VALIDATION OF SELF-REPORTED CANCER DIAGNOSIS BY COGNITIVE STATUS IN THE HEALTH AND RETIREMENT STUDY

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Exploring the relationship between cognition and cancer is increasingly important as the number of older adults in the US grows. The Health and Retirement Study (HRS) has longitudinal data on cognitive status and self-reported cancer diagnoses, but these self-reports have not been validated. Using HRS linked to Medicare Fee for Service (FFS) claims (1998-2016), we evaluated the validity of self-reported cancer diagnoses (excluding non-melanoma skin) against Medicare claims by respondent cognitive status. We included 8,280 Medicare-eligible HRS participants aged ≥67 with at least 90% FFS coverage. Cognitive status was ascertained from the HRS interview following the date of cancer diagnosis (or reference claim date) using the Langa-Weir method and was classified as normal, cognitive impairment no dementia (CIND), or dementia. We calculated the sensitivity, specificity, and Cohen's kappa for first incident malignant cancer diagnosis by cognitive status group. The majority (76.4%) of participants scored as cognitively normal, 9.6% had CIND, 14.0% had dementia and, overall, 1,478 had an incident cancer diagnosis. Among participants with normal cognition, sensitivity of self-reported cancer diagnosis was 70.2% and specificity was 99.8% (kappa=0.79). Among participants with CIND, sensitivity was 56.7% and specificity was 99.8% (kappa=0.66). Among participants with dementia, sensitivity was 53.0% and specificity was 99.6% (kappa=0.64). Results indicate poor validity of self-reported cancer diagnoses for older adults with CIND or dementia. These findings suggest researchers interested in cancer and cognition should use the HRS-Medicare linkage to ascertain cancer diagnosis from claims, and they highlight the importance of cognitive status in research among older adults.

Session 2120 (Paper)

Pain Assessment and Management

BARRIERS AND FACILITATORS OF PAIN MANAGEMENT IN PERSONS WITH DEMENTIA IN LONG-TERM CARE: A SCOPING REVIEW

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Approximately 50% of individuals with dementia regularly experience moderate to severe pain, which is largely undermanaged. Several studies have explored the barriers and facilitators of pain management for persons with dementia; yet the evidence has not been systematically reviewed. This review aimed to synthesize current evidence on the barriers and facilitators of pain management in persons with dementia in long-term care. A PRISMA guided literature search was conducted in PubMed, CINAHL, and PsycINFO. Titles, abstracts, and full texts were screened. Included articles were original research examining the barriers or facilitators of pain assessment and treatment in individuals with dementia in long-term care. Quality assessment was conducted using the Risk of Bias tool and Johns Hopkins Level of Evidence. Ten studies were identified, including four quantitative studies, five qualitative studies, and one with both quantitative and qualitative research. Barriers of pain management identified include residents' ability to self-report pain, pain medication side effects, need discrepancy among residents and their families, reluctance in administering analgesics, lack of pain assessment tools, lack of guidance in providing nonpharmacological interventions, and lack of clinical guidelines. Facilitators of pain management include clinicians with caring and enthusiastic characteristics, clinicians' knowledge of residents, positive relationships among clinicians, good communication skills, using validated pain assessment tools, understanding pain indicators, clinical experience, and need-driven continuing education. These results can guide clinical practice in long-term care. Interventions should be developed to target these barriers and facilitators and improve pain management in persons with dementia.

PAIN ASSESSMENT IN IMPAIRED COGNITION (PAIC15) INSTRUMENT: CUTOFFS AGAINST THREE STANDARDS

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Observational pain scales can help identify pain in persons with impaired cognition including dementia who may have difficulty expressing pain verbally. The Pain Assessment in Impaired Cognition-15 (PAIC15) observational pain scale covers 15 important items that are indicative of pain, but it is unclear how likely pain is for persons with each summed score (theoretical range 0-45). The goal of our study was to determine sensitivity and specificity of cut offs for probable pain on the PAIC15 against three possible standards. We determined cut offs against (1) self report when able, (2) the established Pain Assessment in Advanced Dementia (PAINAD) cut off of 2, and (3) observer's overall estimate based on a series of systematic observations. We used data of 238 nursing home residents with dementia who were observed by their physician in training or nursing staff in the context of an evidence-based medicine (EBM) training study, with 137 residents assessed twice. The area under the ROC curve was excellent against the PAINAD cut off (□0.8) at both assessments, but acceptable or less than acceptable for the other two standards. Across standards and criteria for optimal sensitivity and specificity, cut offs at the PAIC15 could be 3 or 4. Guided by self report we recommend PAIC15 scores of 3 and higher to represent probable pain with sensitivity and specificity in the 0.5 to 0.7 range.

