A Geriatric Emergency Department in a Suburban Hospital

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ABSTRACT

This process improvement capstone project is an evidence-based process intervention focused on improved clinical outcomes for people aged 65 and older who arrive at the emergency department for medical care. It takes place in a suburban hospital setting. This capstone project illustrates the steps a suburban community hospital ED would take to become an accredited Level III geriatric emergency department. Level III accreditation demonstrates the hospital's commitment to improved geriatric outcomes through the implementation of evidence-based policies and procedures, focused geriatric education for healthcare providers, and fundamental infrastructure changes. This project follows guidelines recommended by the Academy of Emergency Physicians for Geriatric ED Accreditation. The project utilizes the principles of nursing theorist Imogene King using Dr. King's Conceptual Framework and Theory of Goal Attainment.

Keywords: geriatric; evidence-based medicine; emergency department; Level III geriatric emergency department accreditation.

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Chapter I

Introduction and Statement of the Problem

In the United States, the population of those aged 65 years and above is increasing exponentially. According to the 2010 Census, this population increased faster between 2000 and 2010 than the US population (ACEP, 2013). During the last month of life, half of all Americans aged 65 years and above visit the emergency department at least once (Grudzien, C., Richardson, L. Baumlin, K., et al., 2015). Medicare is the primary insurance for 93% of non-institutionalized Americans older than 65 but reimburses providers only a fraction of the costs private insurance companies pay (Rosenberg, M. and Rosenberg, L., 2020). As a result, the number of primary care providers who will accept new Medicare patients is declining.

Additionally, the number of medical students choosing a career in primary care is decreasing. In the current healthcare climate, primary care providers have come to depend on the emergency department for timely and cost-efficient coordination of services for older adults. While in the emergency department, a patient can obtain lab rests, radiographs, consultations, and ultimately a diagnosis in one visit as opposed to having the workup spread out over time and multiple visits. Due to the evolving changes in healthcare delivery, the emergency department plays a pivotal role in the healthcare system. The emergency department decides who requires admission and who will be discharged to home.

Problem Statement

Priorities of care in the emergency medical model do not align with the current healthcare system changes. The emergency model of care focuses on the delivery of specialized care for acute illness and injury, with an underlying goal of rapid patient turnover. Elderly patients typically present to the ED with subtle complaints and underlying complex medical conditions

which require comprehensive assessments and resource utilization. These issues present a challenge to fast-paced emergency departments where time, space, and resources are in short supply. To expedite emergency department throughput and perform comprehensive multidisciplinary assessments, the patient stays in the hospital. While most of these admissions can be justified, many can be avoided, provided there are systems in place for rapid screening and resource utilization. Hospitalization for this age group results in a higher risk for medical complications and functional decline (Shenvi, C., Platts-Mills, T., 2018). Additionally, inpatient hospitalization consumes more than 30% of the healthcare budget; inpatient admission must be decreased for the reduction in overall healthcare costs and to improve healthcare outcomes for geriatrics aged 65 years and above.

Research Question / PICOT

Can geriatric emergency department accreditation improve healthcare outcomes for people seen in the emergency department aged 65 years and above when compared to the current standards of care for this age group in a suburban hospital emergency department after a six - month transition period?

Conceptual / Theoretical Framework

This capstone project utilizes the fundamental framework of nursing theorist Imogene M. King. Dr. King's Conceptual Theoretical Framework and Theory of Goal Attainment asserts the goal of nursing is to help patients meet their basic and extended needs concerning their identity and their relationships. Nursing goals are to keep the patient functioning in their respective roles within the family, group, and community and to provide dignity at the time of death (Fawcett, 2017). The focus of Dr. King's framework states, "man as a dynamic human being whose perceptions of objects, persons, and events influence his behavior, social interaction, and health"

(Williams, L., 2001). In line with this conceptual framework, the GEDI project goals are to provide the geriatric patient with the support resources necessary for them to maintain their functional status at home and in the community by taking the individual and their unique needs into account. Their perceptions of self, interactions with the nurse, and interactions within community systems impact how they interact within each system. Dr. King proposes the interactions between the patient and the nurse are significant elements to goal attainment. Interactions include both verbal and non-verbal communication and determine what information is exchanged and interpreted. The assessment phase of an ED visit is considered an essential aspect of the encounter. During the assessment phase, identification and priority are given to patient needs. Patients can perceive the ED as intimidating; they can feel threatened or feel a loss of control. Initial patient interactions set the tone for the entire ED encounter. The patient's perception of self and the interaction between themselves and the nurse either encourage communication and mutual goal setting or discourage it, depending on this initial interaction between nurse and patient. Poor communication between the patient and nurse is implicated in a multitude of undesirable outcomes, such as patient dissatisfaction, unidentified needs, and misaligned goal outcomes. The geriatric ED requires the nurse to consider the ED visit from a patient's perspective, including the correct identification of their unique healthcare needs. One method to ensure thorough and accurate assessment is to perform early structured screening processes. Early screening helps to identify individual needs to follow up to allocate the necessary support systems, which are essential for individuals to remain in their familiar home environment and maintain a sense of self-actualization.

C. Gredzen et al. (2015) state 75 percent of older adults surveyed in a recent study had considered end-of-life care, and only 12 percent of older individuals wanted life-prolonging

attention (Heyland, DK, Barwich, D., Pichora, D., et al., 2013). To reflect the patient's needs or goals who present with a serious, life-limiting illness, early palliative care consultation in the ED would be part of the geriatric ED project. Initial palliative care consultation in the ED honors the patient's right to a dignified death and potentially unwanted admission to an intensive care unit where invasive life-lengthening, painful procedures occur. This process ensures the patient remains in control of decisions affecting their medical care, a premise of Dr. King's nursing theory.

Purpose and Objectives

The purpose and objectives of this capstone project are to increase the ED healthcare providers' (HCP) knowledge regarding emergency geriatric healthcare, increase utilization of hospital and community resources, decrease inpatient hospital admissions, and ultimately improve healthcare outcomes for people aged 65 years and above. Literature emphasizing inadequacies in the current ED medical model and methods of improving outcomes for this age demographic supported the need for this project.

