

Welcome!

We will begin momentarily

Palliative Care Journal Watch

A partnership between Pallium Canada and several Divisions of Palliative Care and Medicine across Canada and Internationally:

McMaster University, University of Calgary, University of Alberta, Queens University, University of Toronto, McGill University, University of Manitoba, Hadassah-Hebrew University Medical Center

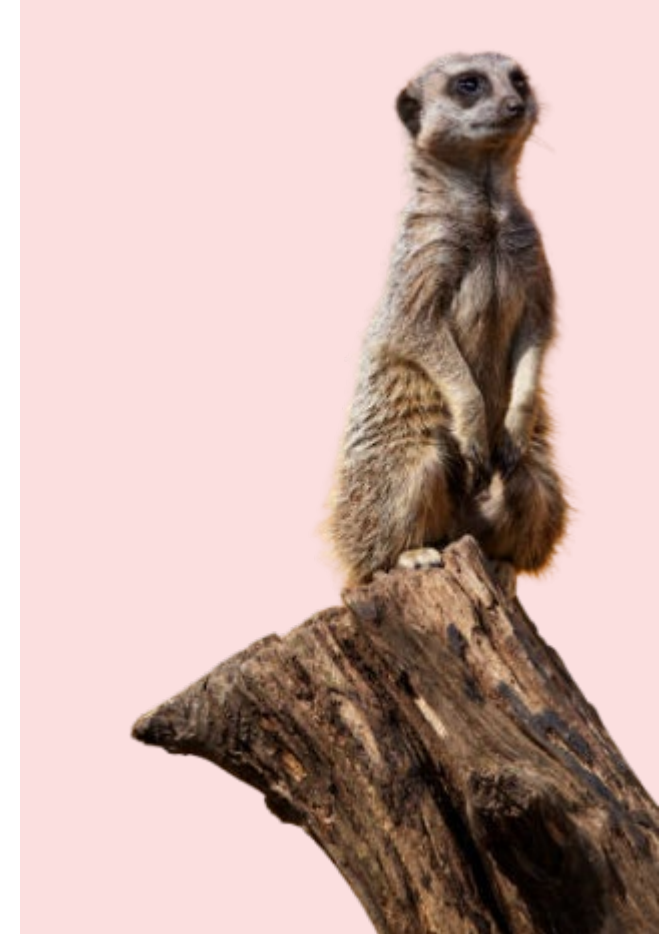


Hosts: Dr. Leonie Herx and Dr. Sharon Watanabe
Guest Panelist: Dr. Braeden Debroni

Date: March 18th, 2024

Welcome to the Palliative Care Journal Watch!

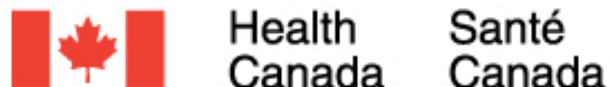
- Keeps you up to date on the latest peer-reviewed palliative care literature.
- Led by palliative care experts from several divisions of palliative care/medicine across Canada and internationally.
 - McMaster University
 - Queen's University
 - McGill University
 - University of Toronto
 - University of Manitoba
 - University of Calgary
 - University of Alberta
 - Hadassah-Hebrew University Medical Center in Israel.
- We regularly monitor over 30 journals and highlight articles that challenge us to think differently about a topic or confirm our current practices.



The Palliative Care ECHO Project

The Palliative Care ECHO Project is a 5-year national initiative to cultivate communities of practice and establish continuous professional development among health care providers across Canada who care for patients with life-limiting illness.

The Palliative Care ECHO Project is supported by a financial contribution from Health Canada. The views expressed herein do not necessarily represent the views of Health Canada.



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What to expect from today's session

- We will present and discuss our featured selections and provide a list of honourable mentions.
- Please submit questions through the Q&A function.
- This session is being recorded and will be shared with registrants within the next week.
- This 1 credit-per-hour Group Learning program has been certified by the College of Family Physicians of Canada for up to **8 Mainpro+ credits** (each 1-hour session is worth 1 Mainpro+ credit).

