ASHP Guidelines on the Pharmacist's Role in Palliative and Hospice Care

Palliative care arose from the modern hospice movement and has evolved significantly over the past 50 years.[1] Numerous definitions exist to describe palliative care, all of which focus on aggressively addressing suffering. The World Health Organization and the U.S. Department of Health and Human Services both stipulate the tenets of palliative care to include a patient-centered and family-centered approach to care, with the goal of maximizing quality of life while minimizing suffering.[2] In its clinical practice guidelines, the National Consensus Project for Quality Palliative Care of the National Quality Forum (NQF) describes palliative care as "patient and family-centered care that optimizes quality of life by anticipating, preventing, and treating suffering . . . throughout the continuum of illness . . . addressing the physical, intellectual, emotional, social, and spiritual needs and to facilitate patient autonomy, access to information, and choice."[2] NQF further specifies the foundation of palliative care to include professional and family collaboration, the availability of services regardless of pursuit of curative or life-extending care, and, most importantly, the provision of care coordinated by an interdisciplinary team.[2] The continuum of care provided by palliative care pharmacists (Figure 1) incorporates the concepts that curative and palliative care should coexist and that hospice care is an extension of palliative care that occurs when curative care is no longer part of the patient's plan of care.[3]

The practice of palliative care, while rooted in traditional hospice and hematology and oncology programs, has changed dramatically in its delivery, competency assessment, and methods for preparing future members of the interdisciplinary team.[4,5] Previously, health professionals obtained the necessary skills and knowledge for participation in the interdisciplinary delivery of palliative care via encompassing specialty areas (e.g., internal medicine, geriatrics, oncology).[6,7] Numerous efforts to enhance professional education on palliative care largely drove its eventual recognition as a medical subspecialty in 2006.[8,9]

Specialized training programs and board certification opportunities exist today for most members of the palliative care interdisciplinary team.[10-14] As the model of palliative care has progressed, so too has each team member's potential for contribution. Despite representation within the first hospice demonstration project in the United States, participation of the pharmacist as an essential member of the interdisciplinary team has been traditionally overlooked.[15-18] Evidence of the pharmacist's contribution to the delivery of palliative care and supportive care services beyond the original role of medication dispensing and compounding has garnered growing recognition across numerous practice settings.[15-17,19-27]

Perhaps no other practice setting presents as diverse a collection of potential roles and responsibilities for the affiliated palliative and hospice care (PHC) pharmacist. Here, the PHC pharmacist may support the PHC services in an administrative role (policy and procedure, formulary management), in a consultative role (order set development, treatment algorithm development, best practices education), and in advanced clinical practice (medication therapy management services, pain and symptom management consultations, and interdisciplinary team participation).

Purpose

In 2002, ASHP published the ASHP Statement on the Pharmacist's Role in Hospice and Palliative Care.[28] These guidelines extend beyond the scope of that statement and are intended to define the role of the pharmacist engaged in the practice of PHC. Role definition will include goals for providing services that establish general principles and best practices in the care of this patient population. This document is based on literature resources, consensus of pharmacist experts in the field of PHC, therapeutic practice guidelines, and regulatory standards.[1,2,4,29]

The terms *palliative*, *end-of-life*, *hospice*, and *supportive care* are frequently, and incorrectly, used interchangeably. While these philosophies of care share similarities, each represents overlapping yet delineable points along the healthcare continuum. For the purposes of these guidelines, the term *PHC* will be used to describe the common services afforded to patients with a serious or life-limiting illness, including those enrolled in a formal hospice program.

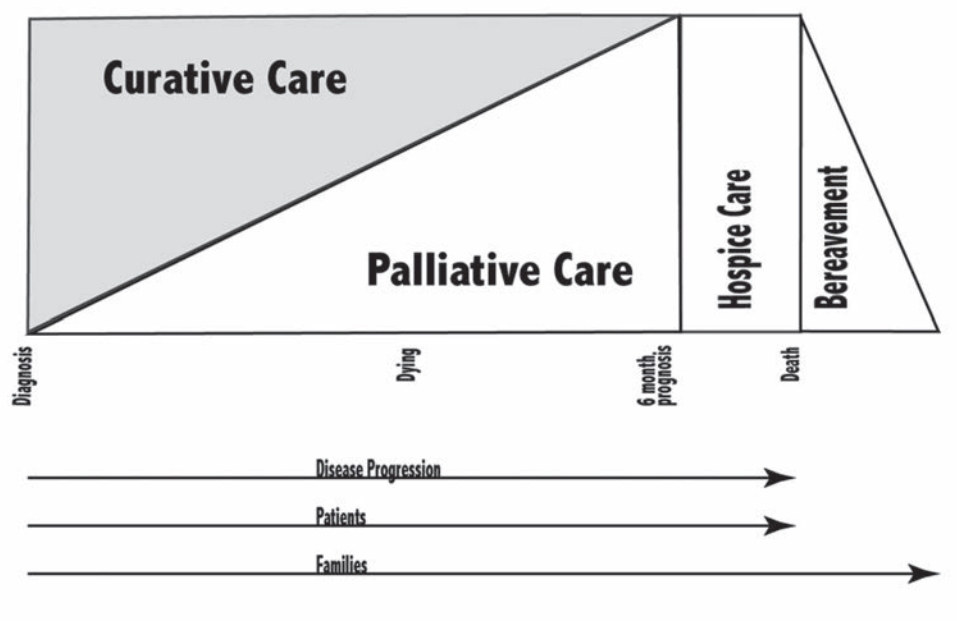
Two levels of PHC services are described: (1) essential services, which include core processes, and (2) desirable services, which include higher levels of practice, teaching, and research. The level of service provided by the PHC pharmacist will vary based on the level of practice experience of the pharmacist as well as the level of palliative care services provided in each respective setting. Services provided by a pharmacist will therefore be unique and should be designed to best meet the needs of the institution, hospice, or other healthcare practice setting.

In concert with the palliative care team or hospice chief executive officer and medical director, the PHC pharmacist uses his or her professional judgment to individually weigh the factors that determine the extent of services provided. These factors include the population served, number of pharmacists, and time dedicated to the palliative care or hospice team. Corresponding duties required of the PHC pharmacist in other areas of the pharmacy service and the extent of time required for administrative duties and obligations should be considered. Services provided by the PHC pharmacist will vary among practices and should be designed to best meet the needs of the site and the patient.

Delineation and Description

Before the development of these guidelines, a task force was appointed by the Section Advisory Group, Pain and Palliative Care, within the Section of Ambulatory Care Pharmacists of ASHP. A comprehensive literature review was performed using PubMed, EMBASE, PsychInfo, Google Scholar, and International Pharmaceutical Abstracts to search for all relevant articles published between January 1975 and December 2014. The literature search was con-

Figure 1. Continuum of curative, palliative, supportive, and hospice care in disease trajectory. Reprinted under terms of the Creative Commons Attribution License from Guo Q, Jacelon CS, Marquard JL. An evolutionary concept analysis of palliative care. *J Palliat Care Med.* 2012; 2:1–6.



ducted using MeSH terms and keywords alone and in combination with other terms, including *pharmacy*, *pharmacist*, *pharmaceutical care*, *pharmacotherapy*, *medication therapy management*, *hospice*, *end of life*, *terminal illness*, *palliative care*, *supportive care*, *symptom management*, and *pain management*.

Similar to other areas of specialty or subspecialty practice within the profession of pharmacy, some level of palliative and supportive care knowledge is essential for all pharmacists providing patient care, regardless of scope or setting. The European Association for Palliative Care (EAPC) recently updated a two-part guidance document on essential competencies for healthcare and social workers involved in the delivery of palliative care.[1,4] In that guidance document, EAPC delineates recommendations for those providing general palliative care (i.e., palliative care services provided by primary care and nonpalliative care specialists) and those providing specialist palliative care (i.e., health professionals whose main activity focuses on delivery of palliative care). These guidelines also incorporate that dichotomy.

To address the heterogeneous nature of the pharmacy profession, the pharmacist's roles and activities described herein will be categorized as either essential or desirable. Essential roles and activities describe the practice of palliative and supportive care pharmacy, whereas desirable roles and activities denote delivery of palliative and supportive care services by pharmacist specialists at the highest level of advanced practice, such as leading palliative and supportive care teams, engaging in medication therapy management, teaching, and contributing to new knowledge of the field. Essential and desirable roles and activities, as outlined within these guidelines, should not be considered mutually exclusive. Recommendations will focus on the pharmacist's roles and activities within clinical practice and administration as well as practice and professional development.