Existence and Scope of the Problem

Market Analysis

Nationally, geriatrics comprise 15% of emergency department visits and expected to increase to 28% by 2030 (Shenvi, C., 2019). This population uses a disproportionate number of resources. On average, 48% of admissions to intensive care units are people aged 65 and above. Studies have demonstrated this age group tends to remain in the ED 20% longer and may utilize 50% more resources while in the department. Additionally, this age demographic is more likely to require a social service intervention than other population cohorts (Shenvi, C., 2019). These statistics stem from a multifaceted etiology, such as the complex medical problems associated

with overlapping comorbid conditions. Historically, emergency departments primarily focused on the medical aspect of a specific complaint; therefore, occult issues remain unnoticed in the emergency department. Without a holistic approach to care, geriatric patients may ultimately receive fragmented, costly, and incomplete healthcare management leading to increased incidence of readmission within 30 days of discharge. A holistic approach coordinates inpatient, outpatient, and home-based programs, ultimately decreasing the rate of 30-day readmission and overall healthcare costs (Hwang and Morrison, 2008).

Strategic Analysis

Geriatric Emergency Department Accreditation (GEDA) is a best practice model of care for those aged 65 and older in an emergency department setting. GEDA program guidelines are the result of collaborative efforts between the American College of Emergency Physicians (ACEP), the American Geriatrics Society (AGS), the Emergency Nurses Association (ENA), and the Society for Academic Emergency Medicine (SAEM) in 2013. Accreditation by ACEP and is valid over a three-year term. There are three levels of accreditation based on adherence to geriatric ED guidelines. The tiered approach allows hospitals to improve overall outcomes with resources currently available. Level III requires adherence to basic standards of care for geriatrics and is considered attainable by all EDs since this level utilizes resources already in existence (Southerland, L. Lo, AX., Biese, K., et al., 2019). Staff education and a single quality improvement activity annually are necessary for Level III accreditation. Level II builds on the requirements needed for Level III accreditation and requires a more significant commitment from the organization. At this level, a multidisciplinary approach to geriatric care includes a physician champion, a nurse champion, social workers, physical therapists, and at least one member of the executive administrative team who supervises the Geriatric ED Program. A Level

II accreditation integrates at least ten geriatric-specific policies and procedures with measurable outcomes documented for three of those initiatives. A Level I accreditation is the highest level a hospital can achieve. This level requires a larger multidisciplinary team throughout the institution. At least 20 geriatric-specific policies/ procedures are implemented with outcome measurements for five of these initiatives. According to Southerland, L et al., 76 EDs have been accredited as of July 2019 (Southerland, L., Lo, AX, Biese, K., et al., 2019).

In addition to decreasing the incidence of revisits and readmission, reduction of healthcare costs, and increased patient satisfaction, accredited geriatric emergency departments improve overall health outcomes for geriatric patients. Geriatric centered care will, however, require a paradigm shift in the ED culture and physical environment for these goals to be realized.

Readiness for Change

The ED, referred to in this capstone project, is in a suburban community north of New York City. The hospital is a 286-bed community hospital providing an array of emergency and acute care services to the residents of Rockland County, southern Orange County, both located in New York and North Bergen County, located in New Jersey. According to the Community Health Needs Assessment 2016-2018, this region has seen substantial growth in people aged 65 and above, consistent with the national trend (Viola, D. & Doan, T., 2015). Additionally, the Community Health Need Assessment 2016-2018 expects to see this population double through 2035, while those aged 30-44 years will decrease in size (Viola, D. & Doan, T., 2015).

At this point, the hospital's readiness for change cannot be fully appreciated due to the COVID-19 pandemic. Before the pandemic outbreak, several members of the ED team and upper administration were queried about their perceptions regarding the delivery of care to

geriatrics. The consensus was clear, " we can do better." With the *perceived* need to improve ED healthcare services in this hospital established, specific data- points to provide proof of the issue are unavailable at this time. These data-points include the average percentage of patients seen in the department aged 65 and above seen in one month, the number of geriatric admissions to both medical and intensive care units, the number of ED revisits within 30 days, and an inventory of chief complaints. When the population of the ED begins to normalize, after the pandemic, these data points can be obtained and monitored in the outcome metrics.

Perceived barriers for this project expressed by staff include a lack of financial support from the hospital for staff education, infrastructure changes, and the cost of the accreditation application fee of $2500 for a three-year approval. Although the long-term financial benefit to the hospital can be estimated through a literature review, the hospital will need to provide funds in the short term to initiate the project and help it reach its fullest potential. Due to the COVID-19 pandemic, many hospitals have suffered financial losses. When the pandemic recedes, the hospital will be in a better position to provide financial support for projects such as this.

Definition of Terms

For this capstone project, the terms "elderly" and "geriatric" refer to ED patients aged 65 and older. Accreditation refers to " the process whereby an association or agency grants public recognition to a hospital, health care institution, or specialized program of care to ensure it has met certain established qualifications or standards as determined through initial and periodic evaluations. Both the qualifications and evaluations are determined by the accreditation organization" (Knapp, J., 2000).

Chapter II

Review of the Literature

The following peer-reviewed articles support the need for a geriatric friendly emergency department. Search engines utilized were CINAHL, EBSCO Host, MEDLINE, PubMed, and ACEP online using the keywords "Geriatric Emergency Care," Geriatric EMERGENCY DEPARTMENT," "GEDI," "GED." Inclusion criteria for the search: article needed to be published ten years ago or less, peer-reviewed in a scholarly journal, and published in English. To be considered for use, the article must discuss emergency care for geriatrics aged 65 years and older. Exclusion criteria were any article published more than ten years ago, articles not published in a scholarly journal such as blogs or editorials, and articles that are only somewhat related to the subject despite showing up in the search results. Of the 32 articles reviewed, only seven were useful in supporting the need for this capstone project.

The literature referenced in this capstone project supports the benefits of geriatric care focused care in the emergency department setting and innovations used by various hospital emergency departments to implement evidence-based policies and protocols to optimize outcomes for geriatric patients.

