AN OVERVIEW OF GERIATRIC EMERGENCY MANAGEMENT NURSING PRACTICES IN ONTARIO

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ABSTRACT

Regional Geriatric Programs (RGPs) in Ontario, Canada support a network of nurses providing geriatric emergency management (GEM) services to older adults in emergency departments (EDs) across the province. In this paper, the results of a GEM practice survey, a network process mapping exercise and service stakeholder satisfaction measurement are described. The data suggest that while GEM services evolved in response to local needs and without common procedures, similarities exists with GEM nurses providing two service components: comprehensive geriatric nursing assessment and capacity building in the EDs. Data from stakeholders indicated uniformly high levels of satisfaction. The authors support the concept of integrating specialized GEM nursing services within Geriatric ED Guidelines and Senior-Friendly EDs.

Keywords: geriatric emergency management, comprehensive geriatric assessment, geriatric emergency department, senior-friendly emergency departments

Emergency Departments (EDs) are an essential service for the care of injuries and trauma. In Ontario, EDs provide a publicly funded safety net when the system of care is disrupted and services are unavailable. Emergency Department (ED) care is especially important for older adults who constitute approximately 14% of the province's population but account for up to 21% of ED encounters (Aminzadeh & Dalziel, 2002). Older adults visiting EDs have more emergent conditions, consume more resources, have longer ED stays and are more likely to be admitted into hospital compared with younger patients (Hwang & Morrison, 2007). This disproportionate use is primarily seen for older adults whose age (>75 years) places them at increased risk of the complex, bio-psychosocial and functional challenges of frailty (Aminzadeh & Dalziel, 2002; Guneir, Silver, & Rochon, 2011; Madden, Hogan, & Maxwell, 2002). For frail older adults, an ED admission may be a sentinel event as rates of hospitalization, return ED visits and death in the months following a visit are higher for frail older adults compared with younger age groups (Aminzadeh & Dalziel, 2002; Guneir, Silver, & Rochon, 2011; Hwang & Morrison, 2007; Madden, Hogan, & Maxwell, 2002).

GERIATRIC EMERGENCY MANAGEMENT SERVICES

Despite the importance of ED care for older adults, the traditional model of emergency medicine, designed to stabilize medical conditions through rapid diagnosis and intervention (Nguyen, Straney, Cameron, & Lowthian, 2014) does not serve the needs of older adults well especially when they are frail. Health professionals receive scant training in the care of older adults (Pringle, 2009) and ED staff may overestimate their skills and knowledge in geriatrics (Roethler, Adelman, & Parsons, 2011). The urgency of acuity in older adults is often under-triaged (Grossman et al., 2012) and common conditions and diagnoses are frequently missed (Khan, Miskelly, Platt, & Bhattachryya, 1996; Meldon, Emerman, & Schubert, 1997). Recognizing these issues, a Geriatric ED Guideline (Carpenter et al., 2014) has emerged to guide the development of EDs that are more friendly to older adults (Ryan, Liu, Awad, & Wong, 2012).

Geriatric Emergency Management (GEM) nursing services, providing specialized geriatric nursing care in the ED and helping to build the overall capacity to care for older adults in the ED is a valuable innovation in ED services (Fealy et al., 2009). Two systematic reviews (Hastings & Heflin, 2005; Sinha, Bessman, Flomenbaum, & Leff, 2011) conclude that GEM nursing services help to reduce ED and hospital readmissions, reduce long-term care admissions and enhance the functional abilities of older patients discharged from EDs. GEM nursing services are recommended in the Ontario Seniors Strategy (Sinha, 2013) and over the last decade, beginning in academically affiliated EDs, a network of GEM nurses has developed across the province with the help of the Regional Geriatric Programs (RGPs) of Ontario. The purpose of this paper is to describe the clinical (comprehensive geriatric assessment) and capacity building services provided by GEM nurses in Ontario.