Essential Clinical Roles and Activities

Essential clinical roles and activities for the PHC pharmacist may vary widely, and services may be provided either directly or indirectly to the patient, depending on the practice setting. While not an exhaustive list of potential practice sites for the PHC pharmacist, settings of PHC delivery include various hospice settings, hospitals, outpatient clinics, outpatient community pharmacies, home care or long-term care (LTC) facilities, and consulting and managed care settings. Essential clinical roles and activities of the PHC pharmacist are presented in Table 1, and aspects of those roles and activities that traverse the various PHC practice settings are discussed below.

Hospice Programs. The PHC pharmacist providing care within hospice must be thoroughly familiar with symptom management and reduction. Hospice services are provided in the following settings: standalone hospice inpatient units and hospice residential units, LTC facilities, and hospitals, in addition to the more traditional home care paradigm. PHC pharmacists also must be cognizant of the many regulatory requirements associated with controlled substances, medication reimbursement requirements, and commonly managed symptoms. The Centers for Medicare and Medicaid Services (CMS), as part of the Conditions of Participation, stipulate that hospices are responsible for the costs associated with all services, including medications, related to the terminal diagnosis and related conditions for which the patient was referred and that are contributing to the terminal prognosis.[30,31] (The terminal prognosis includes the terminal and related diagnoses that contribute to the terminal prognosis, to include the symptoms caused or exacerbated by the terminal diagnosis, related diagnosis or treatment of terminal and related diagnosis.) Pharmacists are often called upon to review

Table 1.

Essential Clinical and Administrative Roles, Practice Activities, and Examples of Tasks, Skills, and Knowledge of the PHC Pharmacist[a]

Role and Specialty Practice Activity	Example(s) of Tasks, Skills, and Knowledge
Direct patient care	
• Optimize the outcomes of symptom management and palliative care patients through the expert provision of evidence-based, patient-centered medication therapy as an integral part of an interdisciplinary team • Serve as an authoritative resource on the optimal use of medications in symptom management and palliative care • Anticipate transitions of care when recommending, initiating, modifying, or discontinuing pharmacotherapy for pain and symptoms	• Conduct patient symptom assessment and drug therapy management, including comorbid conditions • Review and provide recommendations on managing ineffective, futile, and nonessential medications • Review pharmacotherapy and facilitate discussion with patients, caregivers, and families to reset therapeutic goals • Participate in hospice or palliative care planning meetings, inpatient patient care rounds, or consultations as appropriate based on setting • Document direct patient care activities appropriately • Establish collaborative pharmacist–patient and pharmacist–caregiver relationships • Provide concise, applicable, comprehensive, and timely responses to formal or informal requests for drug information • Recommend alternative routes of medication administration when traditional routes are not feasible or are impractical
Medication order review and reconciliation	
• Manage and improve the medication-use process in patient care settings	• Assist with preparation and dispensing of medications for symptom management and palliative care patients following existing standards of practice and the organization's policies and procedures • Contribute to the work of the team that secures access for drugs used in a patient's regimen, including facilitation of REMS programs • Assist in drug shortage management, including patient-focused and supply/management decisions • Employ medication adherence strategies • Perform opioid equianalgesic conversions • Conduct clinical medication regimen reviews to identify and resolve medication-related problems associated with symptom management
Education and medication counseling	
• Demonstrate excellence in the provision of medication counseling to patients, caregivers, and families	• Ensure safe and legal disposal of medication
Administrative roles	
• Ensure safe use of medications in the treatment of pain and symptoms • Medication supply chain management	• Pharmacy and therapeutics committee implementation and participation • Medication formulary and therapeutic substitution/interchange policy development and oversight • Development of medication-use policies and procedures • Support development of medication-use algorithms that follow evidence-based best practices • Perform continuous quality-improvement reviews toward medication-use compliance • Medication administration management (e.g., pumps, dosage forms, stock medication) • Safe and effective disposal of medications • Support medication contract negotiations with pharmacy vendors (e.g., PBMs, retail pharmacies, purchasing groups, wholesalers)

[a]PHC = palliative, supportive, and hospice care, REMS = risk evaluation and mitigation strategy, PBM = pharmacy benefit manager.

all patient medications, both at admission and periodically, requiring a thorough understanding of the pathophysiology of common life-limiting illnesses and their corresponding symptoms. Recent CMS guidance documents changed the expectations for hospice medication responsibility from those under the current Medicare Part D program, and a growing role for the PHC pharmacist is anticipated, particularly in the types of services provided by a PHC pharmacist on hospice admission.[19,26,32-34] Transitions-of-care planning on admission is of paramount importance to reduce the risk of analgesic or symptom control gaps. The PHC pharmacist should be intimately involved in the medication history and reconciliation of new hospice admissions, with special attention being paid to nonprescription medications and dietary supplements. Prompt identification of high-risk or problem-prone drug therapies should occur. Medication review to assess appropriateness of continued treatment given each drug's potential benefit, burden, and ability to administer, based on each patient's prognosis, should occur, paying particular attention to the identification of nonessential and futile treatment regimens. Equally important is the communication of drug-related changes to the patient and family. CMS's Conditions of Participation mandate that the interdisciplinary group confer with an individual possessing education and training in drug management to perform this ongoing review, though CMS stops short of dictating that these services be provided by a licensed pharmacist.

Caregiver and family education should extend beyond the patient's death. Providing guidance on safe disposal of medications to avoid diversion and improper disposal is easily overlooked but could have a significant impact on the family's health and public health. The PHC pharmacist, regardless of practice setting, must be familiar with current federal and state laws regarding drug disposal as well as local options for safe disposal (e.g., drug take-back programs).

Inpatient Palliative and Supportive Care Teams. The development of institutional palliative care teams is becoming more common in U.S. hospitals and health systems. Pharmacists may be engaged in numerous capacities, ranging from decentralized, full-time, or part-time team members dedicated to the PHC team to reactive participation and consultation when requested. Pharmacists who lead PHC teams require even greater expertise.[16,33] PHC pharmacists should be involved in symptom management strategies as well as facilitating timely medication administration, monitoring and reporting adverse drug reactions, providing education to patients and their families, and monitoring for drug–drug and drug–disease interactions. Regardless of scope of practice for the PHC pharmacist, the necessary knowledge and skills remain unchanged.

Outpatient Palliative and Supportive Care Teams. A growing sector of palliative and supportive care strives to deliver PHC to patients requiring pain and symptom management in an outpatient setting. These services may be housed within oncology and other similar group practices as well as larger primary care services under the patient-centered medical home model.[22,35,36] In addition, many hospices and health systems are establishing palliative care programs to address symptom relief in patients who have yet to initiate their hospice benefit or are not yet hospice appropriate. The PHC pharmacist in this setting must be thoroughly familiar with the medications used to alleviate suffering, with state and federal controlled substances laws, and with the nuances between standard community-dwelling patients, patients residing in LTC facilities, patients residing in assisted-living facilities, and patients receiving hospice care. In the outpatient setting, the PHC pharmacist's assistance is often sought when medication formularies and cost are of concern or drug administration difficulties are encountered.[37-39] Given the inability to closely observe outpatient PHC patients, tailored monitoring plans are required, while balancing the risks and benefits of a selected drug therapy is critical (e.g., symptoms, adverse drug effects, drugs with a narrow therapeutic range, opioids). Unique challenges may be encountered in this setting, requiring assistance from the PHC pharmacist regarding the safe use of and risk mitigation for opioids (e.g., previous patient or family history of substance use disorder or drug diversion).

Consulting, Distributive, and Compounding Services. Many patients residing in LTC facilities may either be candidates for PHC or currently under the care of a hospice organization. Pharmacists serving in a consulting capacity to these LTC facilities may significantly improve symptom management. In addition, advocating for patients who may be noncommunicative is essential. Essential roles of the PHC pharmacist serving in this capacity include ensuring routine use of medications as needed for pain or other symptom management, conducting appropriate monitoring for required maintenance medications, and having a thorough understanding of the interplay between regulatory compliance and the needs of the patient (e.g., antipsychotic use for terminal agitation in an LTC facility).

Pharmacists working in distributive or compounding services supporting PHC also have an important role in the provision of care. The art and science of preparing specially compounded medication formulations support the provision of personalized care to the terminally ill. The dispensing pharmacist will utilize his or her education and knowledge to ensure that the patient and family members understand the role of prescribed medications and necessary precautions with their use.

Many state regulations require hospices to retain a consultant or employed pharmacist for oversight of all medication-use processes within a hospice inpatient facility. These pharmacists collaborate with the hospice care team in a number of activities, including medication therapy reviews, clinical consults, and medication regulatory compliance oversight and guidance.