The impact of early emergency department allied health intervention on admission rates in older people: a non-randomized clinical study by Arendts, G., Fitzhardinge, S., Pronk, K. et al. (2012) evaluate the effects of an early allied health intervention in an ED with a dedicated team and whether the intervention resulted in the reduction of hospital admission rates for those aged 65 and above. The prospective, non-randomized trial studied 5265 people aged 65 and older who presented to one of two Australian hospitals EDs between February 2009 and March 2010. Through a retrospective cohort review of those aged sixty-five and above presenting to these EDs before the intervention, the researchers were able to conclude a modest decrease in admission rates when a specialized geriatric health services program after implementation of the

project. Factors affecting the decision to admit, or discharge included the chief complaint—elderly patients who were most likely to benefit from a specialized multidisciplinary team presented with musculoskeletal complaints. There was a limited benefit to those in observed groups presenting with medical conditions, including pneumonia, cardiac failure, and delirium. Limitations of the study included community resources for referral and follow up (Ardentis, G., Fitzhardinge, S., Pronk, K., et al., 2012). This study demonstrates Level 3 evidence.

Mortality and associated risk factors for older adults admitted to the emergency department: A cohort study by Garcia- Pena, C., Perez-Zepeda, M. U., et al. .sought to determine the risk factors associated with mortality for people ages 60 and above treated in the emergency departments of two Mexico City non-specialized general hospitals. This retrospective cohort study of 1406 adults aged 60 and above admitted to the EDs of the two hospitals between June 2013 and February 2014. Metrics of the research reviewed the length of stay, specialty geriatric training of residents, and the frailty score for each of these study participants. The study concluded a 21.7% mortality among older persons in these two general, non-specialized emergency departments was associated with longer lengths of stay in the emergency department. Results also identified the degree of frailty, determined by using handgrip strength as a measure of severity, to be a determinant of the overall outcome. Specialized geriatric training among residents identified to be a protective factor regarding geriatric mortality. "Inappropriate processes of care" increased the length of stay. In contrast, specialized training for residents improved care processes, thereby decreasing the length of stay and subsequent hospitalization for this cohort group (Garcia-Pena, C., Perez-Zepeda, M., Robles-Jimenez, L., et al., 2018). This study represents Level 2a evidence.

Redesigned geriatric emergency care may have helped reduce admissions of the older adult to Intensive Care Units by Grudzen, C., Richardson, L., Baumlin, K. et al. (2015) is written to evaluate whether the principles of palliative care can be applied to geriatric emergency care. The use of the process improvement model called GEDI WISE (Geriatric Emergency Department Innovations in Care through Workforce, Informatics, and Structural Enhancements) introduced workforce enhancements in the emergency department and adjunct staff. In this article, the intervention was implemented between January 2011 and May 2013. The workforce enhancements recommended role redefinition, retraining, and education of staff in palliative care principles. Triage nurses in the ED screened patients who were suitable for or desired palliative and hospice care. Other aspects of the project included the adoption of an integrated electronic medical record (EMR), which included various geriatric screening tools able to be shared among providers throughout the healthcare system. Additional recommendations included processes to complete follow up care and the transformation of the physical environment. The physical environment should meet the unique needs of geriatric patients. The workforce determined those who would benefit from the space were able to ambulate and knew their names. The article describes a project funded through grant support from the Center for Medicare and Medicaid Innovation among three large medical centers located in New York City and New Jersey. The authors recognized the limitations in generalizing their findings toward smaller hospitals in that the study took place in an extensive hospital system with a well-developed palliative care service (Grudzen, C., Richardson, L, Baumlin, K. Winkel, G., et al., 2015). This article represents Level 2 evidence.

The Geriatric Emergency Department by Rosenberg, M, and Rosenberg, L (2016) provides a thorough background of the problem. The article begins by stating, " change will

happen; we can either cope with change or more desirably, we can lead change" about emergency departments and the delivery of emergency services throughout the world. This article recognizes the changing landscape of healthcare delivery, which includes " changing government regulations, insurance requirements, billing and reimbursements, technologies, politics, and an aging demographic." The emergency department no longer serves the primary role of caring for the acutely sick and injured. Services rendered in today's emergency departments are much more complex, including the delivery of urgent care services, certain primary care services such as screening and diagnostic tests, and ultimately serves a safety net for the vulnerable. In these changing times, emergency departments must consider alternate models of care to provide efficient, quality care while reducing overall healthcare costs. Current healthcare reform model goals are known as the Triple Aim. The authors contend geriatric emergency department outcome objectives align perfectly with the goals of the Triple Aim which are "improving the individual experience of care, improving the health of populations, and reducing the per capita costs of care for populations" (Berwick, D., Nolan, T., Whittington, J., 2008). Emergency departments must be willing to commit the time and resources necessary for effective change. The article provides examples of recommendations to enhance the standards of care for the elderly in emergency departments, with consideration of the various infrastructure, demographic needs, and budgetary restraint—the levels of evidence in this article range from Level 2a- Level 5.

Managing the Elderly Emergency Department Patient by Shenvi, C., and Platts-Millss, T., 2018, supports ACEP's Geriatric ED Accreditation Program. Shenvi, C., and Platts- Millss, T. begin with a statistic stating 15% of all ED visits annually are from older adults. Older adults create a challenge for EDs. This population frequently presents with numerous comorbid

conditions. At baseline, older adults are more likely to have cognitive and functional impairments and are less likely to recover from injury or illness fully.

Additionally, elderly patients often have an atypical presentation of common conditions in part to age-related physiologic changes, polypharmacy, delirium, and dementia. Combining these factors requires extensive time and a multitude of in-hospital and community resources to meet the previously mentioned goals. The Geriatric ED Accreditation Program provides guidelines to improve care and outcomes for the elderly. The article recognizes this model of care as resource-intensive; however, the authors feel a structured approach to addressing population-specific needs through formal assessments can reduce ED revisits and subsequent hospitalizations, thereby improving patient outcomes and reducing medical costs. This article reflects Level 5 evidence.

Concepts in Practice: Geriatric Emergency Departments by Southerland, L., Lo, AX., Biese, K., et al. (2019) reviews four geriatric ED models of care: a geriatric ED-specific unit, geriatric practitioner models, geriatric champions, and geriatric-focused observation units. The advantages and limitations of each model provide an overview for hospitals considering improvements in their emergency departments. The article begins by discussing the traditional care model of emergency departments, which, as previously mentioned, are ill-equipped to provide the complex care required by an aging demographic. Current ED models result in extensive hospital admissions and length of stay. Hospitalization increases the risk of functional decline in terms of physical mobility and cognitive ability. The article recognizes limitations in staffing, training costs, and physical space as barriers to change. Regardless of the model reviewed, increasing the level of geriatric-specific education of staff seems to decrease hospitalization rates. The authors conclude all EDs can improve outcomes for geriatrics through

the use of existing resources, geriatric-specific education, and by adapting protocols and policies within local systems regardless of their size or range of resources (Southerland, L., Lo, AX., Biese, K., et al., 2018).