METHOD

Three sources of data have informed this paper. First, a GEM practice survey was distributed to all practicing GEM nurses through the GEM Nursing Network's email list using the SurveyMonkey software system. The survey, developed by the research team, comprised a set of questions with drop down response options allowing GEM nurses to describe their hospital and its ED and the services available to older adults in these settings. Items also allowed participants to describe their career trajectories and nursing designations, and the nature of their GEM services including case finding methods, caseloads, service models and tools, a rank ordering of clinical issues, and their capacity building activities and achievements. An open ended item asked participants to describe the challenges they had encountered in developing their GEM services. Survey data collection took place in September and October of 2013 with the approval of the Research Ethics Board at Sunnybrook Health Sciences Centre in Toronto. Fifty-five GEM nurses provided 54 completed usable GEM practice surveys. These included two regional responses representing the practices of an additional 18 nurses. When these 'proxy' responses are considered, the survey represents data provided by 72 of the 101 (71%) practicing GEM nurses in Ontario when the GEM practice survey data were collected. For the purpose of this paper, the 54 usable surveys will be reported and this includes the two regional response surveys.

The practice survey results were shared at an Annual Conference of the GEM Nursing Network held in Toronto in September of 2014. The results informed a day of "practice process mapping" exercises designed to identify common structural elements of the flow of older adults in GEM nurses' EDs. Process mapping is a basic quality improvement tool (McEvoy, 2004) and the exercises were facilitated by a quality improvement team from the Ontario Ministry of Health's Quality Improvement Advisory Committee (Dale & Chan, 2012). While several elements of GEM service were mapped throughout the day, only the mapping of referral processes which brought older adults to the attention of GEM nurses is included in this paper. Data on referral process mapping includes the survey participants (n=54) and 29 additional GEM nurses practicing during the survey period and 13 new GEM nurses from the conference. These represented 81% (n=96) of the 118 practicing GEM nurses in September of 2014. The referral practice process map provided the second source of data reported in this paper.

Finally, stakeholder satisfaction evaluations completed in September 2013 provide a third source of data. For eight GEM nurses who were accountable to the RGP of Toronto, stakeholder satisfaction was a routine element of service evaluation. GEM service managers were asked to identify 5-9 informed stakeholders in their ED whom they thought could give valid feedback on the GEM role. The identified stakeholders were invited to complete an anonymous online survey in which they rated their perceptions of, and satisfaction with, the GEM nursing service. Forty-seven stakeholders participated in this service evaluation process.

RESULTS

Characteristics of GEM Nurses and their EDs

GEM nurses providing individual responses to the GEM practice survey included 32 registered nurses, 19 clinical nurse specialists and 3 nurse practitioners for a total of 54 completed surveys. Prior to becoming GEM nurses, 23 respondents had ED backgrounds, 24 had geriatric backgrounds and seven were new to both ED and geriatric practice. Twenty–two GEM nurses practiced in teaching hospitals and 32 in community hospitals including 11 rural hospitals. The median number of GEM nurses per ED was two. GEM services were available on day or extended day shifts Monday to Friday and 52% reported weekend GEM service.

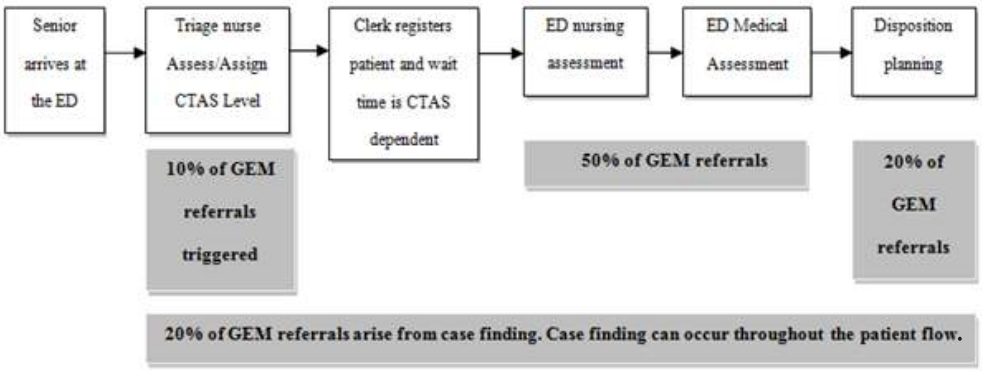
Within their EDs, 18% (n=10) reported the presence of ED physicians with special interest in older adults. In addition to standard ED nursing, additional support services included discharge coordinators (96%), physiotherapy (82%), social work (71%), clinical pharmacy (59%), and occupational therapy (47%) though these allied health professions were not geriatric specialists. While the hospitals had geriatricians and geriatric psychiatrists on staff (19% and 13% respectively) these physicians seldom worked in the ED. None of the respondents indicated that there were specialized areas of the ED designated for older adults.