Desirable Clinical Roles and Activities

Desirable clinical roles and activities of a PHC pharmacist represent those typically reserved for the pharmacist engaged in dedicated palliative or supportive care services. These activities will, in most cases, embody the highest levels of service provided by the pharmacist allowed by the institution's scope of practice policies and state's pharmacy practice act. Most notably, the PHC pharmacist will often participate in the direct care of patients with respect to symptom assessment, laboratory monitoring, medication management, and prescribing in states that grant prescriptive authority to pharmacists through collaborative practice agreements (CPAs). A PHC pharmacist should actively seek

and engage in collaborative practice whenever allowed by the state and institution. Practicing at the top of one's professional license in this regard will facilitate provision of care to patients who otherwise may not have the opportunity for specialized services. Pharmacists will be actively involved with patient and family medication-use education to support their understanding of prescribed therapies and compliance with the plan of care. Desirable clinical roles and activities of the PHC pharmacist are described in Table 2, and aspects of those roles and activities that traverse the various PHC practice settings are discussed below.

Hospice Programs. The care model in many home care hospice programs, in which the patient's primary physician remains in that role, has evolved to utilize the PHC pharmacist as the hospice team member who develops specific medication recommendations through a consultative process. These PHC pharmacists are practicing as specialists in palliative care and often are familiar with palliative medication provision and can make patient-specific and cost-effective recommendations that are widely accepted by primary physicians.[34,40]

Inpatient Palliative and Supportive Care Teams. The PHC pharmacist should provide direct patient care services of varying scopes within the inpatient setting. These services may result from specialty team consultation, from individual consultation, or as part of health-system policy–directed automatic consultation (e.g., upon ordering of high-risk medications in nonadvanced care units). Typically, direct patient care services provided to inpatients by the PHC pharmacist will be directed by the pharmacy and therapeutics committee and medical staff executive committee. The individual institution or health system must direct the credentialing and privileging of PHC pharmacists in the absence of board certification availability. Other equally important functions of the inpatient PHC pharmacist include medication stewardship utilizing the principles of pharmaceutical care practice, adverse-effect anticipation and monitoring, pain and symptom management, patient and family education, discharge and transition planning, and follow-up coordination of care between multiple providers after transitions to new settings. Pharmacists may even be called on to lead a PHC team, which would require even greater expertise.[16,33]

Outpatient Palliative and Supportive Care. Lack of access to palliative care providers in ambulatory clinic settings creates an opportunity for a PHC pharmacist to provide symptom management to a variety of patient populations. The resulting improvement in quality of life and potential reduction in the number of acute visits to the physician office or emergency department for symptom-related complaints would represent the primary quality indicator for such a pharmacist. The PHC pharmacist should simultaneously be aware of the relative financial impact of medication therapies. Consideration of cost and insurance coverage at the time of medication selection is paramount in the outpatient setting. In addition, avoidance of high-cost medications when other equally effective and tolerated therapies are available reduces the likelihood of interruption to optimal symptom control should the patient transition to hospice care. When possible, having the PHC pharmacist work within a clinic focused on palliative care enhances the interdisciplinary approach to patient care. Although it is arguably an essential role of pharmacists in any practice setting, PHC pharmacists should possess the basic understanding and skills necessary to identify the risk for and current substance abuse among patients, caregivers, and family members.

While the direct patient care services of PHC pharmacists practicing in the hospice environment are not frequently described, their impact on patient care is noteworthy. CMS regulations concerning the provision of hospice services may preclude a PHC pharmacist from acting as the sole provider for a patient or directing an interdisciplinary team.

Supporting Transitions of Care. An important desirable clinical role for PHC pharmacists is the active support of patients transitioning from aggressive treatment to comfort-focused care. The PHC pharmacist is in an ideal position to assist in evaluating the changing risk:benefit ratio of medications as the patient transitions through the continuum of care. Patients experiencing a steady decline often declare for themselves when a treatment is no longer beneficial or tolerable, either orally or through the inability to continue the regimen (e.g., due to lost availability of intravenous access or ability to administer oral medications). Equally important is the ability to recognize when a given treatment has failed to demonstrate continued benefit and should be discontinued (e.g., reevaluation of lipid-lowering therapy, dementia-related medications, certain chemotherapy agents).[41] For patients with chronic illnesses who experience intermittent severe exacerbations, there may be multiple inflection points and changes between life-prolonging and symptom-focused approaches. The PHC pharmacist should assist the patient, family, caregiver, and other healthcare providers in navigating the changes in medication regimens that are necessary to provide a patient-centered, cost-effective, and (when available) evidence-based approach. Evaluation for discontinuation of medications should occur, at a minimum, during transitions of care.[42,43] The PHC pharmacist is often one of the few consistent members of the interdisciplinary team and therefore has an essential role in this process. His or her involvement allows for continuity of care during patient handoffs between healthcare providers and a historical account of the effectiveness of previous medication regimens. PHC pharmacists may also be engaged in assisting in the enrollment and discharge of PHC patients from hospice care.

Educating and Training Student Pharmacists and Other Clinicians. PHC pharmacists should be actively engaged in the education and training of students, pharmacists, and patient care clinicians of various disciplines. They possess knowledge about the rational and practical use of medications that is often not taught in didactic learning environments or in clinical or experiential training outside that specific to palliative care providers. In addition to the clinical and administrative expertise required by the inpatient PHC pharmacist, teaching staff peers, the PHC team, and health profession students should be considered part of these essential activities.

Scholarship. Ongoing evaluation of current practices and the dissemination of novel treatments or processes are critical for the continued improvement in patient care and sustainability of the PHC pharmacist. Scholarship should

Table 2.

Desirable Clinical and Administrative Roles, Practice Activities, and Examples of Tasks, Skills, and Knowledge of the PHC Pharmacist[a]

Desirable Role and Specialty Practice Activity	Examples of Specific Tasks, Skills, and Knowledge
Direct patient care	
• Conduct advanced pain and symptom assessment, including comorbid conditions • Establish and maintain a collaborative practice agreement with managing medical practitioner • Initiate, modify, and discontinue medication therapy • Monitor medication therapy using patient and caregiver history and order, recommend, or interpret laboratory and test results • Develop an accountable role within the PHC interdisciplinary team • Thoroughly understand scope of practice and roles of nonpharmacist members of the PHC team • Participate in or lead family meetings • Establish goals of care and educate patient and family on medication therapy decisions (e.g., discontinuation of futile or nonessential medications) • Participate in or lead decisions on hospice or outpatient palliative care appropriateness and referral • Guide transitions of care • Assist in health-system policy as it relates to PHC • Educate patients, caregivers, and families regarding medications	• Complete thorough history and symptom analysis • Perform limited physical examination • Prescribe, order, or recommend medication therapy in the management of symptoms and pain using evidence-based medicine when available • Order or recommend and interpret labs or tests • Utilize or recommend validated, patient-specific, uni- or multidimensional assessment tools and screens (e.g., Patient Health Questionnaire, McGill Pain Questionnaire, Edmonton Symptom Assessment Scale, Beck Depression Inventory) • Coordinate seamless transitions of care from hospital to home, home to hospital, hospital to LTC facility, LTC facility to hospital, or any setting to hospice • Develop institutional, evidence-based, or guideline-driven policies, order sets, and protocols • Create competencies that support the daily practice and growth of the PHC role • Develop a collaborative practice agreement that promotes patient-centered care and supports practicing at the top of pharmacy license
Education	
• Develop health profession students' understanding of PHC • Develop practicing health professionals' understanding of PHC	• Develop didactic and experiential PHC learning experiences (e.g., lectures, rotations, residency, shadowing) • Serve as a preceptor for pharmacy students and other health students • Serve as a preceptor for PGY1 PHC rotation • Serve as a preceptor for PGY2 PHC specialty residency
Scholarship	
• Contribute to the body of knowledge of PHC via writing, speaking, or research	• Conduct and disseminate research via publication, poster presentation, and lecturing • Participate in development of clinical guidelines, guidance documents, or treatment algorithms
Administrative roles	
• Practice development and management • Interdisciplinary leadership	• Policy and procedure/guideline development (e.g., ketamine, propofol, or lidocaine infusions; palliative sedation) • Proposal of new or expanded PHC pharmacy services • Establish reimbursement structure for pharmacist services • Ensure coverage and scheduling of PHC pharmacist services • Development of postgraduate training opportunities (e.g., PGY2 pain and palliative care residencies) • Maintain a leadership role on organizational committees (e.g., chair or vice-chair the pharmacy and therapeutics committee) • Develop interprofessional continuing-education programs

[a]PHC = palliative, supportive, and hospice care, PGY1 = postgraduate year 1, PGY2 = postgraduate year 2, LTC = long-term care.

be pursued when possible and in any form to share best practices, research methodology, and outcomes. Clinical research in palliative care and hospice is lacking, and the PHC pharmacist should contribute to the overall body of knowledge when possible.

Essential Administrative Roles and Activities

The pharmacist's essential administrative roles and activities in PHC should incorporate basic practice activities that promote positive treatment outcomes, adverse-event avoidance, and medication cost containment.

