PALLIATIVE CARE NETWORK OF WISCONSIN

FAST FACTS AND CONCEPTS #334
THE ROLE OF CLINICAL PHARMACISTS ON THE INTERDISCLIPINARY TEAM
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As experts in the rational, therapeutic use of medications (1), clinical pharmacists are uniquely suited to enhance palliative care services for adults and children through patient-specific medication considerations such as goals of care, care location, available routes of administration, pharmacokinetic and pharmacodynamic properties, and cost. This *Fast Fact* will review the role of clinical pharmacists within an interdisciplinary teams (IDT) with specific attention to hospice and palliative care teams.

Training and Certification: The Doctor of Pharmacy (PharmD) degree is awarded upon graduation from US Schools of Pharmacy. The program requires at least 2 years of specific pre-professional (undergraduate) coursework, followed by 4-academic years of professional study (2) in which much of the pre-clinical content mirrors that of US medical schools. Pharmacists may then choose to complete a 1-2 year post-graduate residency (3,4) and/or fellowship (5). Specific pain and palliative care traineeships and online masters programs are also available for pharmacists in the US (6-9) and Canada (10).

Scope of Practice Clinical pharmacists are the "translators" between the pharmacology of medications and the clinical care of patients. Their skill set originates from their ability to identify and manage potential drug therapy issues (11). Examples include: assistance with renal and hepatic dosing, drug-interactions, opioid conversions, brainstorming alternative therapies or routes for refractory symptoms, and selecting rational, cost-effective therapies. They can provide direct and indirect patient care services:

Direct patient care services:
- Medication Management: clinical pharmacists can perform regulated symptom assessments either independently or alongside IDT members to write orders or make treatment recommendations (12). Many states permit 'advanced practice pharmacists' (akin to advance practice nurses). Based on the individual state laws and health system's collaborative practice agreements, this can include the prescribing of opioids and other controlled substances.
- Patient education: provision of medication counseling to improve patient adherence.
- Deprescribing (see *Fast Fact* #321): clinical pharmacists can incorporate the goals of care conversations performed by the IDT as well as the estimation of the patient's prognosis and functional status to conduct medication-specific optimization conversations and minimize the number of medications prescribed (13,14).

Indirect patient care services:
- Administrative and formulary management
- Education to other IDT members regarding pharmacotherapy issues

Roles of a Palliative Care Clinical Pharmacists in Various Health-care Settings (15)
- Inpatient (Hospital): Performing a comprehensive or targeted medication review at admission, discharge, and as needed. This includes a chart review and face-to-face interaction with the patient to detect adverse drug events and medication misuse as well as reconciling the appropriateness of all inpatient medications with their outpatient regimen (16).
- Outpatient (Clinic) (17-19): Clinical pharmacists can identify patients on long acting opioids and ensure an appropriate bowel regimen is co-prescribed to prevent opioid induced constipation or review state-wide drug monitoring databases. If transitions in goals of care occur, clinical pharmacists can utilize this information to deprescribe medications or identify new medications or routes of administration in the palliation of new or anticipated symptoms.
- Senior Communities (Skilled Nursing Facilities): In this setting, deprescribing is especially relevant in minimizing iatrogenic harm and ensuring a smooth transition to hospice when appropriate. In this regard, clinical pharmacists can direct medication-specific optimization conversations with the patient

and their families and/or caregivers. They can also focus on the pharmacokinetic changes that occur with aging, and research non-traditional routes of administration for medications.

- System-Level Positions: Clinical pharmacists can be instrumental in optimizing direct patient-care services, procedural guidelines, electronic medical order entry systems, medication formularies, and/or policies to improve medication usage across entire health-care systems (20). This can include improve the availability of medications necessary for the management of refractory or end of life symptoms such as: ketamine, lidocaine, methadone, glycopyrrolate, etc.
- Hospice: Beyond identifying drug-related problems and recommending appropriate drug therapy at hospice IDT meetings (21), they must be familiar with medication reimbursement requirements. The Centers for Medicare and Medicaid Services (CMS) stipulates that hospices are responsible for the costs associated with medications if related to the terminal diagnosis and related conditions. (22) Therefore, clinical pharmacists should be involved from the point of hospice admission to review medications for appropriateness. They can also provide efficient mechanisms for extemporaneous compounding of nonstandard dosage forms (23).

Efficacy in Improving Patient Care: Retrospective evidence suggests clinical pharmacists may be associated with a reduction of hospital admissions, length of hospital or ICU stay, 30-day readmissions, drug-induced adverse reactions, and cost (22).

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