Introductions

Hosts:

Dr. Leonie Herx, MD, PhD, CCFP(PC), FCFP

Section Chief, Pediatric Palliative Medicine, Alberta Health Services - Calgary Zone

Director, Rotary Flames House, Children's Hospice & Palliative Care Services

Clinical Professor, Cumming School of Medicine, University of Calgary

Dr. Sharon Watanabe, MD, FRCPC

Director, Department of Symptom Control and Palliative Care
Cross Cancer Institute, Edmonton Zone, Alberta Health Services

Professor, Division of Palliative Care Medicine

Department of Oncology, Faculty of Medicine and Dentistry
University of Alberta

Guest Panelist:

Dr. Braeden Debroni, MD, CCFP(PC)

Palliative Care MD with the WRHA
Palliative Care Program

Disclosures

Pallium Canada

- Not-for-profit.
- Funded by:
 - Health Canada (through contribution agreements 2001-2007, 2013-2018), Patrick Gillin Family Trust (2013-2016), Li Ka Shing Foundation (2019 to current), CMA (2019 to 2022), Boehringer Ingelheim (dissemination of LEAP Lung courses 2019 to current).
 - Partnerships with some provincial bodies.
 - Revenues from LEAP course registration fees and licenses, sales of Pallium Palliative Pocketbook.

This ECHO program has received financial support from:

- Health Canada in the form of a contribution program.

Disclosures of Host/Guest Panelists:

- Dr. Leonie Herx: received stipend from Pallium Canada for research work on the Canadian Atlas of Palliative Care.
- Dr. Sharon Watanabe: No conflicts of interest to declare.
- Dr. Braeden Debroni: No conflicts of interest to declare.

Mitigating Potential Biases:

- The scientific planning committee had complete independent control over the development of course content.

Featured articles

1. Arch JJ, Bright EE, Finkelstein LB, Fink RM, Mitchell JL, Andorsky DJ, Kutner JS. **Anxiety and Depression in Metastatic Cancer: A Critical Review of Negative Impacts on Advance Care Planning and End-of-Life Decision Making With Practical Recommendations.** JCO Oncol Pract. 2023 Dec;19(12):1097-1108. doi: 10.1200/OP.23.00287. Epub 2023 Oct 13. PMID: 37831973; PMCID: PMC10732500. <https://pubmed.ncbi.nlm.nih.gov/37831973/>
2. Mercadante S, Bruera E. **Acute palliative care units: characteristics, activities and outcomes - scoping review.** BMJ Support Palliat Care. 2023 Dec;13(4):386-392. doi: 10.1136/spcare-2022-004088. Epub 2023 Jan 18. PMID: 36653151. <https://pubmed.ncbi.nlm.nih.gov/36653151/>
3. An AW, Chen X, Urbauer DL, Bruera E, Hui D. **Impact of Dosing and Duration of Dexamethasone on Serious Corticosteroid-Related Adverse Events.** J Pain Symptom Manage. 2024 Jan;67(1):59-68. doi: 10.1016/j.jpainsymman.2023.09.021. Epub 2023 Sep 26. PMID: 37769822. <https://pubmed.ncbi.nlm.nih.gov/37769822/>
4. He JC, Moffat GT, Podolsky S, Khan F, Liu N, Taback N, Gallinger S, Hannon B, Krzyzanowska MK, Ghassemi M, Chan KKW, Grant RC. **Machine Learning to Allocate Palliative Care Consultations During Cancer Treatment.** J Clin Oncol. 2024 Feb 15;JCO2301291. doi: 10.1200/JCO.23.01291. Epub ahead of print. PMID: 38359380. <https://pubmed.ncbi.nlm.nih.gov/38359380/>

Anxiety and Depression in Metastatic Cancer: A Critical Review of Negative Impacts on Advance Care Planning and End-of-Life Decision Making With Practical Recommendations.

Article Reference:

Arch JJ, Bright EE, Finkelstein LB, Fink RM, Mitchell JL, Andorsky DJ, Kutner JS. Anxiety and Depression in Metastatic Cancer: A Critical Review of Negative Impacts on Advance Care Planning and End-of-Life Decision Making With Practical Recommendations. JCO Oncol Pract. 2023 Dec;19(12):1097-1108. doi: 10.1200/OP.23.00287. Epub 2023 Oct 13. PMID: 37831973; PMCID: PMC10732500.