Based on the referral process mapping done at the conference, Figure 1 provides the data on ED patient flow and the sources of GEM referrals. The map shows that patients were referred to GEM nurses at three stages - at triage (10%), following ED nursing or medical assessment (50%) or during disposition planning (20%). The remaining 20% of patients were identified by GEM nurse case finding processes including 'walkabouts', ambulance requests and ED census searches.

Comprehensive Geriatric Assessment GEM Nurse Services

Comprehensive geriatric assessment is the first component of the GEM nurse services. Based on the practice survey data (n=54), the use of validated risk screening tools to

Figure 1. Steps in ED Patient Flow and Sources of GEM Referrals



prompt GEM referrals were reported to be used "some of the time" by 85% (n=46) of respondents, while 30% (n=16) of respondents reported routine use of these tools for older adults >75 years. Risk screening tools in use included the Canadian Triage Assessment Scale (CTAS) (Beveridge, Ducharme, Janes, Beaulieu, & Walter, 1999), the Triage Risk Assessment Tool (TRST) (Meldon et al., 2003) and the Identification of Seniors at Risk (ISAR) instrument (McCusker et al., 1999).

Seventy-two percent of survey respondents (n=39) indicated that falls and mobility concerns were the most common presenting problem for the older adults they see. Delirium or confusion was the second ranked problem and 61% (n=33) indicated that these were the most common co-occurring presenting problems. Pain, dizziness, respiratory problems, social isolation (sometimes called "social admissions"), bowel problems, responsive behaviors and skin/wounds were rated 3rd to 9th most frequent respectively. In open-ended queries, respondents also reported that medication issues, functional decline, weakness, mental health, substance misuse and elder abuse were additional frequently occurring problems.

The practice survey results indicated that clinical service based on the provision of a comprehensive geriatric assessment (CGA) was the foundational element of the GEM nurse role. CGA is an evidence-informed assessment guided by a bio-psychosocial and functional framework (Seibens, 2005; Stuck, Siu, Wieland, Adams, & Rubenstein., 1993). When older adults clearly identified their areas of concern, targeted assessments increased the efficiency of GEM services. On average, GEM nurses reported assessing 920 older adults annually. Procedures to secure an understanding of health status prior to the ED presentation were reported to be a routine element of GEM nurse assessment. Eighty-three percent (n=45) of survey participants reported that they conducted telephone interviews with the 9% of older adults referred for GEM service who were discharged before being seen.

While no geriatric assessment tools are validated specifically for use in EDs (Carpenter et al., 2011; Carpenter et al., 2015), instruments aligned with CGA guide GEM practices. Because delirium is so common, its detection is an essential element of GEM services and 91% (n=49) of respondents reported using the Confusion Assessment Method (Inouye et al., 1990). Screening of cognitive performance was considered a key element in achieving a successful discharge and 96% (n=52) of respondents used formal instruments for cognitive screening. The majority (67%) (n=36) reported using the Mini-Cog (Borson, Scanlan, Chen, & Ganguli, 2003), while the Mini-Mental Status Exam (Folstein, Folstein, & McHugh, 1978), the Montreal Cognitive Assessment (Nasreddine et al., 2005) and the Dementia Quick Screen/Ottawa 3DY (Molnar, Wells, & McDowell, 2008) were also reported to be used. Functional assessments were reported at 96% of ED sites, and 70% (n=38) of the GEM nurses completed at least one form of standardized functional assessment using instruments that included the Functional Assessment Index (Mahoney & Barthel, 1965), the Timed Up and Go Test (Podsiadlo & Richardson, 1991), and the Lawton ADL/IADL Scales (Lawton & Brody, 1969). The Geriatric Depression Scale (Yesavage, 1988) was reported to be used by 70% (n=38) of respondents. Other commonly used instruments include the Braden Scale for Pressure Sore Risk Prediction (Bergstrom, Braden, Laguzza, & Holman, 1987), the Frailty Scale (Rockwood et al., 2005), the Mini Nutritional Assessment tool (Bauer, Mathias, Anthony, Gugoz, &

