

SOS! A Gamified App to Improve Early Detection of Acute Deterioration Associated with Unnecessary Emergency Hospitalization in the Frail Elderly

WHAT the project is about?

This project will transition a previously developed and tested beta-version of a product into a commercially available product. The purpose of the SOS Gamified App is to increase accessibility, retention and application of geriatric specialty knowledge for healthcare providers caring for the frail elderly at risk of acute deterioration, in order to prevent unnecessary hospital emergency room visits for this vulnerable population. The App entails a continuing learning product that provides instant feedback to the user and is highly accessible (i.e., available 24/7 online via the internet). The App enables staff, students, managers and educators to monitor learning outcomes and to tailor future learning to address identified performance gaps. The App supports systematic recognition, prioritization and communication of signs and symptoms for common conditions associated with hospital emergency transfers using a common language and reporting structure and team-based interventions.

WHY the project is needed?

Acute changes in condition in the frail elderly are clinically important deviations which, without timely intervention, may lead to significant deterioration or death. Nearly 33% of frail elderly admitted to hospital from long-term care are admitted unnecessarily (Canadian Institute for Health Information, 2014). Many clinicians (e.g., personal support workers, nurses and even general practitioners) lack specialty knowledge and experience to effectively manage the very complex care of the frail elderly. As a result, this vulnerable population is often unnecessarily admitted to hospital for situations that were avoidable had timely and specific care been provided. In 2013-2014, 1/3 of transfers from long-term care to hospital were for preventable conditions and low acuity, costing nearly \$11 million dollars (Canadian Institute for Health Information, 2014). Frail elderly who are hospitalized are also at greater risk of loss of function, a battery of tests, polypharmacy, hospital-acquired infections, weight loss, undernutrition, immobility, falls, incontinence, mental status changes, and pressure ulcers resulting in unnecessary suffering and costs (Resnick, 2013). In the long-term care sector alone, nearly 31,000 personal support workers and 12,000 nurses (full-time equivalents) provided care to the frail elderly in 2011 (Ontario Ministry of Health and Long-Term Care, 2012). Personal support workers are unregulated and union contracts do not provide for education days. Although nurses receive 1-2 education days yearly, they often are the only nurse on duty, resulting in few opportunities to debrief cases and learn from colleagues, unlike their counterparts in acute care. Under these conditions, it can be challenging to maintain and update knowledge and skills. This App offers nurses and personal support workers opportunities to independently learn and receive feedback about care for this vulnerable frail elderly population.