Selected by: Sharon Watanabe

Presented by: Sharon Watanabe

Key points in introduction:

- Anxiety (ANX) and depression (DEP) are highly prevalent in patients with advanced cancer and their caregivers, and may have negative impacts on advance care planning (ACP) and end-of-life (EOL) decision making
- Goal: To understand the impacts of ANX/DEP on ACP and EOL decision-making

Methods used: overall design and some key details:

- Critical review framework
- PubMed, PsycINFO, Web of Science
- Search 1: Conceptual/review articles on decision making in context of ANX/DEP
- Search 2: Studies on health care and decision making in context of cancer and ANX/DEP
- 219 articles included
- Analysis by multidisciplinary team with relevant research and clinical experience

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Selected by: Sharon Watanabe

Presented by: Sharon Watanabe

Key Results/Findings:

- General
 - ANX (high) → avoidance of ACP and EOL decision making
 - DEP → reduced adherence to medical recommendations
- Cancer-specific
 - ANX/DEP → decisional regret and conflict
 - ANX/DEP → preference for passive decision making
 - Death ANX → lower rates of advance directive completion or discussion of EOL wishes
 - ANX → higher discordance between wanted and received life-sustaining treatment, less trust in physicians, less comprehension of information communicated.

Key discussion points:

- ANX/DEP can lead to less engagement and satisfaction with ACP, cancer treatment and EOL decisions
- Use strategies to shift negative emotional and cognitive state of patient/caregiver *before* engaging in ACP and EOL planning discussions and decisions
- Important to assess nature, severity and source of ANX/DEP
- Tables 1-3: Practical recommendations and sample scripts for reducing ANX/DEP symptoms and biases

Anxiety and Depression in Metastatic Cancer: A Critical Review of Negative Impacts on Advance Care Planning and End-of-Life Decision Making With Practical Recommendations.

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Selected by: Sharon Watanabe

Presented by: Sharon Watanabe

Strengths

- Comprehensive literature review
- Analysis conducted by team with research and clinical experience
- Practical recommendations and script

Limitations

- Few studies in the advanced cancer context, leading to extrapolation from other contexts

Why is this article important?

- ANX/DEP are prevalent in patients with advanced cancer and can create barriers to ACP and EOL decision making, which may lead to negative outcomes. Strategies to reduce the impact of ANX/DEP in this context are needed.

Discussion

Acute palliative care units: characteristics, activities and outcomes - scoping review

Article Reference:

Mercadante S, Bruera E. Acute palliative care units: characteristics, activities and outcomes - scoping review. *BMJ Support Palliat Care*. 2023 Dec;13(4):386-392. doi: 10.1136/spcare-2022-004088. Epub 2023 Jan 18. PMID: 36653151.

Selected by: Leonie Herx and Anna Voek.

Presented by: Leonie Herx

Key points in introduction:

- Dedicated inpatient beds in palliative care units (PCUs) allow palliative care specialists to treat patients with the most severe physical and psychosocial symptoms.
- PCUs are lacking in most cancer hospitals and when present are predominantly hospice-type beds for those at the end of life.
- Pioneering Acute APCUs were originally developed in the 80s & 90s to provide symptom management for cancer-related comorbidities in acute care settings, fusing palliative care philosophy with acute medical care subject to the same standards of clinical competence and administrative regulation as any medical or surgical inpatient unit.
- These early APCUs provided an inpatient palliative care program focused on intensive symptom management and resulting in improved quality of care and reduced overall healthcare costs.
- There is a lack of information and understanding regarding current APCUs internationally.

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Selected by: Leonie Herx and Anna Voek.

Presented by: Leonie Herx

Methods used: overall design and some key details:

- Aim to assess the characteristics, activities and outcomes of APCUs.
- Used PICO (Patient/Problem, Intervention, Comparing, Outcome) framework, search term “acute palliative care unit”, PubMed database up to August 30, 2022.
- Abstracts that met inclusion & excluded criteria were read fully
- Additional records retrieved by hand search or cross references
- Data reporting followed PRISMA (Preferred Reporting Items for Systematic Reviews & Meta-Analyses) rules

Results/findings:

- 18 studies met inclusion & exclusion criteria
- Looked at: reasons for APCU admission, Referrals, Discharge destination, Length of APCU stay, changes in symptom intensity & Mortality rate

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Selected by: Leonie Herx and Anna Voek.

