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#### Objectives

- Measure the impact of parenteral opioid shortage on the opioid prescriptions by the inpatient palliative care (PC).
- Compare the pain control of patients before and after parenteral opioid shortage (POS).

**Original Research Background.** Recent POS has the potential to impact cancer pain management in hospitalized patients.

**Research Objectives.** This study aims to compare changes in the opioid prescriptions by the inpatient PC team before and after the institution first reported the POS.

**Methods.** We reviewed and compared the electronic health records of 386 consecutive eligible consultations seen by the inpatient PC team equally in 1 month before and after the announcement of POS on February 8, 2018. The eligibility criteria include (1) cancer diagnosis, (2)  $\geq 18$  years of age, (3) taking opioid medication at the time of consultation, and (4) having at least two consecutive visits with the PC team. Patient demographics, cancer type, opioid type, route, and dose defined as the morphine equivalent daily dose were assessed. Pain control was assessed based on the documentation for each follow-up by the PC team.

**Results.** After POS, parenteral opioids (patient-controlled analgesia, and intravenous breakthrough) were less used by the referring oncology teams [before POS 109/311 (35%) vs. after POS 56/311 (18%) ( $P < .001$ )], while non-parenteral opioids (extended release, transdermal, and oral breakthrough) were more used [before POS 202/311 (65%) vs. after POS 258/311 (82%)  $P < .001$ ]. Similar changes associated with POS were indicated by the PC team [parenteral opioids 159/338 (47%) vs. 96/338 (29%) ( $P < .001$ ); non-parenteral opioids 179/338 (53%) and 240/228 (71%)]. At first PC follow-up, significantly less proportion of patients achieved better pain control after POS [119/193 (62%) vs. 144/193 (75%) ( $P = .006$ )]. However, at the second PC

follow-up, the proportion of pain improvement was similar in both cohorts.

**Conclusion.** There is a significant change in opioid routes associated with POS. POS was associated with worse analgesia.

**Implications for Research, Policy, or Practice.** More research is needed to better understand the impact of POS.

#### *Family Caregiver Practices to Support Self-Management Among Adults with Serious, Chronic Illness (FR441A)*



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#### Objectives

- Identify at least three practices of family caregivers to support patient self-management of serious, chronic illness.
- Identify at least three factors that may help or hinder family caregivers in supporting patient self-management.
- Describe how data inform self- and family management of serious, chronic illness.

**Original Research Background.** Self-management refers to the daily activities of patients and their family caregivers to co-manage illness. While family caregivers have an integral role in self-management, what they actually do in this role remains unclear.

**Research Objectives.** We sought to identify family caregivers' practices to support patients' self-management of serious, chronic illness, including facilitators and barriers.

**Methods.** For this qualitative metasynthesis of published research containing family caregivers' reports of their experiences supporting patient self-management of serious, chronic illness, we searched Ovid-MEDLINE, OVIDPscINFO, OvidEMBASE, and CINAHL databases. After reviewing articles for eligibility and using the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) standards for reporting, we extracted practices, facilitators, and barriers from each article and coded them. We then categorized similar practices, facilitators, and barriers.

**Results.** The final sample (n=30 articles) had publication dates from 2000 to 2017 and represented international family caregivers aged 18–89 caring for patients with cancer (20%), heart disease (20%), progressive neurological disease (10%), diabetes (7%), chronic obstructive pulmonary disease (3%), and other serious, chronic conditions (40%). Self-management practices grouped into the areas of focusing on the patient's illness needs (e.g., managing symptoms), activating resources to support oneself as the family caregiver (e.g., using technology for information and support), and living with a patient with a serious, chronic illness (e.g., managing caregiver emotions). We categorized facilitators and barriers into the areas of Personal/Lifestyle Characteristics (e.g., patient empowerment), Health Status (e.g., caregiver stress), Resources (e.g., assistive devices), Environmental Characteristics (e.g., stigma), and the Health Care System (e.g., access to care).

**Conclusion.** Across health conditions, the family caregiver role is complex and makes considerable demands that challenge support of patient self-management.

**Implications for Research, Policy, or Practice.** Data indicate areas for assessment and potential intervention to support and sustain family caregivers' role in managing serious, chronic illness.

### *The Power of Human Connection (FR441B)*

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#### *Objectives*

- Recognize the importance of therapeutic alliance between caregivers and oncologists in the care of cancer patients.
- Describe the relationship between caregiver-oncologist therapeutic alliance and the caregiver bereavement experience.

**Original Research Background.** The therapeutic alliance (TA) between oncologists and patients with cancer has been associated with an array of end-of-life (EOL) outcomes, but we are aware of no studies on TA between oncologists and cancer caregivers.

**Research Objectives.** To examine the associations between caregiver-oncologist TA and cancer caregiver bereavement outcomes.

**Methods.** We conducted secondary analyses of data collected in the Values and Options in Cancer Care

(VOICE) study, a randomized clinical trial aimed at improving quality of communications between oncologists and patients with advanced cancer and their caregivers. Having previously reported the intervention's effects on patient outcomes, we now report secondary analyses, focusing on the effects of caregiver-oncologist TA on bereavement outcomes in 102 caregivers. Shortly after study entry, we assessed TA using the Human Connection Scale. Two months after death of the patient, we assessed caregiver-reported experiences of EoL care using the Quality of Death scale (QOD), Caregiver Evaluation of the Quality of End-Of-Life Care (CEQUEL) and the Modified Decision Regret Scale. Seven months after death of the patient, we assessed for Prolonged Grief symptoms (PG-13) and Purpose in Life (PIL). We conducted multivariable regressions examining associations between TA and outcomes after adjusting for study design variables (e.g., intervention arm, study site) as well as caregiver age, patient gender, patient education, and whether patients lived with their caregivers.

**Results.** TA was significantly associated with higher QOD ( $p=0.01$ ), CEQUEL ( $p<0.005$ ), and less decisional regret ( $p<0.01$ ). The relationships between TA and PG-13 ( $p=0.60$ ) and PIL ( $p<0.1$ ) were not statistically significant.

**Conclusion.** A stronger TA between caregivers and oncologists was associated with better caregiver perceptions of the quality of the patient's EOL care, and serves an important role in helping caregivers navigate the complicated environment of cancer treatment.

**Implications for Research, Policy, or Practice.** Improving TA between physicians and caregivers in the care of cancer patients may have widespread effects on caregivers' bereavement experiences.

### *Social Support and Relationship Quality as Moderators in the Association Between Heart Failure Patient Illness Severity and Caregiver Outcomes (FR441C)*



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#### *Objectives*

- List two ways that caregiver burden from heart failure patient illness severity can be moderated.
- Describe the stress process model as a theory that explains the connection between heart failure patient illness severity and caregiver well-being, and the potential for social support to moderate that association.

**Original Research Background.** Heart failure, a leading cause of hospitalization and death, can present severe challenges for patients and their