A primary component of the PHC pharmacist's role is continuous review of medications. Continuous review of patient medication records and ongoing contact with the primary physician, as well as with the patient or caregiver, are essential to minimizing medication-related problems and expenses while improving outcomes and efficacy.

Pharmacists engaged in the development and oversight of a medication formulary will support palliative and end-of-life care programs to achieve evidence-based and cost-effective medication use, minimize delays in therapy due to drug shortages, and contain medication expenses. Hospices and palliative care programs will often seek to develop standards to ensure consistency in the care of patients. Part of this effort is the development of policies and procedures to guarantee that activities associated with medication use are consistent across all levels of care.

Hospice. Proactive review of patient medication regimens over time can significantly reduce medication burden and costs. Ongoing rapport and dialogue must be sustained with the hospice or palliative care physician and nurse, as well as with the patient or caregiver. This dialogue is essential to establish and maintain a picture of the patient's functional status, providing the opportunity for the PHC pharmacist to identify and recommend changes in nonessential or overly burdensome medication therapy or the addition of medications for symptom management. An extensive and more comprehensive example of the medication review process occurs at hospice interdisciplinary team meetings.

The PHC pharmacist's contributions to the development of medication-use policies and procedures will serve to strengthen compliance with federal and state regulations and with best practices. All hospices are regulated by state and federal agencies, which include standards associated with medication use. In addition, 75% of hospices report accreditation with agencies such as the Joint Commission, Community Health Accreditation Program, and Accreditation Commission for Health Care.[44,45] With a working knowledge of regulatory and accreditation standards on medication use, pharmacists are well positioned to support the development and updating of medication-use policies and procedures to achieve compliance.

As a representative of a hospice organization, the PHC pharmacist is in an excellent position to support contract negotiations with pharmacy providers (e.g., local retail pharmacies, pharmacy benefit managers, purchasing groups, national pharmacy provider groups). The PHC pharmacist should also work with local pharmacy providers to ensure that appropriate medications are consistently available to the hospice and communicate regularly with them regarding prescription adjudication concerns, coverage, and other required quality and regulatory issues.

If a hospice is of sufficient size to support a dedicated pharmacy and therapeutics committee, the PHC pharmacist must be an active member and would ideally serve in a leadership capacity. The pharmacist's role would involve input into all aspects of medication-use management, ranging from decisions on approved medications prescribed under the hospice plan of care, continuous quality-improvement activities, policy development for medication use, therapeutic substitution parameters, tiered medication selection, and protocol or algorithm development.

An essential activity for PHC pharmacists is evaluating all patient medications on patient admission to a hospice program for payment under the hospice plan of care. The PHC pharmacist is equipped to address the suitability of medications, given the hospice diagnosis and related conditions contributing to the terminal prognosis. Upon the physician's certification of a terminal prognosis, the PHC pharmacist, in discussion either with the admitting nurse or during the team nurse's initial visit, will provide payment approval of medications to be covered under the hospice plan of care as well as identify and discontinue nonessential medications. For medications identified as necessary to continue and not covered under the hospice plan of care, a source of payment must be determined (e.g., patient pay, supplemental health insurance, Medicare Part D).[46] During this evaluation, the pharmacist can identify alternative, cost-effective therapies appropriate for the patient's medical conditions. This admission medication review process alone can result in significant cost savings for a hospice.[40]

Hospital and Institutional Practice. Pharmacists working in large healthcare organizations, hospitals, and other institutions have additional opportunities to shape institutional medication-use policies and procedures regarding drug-related protocols, formulary development, and algorithms by providing evidence-based recommendations that can improve the safety and efficacy of analgesics as well as other commonly used palliative care agents. Other important roles for PHC pharmacists include (1) participating in institutional committees and medication safety–reporting systems that address medication errors, adverse drug reactions, and the safety of analgesics and symptom-management agents, (2) acting as a resource and actively participating in the pharmacy and therapeutics committee or similar committees, (3) serving as an institutional resource to healthcare professionals, patients, and patients' families on the optimal use of medications in symptom management and palliative care, (4) providing continuous evaluation and review of all existing drug-related protocols and algorithms to ensure that they reflect current best practices, and (5) assisting in the development of urgency plans that address inappropriate use of emergency department services or hospital admission. In addition, it is essential that the PHC pharmacist assist the institution or health system in compliance with accreditation, legal, regulatory, and safety requirements related to the use of analgesics and other symptom-management agents. The activities discussed above provide considerable opportunities for pharmacists to be involved in establishing and supporting medication-use practice patterns that positively affect patient outcomes and the financial well-being of institutions.

Desirable Administrative Roles and Activities

Desirable administrative roles and activities include quality improvement, oversight and improvement of education, practice development and advancement, and advocacy.

Quality Improvement. As the pharmacist with a distinct skill set serving on an interdisciplinary PHC team, there is a unique opportunity to identify processes or protocols that need development or revision to improve the quality of care delivered. One avenue for achieving this goal is a leadership role on the pharmacy and therapeutics committee or similar committees. Participation in such committees is also an essential administrative role, but by practicing at a higher level the PHC pharmacist may provide services such as care set development to guide the use of complex, high-cost, or high-risk therapies (e.g., lidocaine or ketamine). Revisions to existing practices might include updating institution medication administration guidelines to allow for the use of medications or dosages that are typically restricted to an intensive treatment unit or similar setting (e.g., development of protocols for palliative sedation or refractory terminal delirium).

Quality-improvement processes related to drug delivery or medication use are also an important area of practice. Medication-use evaluation or drug utilization review may identify the need for significant practice changes (e.g., development of safe practices for the use of methadone for pain control, approval of opioid guidelines). Quality-improvement processes usually align with the development of clinical practice guidelines or algorithm development for the expert palliative care team (e.g., palliative sedation or pain emergencies). The PHC pharmacist should play a key or leading role in the interdisciplinary development of algorithms to standardize the approach to common palliative care symptoms such as agitation, anxiety, anorexia, cachexia, constipation, delirium, dyspnea, fatigue, nausea, pain, secretions, and sleep disturbances.

Education. Maintenance and improvement of different aspects of palliative care education are important to the continued sustainability of the pharmacist's role in PHC practice. The development and oversight of postgraduate year 2 (PGY2) specialty pharmacy residency programs that incorporate education and training in PHC are essential to the growth of the specialty. Another key educational component is ensuring that core PHC competency is incorporated into postgraduate year 1 (PGY1) pharmacy residencies and other specialty residencies. Integration into the curricula at colleges of pharmacy can provide student pharmacists with the basic skills and knowledge about the medication management approach for a palliative care patient, and these learning experiences should be taught by those practicing at the highest levels to encourage continued forward movement of the profession. Interprofessional education of nursing students, medical students and residents, and palliative care physician fellows through didactic and experiential teaching is another important role for the PHC pharmacist. Modeling the role of the PHC pharmacist for learners in other disciplines not only teaches them core skills in medication management of the palliative care patient but also promotes the expertise of pharmacists in the minds of future palliative care clinicians. Nurse practitioners, nurses, and physician assistants can also benefit from a pharmacist's expert knowledge through inservice or continuing-education programs hosted by the health system or area professional organizations.

A significant amount of a palliative care team's time is devoted to communicating the care plan to other providers, staff, families, and caregivers involved in the patient's care. Because of his or her knowledge of disease processes and treatment regimens, the interdisciplinary PHC team pharmacist is well positioned to provide such communication.

Practice Development, Advocacy, and Advancement

The clinical and administrative roles of the PHC pharmacist in any setting rely on sound practice development, advocacy, and engagement to promote practice advancement. Recommendations regarding practice development, advocacy, and advancement are outlined in Appendix A and presented below.

Practice Development. When developing the proposed role of a PHC pharmacist within an institution, health system, or hospice, the identification of the key stakeholders, examination of the infrastructure or currently offered services, and performance of a needs assessment are required. This process will provide the groundwork for the focus and potential utility of the PHC pharmacist. A commonly encountered barrier to the establishment of new services, regardless of setting, is the overcommitment of the PHC pharmacist or underestimation of the time requirement for the services proposed. The Center for the Advancement of Palliative Care provides excellent resources guiding the first steps, whether establishing an entirely new PHC service or simply adding personnel to the team. For example, if the institution's main priorities are preventing long inpatient stays, curtailing futile high-cost resource utilization, and facilitating discharges, then the focus of the proposed position should be on the inpatient setting. On the other hand, if the institution's priorities focus on preventing frequent emergency department visits or hospital admissions for pain and symptom issues that can be managed through outpatient services, then the proposal should seek to provide services within the outpatient setting.

Consideration should be given to the funding of such a position, which should be established at the beginning of such discussions. Engagement of nonclinical departments (e.g., finance) is critical. There are numerous practice models for clinical pharmacy PHC services, including drug information, drug utilization review, clinical interdisciplinary team involvement, and medication therapy management through collaborative protocols. The needs assessment also applies to evaluating what the PHC pharmacist will need for continued professional development.