Presented by: Leonie Herx

Key Results/Findings:

- i) Reasons for APCU admission – primarily symptom control, cancer-related or cancer-treatment related complications. Care at the end of life accounted for 5-21% of admissions.
- ii) Admission Referrals – patients were referred from inpatient & outpatient services including ER, other inpatient units (internal medicine and oncology wards), oncology clinics, & palliative care clinics. Only one study included patients directly admitted from home.
- iii) Discharge –discharge destinations included home (with homecare or outpatient pall care follow up), hospice, other hospitals & LTC. Deaths in APCUs typically range from 8 to 29%. (Canadian PMH unit 48%. Italy < 4%. Arabian countries 60-86%).
- iv) Length of stay – mean length of stay 6-10 days. In Arabian country units – (Saudi Arabia and Qatar) with higher APCU death rates, mean LOS was longer at 25-30 days.
- v) Changes in symptom intensity –all assessed psychophysical symptoms showed significant improvement from baseline during APCU stay.
- vi) mortality rate – mean deaths 20%.

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Selected by: Leonie Herx and Anna Voek.

Presented by: Leonie Herx

Key discussion points:

- Overall, consistent findings suggesting APCUs differ from inpatient hospice units:
 - admissions primarily for patients with cancer requiring rapid pain and symptom stabilization often still receiving anticancer treatment
 - vast majority of studies - most patients discharged alive.
- Admissions and discharges likely dependent on local resources eg homecare and hospices.
- APCUs have an important role in earlier provision of palliative care in the cancer trajectory, to treat symptoms from time of diagnosis alongside oncological treatments
- In 2010, only 26% of NCI-designated centres had an APCU (much lower in other cancer centres). In 2020, no significant increase in the number of centres with APCUs.
- APCUs should be recommended in all cancer centres to improve quality of care and provided as part of the full spectrum of palliative care services offered

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Presented by: Leonie Herx

Strengths/Limitations

- Scoping review - only includes published data (eg only captures one Canadian APCU at PMH. 1990s Bruera TPCU in Edmonton, then Calgary)
- Further studies needed on APCUs needed

Why is this article important?

- Review evidences the differences between PCUs in different countries, supporting the value of distinguishing APCUs from traditional hospice units
- Important considerations for policy makers & administrators to recommend APCUs are part of comprehensive cancer care

Additional Comments

- Canadian Atlas of Palliative Care capturing PCU services to better delineate the Canadian landscape. Pilot data for one Ontario region shows that most PCUs are hospice-type.
- Catalonia formula: 2 of 10 pall care beds needed per 100,000 population should be inpatient PCUs (8 hospice). In tertiary cancer care centres, how many APCU beds are needed?

Discussion

Impact of Dosing and Duration of Dexamethasone on Serious Corticosteroid-Related Adverse Events.

Article Reference:

An AW, Chen X, Urbauer DL, Bruera E, Hui D. Impact of Dosing and Duration of Dexamethasone on Serious Corticosteroid-Related Adverse Events. J Pain Symptom Manage. 2024 Jan;67(1):59-68. doi: 10.1016/j.jpainsymman.2023.09.021. Epub 2023 Sep 26. PMID: 37769822.

Selected by: Braeden Debroni

Presented by: Braeden Debroni

Key points in introduction:

- Corticosteroids are widely used in oncology as well as palliative care.
- Evidence on optimal dosing / duration as well as risks of adverse effects is lacking.
- Many commonly discussed corticosteroid side effects are related to non-cancer patients.
- Secondary analysis of study looking at effects of dexamethasone on dyspnea in cancer patients (ABCD trial –“alleviating breathlessness in Cancer Patients with Dexamethasone).
- Primary outcome is looking at Grade 3+ adverse events (AEs), secondary outcomes included any grade AE and the most common AEs.

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Selected by: Braeden Debroni

Presented by: Braeden Debroni

Methods used: overall design and some key details:

- In ABCD trial, patients were randomized 2:1 to receive dexamethasone 8mg po q12h x 7 days followed by 4mg po q12h x 7 days or matching placebo.
- All patients could then decide if they want to partake in open-label phase (Dex 4mg po q12h x 7 days then Dex 2mg po q12h x 7 days).
- Weekly assessments for adherence / response and any AEs for up to 6 weeks of follow-up.
- Study population was from MD Anderson Cancer Center and Lyndon B. Johnson Hospital General Oncology Clinic (Houston, TX) between January 2017 and April 2021.
- Patients were divided into four groups based on total dexamethasone exposure (A- 256mg over 4 weeks, B- 168mg over 2 weeks, C- 88mg over 2 weeks, D- no exposure).
- Multivariable logistic regression modeling used to find significant difference in frequency of AEs between groups.

