients’ preferences, values, and goals are being honored • Discuss hospice enrollment/concepts

Abbreviations: ACP, advance care planning; EoL, end of life; ICU, intensive care unit.

Considering the framing of palliative care and delivery of serious illness conversations that elicit patient and family goals and values could help address these issues. Table 5 provides basic talking points that can be seamlessly integrated into routine PCCM practice at various timepoints to engage in palliative care assessment and planning. Clinician statements can be directed either toward patients or caregivers/surrogate decision-makers based on the patient's clinical stability and capacity across illness trajectories.

Patients with serious illness often seek validation of their experience, an empowered sense of agency, guidance to navigate resources and support, and ways to regenerate their own self-worth as well as a new identity in the face of loss and grief.⁴⁷ We recommend empathic communication that acknowledges, normalizes, and validates patients' lived experiences while clarifying their goals for care and health-related values as well as promoting shared decision-making; honoring their personhood is essential.⁴⁸ Meeting patient and caregivers "where they are" can be a pragmatic first step toward introducing palliative care (as a concept, discipline, and service) to optimize quality of life either as a standalone approach or in conjunction with curative therapies.⁵ Framing palliative care as an "extra layer of support" to improve the management of pain and other distressing symptoms, ensure both patient autonomy and caregiver well-being, connect to other sources of information and expert input, facilitate coping, and individualize pulmonary-critical care delivery may be helpful. This approach helps patients, families, and PCCM clinicians understand that palliative care is not limited to EoL and does not represent abandonment or cessation of other medical interventions.

Iterative and ongoing communication that reflects hope and clinical pragmatism is essential to maintain person-centered PCCM care.¹ This approach begins at the time of pulmonary consultation in ambulatory settings, to invite clarity around goals of care, prognostic understanding, limits on invasive therapies, and involvement of caregivers and identification of healthcare proxies/surrogate decision-makers. This communication will alleviate suffering in a timely and consistent manner whether the team is seeking to reduce suffering while sustaining life or focusing exclusively on comfort.

Recommendations for delivering culturally appropriate palliative care

Panelists emphasized that caring for people with serious illnesses who are from racially, socially, and culturally minoritized and marginalized groups warrants special consideration. These populations are less likely to experience serious illness communication, which often prevents the provision of high-quality, culturally concordant palliative care near the EoL.^{1,49,50} An approach that accounts for lived experiences and cultural, spiritual, and religious considerations is important when eliciting patients' goals and values. While understanding these perspectives may be challenging due to lack of training or inexperience, it is important to consider how these factors influence views around death and dying, suffering, modern and traditional medicine, family and community, and communication. We recommend that PCCM trainees and clinicians learn an approach that embraces both *structural competen-*

cy, an understanding of how upstream social, economic, and political factors affect downstream health and healthcare outcomes, and *cultural humility*, an ongoing process to commit to and actively engage in cultural awareness and collaboration with community members and liaisons.^{51,52} Working with community-based organizations eg, "EthnoMed," (<https://ethnomed.org>) that provide culture-specific information and tools about norms and values allows for a tailored approach to the unique needs of patients and families from different backgrounds. This supports the goal of delivering individualized care within an appropriate cultural context that avoids stereotyping and broad generalizations, fosters trust, and builds caring relationships. Indeed, improved conversations and ongoing education around patients' and families' values, beliefs, perspectives, and practices may foster and encourage compassionate, nonjudgmental communication and help mitigate moral distress when patients and families have values that result in choices differing from predominant views among PCCM clinicians in ambulatory and ICU practice.⁵³

Emerging concepts and future directions

While interprofessional expert consensus dictates that primary palliative care is an essential best practice, action is needed at multiple levels to ensure widespread adoption and implementation in PCCM. Through our Policy Statement and this Workshop Report, ATS has articulated that palliative care is a critical component of quality care for people with serious illness. However, the workgroup is reflective of the broader field, and there was some disagreement about the precise definition of primary palliative care. Consensus on a naming convention is warranted.

Case-based examples and further research on successful palliative care education initiatives and clinical workflows, with more data on knowledge and practice outcomes using novel frameworks such as ours, are needed to advance adoption of palliative care education and to stimulate practice change in PCCM. However, educational-based initiatives alone may be insufficient. Our panelists discussed other potential domains, for example, triggers or reimbursement models, that can enhance dissemination efforts. Panelists discussed issues around when to initiate palliative care. Understanding the timing of primary and specialist palliative care in ambulatory and ICU settings is essential; triggers could depend upon disease-specific or patient caregiver-specific variables^{1,10} or may be drawn from enrollment criteria in palliative care clinical trials and international expert consensus (Figure 4).^{16,54–56}

To improve efficient implementation in busy clinical practices, the electronic health record may be used to identify the highest-needs patients; however, ICU palliative care triggers are complex and warrant further research and clarity.^{57–59} In the end, PCCM clinicians themselves are the most equipped to identify supportive care needs and should feel empowered and have the skills to implement primary palliative care when the patient is experiencing a decline in well-being. This is ideally at the time of diagnosis, concurrent with disease modifying therapies, and prior to rapid disease progression at the very EoL.