The Geriatric Emergency Department Intervention model of care: a pragmatic trial by Wallis, M., Marsden, E., Taylor, A., et al. (2018) evaluates the effectiveness and cost of a Geriatric Emergency Department Intervention (GEDI) for care provided for adults 70 years of age and above. The study used a pre-post design to conclude a GEDI model of care decreased the length of stay in the ED, decreased the incidence of admission, and, if admitted, decreased the length of stay and hospitalization costs. Subjects in the study included all patients 70 years and older who presented to the ED during the study period of January 2012 through August 2016. The control group included those who presented for care outside of the study hours of Monday-Friday, 8 am- 7 pm. The control group compared to an intervention group consisting of those who presented for care during the study hours. Primary outcome measurements organized by disposition: discharged to home, admitted, or died. Secondary outcomes measured the ED length of stay in minutes, the hospital length of stay in days, all-cause in-hospital mortality within 30 days of ED presentation, and hospital admission cost. The study determined that older persons who present to the ED and evaluated by the GEDI team are more likely to be discharged. The study demonstrated reduced ED length of stay and no increased risk of mortality or re-presentation to the ED within 28 days of discharge and was able to conclude the implementation of a "nurse-led physician championed model of ED care" was a worthwhile endeavor. The ED was able to sustain the results over time (Wallis, M., Marsden, E., Taylor, A., Broadbent, M., et al., 2018). The study represents Level 2b evidence.

As previously mentioned, the traditional emergency medicine model of care in the United States and abroad have focused on the diagnostic evaluation of chief complaints and the initiation of time-dependent therapies. The conventional care model fails to address the complex care needs of those aged 65 and older. Consequences of the traditional care model result in less than optimal outcomes for this population, including prolonged and repeated ED visits, increased incidence of hospital readmissions, functional decline, mobility impairment, increased risk of falls, and delirium, ultimately costing 83 billion dollars annually additional in healthcare expenditures. Despite having multiple well-published studies indicating the need for improved geriatric care in emergency departments, no best practices are known. The American College of Emergency Physicians (ACEP) has provided some guidance to hospitals by identifying critical elements of quality geriatric care through the launch of the Geriatric ED Accreditation program released in 2018. The program considers the various needs and available resources of emergency departments in terms of geriatric centered care. The three-tiered accreditation allows for multiple models of geriatric ED care incorporating "holistic, patient-centered care and interdisciplinary assessment" (Southerland, L., Lo, A., Biese, K., et al., 2019). While no one model is considered the best, a geriatric focused initiative is proven to lead to improved outcomes for geriatrics and in systems-level metrics. For these reasons, a geriatric centered care model is the best practice for geriatrics in the emergency department.

Chapter III

Project Design

Project Design and Stakeholders

The general design of this project begins with the formation of a Geriatric Emergency Department Committee. The committee will initially consist of the most basic stakeholders. The

stakeholders include a representative from the quality improvement department, the ED medical director, who will be the appointed physician champion for the project. This ED nurse manager will be the appointed nurse champion for this project, ED staff physicians and nurses who are interested in joining, the director of professional development along with the ED nurse educator, a senior administrator, and a representative from the patient advocate department. The agenda of the initial meeting will be to introduce the project, state the purpose of the project, state the intended benefits of implementation, and to determine shared goals. During this initial meeting, the committee will determine who the responsible party of this project will be to keep it sustainable. This department representative will be a second chair at all meetings going forward, then will eventually absorb the full responsibility of maintaining the accreditation.

To achieve a Level III accreditation successfully, the implementation of basic standards of care for geriatrics is necessary. Shenvi et al. state the basic standards of care practices are "the level at which the average, prudent provider in a given community would practice" under the same or similar circumstances. As mentioned, most hospitals currently have the resources required for Level III accreditation, which is why this level is attainable by nearly every hospital. Level III accreditation requires the ED to have at least one medical doctor with focused geriatric education and one registered nurse with focused geriatric training. To qualify for the role of physician champion, the ED medical director should be a board-certified emergency physician with some training in geriatrics. Ongoing education requirements are the completion of eight hours of geriatric-specific continuing medical education (CME) every two years. The ED medical director will have the following responsibilities:

- Member of the Geriatric ED Committee
- Oversight of geriatric performance improvement metrics

- Liaison with medical staff regarding geriatric care concerns
- Liaison with Skilled Nursing Facilities (SNFs), community outreach paramedicine program, home health providers, and other appropriate outpatient care partners
- Review, approve, and assist in the development of geriatric policies and procedures.

The qualifications for the ED nurse manager require the manager to have at least two years of experience with geriatric patients within the previous five years, experience with quality improvement programs and completion of eight hours of American Association of Colleges of Nursing (AACN) approved continuing education units (CEUs) in geriatric-specific topics every two years. The responsibilities for this role are:

- Member of the Geriatric ED Committee
- Participation in the development and maintenance of a geriatric performance improvement program
- Liaison with outpatient care partners as discussed above
- Identify staff education needs and coordinate with the professional practice department for implementation of appropriate ongoing nursing education

Staff physicians are required to have four hours of geriatric-specific CME annually. There is no specific requirement for nursing continuing education, but they should be encouraged to participate in geriatric-specific training. The Mount Sinai Geriatric Review Course: https://geriatric-appliative-boardreview.org/ and The University of Iowa Geriatric Lecture Series: https://igec.uiowa.edu/gls/gls-scheudlewww.geri-EM.com are websites physicians may find useful in obtaining geriatric-specific education. Nurses may

find the GENE course offered by the Emergency Nurses Association: https://www.ena.org/education/education/GENE/Pages/default.aspx or Emergency Department nursing modules from NICHE: https://www.nicheprogram.org/knowledge-center/webinars/archived-webinars/ to be useful for obtaining further education regarding geriatric care.

General features of a geriatric friendly ED include modifications to promote safety, comfort, and mobility. Considerations such as noise reduction, appropriate lighting, non-slip flooring, wall rails, pressure distributing mattresses, mobility aids, and access to toileting are critical. Other equipment such as blanket warmers and cordless monitoring equipment are also helpful. The hospital currently has these features included in its newly renovated emergency department. However, the committee should review each item to ensure its availability.