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Selected by: Braeden Debroni

Presented by: Braeden Debroni

Key Results/Findings:

- 119 patients total (A- 32 patients, B- 47 patients, C- 20 patients, D-20 patients)
- 99 / 119 patients (83%) had any grade AE , 38 / 119 (32%) patients had Grade 3+ AE, 27/119 (23%) required hospitalization
- Grade 3+ AEs occurred in 65% / 25% / 15% / 15% (A / B/ C/ D)
- Grade 1 or 2 AEs mostly occurred within first 2 weeks of exposure
- Grade 3+ AEs or hospitalizations had median onset of 20 days + 26 days respectively
- Statistically significant differences among treatment groups in odds of having Grade 3+ AE, hospitalization, insomnia (of note, Group A had OR 15.1 (CI 1.4 - 160) in experiencing Grade 3+ AE compared to no exposure to dexamethasone)
- Grade 3+ AEs occurred at median of 20 days, sometimes after the period of exposure
- High rate of infection in highest exposure group (29% - although not statistically significant)
- Neuropsychiatric symptoms (e.g. delirium, depression, restlessness, psychosis) occurred median of 10 days after exposure (higher incidence with increased dose / duration)
- Insomnia occurred in 31% of patients with median onset of 7 days (despite latest dosing being 14:00)

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Selected by: Braeden Debroni

Presented by: Braeden Debroni

Key discussion points:

- Most common AEs included insomnia, dyspepsia, neuropsychiatric symptoms, infection
- Higher incidence of AEs than other trials in similar populations (may be due to higher doses, longer duration, follow-up time, rigorous monitoring)
- Need to consider that this population had baseline dyspnea and potentially comorbid conditions compared to other studies of steroid use
- Prescribers should be cautious using > 8 mg day due to significant risk of serious AEs or hospitalization

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Selected by: Braeden Debroni

Presented by: Braeden Debroni

Additional Comments

- Difficult to draw any firm conclusions about dosing / length of steroid use. However, it was a helpful study to highlight the importance of reassessment of use of steroids and trying to use the lowest dose for the shortest duration possible
- Research looking at effects of frequent “pulse dosing” could be helpful (e.g. is there a particular time frame being off dexamethasone that your risk of AEs returns to baseline?)

Strengths

- Double blinded RCT
- Looked at steroid side effects in the context of advanced cancer
- Four groups with various exposure to dexamethasone (including no exposure)

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Selected by: Braeden Debroni

Presented by: Braeden Debroni

Limitations:

- Limitations include small sample size, outpatient setting, limited follow-up time (max 42 days)
- One of the limitations of the study was that there was an “open-label” phase where patients chose if they wanted to continue dexamethasone. It is possible that due to increased disease / symptom burden patients would continue the steroid and these same patients may be at higher risk of adverse events
- Study population from one site in Texas (?generalizable to broader population)

Why is this article important?

- Steroids are widely used in palliative care with variety of indications
- Limited research on side effects in our population
- Risks of high-dose / prolonged dexamethasone were shown in this study, and can help guide informed decision making with patients

Discussion

Machine Learning to Allocate Palliative Care Consultations During Cancer Treatment.

Article Reference:

He JC, Moffat GT, Podolsky S, Khan F, Liu N, Taback N, Gallinger S, Hannon B, Krzyzanowska MK, Ghassemi M, Chan KKW, Grant RC. Machine Learning to Allocate Palliative Care Consultations During Cancer Treatment. J Clin Oncol. 2024 Feb 15;JCO2301291. doi: 10.1200/JCO.23.01291. Epub ahead of print. PMID: 38359380.

Selected by: Sharon Watanabe

Presented by: Sharon Watanabe

Key points in introduction:

- Early specialist palliative care consultation (SPCC) for patients with advanced cancer has multiple benefits and has been recommended shortly after diagnosis
- Given limited capacity for SPCC, some experts instead endorse service provision based on need
- Machine learning (ML) can provide clinical decision-making support for precision care to improve outcomes
- Goal: To develop a ML system to predict death in ≤ 1 year in patients with cancer on palliative-intent systemic therapy, and evaluate its impact on early SPCC

Methods used: overall design and some key details:

- Population-level administrative health databases in Ontario
- Adults receiving palliative-intent systemic therapy July 2014-December 2019 (exclusions)
- Development and test cohorts, based on date of first treatment
- Predictive factors: Demographics, acute care use, cancer diagnosis/treatment, symptoms, functional status, lab values
- Primary outcome: Death within 365 days after treatment
- Compare % early SPCC (>6 months before death) and too early SPCC (> 2 years before death) using ML system versus actual

Machine Learning to Allocate Palliative Care Consultations During Cancer Treatment.