Sieber, 2008) and the Telephone Interview for Cognitive Status (Brandt & Folstein, 2003; Brandt, Spencer, & Folstein, 1988) was in use when follow-up was required. The outcomes reported upon completion of GEM assessments included recommendations to ED staff (93%; n=50), service referrals (80%; n=43), discharge planning (100%) and linkage with primary care for older adults without a primary care provider (100%).

Capacity Building GEM Nurse Services

GEM practice survey responses indicated that GEM nurses saw an average of 920 older adults annually. This is less than 1/3 of older adults who present at EDs in Ontario (CIHI, 2010). Accordingly, capacity building is the second component of the GEM nurse service. GEM nurses reported spending an average of 6 hours per week in the capacity building role which included teaching, mentoring and coaching, providing assistance for senior friendly care initiatives across host hospitals and ED process improvements through the implementation of geriatric care protocols and ED 'environmental' adaptations.

Delirium (67%: n=36), falls prevention (65%: n=35), catheterization reduction (40%; n=22), mobility enhancement (21%; n=11), least restraint (16%; n=9) and dementia care (12%; n=6) were the most common geriatric care protocols. Depression screening (5%; n=3) pain (2%; n=1) and discharge planning (2%; n=1) protocols were also evident. Survey responses indicated that 72% (n=39) of GEM nurses had helped to implement at least one geriatric protocol in their ED.

Ninety-six percent of respondents reported at least one 'senior-friendly' ED adaptation as a result of their capacity building. 'Environmental' adaptations included enhanced bathroom accessibility, softened and adjustable bedside lighting, orientation enhancements and bedside family space. Supply chain management adaptations included the purchasing of pocket talkers, 'senior friendly' cardboard cups, non-slip flooring, extra low stretchers and beds, and thick mattresses. 'Toolkits' for older adults comprising nonskid slippers, hydration and nutritional products, orientation enhancements and volunteer programs were additional 'senior friendly' ED adaptations described by practice survey respondents.

Implementing the GEM nurse role is complex and an open-ended practice survey question asked respondents to identify barriers to service implementation. Four categories of barriers were identified. These were time and resources, hospital and ED staff issues, limitations to home and community based services, and the ED environment itself. Table 1 provides exemplars for each of these categories.

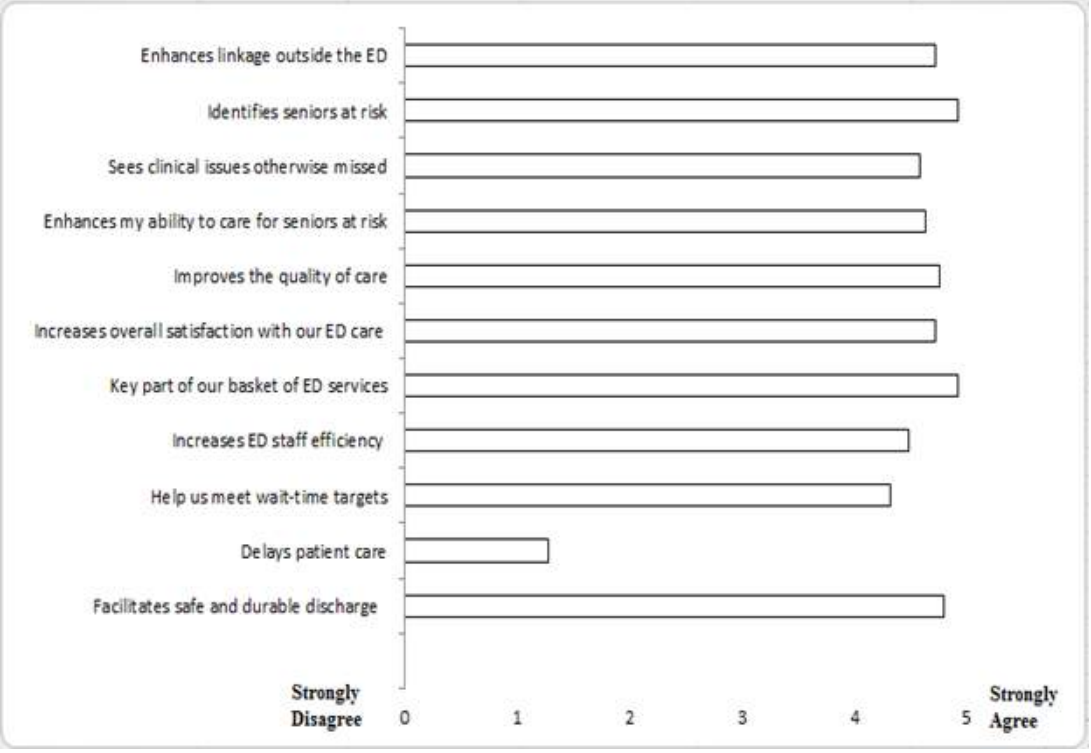
Table 1. Perceived Barriers to the Optimization of GEM Services