Data Collection Instruments

Policies and protocols must demonstrate a geriatric focus. Level III accreditation requires one quality metric, but as a contingency, the committee will decide on two metrics to follow. See appendix for a sample Geriatric ED Quality Assessment Instrument (dashboard). The information technology department will be useful to integrate the data points into a report using the electronic medical record. The hospital uses EPIC as their EMR platform. The committee chair will bring follow up with the information technology department once the committee decides the data points.

An example of a geriatric focused protocol is the implementation of a geriatric screening tool to identify those at high risk for delirium, functional decline, iatrogenic injury to include adverse drug events, and falls. The screening tool will also help identify those who will require a transition of care services. A triage screening tool used by several EDs is the Identification of

Seniors at Risk Tool (Meldon, SW, Mion, LC, Palmer, RM, et al., 2003). Any score over one is considered an at-risk senior. See the appendix for an example of the Identification of Seniors At-Risk Tool. The utilization of this tool begins the transition of the care process. It encourages coordination between the ED, primary care providers, outpatient services, and social services to meet the specialized needs of geriatric patients.

Another example is a delirium screening tool. With the utilization of this tool, geriatrics presenting with altered mental status would have a new history and physical, which incorporates an assessment model for delirium accepted by GED Guidelines such as Ultra-Brief 2 (UB-2) or the Delirium Triage Screen (DTS). See the appendix for an image of these tools. Both screening tools are estimated to take two minutes or less to administer, which should not have a significant impact on the workflow for ED providers (UC San Diego Health, 2018). In this example, a positive screening would trigger an in-depth evaluation to identify possible underlying causes. Underlying causes including infection (urinary tract and pneumonia are the most common), high-risk medications such as anticholinergics, sedatives, and hypnotics, narcotics, or any new medications. Additional underlying causes include electrolyte imbalances, alcohol or drug dependence with withdrawal, and stroke. A stroke should be of primary concern when the patient is also exhibiting any new focal neurologic findings. The protocol for acute altered mental status provides a framework to guide intervention and addresses preventative measures for delirium.

A third screening tool the committee may consider implementing is a screening tool for the risk of falls. Any geriatric patient who presents with a chief complaint of fall is screened using this tool. Falls are a significant cause of morbidity and mortality among geriatrics and are quite common, occurring in nearly 33% of the population over 65 years and 50% in the community over 85 years of age between the years 2005- 2009 (Hartholt, K., Sevens, J.,

Polinder, S., et al., 2011). In 2011, the financial burden to the healthcare system was estimated to be more than 28 million dollars annually (Hartholt, K., Sevens, J., Polinder, S., et al., 2011). Providers should screen any geriatric patient who presents with a fall, has a history of falls within the past 12 months, or who has difficulty walking or maintaining their balance. In addition to relevant medical history, physical exam, and basic cognitive assessment, the provider should consult with the physical therapy department for a gait, balance, and mobility evaluation. Additionally, the community paramedicine program or home health nursing should be asked to perform the environmental hazards screening if the patient is coming from their own home.

One of the main goals of a Geriatric ED is to decrease hospital admissions. As previously mentioned, hospital admissions are associated with increased risk of acute delirium, nosocomial infections, iatrogenic complications, and overall functional decline. Therefore, an effective Geriatric ED program will have to follow up, and transition of care protocols in place since coordination between families, primary care providers, and outpatient services is necessary to discharge geriatric patients from the emergency department safely.

The second meeting agenda of the Geriatric ED Project would review notes from the first meeting, which include samples of the Quality Improvement Dashboard, examples of the risk screening tool, and the delirium screening tools. The committee will determine which quality metrics will be monitored and which screening tools will be implemented. The committee will assign a member to draft the initial policy and procedure regarding the use of the screening tool and determine methods for the education of staff in terms of facility mandated educational requirements and requirements for accreditation. Regarding education, the committee will decide whether to formalize a specific education plan or allow the nursing team to select their topics. The staff will need to be educated on the new policy and procedure once drafted. The

professional development department will take the lead regarding the implementation of the educational requirements.

A third meeting of the committee will review the talking points from the first two meetings. Additionally, the newly drafted policy and procedure (s) will be considered and accepted by the committee. The committee will then formalize a date for project implementation to begin. At this point, the committee can meet monthly to discuss the progress of the program, determine which goals have been met, and identify areas in need of improvement. Ongoing, the ED Geriatric Program chair will be collecting the data for the application to apply for accreditation. Once the criteria for the application are met, the committee will vote to apply for consideration.

Risks and Benefits

The risks of a geriatric ED are negligible. The benefits are apparent and well documented to include better outcomes for geriatric patients, increase satisfaction for patients and their families, increased satisfaction for providers, increased income generated from a decrease in return visits, and improved public relations for the hospital.

Potential Barriers to Implementation and Sustainability

This capstone project is required to meet the qualifications for the Doctor of Nursing Practice degree. The idea for the project was conceived during the ACEP annual conference in October 2019. The framework for the project was created during the Fall of 2019 and the Winter of 2020. As the vision for this project came into focus, an international health crisis was beginning to form. On March 11, 2020, the World Health Organization declared COVID-19 a global health pandemic (CDC, 2020). COVID-19 is an abbreviation of “coronavirus disease 2019”. COVID-19 is the first pandemic that caused a new coronavirus. Influenza viruses caused

previous pandemics. The response to COVID-19 was based on responses to past pandemics. By March 7, 2020, New York State (NYS) Governor Andrew Cuomo declared a State of Emergency to contain the spread of the virus. As the number of cases of COVID-19 continued to climb in NYS, Governor Cuomo signed the "New York on PAUSE" executive order requiring the closure of all NYS nonessential businesses. The urgency of the pandemic exposed itself to the hospitals in lower NYS in the form of overwhelmingly sick and dying patients. The hospitals responded by changing their priorities to align with the needs of the community. Namely, to support the sick and prevent the spread of the illness. Considering the pandemic, this capstone project became less of a priority. The COVID-19 pandemic, at this point, is the most significant barrier to implementation. If the pandemic subsides and hospital operations can resume as they did pre-COVID, the project can proceed.