After identification of the funding source for the PHC pharmacist and the anticipated level of support for the PHC service, a formal job description or policy of roles and responsibilities will need to be drafted and vetted by all potential stakeholders. A model job description on roles and responsibilities of the PHC pharmacist appears in Appendix B. Typical activities may include daily review of patient medications for which the PHC team has been consulted, regular consultation team and house staff educational programming, and representation on quality-improvement committees or task forces. The heterogeneity of PHC programs in today's

institutions precludes a complete description for every model or setting. In some institutions, the PHC pharmacist plays an indispensable role in the development of new policies and procedures concerning such difficult topics as palliative sedation and terminal wean from mechanical ventilation.

Health systems or hospices must develop standardized policies to address the clinical credentialing and privileging of the PHC pharmacist. There are several common barriers to this undertaking. First, no profession-recognized board certification currently exists for the PHC pharmacist to demonstrate knowledge or skills above the minimum competency state licensure examinations. Second, there is a paucity of specialized training programs that prepare pharmacists interested in PHC practice. This creates a very real chasm when considering specific PHC privileges in today's climate for pharmacists seeking to enter this area of practice without an already developed and successful service or practice.

Other considerations include the PHC team design, referral-only versus automatically triggered evaluation, scope of practice for the PHC pharmacist, and documentation processes. A key element to the documentation process will be the reimbursement or billing model that is established. Reimbursement regulations are everchanging and specific for various practice settings, as described earlier. Those seeking to establish or expand PHC pharmacist services should seek out resources and guidance on best practices for sustainability, including both revenue generation and cost-avoidance tracking.

Before the development of a practice model for the PHC pharmacist, the department or team should evaluate the state-specific laws and relevant pharmacy practice act rules by which the pharmacist must abide. Depending on the practice site, the scope of practice may differ significantly. Advanced scope of practice pharmacists may often undertake greatly expanded roles in patient care under CPAs approved by a pharmacy and therapeutics committee or executive medical staff. At the time of writing, pharmacists practicing under appropriately drafted CPAs may hold Drug Enforcement Administration (DEA) practitioner registration in California, Massachusetts, Montana, New Mexico, North Carolina, North Dakota, and Washington. DEA is currently reviewing Idaho's Pharmacy Practice Act and Controlled Substances Act for possible inclusion. Pharmacists licensed in one of these states may additionally obtain fee-exempt DEA registration if employed and practicing within the U.S. Armed Forces, Department of Veterans Affairs, Indian Health Service, or federal prison system. Typically, the credentialing officer within these organizations can assist obtaining registration. A sample CPA for a PHC pharmacist is provided in Appendix C.

Attention should be given to creating an infrastructure to sustain pharmacy's involvement on the interdisciplinary PHC team. Integrating pharmacists into a health system's palliative care staffing matrix may be a first step to accomplishing this. Proactively budgeting for additional pharmacy positions as the number of consultations performed per year increases would also support sustainability of PHC pharmacists' presence. To justify such positions, the PHC pharmacist must be familiar with reimbursement models and opportunities to further support these positions.

Competencies and Certification. There are no recognized board certification opportunities for pharmacists with a unique expertise in the area of palliative and supportive care in the United States. Without the opportunity for board certification to verify PHC pharmacists' expertise, it is difficult to advocate for their importance to health-system administrators, payers, and other professionals. Lack of certification also complicates the credentialing and privileging process of such clinicians. The Board of Pharmacy Specialties (BPS) previously conducted a role delineation study to investigate the feasibility of recognizing pain and palliative care as a specialty within the profession of pharmacy. Although BPS did not elect to pursue pain and palliative care as a recognized specialty when combined, perhaps differentiating between the two distinct yet often overlapping clinical skill sets will provide sufficient demarcation in future consideration. BPS is also investigating opportunities for added qualifications in numerous areas, including palliative care.

There are opportunities for pharmacists to further enhance their training in palliative and supportive care. The ASHP Research and Education Foundation Pain and Palliative Care Traineeship provides a three-level program consisting of Web-based narrated lectures followed by on-site training with an established PHC pharmacist. There are various other training programs to further pharmacists' understanding of palliative and supportive care outside of formalized residency or fellowship training. Recommended journals, books, and websites for professional development of the PHC pharmacist are listed in Appendix D.

Development of Didactic and Experiential Education. The Strategic Planning Summit for the Advancement of Pain and Palliative Care Pharmacy, convened in 2009, produced a comprehensive consensus document on strategies to integrate standardized palliative care education in the doctor of pharmacy core curriculum, elective courses, PGY1 programs, and PGY2 palliative care specialty residencies.[29] There are currently 12 ASHP-accredited or accreditation-eligible PGY2 palliative care or pain management programs and many others with exposure or emphasis in pain or palliative care.[47] It is important that there are formal and standardized education programs available in the area of PHC for pharmacists' involvement in the field to continue to grow. In addition, there is a training opportunity for pharmacists in the one-year Interprofessional Palliative Care Fellowship Program offered by the Department of Veterans Affairs.

Advocacy. The importance of the role of a PHC pharmacist needs to be established at the national level, with individual pharmacists contributing grassroots advocacy. The Joint Commission palliative care certification requirements currently do not include a palliative care pharmacist as a core member of the interdisciplinary program team as they do for physicians, registered nurses, social workers, and chaplains. The current Joint Commission requirements state that a clinical pharmacist should be "utilized" based on patient needs. Most palliative care patients have complicated medical histories and are taking medications (mainly controlled substances with narrow therapeutic ranges) that require close clinical monitoring and attention to regulatory compliance issues, which should justify a pharmacist as an integral part of providing comprehensive care to the patient.

Advocacy efforts of the PHC pharmacist should be multitiered and involve discipline-specific professional development, practice development, and quality-improvement

initiatives. Reaching out to state, regional, and national professional organizations and legislators to discuss the importance of pharmacist involvement in the PHC team must be universally practiced to continue the growth of the field. Scholarly pursuits demonstrating the effects that PHC pharmacists have on patient care are equally important.

Conclusion

PHC pharmacists bring a diversity of essential services to palliative and supportive care teams. Central to the role of the PHC pharmacist is symptom management through participation in direct patient care, providing pharmacotherapy regimens that support optimal patient outcomes. Medication therapy management and the application of transitional continuity of care are key services pharmacists provide to patients in this care setting.

Collaborative practice opportunities have strengthened the working relationship with palliative and supportive care medical practitioners, furthering PHC pharmacist practice development. In addition, PHC pharmacists may participate in advocacy, research, and scholarly activities in palliative and supportive care, furthering the growth of this area of practice. The PHC pharmacist should provide education to student pharmacists and PGY1 and PGY2 residents, as well as members of the interdisciplinary team, peers, patients, and caregivers. Activities outlined in these guidelines showcase a considerable breadth and depth of opportunities for pharmacists' involvement in the daily management and oversight of medication-use processes across all palliative and supportive care venues, positively affecting patient outcomes while maintaining fiscal responsibility.