Category	Examples
Time and Resources	Always more patients than time allows Reduced professional development funding No resources for short term admissions Timely mental health resources unavailable
Hospital and ED staff issues	Restricted access to geriatricians/allied health services Understanding and respect for the GEM role Knowledge gaps on needs of seniors Discharge pressures create discharge safety risks
Home/community service	Few flexible services including respite Complex communications/information Interagency adherence to GEM recommendations Limited transitional care Wait lists to access follow-up care
ED environment	Difficulties creating senior friendly space Lack of privacy for interviews and assessments Rapid pace creates perceived chaos

Stakeholder Satisfaction

Figure 2 shows the results of stakeholder satisfaction surveys for 8 GEM nurses managed directly by an RGP whose EDs are located in an academic teaching hospital. Forty-seven stakeholders completed the satisfaction survey. These included 15 physicians, 15 nurses, 11 allied health professionals and 6 managers. Across the different stakeholder groups there were no significant differences in satisfaction ratings.

Figure 2. Stakeholder Satisfaction Survey Ratings for a Cluster of 8 GEM Nurses (n=47 raters)



Levels of satisfaction with GEM nurse services were uniformly high. Stakeholders reported that GEM nurses improve direct patient care, the capacity of ED staff to care for frail older adults and the achievement of safe and durable outcomes. Stakeholders reported that GEM nurses did not delay the care of older adults and helped EDs to achieve their wait-time targets despite the perceptions that GEM nurses identified clinical conditions (the geriatric syndromes) that might otherwise have been missed.

DISCUSSION

This paper provided an overview of GEM nursing practices in Ontario. The aging population, evidence of service effectiveness, and consistently positive stakeholder evaluations have prompted a proliferation of GEM services since 1995. The RGPs of Ontario originated the GEM nursing role guided by a standardized service framework in academically affiliated EDs. The majority of currently practicing GEM nurses are not linked formally to RGPs and their services have emerged in response to local demographics and practice contexts. Twenty percent of the respondents in this study's GEM practice survey reported working in rural settings with connections to other GEM nurses mediated by the GEM Nursing Network. Despite this diversity, in this paper we are suggesting that a standardized service framework can be identified based on comprehensive geriatric nursing assessment and capacity building in the ED. The GEM Nursing Network has continued to grow and currently comprises approximately 130 nurses in 60 EDs. As GEM nurse service expands, it is increasingly deployed 7 days per week between 0930 and 2130 hours when older adults, like other age groups, are more likely to visit the ED (Asomaning & Loftus, 2014).