RELATIONSHIPS OF PAIN TREATMENT WITH DEMENTIA AND FUNCTIONAL OUTCOME IN MEDICARE HOME HEALTH CARE

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Adequate pain management is important to post-acute care functional recovery, yet persons with Alzheimer's disease and related dementias (ADRD) are often under-treated for pain. The objectives of this study were to examine in Medicare post-acute home health (HH) recipients with daily interfering pain 1) if analgesic use at home is related to functional outcome, and 2) if ADRD is related to the likelihood of analgesic use at home. We analyzed data from the Outcome and Assessment Information Set, Medicare claims, and electronic medical records of 6,039 Medicare beneficiaries ≥ 65 years who received care from a large HH agency in New York in 2019 and reported daily interfering pain. Analgesic use was identified in medication reconciliation of HH visits and categorized into any analgesics or opioid(s). ADRD was identified from ICD-10 codes and significant cognitive impairment. Functional outcome was measured as change in the composite score of Activity of Daily Living (ADL) limitations from HH admission to HH discharge. Use of any analgesics at home was associated with greater ADL improvement from HH admission to HH discharge (β= -0.20 [greater improvement by 0.2 ADLs], 95% Confidence Interval [CI]: -0.37, -0.04; p=0.017). Compared with patients without ADRD, those with ADRD were less likely to use any analgesics (Odds Ratio [OR] = 0.66, 95% CI: 0.49, 0.90, p=0.008) or opioids (OR=0.53, 95% CI: 0.47, 0.62, p<0.001) at home. Adequate pain management is essential to functional improvement in post-acute HH care. Patients with ADRD may be under-treated for pain in post-acute HH care.

REMOTELY SUPERVISED CRANIAL ELECTRICAL STIMULATION AND CLINICAL PAIN FOR OLDER ADULTS WITH KNEE OSTEOARTHRITIS

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Knee osteoarthritis (KOA) is one of the most prominent causes of chronic pain, functional impairment, and disability in older adults. The current standards of care for KOA are aimed toward reducing pain and are largely comprised of analgesic medications, but existing pharmacologic approaches often produce significant adverse effects. Moreover, recent evidence suggests that KOA pain is characterized by alterations in pain-related brain mechanisms. Cranial electrical stimulation (CES), which delivers a low-amplitude alternating electric current to the brain, can facilitate the reversal of maladaptive brain function. Portable CES devices can be used at home with real-time monitoring through a secure videoconferencing platform to facilitate high adherence. Thus, the purpose of this pilot clinical study was to examine the preliminary efficacy of remotely supervised CES on clinical pain severity in older adults with KOA. Thirty participants with KOA were randomly assigned to receive 10 daily sessions of remotely supervised CES with 0.1 mA at a frequency of 0.5 Hz for 60 minutes (n=15) or sham CES (n=15). We measured clinical pain severity using the numeric rating scale (NRS; range, 0 – 100). Participants (67% female) had a mean age of 59 years. Active CES significantly reduced scores on the NRS (Cohen's d = 1.43, P < 0.01). Participants tolerated CES well without any adverse events. Our findings demonstrate the promising clinical efficacy of remotely supervised CES for older adults with KOA. Future studies with larger-scale randomized controlled trials with follow-up assessments are needed to validate and extend our findings.

Session 2125 (Symposium)

PATIENT, CAREGIVER, AND PHYSICIAN BARRIERS TO HOME-BASED PALLIATIVE CARE: FINDINGS FROM A TERMINATED STUDY

Chair: Susan Enguidanos
Discussant: Stephanie Wladkowski

Despite two decades of palliative care services, there remains numerous barriers to patient and caregiver use of palliative care. For many years, policymakers believed lack of funding for palliative care was the primary obstacle to accessing palliative care services. In 2017, we undertook a randomized controlled trial to test the effectiveness of a home-based palliative care (HBPC) program within accountable care organizations and in partnership with an insurance company that covered the cost of HBPC. After 20 months, we had recruited just 28 patients. This symposium will: (1) describe outcomes from various approaches undertaken to engage primary care physicians and recruit patients and their caregivers into this trial; (2) present barriers to HBPC referral identified from a qualitative study of primary care physicians; (3) present findings from a qualitative study of patient- and caregiver-identified barriers to HBPC; (4) describe physician and patient barriers to research participation; and (5) discuss implications of these findings for researchers and healthcare providers. Information presented in this symposium will inform researchers and policy makers about challenges and facilitators to recruiting patients, caregivers, and physicians to participate in research studies as well as inform healthcare practitioners of potential obstacles to increasing patient access to HBPC.

TRIALS AND TRIBULATIONS: PALLIATIVE CARE TRIAL RECRUITMENT APPROACHES AND CHALLENGES

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In 2017, we received funding form the Patient-Centered Outcomes Research Institute to conduct a large, state-wide, randomized controlled trial to test the effectiveness of a home-based palliative care (HBPC) program within accountable care organizations. Participants were randomized to either HBPC or enhanced usual care, where physicians were provided added training and support in core palliative care practices. Originally, we planned to obtain patient referrals to the trial from primary care physicians, however we were unable to engage primary care physicians in patient identification processes. In this session we will describe the numerous trial modifications made to our trial recruitment methods and the success of each approach. Ultimately, after