If the project proceeds, other foreseen barriers to project success include:

- lack of buy-in from upper administration to begin the project,
- difficulty incorporating data collection tools and screening tools into the current EMR
- lack of funding to support education and the application fee,
- lack of staff buy-in to administer screening tools and place orders for consultation and follow up from ancillary services,
- denial of the application for accreditation from ACEP

Ethical Considerations

Four main principles of healthcare ethics are autonomy, beneficence, non-maleficence, and justice. Beneficence is the actions of charity, mercy, and kindness to do good. Improvements in healthcare outcomes stem from healthcare professionals who act with beneficence. In healthcare, what is right for one patient may not be beneficial to another. In this circumstance,

nurses and other healthcare professionals must first consider the ethical principle of autonomy. A person, of sound mind, has control over their body and maintains the right to make their own medical decisions. An example where this principle would be of utmost importance is during the end of life decision making. Following the Mt. Sinai example of a geriatric ED, palliative care is consulted for all patients 65 years and older to discuss the end of life care with geriatric patients. Sometimes, a patient's end of life decisions does not align with those of their family or other healthcare providers. Choose to have a dignified death with comfort measures as opposed to invasive, life-sustaining treatments, and painful, invasive interventions.

The principles of justice and non-maleficence also come into play when making the end of life decisions. The patient should always be informed of all options, including the choice of "do everything." During the COVID-19 pandemic, the elderly seemed to be affected at a higher rate than younger people. At one point, there was a scarcity of ventilators. Providers were forced to make decisions based on the overall good of society versus the individual. In the case of COVID-19, the priority of ventilators was given to patients who were considered viable as opposed to elderly, frail patients who were deemed medically futile. When a patient appeared to be medically ineffective, depending on the availability of resources, palliative care measures were initiated. While providers understood the ethical principle of non-maleficence, " do no harm," the needs of society were measured against the needs of the individual.

Sustainability

The geriatric emergency department will be sustained through the work of the geriatric emergency department committee.

Anticipated Resources and Budget

The costs of this project include education costs, application fees, the cost of any structural revisions, equipment, and the cost of salaries for stakeholders. While this project would not be a primary responsibility of already employed stakeholders, consultation services, and time spent with data collection and the Geriatric ED Program committee is cumulative over time. A financial incentive for the project is the decrease in healthcare costs from hospital readmissions and nosocomial infections since Medicare does not provide reimbursement in these cases. Additionally, consultants can charge a consultant fee to cover the expense of their salaries while seeing these patients.

Chapter IV

Outcomes/ Evaluation

Chapter four will discuss the expected outcomes of the geriatric emergency department accreditation project. As previously mentioned, the project goals align with the purposes of the Triple Aim, part of the Affordable Care Act for healthcare reform. The goals of the Triple Aim are to improve the individual's experience of care, the health of populations, and reduction of per capita health costs for populations. Overall, health care is monitored through the hospital's existing quality and core measure metrics. Metrics to track the use of geriatric screenings such as those for dementia and fall risk are population-specific, and over time are expected to have a positive impact on population health. Financial incentives for the hospital through this program will be demonstrated through the cost savings from a decrease in 30-day readmissions and a decrease in iatrogenic complications. "Combining innovative admit-to-home or extended-home-observation programs can save significant health care dollars" (Rosenberg, M. and Rosenberg,

L., 2020). The outcome goals of this project are expected to be apparent after comparing data from the second year to data from the first year of implementation.

Chapter V: Summary

To summarize, the purpose of an accredited geriatric emergency department is to provide a standardized approach to emergency department care for those aged 65 years and above through the implementation of population-specific policies and procedures. Collective implementation of geriatric-specific education for healthcare staff, availability of geriatric friendly equipment, follow-up care, and documentation of performance measures are expected to have a positive impact on overall health outcomes for geriatric patients receiving care in the emergency department. In addition to improved health outcomes for geriatrics, the hospital can expect to see an improvement in staff satisfaction and patient satisfaction scores. The accredited geriatric emergency department identifies patients who will benefit from inpatient care and will utilize existing outpatient care resources to prevent functional decline, dependency, and morbidity. The risks of the program are negligible, whereas the benefits are far-reaching. The most substantial barrier to implementation is the hospital's readiness for change, especially during the COVID-19 pandemic of 2020.

AACN Essentials of Doctoral Education for Advanced Practice Nursing

In the Institute of Medicine's (IOM) reports *Crossing the Quality Chasm: A New Health System for the 21st Century, 2001;* and *Health Professions Education: A Bridge to Quality, 2003* attention was brought to the need for healthcare professionals to deliver patient-focused quality healthcare (Conrad, D. and Kesten, K., 2020). In response, the American Association of Colleges of Nursing (AACN) proposed that education for advanced practice nursing would occur at the doctoral level. Within the position statement, the essential areas for the practice-doctorate in

nursing degree were outlined and are known as *The Essentials of Doctoral Education for Advanced Nursing Practice* (Anderson, B., Knestrick, J., and Borroso, R., 2015). The culmination of the practice-doctoral education program is the DNP Capstone Project. This capstone project supports AACN Essentials for DNP practice.

Essential I: Scientific Underpinnings for Practice was the impetus of this quality improvement project. An exhaustive literary review was completed to explain the basis of the problem, including discussion of a complex, fast-moving healthcare system that often falls short in meeting the social and physical needs of geriatrics. The project plan describes a systems-level change to improve the quality of health care for geriatrics to exemplify *Essential II: Organizational and Systems Leadership for Quality Improvement and Systems Thinking.* The data collection tool for recording quality metrics relating to outcome measures illustrates *Essential IV: Information systems/ technology and patient care technology for the improvement and transformation of healthcare.* Lastly, *Essential VI: Interprofessional Collaboration for Improving Patient and Population Health Outcomes* serves as the foundation of this project. A multifaceted, interprofessional approach to the provision of care for the elderly in the emergency department to include nursing, physical therapists, and social workers in the acute and subacute care settings are expected to improve healthcare outcomes for this population.

The DNP serves as the change agent and leader of this challenging yet essential initiative. Once implemented, the benefits of this program are expected to demonstrate fiscal responsibility in the provision of resources, both inpatient and outpatient. A positive impact on both healthcare provider and patient satisfaction, as well as improved quality of care for geriatric patients, is another expected outcome of this project. As mentioned, the project will not be implemented

until the COVID-19 pandemic has passed, which is, unfortunately, not within the time constraints for the due date of this project.