The first component emphasized in this paper is the GEM nurses' comprehensive geriatric nursing assessment. The reported concerns of older adults served by GEM nurses include falls, delirium and confusion, pain, dizziness, respiratory and bowel problems, responsive behaviors associated with dementia, skin and wound conditions, medication issues, functional decline, mental health concerns, substance misuse and elder abuse. In each

instance, these concerns are not well served by the traditional ED focus on stabilizing medical conditions through rapid diagnosis and intervention. An ED physician, for example, might treat a wound while a GEM nurse taking a CGA approach identifies a problem with falls and mobility and helps build an appropriate discharge plan. As Carpenter et al. (2015) have found, GEM nurses share a common dislike for the "social admission" label, seeing it as a reflection of a broken system or a missed diagnostic opportunity (Oliver, 2008) rather than a characteristic of older adults.

As identified earlier, GEM nurses see less than 1/3 of the older adults who might benefit from their services. Building ED wide capacity for the care of older adults is a second key component of the GEM nurse role. This capacity building has been described and includes several areas such as teaching, coaching and mentoring staff, the introduction of geriatric protocols and facilitating ED 'environmental' adaptations including supply chain adaptations.

As indicated in the practice survey responses, barriers to implementing GEM services were reported. Community resources to support enduring discharges are sometimes scarce, health professionals often 'don't know what they don't know' about older adults, there is not enough time in the day, other geriatric services are often scarce and seldom available in the ED, and geriatrics friendly ED physicians are a rare blessing are among these barriers. Despite these barriers, as the service stakeholder responses suggested, GEM nurse services are valued and are not perceived as slowing ED processes, delaying discharges or increasing wait-times.

While there is presently no academic training program to prepare GEM nurses, the RGPs of Ontario support the GEM Nursing Network with website (http://gem.rgp.toronto.on.ca) and email list services, ongoing professional development events (http://www.rgpeo.com/en/health-care-practitioners/professional-development/geriatric-training-series.aspx), and the Annual GEM Nursing Network Conference now in its 12th year. GEM continues to represent a compelling idea that is now acknowledged in several Ontario Ministry of Health improvement strategies and in a recent Geriatric Emergency Department Guideline (Carpenter et al., 2014).

LIMITATIONS

The authors acknowledge limitations in generalizability. The practice survey respondents were not a random sample of GEM nurses in Ontario and two of the surveys completed were regional responses. While collectively these represent 71% of practice GEM nurses, we are uncertain of the fidelity of the group responses. The GEM practice process map represented 81% of the 118 GEM nurses working at the time of its completion working GEM nurses and included 42 nurses who did not participate in the practice survey. Stakeholder satisfaction data was collected from stakeholders who worked with a small number of GEM nurses. Hence, the generalizability of findings is a limitation.

REFERENCES

Aminzadeh, F., & Dalziel, W.D. (2002). Older adults in the emergency department: A systematic review of patterns of use, adverse outcomes and effectiveness of interventions. *Annals of Emergency Medicine*, *39*(3), 238–247.

Asomaning, N., & Loftus, C. (2014). Identification of seniors at risk (ISAR) screening tool in the emergency department: Implementation using the plan-do-study-act model and validation results. *Journal of Emergency Nursing*, *40*(4), 357-364.

Bauer, J., Mathias, J., Anthony, P., Gugoz, Y., & Sieber, C. (2008). The Mini Nutritional Assessment® – Its history, today's practice and future perspectives. *Nutrition in Clinical Practice*, *23*(4), 388-396.

Bergstrom, N., Braden, B., Laguzza, A., & Holman, V. (1987). The Braden Scale for Predicting Pressure Sore Risk. *Nursing Research*, *36*, 205-210.

Beveridge, R., Ducharme, J., Janes, L., Beaulieu, S. & Walter, S. (1999). Reliability of the Canadian Emergency Department Triage and Acuity Scale: Interrater agreement. *Annals of Emergency Medicine*, *34*(2), 155-159. doi:10.1016/S0196-0644(99)70223-4

Borson, S., Scanlan, J., Chen, P., & Ganguli, M. (2003). The Mini-Cog as a screen for dementia: Validation in a population-based sample. *Journal of the American Geriatrics Society*, *51*(10), 1451- 1454.

Brandt, J., & Folstein, M.F. (2003). *Telephone interview for cognitive status, professional manual*. Odessa, FL: Psychological Assessment Resources, Inc.