While intrinsic motivation is essential to achieving practice change, several systems-level barriers to primary palliative care in PCCM exist. Time constraints, insufficient resources, and inadequate reimbursement present sizeable implementation

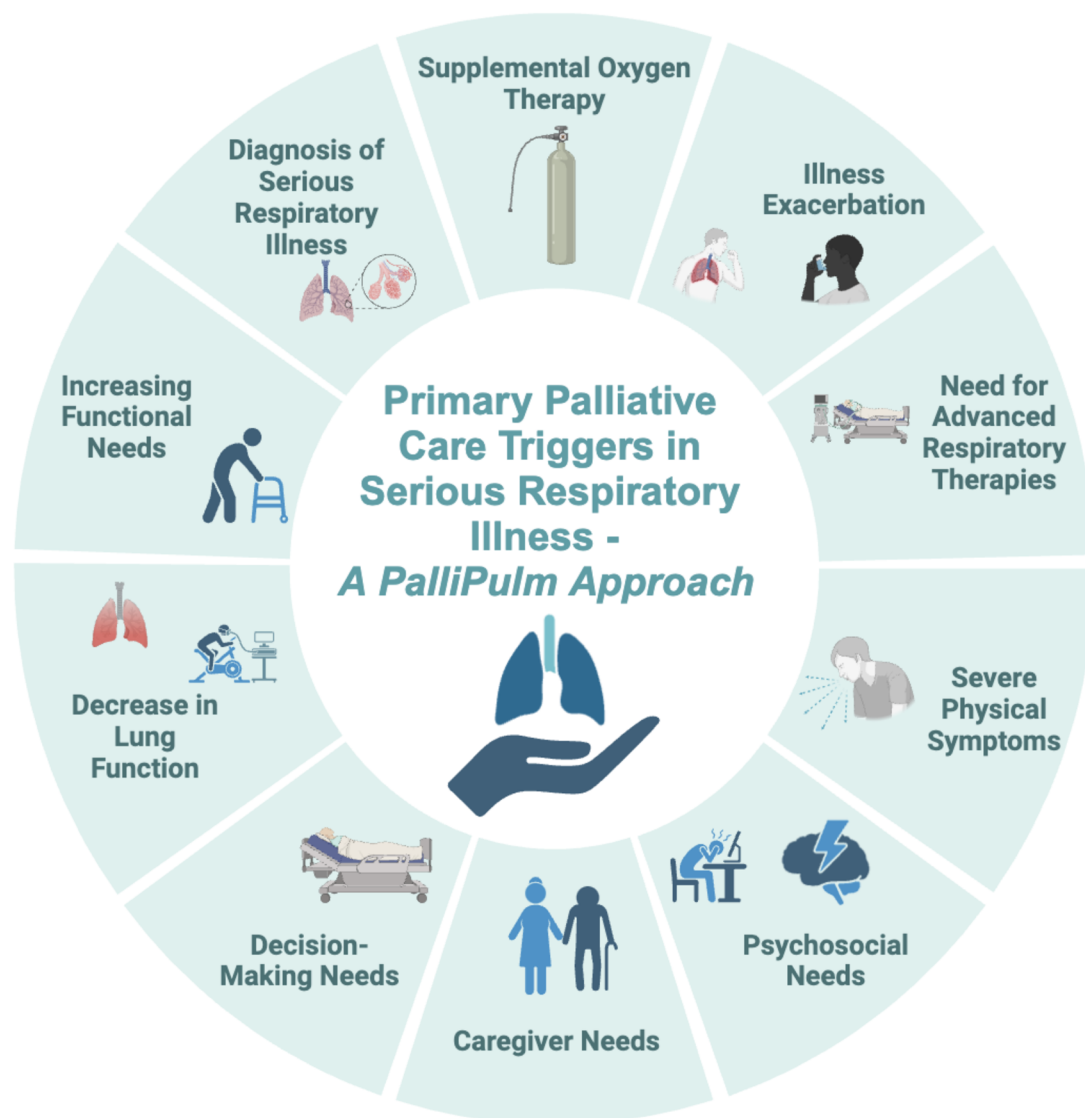


Figure 4 Potential triggers for primary palliative care in the ambulatory setting for people living with serious respiratory illness—a PalliPulm approach. This figure illustrates potential triggers to help practicing clinicians in the ambulatory setting know when to initiate primary palliative care. This PalliPulm approach includes several domains that span disease-focused triggers to functional and caregiver needs.

challenges. Recent changes to the physician fee schedule⁶⁰—including payment for advance care planning, care navigation, and caregiver education—present a significant opportunity. However, technical support on the use of reimbursement codes is needed.^{61,62} Serious illness communication across domains of compassionate communication and goals and values elicitation is a core procedure to build palliative care expertise. The PCCM community and health systems more broadly must support and reimburse this as a complex procedure. Palliative care delivery is also well-aligned with value-based payment models—consider, for example, the impact of poorly managed dyspnea on acute care utilization and healthcare costs.⁶³ Finally, we recommend continued prioritization of palliative care delivery by PCCM clinicians even in the face of limited skills sets and evidence basis as we wait research and policy support to establish effective evidence-based education and training interventions.

Conclusions

This report provides a pragmatic path forward to improve the integration of palliative care education and practice into PCCM. Central to our novel, comprehensive, and scalable “PalliPulm” framework is the development of a core set of palliative care skills that PCCM trainees and interprofessional clinicians must obtain across settings and that extends beyond serious illness communication. Results serve as a guide for PCCM leaders, trainees, practicing clinicians, and policy makers to fill their own training gaps in palliative care and to efficiently establish broad “PalliPulm” educational and practice initiatives that are culturally appropriate and applicable across the care continuum. Continuous messaging to healthcare systems, professional societies, and policy makers about the value and role of primary palliative care in PCCM is essential.

This official workshop report was prepared by an *ad hoc* subcommittee of the ATS Assembly on Behavioral Science and Health Services Research and the Palliative Care Subgroup of the ATS Aging Interest Group.

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Subcommittee disclosures

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