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Appendix 1

Literature Review Table

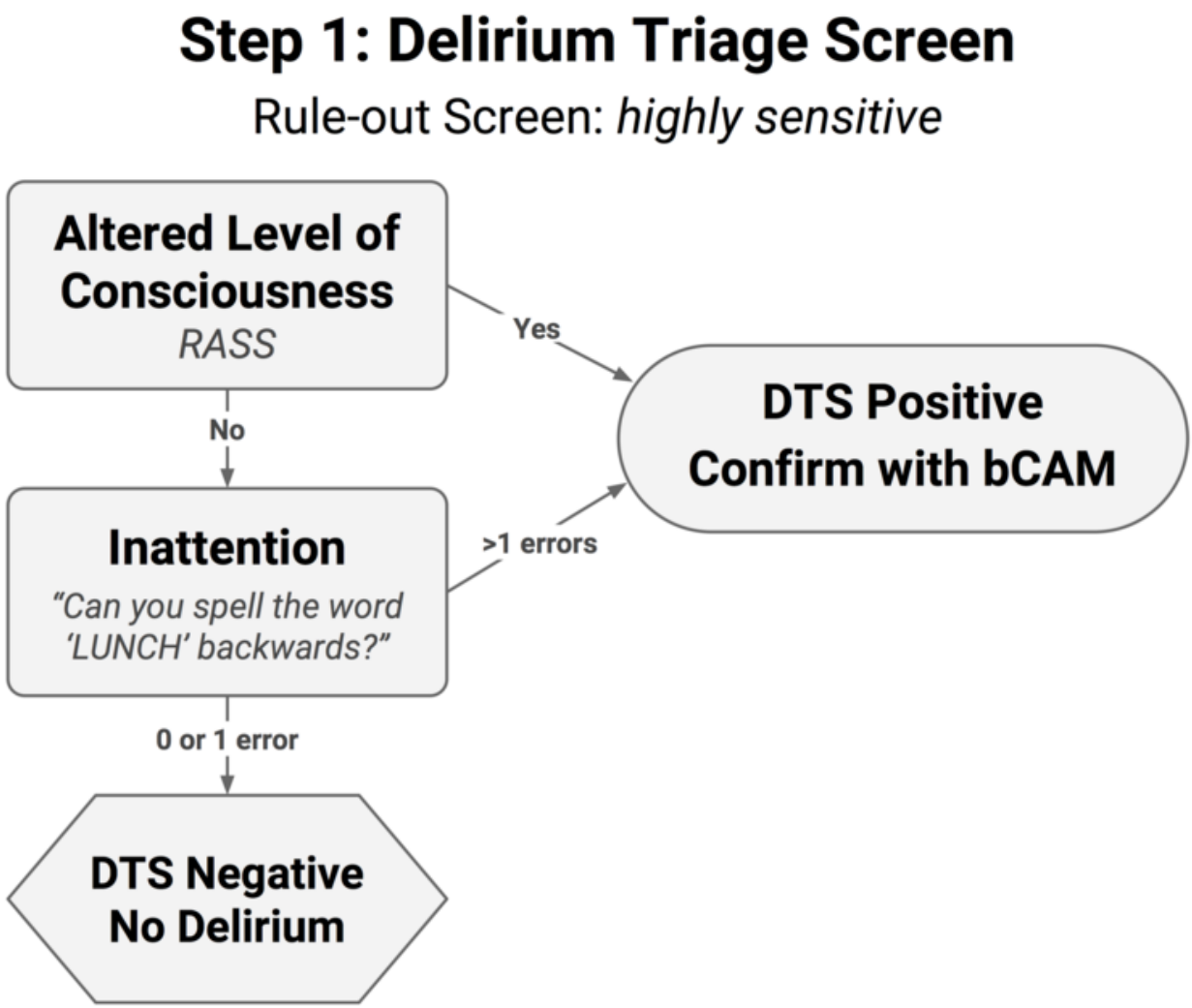
Study	**Study Design/Method Study Location**	**Level of Evidence**	**Study Participants/ Patient Diagnosis**	**Study Purpose/Study Outcome**
Arendts, Fitzhardinge, S., Pronk, K., Donaldson, M., Hutton, M., & Nagree, Y	Prospective Non-randomized trial Australia Hospital ED	3	Age 65 years and older 5200 participants 3165 intervention group	To determine whether early allied health intervention by a dedicated Emergency Department (ED) based team, occurring before or in parallel with medical assessment, reduce hospital admission rates among older patients Statistic difference between intervention group and control group (P=0.046).
Garcia- Pena, C., Perez-Zepeda, M. U., Robles-Jimenez, L. V., Sanchez-Garcia, S., Ramirez-Aldana, R., & Tella-Vega, P.	Retrospective cohort study Mexico Hospital ED	3	Age 60 years and older 1406 participants	To determine mortality and factors associated with mortality in patients over 60 years of age who were admitted to the emergency department of two general hospitals concluding frailty and length of stay are risk factors of mortality Length of stay (P=0.031) FRAIL scale (P=0.033)
Grudzen, C., Richardson, L. D., Braumlin, K. M., Winkel, G., Devila, C., Ng, K., & Hwang, U.	Randomized trial USA Hospital ED	2a	Aged 65 and older between January 1, 2011- May 31, 2013 8519 participants	To determine whether the principles of an established palliative care program could be used to decrease the rate of ICU geriatric admissions from the ED Outcome: ICU admission rate declined from 2.3 percent to 0.9 percent ($P < 0.0001$)
Wallis, M., Marsden, E., Taylor, A., Craswell, A., Broadbent, M., Barnett, A	A pragmatic trial using a pre-post design	2b	Aged 70 years and older 44, 983 participants between January 2012- August 2016	To evaluate a Geriatric Emergency Department Intervention (GEDI) model of service for adults aged 70 and older Outcome: Increased discharge Hazard Ratio (HR) 1.19; 95% CI: 1.13-1.24 with no increase in mortality; cost savings of $1469 per hospital admission and $35 per ED visit