Brandt, J., Spencer, M., & Folstein, M.F. (1988). The telephone interview for cognitive status *Neuropsychiatry, Neuropsychology and Behavioral Neurology*, *1*(2), 111-117.

Canadian Institute of Health Information (2010). *Seniors use of emergency departments in Ontario, 2004-2005 to 2008-2009, CIHI Analysis in Brief*. Retrieved from https://secure.cihi.ca/free_products/seniors_ed_e.pdf.

Carpenter, C., Basset, E.R., Fischer, G., Shirshekan, J., Galvin, J., & Morris, J. (2011). Four sensitive screening tools to detect cognitive dysfunction in geriatric emergency department patients: Brief Alzheimer's Screen, Short Blessed Test, Ottawa 3DY and the Caregiver-completed AD. *Academic Emergency Medicine*, *18*(4), 374-384.

Carpenter, C., Bromley, M., Caterino, J.M., Chun, A., Gerson, L., Greenspan, J.,…Wilber, S.T. (2014). Optimal older adult emergency care: Introducing multidisciplinary geriatric guidelines from the American College of Emergency Physicians, American Geriatrics Society, Emergency Nurses Association, and Society for Academic Emergency Medicine. *Annals of Emergency Medicine*, *63*(5), e1-e3. doi:10.1016/j.annemergmed.2014.03.002

Carpenter, C., Shelton, E., Fowler, S., Suffoletto, B., Platts-Mills, T., Rothman, R., & Hogan, T. (2015). Risk factors and screening instruments to predict adverse outcomes for undifferentiated elderly emergency department patients: A systematic review and meta-analysis. *Academic Emergency Medicine*, *22*(1), 1-21.

Dale, A. & Chan, B. (2012) Aligning and pursuing quality goals: the role of Health Quality Ontario. *Healthcare Quarterly*, *15*, 28-29, 91-93.

Fealy, G., McCarron, M., O'Neill, D., McCallion, P., Clarke, M., Small, V., O'Driscoll, A., & Cullen, A. (2009). Effectiveness of gerontologically informed nursing assessment and referral interventions for older persons attending the emergency department: Systematic review. *Journal of Advanced Nursing*, *65*(5), 934-945.

Folstein, M.F., Folstein, S.E., & McHugh, P. (1978). "Mini-mental state". A practical method for grading the cognitive state of patients for the clinician. *Journal of Psychiatric Research*, *12*(3), 189–98.

Grossman, F., Zumbrun, T., Frauchiger, A., Delport, K., Bingsinger, R., & Nickel, C. (2012). At risk of undertriage? Testing the performance and accuracy of the emergency severity index in older emergency department patients. *Annals of Emergency Medicine*, *60*(3), 317-325.

Guneir, A., Silver, M., & Rochon, P. (2011). Emergency department use by older adults: A literature review on trends, appropriateness, and consequences of unmet health care needs. *Medical Care Research Review*, *68*(2), 131–155.

Hastings, S., & Heflin, M. (2005). A systematic review of interventions to improve outcomes for elders discharged from the emergency department. *Academic Emergency Medicine*, *12*, 978-986.

Hwang, U., & Morrison, R.S., (2007). The geriatric emergency department. *Journal of the American Geriatrics Society*, *55*(11), 1873–1876.

Inouye, S., van Dyck, C., Alessi, C., Balkin, S., Siegal, A., & Horwitz, R. (1990). Clarifying confusion: The confusion assessment method. A new method for detection of delirium. *Annals of Internal Medicine*, *113*(12), 941-948.

Khan, S.A., Miskelly, F., Platt, J., & Bhattachryya, B. (1996). Missed diagnoses among elderly patients discharged from an accident and emergency department. *Journal of Accident & Emergency Medicine*, *13*(4), 256–257.

Lawton, M.P., & Brody, E.M. (1969). Assessment of older people: Self-maintaining and the instrumental activities of daily living. *Gerontologist*, *9*(3), 179-186.

Madden K., Hogan, D., & Maxwell, C. (2002). The prevalence of geriatric syndromes and their effect on the care outcome of patients aged 75 years of age and older presenting to an emergency department. *Journal of the Canadian Geriatric Society*, *5*, 69–75.