References

1. Gamondi C, Larkin P, Payne S. Core competencies in palliative care: an EAPC white paper on palliative care education—part 1. *Eur J Palliat Care.* 2013; 20:86–91.
2. National Consensus Project for Quality Palliative Care. Clinical practice guidelines for quality palliative care, 3rd ed. www.nationalconsensusproject.org/guidelines_download2.aspx (accessed 2016 Feb 19).
3. Guo Q, Jacelon CS, Marquard JL. An evolutionary concept analysis of palliative care. *J Palliat Care Med.* 2012; 2:1–6.
4. Gamondi C, Larkin P, Payne S. Core competencies in palliative care: an EAPC white paper on palliative care education—part 2. *Eur J Palliat Care.* 2013; 20:140–5.
5. Oya H, Matoba M, Murakami S, et al. Mandatory palliative care education for surgical residents: initial focus on teaching pain management. *Jpn J Clin Oncol.* 2013; 43:170–5.
6. Daly D, Matzel SC. Building a transdisciplinary approach to palliative care in an acute care setting. *Omega.* 2013; 67:43–51.
7. Suhrie EM, Hanlon JT, Jaffe EJ, et al. Impact of a geriatric nursing home palliative care service on unnecessary medication prescribing. *Am J Geriatr Pharmacother.* 2009; 7:20–5.
8. Battley JE, Connell LC, O'Reilly S. Early specialty palliative care. *N Engl J Med.* 2014; 370:1075.
9. Berman HD. Palliative care is a specialty. *Can Fam Physician.* 2008; 54:1526.
10. Ingleton C, Gardiner C, Seymour JE, et al. Exploring education and training needs among the palliative care workforce. *BMJ Support Palliat Care.* 2013; 3:207–12.
11. Tice MA. Nurse specialists in home health nursing: the certified hospice and palliative care nurse. *Home Healthc Nurse.* 2006; 24:145–7.
12. Von Gunten CF, Sloan PA, Portenoy RK, et al. Physician board certification in hospice and palliative medicine. *J Palliat Med.* 2000; 3:441–7.
13. National Association of Social Workers. The Advanced Certified Hospice and Palliative Social Worker (ACHP-SW). www.socialworkers.org/credentials/credentials/achp.asp (accessed 2015 Jan 3).
14. Juba KM. Pharmacist credentialing in pain management and palliative care. *J Pharm Pract.* 2012; 25:517–20.
15. Dean TW. Pharmacist as a member of the palliative care team. *Can J Hosp Pharm.* 1987; 40:95–6.
16. Gilbar P, Stefaniuk K. The role of the pharmacist in palliative care: results of a survey conducted in Australia and Canada. *J Palliat Care.* 2002; 18:287–92.
17. Hanif N. Role of the palliative care unit pharmacist. *J Palliat Care.* 1991; 7:35–6.
18. O'Connor M, Pugh J, Jiwa M, et al. The palliative care interdisciplinary team: where is the community pharmacist? *J Palliat Med.* 2011; 14:7–11.
19. Atayee RS, Best BM, Daniels CE. Development of an ambulatory palliative care pharmacist practice. *J Palliat Med.* 2008; 11:1077–82.
20. Chen J, Lu XY, Wang WJ, et al. Impact of a clinical pharmacist-led guidance team on cancer pain therapy in China: a prospective multicenter cohort study. *J Pain Symptom Manage.* 2014; 48:500–9.
21. Eischens KP, Gilling SW, Okerlund RE, et al. Improving medication therapy management through collaborative hospice care in rural Minnesota. *J Am Pharm Assoc.* 2010; 50:379–83.
22. Edwards SJ, Abbott R, Edwards J, et al. Outcomes assessment of a pharmacist-directed seamless care program in an ambulatory oncology clinic. *J Pharm Pract.* 2014; 27:46–52.
23. Gagnon L, Fairchild A, Pituskin E, et al. Optimizing pain relief in a specialized outpatient palliative radiotherapy clinic: contributions of a clinical pharmacist. *J Oncol Pharm Pract.* 2012; 18:76–83.
24. Gammaitoni AR, Gallagher RM, Welz M, et al. Palliative pharmaceutical care: a randomized, prospective study of telephone-based prescription and medication counseling services for treating chronic pain. *Pain Med.* 2000; 1:317–31.
25. Hussainy SY, Box M, Scholes S. Piloting the role of a pharmacist in a community palliative care multidisciplinary team: an Australian experience. *BMC Palliat Care.* 2011; 10:16.
26. Ise Y, Morita T, Katayama S, et al. The activity of palliative care team pharmacists in designated cancer hospitals: a nationwide survey in Japan. *J Pain Symptom Manage.* 2014; 47:588–93.
27. Ise Y, Morita T, Maehori N, et al. Role of the community pharmacy in palliative care: a nationwide survey in Japan. *J Palliat Med.* 2010; 13:733–7.

28. Lipman AG, Arter SG, Berry JI, et al. ASHP statement on the pharmacist's role in hospice and palliative care. *Am J Health-Syst Pharm.* 2002; 59:1770–3.
29. Herndon CM, Strassels SA, Strickland JM, et al. Consensus recommendations from the strategic planning summit for pain and palliative care pharmacy practice. *J Pain Symptom Manage.* 2012; 43:925–44.
30. Centers for Medicare and Medicaid Services. Medicare and Medicaid programs: hospice conditions of participation. Final rule. *Fed Regist.* 2008; 73:32087–220.
31. Centers for Medicare and Medicaid Services. Medicare program; FY 2015 hospice wage index and payment rate update; hospice quality reporting requirements and process and appeals for Part D payment for drugs for beneficiaries enrolled in hospice. Final rule. *Fed Regist*. 2014; 79:50451–510.
32. Craig DS. Introduction: pharmacist role in pain management. *J Pharm Pract.* 2012; 25:496.
33. Lucas C, Glare PA, Sykes JV. Contribution of a liaison clinical pharmacist to an inpatient palliative care unit. *Palliat Med.* 1997; 11:209–16.
34. Wilson S, Wahler R, Brown J, et al. Impact of pharmacist intervention on clinical outcomes in the palliative care setting. *Am J Hosp Palliat Care.* 2011; 28:316–20.
35. Shah S, Dowell J, Greene S. Evaluation of clinical pharmacy services in a hematology/oncology outpatient setting. *Ann Pharmacother.* 2006; 40:1527–33.
36. Valgus JM, Faso A, Gregory KM, et al. Integration of a clinical pharmacist into the hematology-oncology clinics at an academic medical center. *Am J Health-Syst Pharm.* 2011; 68:613–9.
37. Martin CM. Exploring new opportunities in hospice pharmacy. *Consult Pharm.* 2009; 24:114–9.
38. Snapp J, Kelley D, Gutgsell TL. Creating a hospice pharmacy and therapeutics committee. *Am J Hosp Palliat Care.* 2002; 19:129–34.
39. Walker KA, Scarpaci L, McPherson ML. Fifty reasons to love your palliative care pharmacist. *Am J Hosp Palliat Care.* 2010; 27:511–3.
40. Latuga NM, Wahler RG, Monte SV. A national survey of hospice administrator and pharmacist perspectives on pharmacist services and the impact on medication requirements and cost. *Am J Hosp Palliat Care.* 2012; 29:546–54.
41. Kominek C, DiScala S. Quality improvement project of pharmacist-assisted medication reconciliation and regimen review following veteran discharge to hospice. *J Pharm Pharmacol.* 2014; 2:489–500.
42. Holmes HM, Todd A. Evidence-based deprescribing of statins in patients with advanced illness. *JAMA Intern Med.* 2015; 175:701–2.
43. Scott IA, Hilmer SN, Reeve E, et al. Reducing inappropriate polypharmacy: the process of deprescribing. *JAMA Intern Med.* 2015; 175:827–34.
44. Levi L. New hospice accreditation manual released by ACHC. *Home Healthc Nurse.* 2003; 21:559–61.
45. Murray NS. Hospice accreditation: a useful tool for quality assurance. *Am J Hosp Care.* 1989; 6:44–6.
46. Vogenberg FR, Marcoux RM, Larrat EP. Understanding insurance coverage in the senior market: reimbursement and emerging trends. *Consult Pharm.* 2012; 27:641–9.
47. American Society of Health-System Pharmacists. ASHP residency directory, 2015. www.ashp.org/menu/Accreditation/ResidencyDirectory (accessed 2015 Jan 3).

Appendix A—Summary of Recommendations for Practice Development, Advocacy, and Advancement of the Palliative and Hospice Care (PHC) Pharmacist

- Before the development or expansion of PHC pharmacy services, a needs assessment, funding allocation, and staffing must be thoroughly evaluated
- Job descriptions or scope of practice policies, as well as institution credentialing, should be developed for all pharmacists providing PHC services
- Pharmacists providing PHC services should practice to the full capacity of institutional policies and state pharmacy practice acts up to and including collaborative practice agreements and Drug Enforcement Administration practitioner registration
- PHC pharmacists should take an active role in disseminating best practices, scholarly pursuits, and other advocacy efforts to further promote the profession within PHC
- PHC pharmacists must embrace the education of pharmacy students and residents at all levels of PHC services

Appendix B—Model Job Description or Roles and Responsibilities Document for a Palliative and Hospice Care (PHC) Pharmacist Position

Position purpose:

The PHC pharmacist is responsible for (a) representation of pharmacy services on the palliative care/hospice care team and (b) representation of the palliative care/hospice team within pharmacy services in the provision of high-quality PHC services to the patients of _____ health system/palliative care team/hospice

Duties and responsibilities:

1. Serve as a resource to the medical, nursing, and pharmacy staff regarding the safe and effective management of medications used in the treatment of pain and other symptoms.
2. Conduct rounds on all patients with current consultations for palliative and supportive care (where applicable).
3. Attend all interdisciplinary PHC team meetings (where applicable).
4. Provide clinical consultations or recommendations to palliative care team, hospice staff, house staff, and consulting providers on symptom management, pain control, cost-effective medication therapy management, palliative sedation, and transitions of care.