Appendix 2

Sample: Geriatric ED Quality Assessment Instrument (Dashboard)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Set	Oct	Nov	Dec
Global Measures												
Pt. Volume > 65 yrs												
> 8-hour stay in ED												
% Repeat within 72 hours												
% Admit												
% Readmit within 30 days												
Discharge to home												
Discharge to long-term care												
Disease-Specific												
Falls												
Head injury												
Fracture												
Sepsis												
Screening												
Triage Risk Screening Tool												
ISAR Screening Tool												
Delirium Triage Screen												
Brief Confusion Assessment Method												
Referral												
Physical Therapy												
Palliative Care												
Community Paramedic Outreach Program												
Case Management												

Appendix 3



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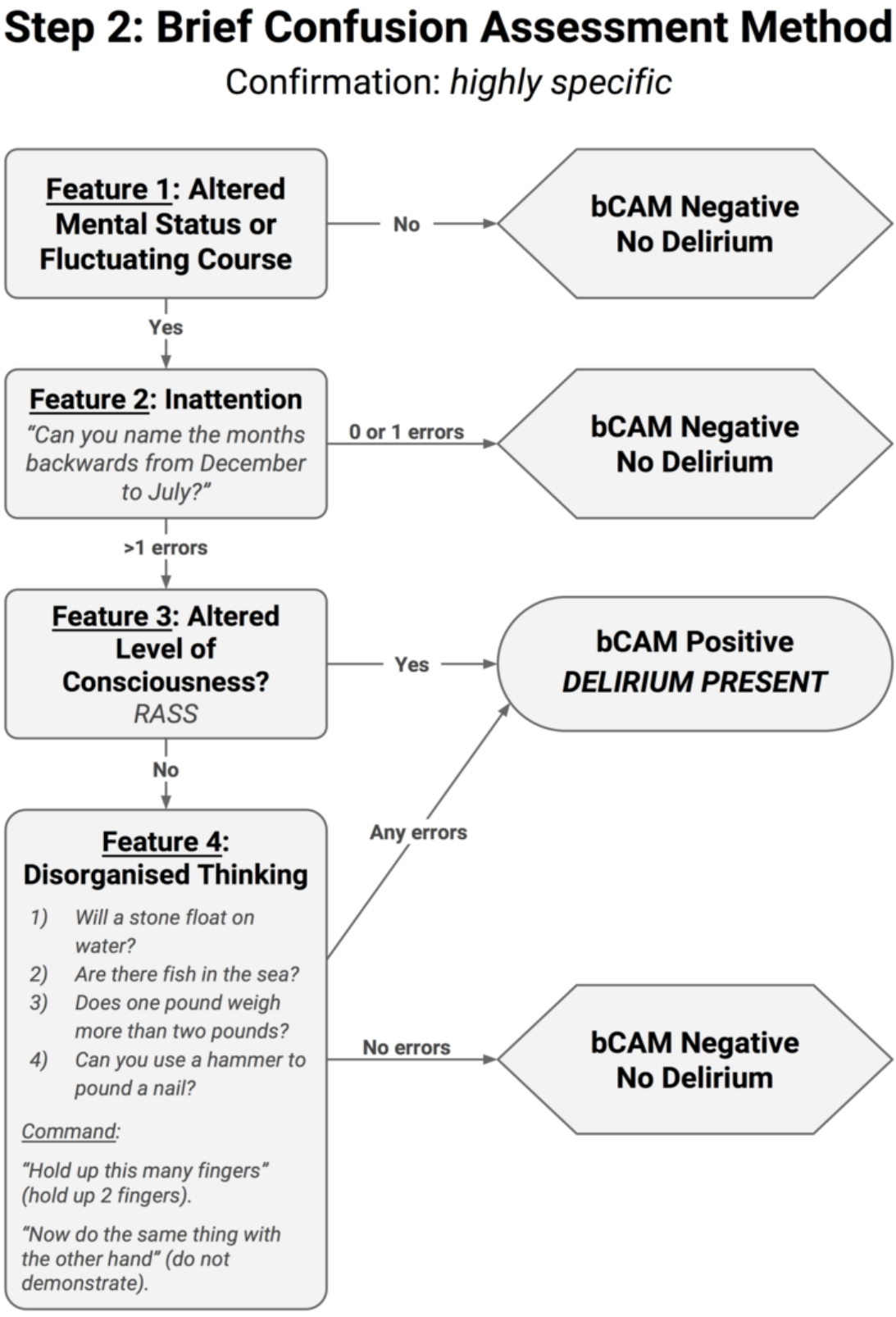

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Appendix 4

Triage Risk Screening Tool (TRST)

*To be completed for all patients 65 years and above

Make a checkmark in the appropriate box to indicate the suspicion or presence of the following:

- ☐ History of cognitive impairment
- ☐ Gait disturbance/ Fall history
- ☐ 5 or more medications
- ☐ ED visit within 30 days/ Hospital admit within 90 days
- ☐ Lives alone
- ☐ ED concerns:
  - Nutrition
  - Medication
  - Delirium
  - Mental health
  - Fall

Referrals:

- ☐ Physical Therapy
- ☐ Palliative Care
- ☐ Community Paramedic Program
- ☐ Case Management

Appendix 5

Identification of Seniors at Risk (ISAR) Screening Tool

Original:

ISAR (For all Patients >65) □ N/A

1) Before the illness or injury that brought you to the Emergency, did you need someone to help you on a regular basis?	□ Yes □ No	01 00
2) In the last 24 hours, have you needed more help than usual?	□ Yes □ No	01 00
3) Have you been hospitalized for one or more nights during the past six months?	□ Yes □ No	01 00
4) In general, do you see well?	□ Yes □ No	00 01
5) In general, do you have serious problems with your memory?	□ Yes □ No	01 00
6) Do you take six or more medications every day?	□ Yes □ No	01 00
Positive test is 2 or more	Total	/6

N/A, not applicable.

Revised:

ISAR (For all Patients >65) □ N/A

1) Before the illness or injury that brought you to the Emergency, did you need someone to help you on a regular basis?	□ Yes □ No	01 00
2) In the last 24 hours, have you needed more help than usual?	□ Yes □ No	01 00
3) Have you been hospitalized for one or more nights during the past six months?	□ Yes □ No	01 00
4) In general, do you have problems with your vision?	□ Yes □ No	01 00
5) In general, do you have serious problems with your memory?	□ Yes □ No	01 00
6) Do you take six or more medications every day?	□ Yes □ No	01 00
Positive test is 2 or more	Total	/6

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