Mahoney, F., & Barthel, D.W. (1965). Functional evaluation: The Barthel Index. *Maryland State Medical Journal*, *14*, 61–65.

McCusker J., Bellavance F., Cardin S., Trepanier, S., Verdon, J., & Ardman, O. (1999). Detection of older people at increased risk of adverse health outcomes after an emergency visit: The ISAR screening tool. *Journal of the American Geriatrics Society*, 47:1229-1237.

McEvoy, P. (2004). Using process mapping to improve nursing practice and patient care. *Professional Nurse*, *19*(9), 508-511.

Meldon, S., Emerman, C., & Schubert, D. (1997). Recognition of depression in geriatric ED patients by emergency physicians. *Annals of Emergency Medicine*, *30*(4), 442–447.

Meldon S.W., Mion, L.C., Palmer, R.M., Drew, B.L.,Connor, J.T., Lewicki, L.J.,…Emerman, C.L. (2003). A brief risk-stratification tool to predict repeat emergency department visits and hospitalizations in older patients discharged from the emergency department. *Academic Emergency Medicine*, *10*, 224-32.

Molnar, F., Wells, G., & McDowell, I. (2008). The derivation and validation of the Ottawa 3D and Ottawa 3DY three- and four-question screens for cognitive impairment. *Clinical Medicine & Geriatrics*, *2*, 1–11.

Nasreddine, Z., Phillips, N., Bédirian, V., Charbonneau, S., Whitehead, V., Collin, I.,… Chertkow, H. (2005). The Montreal Cognitive Assessment (MoCA): A brief screening tool for mild cognitive impairment. *Journal of the American Geriatrics Society*, 53, 695-699.

Nguyen, A., Straney, L., Cameron, P. &, Lowthian, J. (2014). Synthesized geriatric assessment in the emergency department setting: Is it NEAT? *Australian Health Review*, *38*, 370-376.

Oliver, D. (2008). 'Acopia' and 'social admission' are not diagnoses: Why older people deserve better. *Journal of the Royal Society of Medicine*, *101*(4), 31.

Podsiadlo, D., & Richardson, S. (1991). The timed 'up & go': A test of basic functional mobility for frail elderly persons". *Journal of the American Geriatrics Society*, *39*(2), 142–8.

Pringle, D. (2009.) Scared to need nursing care. *Nursing Leadership*, *22*(3), 1–4.

Rockwood, K., Song, X., MacKnight, C., Bergman, H., Hogan, D., McDowell, I., & Mitnitski, A. (2005). A global clinical measure of fitness and frailty in elderly people. *Canadian Medical Association Journal*, *73*(5), 48.

Roethler, C., Adelman, T. & Parsons, V. (2011). Assessing emergency nurses' geriatric knowledge and perceptions of their geriatric care. *Journal of Emergency Nursing*, *37*(2), 132–137.

Ryan, D., Liu, B., Awad, M., & Wong, K. (2012). Improving the older persons experience in the emergency room: Towards the senior friendly emergency room. *Aging Health*, *7*(6), 901-909.

Seibens, H. (2005). The domain management model – a tool for teaching and management of older adults in emergency departments. *Academic Emergency Medicine*, *2*(2), 162-168.

Sinha, S. (2013). *Living longer, living well: Highlights and key recommendations from the report submitted to the Minister of Health and Long-Term Care and the Minister responsible for seniors on recommendations to inform a senior's strategy for Ontario*. Retrieved from http://www.longwoods.com/blog/wp-content/uploads/2013/01/seniors_strategy.pdf.

Sinha, S., Bessman, E., Flomenbaum, N., & Leff, B. (2011). A systematic and qualitative analysis to inform the development of a new emergency department case management model. *Annals of Emergency Medicine*, *57*(6), 672-682.

Stuck, A., Siu, A., Wieland, G., Adams, J., & Rubenstein, L. (1993). Comprehensive geriatric assessment: A meta-analysis of controlled trials. *Lancet*, *342*, 1032–1036.

Yesavage, J.A. (1988). Geriatric Depression Scale. *Psychopharmacology Bulletin*, *24*(4), 709-11.