5. Respond to drug information requests from providers, nurses, and administrators pertaining to palliative and supportive care medications.
6. Review all medication profiles of all patients receiving hospice or palliative and supportive care services for undertreated symptoms, untreated symptoms, or unnecessary medication therapy.
7. Oversee medication-use evaluations to optimize safe and effective medication use for patients receiving palliative and supportive care services.
8. Evaluate medical literature for evidence-based treatments.
9. Develop or implement treatment guidelines, protocols, order sets, formulary management or interchanges, relatedness, and algorithms or critical pathways.
10. Provide submission, tracking, and follow-up for Medicare Part D prior authorization for medications used by patients enrolled in the hospice benefit not related to the terminal prognosis.
11. Manage department of pharmacy financials to include expense, revenue, and budget as they pertain to palliative and supportive care services.
12. Develop and manage health-system opioid risk mitigation and monitoring strategies.
13. Participate in committees and task forces including but not limited to pain, palliative and supportive care, sedation, transitions of care, and pertinent pharmacy and therapeutics committee or subcommittees.
14. Provide on-call pharmacy PHC services when appropriate.
15. Serve as department of pharmacy services representative or palliative and supportive care services representative for site surveys or accreditation visits.
16. Compile and manage relevant data to support performance measures as pertains to palliative and supportive care.
17. Oversee quality and performance improvement activities pertaining to palliative and supportive care services.
18. Provide educational programming on palliative and supportive care services to hospice staff, providers, house staff, or department of pharmacy services staff every _____ months/weeks.
19. Review all submitted research protocols involving patients receiving PHC services.
20. Support adherence and development of policies and procedures that adhere to state and federal regulations including Drug Enforcement Administration, _____ Board of Pharmacy, Community Health Accreditation Program, and Medicare Conditions of Participation, where applicable.
21. Serve as preceptor for _____ introductory pharmacy practice experience pharmacy students, _____ advanced pharmacy practice experience pharmacy students, _____ postgraduate year one pharmacy residents, and _____ postgraduate year two pharmacy residents.
22. Maintain necessary professional licensure or specialty certification, where appropriate, to maintain the highest level of care to patients of the _____ health system or hospice.

Appendix C—Sample Collaborative Practice Agreement for a Pharmacist Seeking an Advanced Patient Care Practice in Palliative Care in an Outpatient Setting

I. Scope of practice

This collaborative practice agreement (CPA) serves as a delegation/authorization of specific roles, functions, and authority by the supervising physician (PHYSICIAN) to the palliative and hospice care pharmacist (PHARMACIST) consistent with the PHARMACIST's education, training, and experience and within the scope of practice of the supervising physician.

Under these guidelines, the PHARMACIST will work with the PHYSICIAN in an active practice to deliver palliative and hospice care (PHC) services provided to patients of _____.

The PHARMACIST is authorized to render those services and perform those procedures outlined herein with prescriptive authority for pharmacologic categories identified in CPA attachment A and may utilize prescriptive authority as delegated in CPA attachment B.

The PHARMACIST must inform patients of his or her status and provide the name of the supervising physician. The PHARMACIST may provide service only for those patients of the supervising or alternative physician.

These written guidelines shall be reviewed and updated annually by the PHYSICIAN and PHARMACIST.

A copy of these guidelines along with the PHARMACIST's Drug Enforcement Administration (DEA) number (if applicable) shall remain on file at all sites where the PHARMACIST renders service.

The supervising physician maintains final responsibility for the PHARMACIST's performance and maintains final responsibility for the patient. Services rendered and procedures performed by the PHARMACIST are pursuant to the written guidelines that are specific to the practice setting.

The supervising physician directs and reviews the records and practice of the PHARMACIST in a timely manner to assure appropriate and safe patient care.

WE THE UNDERSIGNED AGREE TO THE TERMS AND CONDITIONS OF THESE WRITTEN GUIDELINES.

_____

Supervising Physician Date

_____

PHARMACIST Date

II. Functions

The PHARMACIST is authorized to perform services and procedures relative to the pain and symptom management within the scope of this palliative and supportive care practice as part of a multidisciplinary group to include physicians, nurse practitioners, physician assistants, and direct care registered nurses. The active management of patients by the PHARMACIST will be provided based on an established patient medical diagnosis and plan of care and performed under the direction and supervision of the supervising physician and include the following.

III. Patient care activities

The PHYSICIAN delegates authority to the PHARMACIST for the following patient care activities:

1. PHARMACIST will conduct complete medical history and medication reconciliation, with emphasis on pharmacotherapy history, symptom assessment, and identification of drug-related problems.
   - **a.** Symptom assessment may include limited physical assessment as well as the order and interpretation of laboratory and diagnostic tests related to drug therapy management in accordance with current evidence-based recommendations.
   - **b.** Administering drugs and biologicals.
   - **c.** Order of routine laboratory tests to ensure safe use of prescribed medications and avoidance of misuse, abuse, or diversion.
   - **d.** Order of 12-lead electrocardiogram in instances of ongoing monitoring of pharmacotherapy, where warranted.
   - **e.** Refer to specialists, when appropriate, based on current evidence-based medicine or standard of care.
   - **f.** Prescriptive authority to include initiation, modification, or discontinuation of the classes and categories of drugs in attachment A for pain or symptoms based on current labeling, accepted medical practice, the disease process and the patient's condition, and, where available, evidence-based treatment guidelines and recommendations.
   - **g.** A pharmacist practicing collaboratively under the Pharmacy Practice Act: *State Pharmacy Law, Number xxxx.xx*, *xxxx.x*, and the DEA Controlled Substance Act is authorized to order controlled substances to provide patient care.
2. The pharmacist will
   - **a.** Thoroughly assess the patient's response to the prescribed treatment plan with regular assessments and evaluations conducted to include
     - **i.** Severity, duration, and frequency of symptoms
     - **ii.** Therapeutic response
     - **iii.** Adverse drug effects
     - **iv.** Renal and liver function
   - **b.** Patients prescribed scheduled opioids for chronic pain will have an opioid agreement on file.
   - **c.** All prescriptions will be limited to a quantity and for a length of time as are reasonably necessary.
   - **d.** Pharmacist provides education on medications to patient or caregiver and family.

IV. Communication and documentation

The PHARMACIST shall, within ___ hours of seeing the patient, complete a chart or progress note with a detailed history of present illness, review of systems, physical examination (when warranted), assessment of patient response to treatment plan, and treatment plan going forward. This documentation shall be in the form of a general SOAP note entered into the permanent patient chart or electronic medical record. The referring or supervising PHYSICIAN shall review and provide signature documentation on each patient seen by the pharmacist.

The referring or supervising PHYSICIAN may override any treatment decisions or orders made by the PHARMACIST with communication made back to the PHARMACIST via notation in the patient chart.

V. Quality assurance and oversight

Peer and PHYSICIAN oversight review will occur in accordance with applicable state Pharmacy Practice Act rules, and set forth in the Business and Professional Code for the State of_____.

VI. Severability

Either party may cancel this agreement via written notification. This collaborative practice agreement is subject to the ongoing licensure, credentialing, and privileging of both the PHARMACIST and PHYSICIAN.

Pharmacist qualifications:

- Active registration to practice in the state of _____
- DEA license registration
- Successfully completed clinical residency training (see curriculum vitae [CV])
- Demonstrated clinical experience in direct patient care delivery (see CV work history)
- Ongoing continuing education or activities related to the field of practice

VII. Effective date

This collaborative practice agreement is entered into on the _____day of _____, 20___.

For PHARMACIST:

_____

_____

Signature Printed Name Date

For PHYSICIAN:

_____

_____

Signature Printed Name Date

CPA attachment A

This list of medication classes and categories is not exhaustive yet provides examples of medications managed by the PHC pharmacist for patients seen at the XYZ palliative and supportive care clinic:

1. *Antidepressants*, including selective serotonin reuptake inhibitors, serotonin–norepinephrine reuptake inhibitors, tri- and tetracyclic antidepressants, and atypical antidepressants in the treatment of anorexia, anxiety, depression, insomnia, and pain
2. *Antipsychotics*, including first-, second-, and third-generation antipsychotics in the treatment of agitation, anxiety, and delirium or other mood disorders
3. *Corticosteroids* (oral and topical) in the treatment of pain, skin lesions, swelling, ulcers, and wounds where appropriate

4. *Anticonvulsants*, including first-, second-, and third-generation anticonvulsants in the treatment of anxiety, depression, pain, and seizures
5. *Nonsteroidal antiinflammatory drugs* in the treatment of inflammation and pain
6. *Serotonin antagonists and phenothiazine derivatives* in the treatment of nausea
7. *Stimulants* in the treatment of depression, fatigue, opioid-associated sedation, and somnolence
8. *Benzodiazepines* in the treatment of anxiety, dyspnea, and pain (abuse potential by patient will be assessed and documented)
9. *Skeletal muscle relaxants* in the treatment of pain (abuse potential by patient will be assessed and documented)
10. *Opioid agonists and antagonists* in the treatment of cough, diarrhea, dyspnea, pruritus, pain, and respiratory depression (abuse potential by patient will be assessed and documented)
11. *Laxatives and stool softeners* in the treatment of constipation and straining
12. *Anticholinergic medications* in the treatment of pain and terminal secretions
13. Other adjuvant analgesics, medications, or therapies not listed above in the treatment of pain, symptoms, and medication-related adverse effects, including compounded preparations

CPA attachment B

DELEGATION OF PRESCRIPTIVE AUTHORITY

The PHARMACIST may prescribe medications in association with the scope of services described in the written guidelines.