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Selected by: Sharon Watanabe

Presented by: Sharon Watanabe

Key Results/Findings:

- >54000 patients receiving >560000 treatments included
- ML system demonstrated good predictive performance
- Actual early SPCC occurred in 15.3% and too early SPCC in 12.2%
- With ML, early/too early SPCC increased by 8.5% and 2.1%, respectively, without increasing total number of SPCC

Key discussion points:

- Performance of ML system similar to previous studies, but evaluation across an entire population is novel
- ML system focused on prognosis; future systems should incorporate other triggers of SPCC
- ML systems may mitigate or amplify inequities and bias
- Findings support implementation and evaluation of ML prognostic systems to allocate SPCC

Machine Learning to Allocate Palliative Care Consultations During Cancer Treatment.

Article Reference:

He JC, Moffat GT, Podolsky S, Khan F, Liu N, Taback N, Gallinger S, Hannon B, Krzyzanowska MK, Ghassemi M, Chan KKW, Grant RC. Machine Learning to Allocate Palliative Care Consultations During Cancer Treatment. J Clin Oncol. 2024 Feb 15;JCO2301291. doi: 10.1200/JCO.23.01291. Epub ahead of print. PMID: 38359380.

Selected by: Sharon Watanabe

Presented by: Sharon Watanabe

Strengths

- Population-based
- Appears to be methodologically rigorous

Limitations

- Excludes key groups of patients
- Does not consider symptoms or other triggers for SPCC
- Does not account for follow up volume or other impacts
- Requires validation in other populations

Why is this article important?

- This study demonstrates the ability of a prognostic ML system to increase the proportion of patients with advanced cancer receiving early SPCC, compared to usual care. Intriguingly, it suggests that such a system would not lead to an overwhelming increase in the number of SPCCs, countering a key concern with implementation of systematic early SPCC.

Discussion

Honourable Mentions

1. Zhang L, San Valentin EMD, John TM, Jenq RR, Do KA, Hanna EY, Peterson CB, Reyes-Gibby CC. **Influence of oral microbiome on longitudinal patterns of oral mucositis severity in patients with squamous cell carcinoma of the head and neck.** Cancer. 2024 Jan 1;130(1):150-161. doi: 10.1002/cncr.35001. Epub 2023 Sep 8. PMID: 37688396; PMCID: PMC10872366. <https://pubmed.ncbi.nlm.nih.gov/37688396/>
2. Santos Salas A, Bablitz C, Morris H, Vaughn L, Bardales O, Easaw J, Wildeman T, Duggleby W, Salami B, Watanabe SM. **Improving access to palliative care for people experiencing socioeconomic inequities: findings from a community-based pilot research study.** Health Promot Chronic Dis Prev Can. 2023 Aug;43(8):365-374. doi: 10.24095/hpcdp.43.8.02. PMID: 37584628; PMCID: PMC10516597. <https://pubmed.ncbi.nlm.nih.gov/37584628/>
3. Courtright KR, Madden V, Bayes B, Chowdhury M, Whitman C, Small DS, Harhay MO, Parra S, Cooney-Zingman E, Ersek M, Escobar GJ, Hill SH, Halpern SD. **Default Palliative Care Consultation for Seriously Ill Hospitalized Patients: A Pragmatic Cluster Randomized Trial.** JAMA. 2024 Jan 16;331(3):224-232. doi: 10.1001/jama.2023.25092. PMID: 38227032; PMCID: PMC10792472. <https://pubmed.ncbi.nlm.nih.gov/38227032/>

Wrap-up

- Please fill out our feedback survey a link has been shared in the chat!
- A recording of this webinar and a copy of the slides will be e-mailed to registrants within the next week.
- To listen to this session and previous sessions, check out the **Palliative Care Journal Watch** podcast.



NOTE: recordings, slides and links to articles from all our sessions are available at www.echopalliative.com/palliative-care-journal-watch/.

Thank You to our Journal Watch Contributors!

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Thank You



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