January 08, 2018

Identification of Frailty: Using Administrative and Electronic Medical Record Data

Learning Objectives:

1. On completion of this presentation, participants should be able to identify and describe two ways in which frailty in primary care can be identified
2. Participants can describe the methods used to identify frailty using clinical and health administrative data

Context: Identification of frailty could be of use for health services planning and delivery of primary and community services. Objective: Identify frail patients seen in primary care using administrative and electronic medical record data. Design: Mixed methods: concurrent quantitative-qualitative. Setting: This work took place in British Columbia, Alberta, and Manitoba, Canada. Quantitative data included administrative data and clinical electronic medical record (EMR) data. Administrative data files (2002-2014) included: physician claims, long term care, hospitalizations and prescription medications. Clinical EMR data are from participating Canadian Primary Care Sentinel Surveillance Network (CPCSSN) nodes: abnormal laboratory values, age, 10+ visits in 12 months, and multiple morbidities. Qualitative data included clinician input using the Rockwood frailty scale in order to develop the EMR algorithm. Patients: All patients who are 65 years and older who have a record in either the administrative data or in one of the participating CPCSSN nodes

Intervention/Instrument: none.

Main Outcome Measures: We examined healthcare use and costs in those who are frail compared to those with no chronic conditions or associated events indicating medical complexity (healthy).

Results: A modified definition of frailty (in the administrative data) was based on on three decision rules: (1) resident in a long-term care or assisted living facility; (2) terminally ill; and (3) at least two indices from the Edmonton Frail Scale. About 8% of provincial populations were identified as frail; they had a mean age of 84 years, were mostly female. Mean total days in hospital for frail persons was more compared to healthy patients (6.5 vs. 0.2 days). We have extracted the necessary EMR data. By the conference date, we will have results to report on the EMR algorithm.

Conclusion: The study identifies frailty algorithms that could be used with BC, AB, and MB data and EMR data

Sabrina Wong, RN, PhD
Professor and Director,
School of Nursing and Centre for Health Services and Policy Research

Rounds are held weekly on Mondays from 12:00 pm to 1:00 pm in the VGH Research Pavilion, Room 700, 7th Floor, 828 West 10th Avenue, Vancouver, BC.

Visit www.C2E2.ca for information about previous and upcoming rounds. If you are interested in presenting or attending remotely please email pamela.lee@ubc.ca.