1. ***The PHARMACIST is authorized to write and sign orders for medications in controlled substance Schedules II, III, IV, and V and orders for general prescription medications in association with the scope of services described herein.***

Appendix D—Recommended Journals, Books, and Websites for Professional Development of the Palliative and Hospice Care Pharmacist

Professional journals

American Journal of Hospice and Palliative Care
Annals of Palliative Medicine
BMC Palliative Care
British Medical Journal Supportive and Palliative Care
Current Opinion in Supportive and Palliative Care
International Journal of Palliative Nursing
Journal of Community and Supportive Oncology
Journal of Geriatrics and Palliative Care
Journal of Hospice and Palliative Nursing
Journal of Pain and Palliative Care Pharmacotherapy
Journal of Pain and Symptom Management
Journal of Palliative Care
Journal of Palliative Care and Medicine
Journal of Palliative Medicine
Journal of Supportive Oncology
Palliative Care
Palliative Medicine
Palliative Medicine and Care
Palliative and Supportive Care
Supportive Care in Cancer

Books

Appleton M. Good end: end-of-life concerns and conversations about hospice and palliative care. Tuscon, AZ: Wheatmark; 2015.

Bourke S, Peel ET, eds. Integrated palliative care of respiratory disease. New York: Springer; 2013.

Bruera E, Higginson I, von Gunten CF, et al, eds. Textbook of palliative medicine and supportive care. 2nd ed. Boca Raton, FL: CRC; 2014.

Emanuel LL, Librach SL, eds. Palliative care: core skills and clinical competencies. 2nd ed. New York: Saunders Elsevier; 2011.

Goldhirsch S, Chai E, Meier D, et al., eds. Geriatric palliative care. New York: Oxford Univ. Press; 2014.

Goldstein NE, Morrison RS, eds. Evidence-based practice of palliative medicine. New York: Saunders Elsevier; 2012.

Hanks G, Cherny NI, Christakis NA, eds. Oxford textbook of palliative medicine. 5th ed. New York: Oxford Univ. Press; 2015.

McPherson ML, ed. Demystifying opioid conversion calculations: a guide for effective dosing. Bethesda, MD: American Society of Health-System Pharmacists; 2009.

Pantilat SZ, Anderson W, Gonzales M, et al., eds. Hospital based palliative medicine: a practical, evidence-based approach. Hoboken, NJ; 2015.

Protus BM, Kimbrel JM, Grauer PA, eds. Palliative care consultant. Montgomery, AL: HospiScript; 2015.

Quill TE, Bower KA, Holloway RG, eds. Primer of palliative care. 6th ed. Glenview, IL: American Academy of Hospice and Palliative Medicine; 2014.

Sackheim KA. Pain management and palliative care: a comprehensive guide. New York: Springer; 2015.

Smith TJ. Geriatric palliative care: clinics in geriatric medicine. New York: Elsevier; 2015.

Strickland JM, ed. Palliative pharmacy care. Bethesda, MD: American Society of Health-System Pharmacists; 2009.

Yennurajalingam S, Bruera E, eds. Oxford American handbook of hospice and palliative medicine. New York: Oxford Univ. Press; 2011.

Websites and other resources

American Academy of Hospice and Palliative Medicine
www.aahpm.org

American Society of Health-System Pharmacists. Pain Management and Palliative Care PGY2 Outcomes, Goals, and Objectives.
www.ashp.org/menu/Accreditation/Residency Accreditation

Center to Advance Palliative Care
www.capc.org

City of Hope Pain and Palliative Care Resource Center
prc.coh.org

Growthhouse.org
www.growthhouse.org

Harvard Medical School Center for Palliative Care
www.hms.harvard.edu/pallcare
International Association for Hospice and Palliative Care
www.hospicecare.com
National Hospice and Palliative Care Organization
www.nhpco.org
National Palliative Care Research Center
www.npcrc.org
Society of Palliative Care Pharmacists
www.palliativepharmacist.org

Curricular design resource

Consensus recommendations from the Strategic Planning Summit for Pain and Pallliative Care Pharmacy Practice. *J Pain Symptom Manage.* 2012; 43:925-44.

Approved by the ASHP Board of Directors on March 15, 2016. Developed through the ASHP Section of Ambulatory Care Pharmacists.

ASHP gratefully acknowledges the following organizations and individuals for reviewing these guidelines (review does not imply endorsement): American College of Clinical Pharmacy Pain and Palliative Care Practice Resource Network; American Pharmacists Association; New Hampshire Society of Hospital Pharmacists; Melhim Bou Alwan, M.D.; Cynthia Brucato, Pharm.D., BCACP; Mitchell Buckley, Pharm.D., FASHP, FCCP, SCCM, BCPS; Trinh T. Bui, Pharm.D.; Nina M. Cimino, Pharm.D., CPE; Steven J. Crosby, M.A., FASCP; Emily Davies, Pharm.D., CPE; Sandra DiScala, Pharm.D., BCPS; Steven Dzierba, Pharm.D., M.S., BCPS, FASHP; Abimbola Farinde, Ph.D., Pharm.D; Lauren Gashlin, Pharm.D., Jessica Erin Geiger-Hayes, Pharm.D., BCPS; Michael A. Gillette, Pharm.D., BCPS (AQ–Cardiology), BCACP; Kerry Goldrosen, Pharm.D.; Timothy J. Ives, Pharm.D., M.P.H., FCCP, FASHP, CPP; Donna Jolly, Pharm.D., BCPS; Katherine Juba, Pharm.D., BCPS; Syeda Saba A. Kareem, Pharm.D., BCOP; Allison R. King, Pharm.D.; Justin Kullgren, Pharm.D., CPE; Eric C. Kutscher, Pharm.D., BCPP, FASHP; Maritza Lew, Pharm.D., PMP; Matthew Malone, D.O.; Fred Meister, Pharm.D.; James Ponto, M.S., BCNP; Jennifer Pruskowski, Pharm.D., BCPS, CGP; Curt W. Quap, M.S. Pharm., FASHP; James R. Rinehart, M.S., FASHP; Eve M. Segal, Pharm.D.; Victoria Snyder; Dennis A. Tribble, Pharm.D., FASHP; Rebecca Wagner, Pharm.D.; Jody Jacobson Wedret, FASHP, FCSHP; Ricke J. Weickum, Pharm.D., BCOP; Traci White, Pharm.D., PhC; and Amanda R. McFee Winans, Pharm.D., BCPS. The contributions of Justine Coffey, J.D., L.L.M., to this document are gratefully acknowledged.

The authors have declared no potential conflicts of interest.

Christopher M. Herndon, Pharm.D., BCPS, CPE, FASHP, School of Pharmacy, Southern Illinois University Edwardsville, Edwardsville, IL.

Douglas Nee, Pharm.D., M.S., Hospice and Palliative Care, OptiMed, San Diego, CA.

Rabia S. Atayee, Pharm.D., BCPS, Pain and Palliative Care Service, University of California, San Diego, Skaggs School of Pharmacy and Pharmaceutical Sciences, La Jolla, CA.

David S. Craig, Pharm.D., Department of Pharmacy, H. Lee Moffitt Cancer Center & Research Institute, Tampa, FL.

Julie Lehn, Pharm.D., Palliative Medicine, Banner University Medical Center, Phoenix, AZ.

Pamela S. Moore, Pharm.D., BCPS, CPE, Pain and Palliative Care, Summa Health System, Akron, OH.

Suzanne Amato Nesbit, Pharm.D., BCPS, CPE, Department of Oncology, Center for Drug Safety and Effectiveness, Department of Pharmacy, Johns Hopkins Hospital, Baltimore, MD.

James B. Ray, Pharm.D., CPE, James A. Otterbeck OnePoint Patient Care, Department of Pharmacy Practice, University of Iowa College of Pharmacy, Iowa City, IA.

Bridget Fowler Scullion, Pharm.D., BCOP, Palliative Care, Dana-Farber Cancer Institute, Boston, MA.

Robert G. Wahler Jr., Pharm.D., CPE, School of Pharmacy and Pharmaceutical Sciences, University at Buffalo, The State University of New York, Buffalo, NY.

Julie Waldfogel, Pharm.D., CPE, Pain and Palliative Care, Department of Pharmacy, Johns Hopkins Hospital, Baltimore, MD.

The bibliographic citation for this document is as follows: American Society of Health-System Pharmacists. ASHP guidelines on the pharmacist's role in palliative and hospice care. *Am J Health-Syst Pharm.* 2016; 73:1351–67.