THE IMPLEMENTATION OF A NURSE LED MODEL OF CARE FOR OLDER PEOPLE IN THE EMERGENCY DEPARTMENT AT JOHN HUNTER HOSPITAL

EVALUATION REPORT

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EXECUTIVE SUMMARY

Introduction

This report presents the findings of an evaluation of the introduction of a new Model of Care (MOC) at the John Hunter Hospital Emergency Department (JHH ED) piloted during 2011. The evaluation sought to examine the impact of the model of the MOC on stakeholders and health service indicators. The MOC was developed in response to the identified need for EDs to better manage the demand placed upon them by the health and care needs of older people and, when older people present to the ED, to provide safe, quality care of older people within the ED.

The MOC comprised two new roles in the ED: An Aged Care in Emergency Clinical Nurse Consultant (ACE CNC) and Older Person Technical Assistants (OPTAs). According to the funding application to NSW Health, the purposes of these roles were to:

- a) Improve emergency care for people living in Residential Aged Care Facilities (RACFs) through dedicated services in the form of telephone triage, guidance, direction and support led by a CNC
- b) Improve the care of older people in the ED through systematic screening and supportive care of older people provided by technical assistants.

It is well known that older people require emergency care more often than other populations, and that they have longer Emergency Department (ED) length of stay and higher admission and readmission rates. Older people account for greater than 60% of hospital admissions and are at risk from hospitalisation itself, particularly delirium. Older people who become acutely unwell in RACFs are a considerable proportion of ED presentations. A number of studies have found that for certain disorders or conditions effective treatment does not necessitate presentation to ED from the RACF. For example, those with acute infections treated in their residence have similar or better survival and fewer complications compared to those transferred to hospital for treatment, even accounting for severity. While there is evidence that there are conditions that have resulted in presentations by older people to the ED which could be equally or better managed in other settings, the ED is likely to remain an important point of entry to the health care system for older people and that the older person's health care needs are different to other populations in both ED and hospitals. The literature and policy documents consistently identify the need to improve cognitive assessment, pain management, and transitional care in both directions between RACFs and EDs.

When older people do present to the ED, be it from a RACF or the broader community, they often require supportive care to ensure their immediate safety and other needs are met in the ED environment. There is also a need to minimise risks associated with ED attendance, hospitalisation and readmission (in particular delirium, disorientation, pain and falls) through screening for risk factors and providing early intervention. According to the application for
funding submitted to NSW Health for this pilot of a Nurse Led MOC, “At JHH, with ASET team 7 days a week, 12 hours a day, only 46% of patients over age 75 had an aged care assessment of some kind”. Therefore a core component of the evaluation of the MOC was to examine the extent to which a non-professional, assistant, workforce (ie the OPTAs) could conduct screening of older people within the ED.

**Description of the model of care**

The MOC was funded by NSW Health through the Ministerial Taskforce on Emergency Care (MTEC). As has been noted, it comprised

1. An Aged Care Emergency (ACE) Service coordinated by the ACE CNC
2. Older Person Technical Assistants (OPTAs) within the ED

The aims of the MOC were to:

1. Facilitate access to appropriate care within and external to the ED
2. Ensure that there is an increased rate of screening of older people in the ED in order to minimise risk of adverse events, in particular, delirium, pressure areas and falls.
3. Enhance the satisfaction of older people and their carers with the ED experience.

The ACE CNC developed and coordinated the ACE Service. The ACE Service was designed to ensure older people receive the ‘right care in the right place’. The focus of the Service is on the management and care of older people from RACFs who may be considered for transfer to the hospital ED for non-emergency events. The ACE Service is an evidence based telephone liaison service provided from JHH ED to staff from 4 pilot RACFs who have a history of frequently transferring patients to JHH ED. The Service was also intended to provide consultancy, education and support to staff of the RACFs involved in the pilot. A CNC was employed with NSW Health funding to establish and provide the Service during 2011/12.

NSW Health funding also funded 4 full time equivalent Technical Assistant positions to provide comfort and support measures and screening of older people under the supervision of health professional staff in the ED. The work of the OPTAs focused on three aspects:

- screening of older people for risk factors known to compromise older people in the ED
- improving the patient and carer experience of ED
- providing support to older people aimed at assisting with delirium prevention

In addition, OPTAs documented and communicated the needs of older people within the ED at JHH under the supervision of the ED Aged Services Emergency Team (ASET) Registered Nurses (RNs).
Evaluation design and method

The evaluation used pre and post-test intervention design whereby the intervention was the introduction of a Nurse Led MOC that included the ACE CNC and the OPTA roles in the JHH ED.

The evaluation addressed the following questions:

1. Can a CNC service reduce transfer of patients to the ED from aged care facilities? Can this service also reduce ED length of stay, reduce admissions and reduce occupied bed days for those who are transferred?
2. What is the range of reasons staff in RACFs request transfer of older people to ED?
3. Which of the clinical guidelines are most frequently used by the ACE CNC to guide decision making?
4. Does a CNC consultation and liaison service discriminate among the needs of older people for whom transfer to the ED is proposed in ways that are safe?
5. If the CNC redirects an older person from the RACF to other services, what are these services and what is the volume of referral to each service?
6. What is the range of reasons that older people within the community present at ED?
7. Does the employment of OPTAs in the ED optimise the delivery of care for older people within the ED? In particular, does the employment of OPTAs in the ED increase the accurate screening of older people for the range of identified risk factors and provide care which older people and/or those accompanying them to the ED find satisfactory?
8. What is the experience of older people, their carers and staff of the model of care?
9. How does the model of care impact the acute care hospital system against a range of standard indicators (e.g. number of transfers to ED, ED LOS, admissions greater than 24 hours and occupied bed days) used within NSW Health?

Participant groups included staff of the John Hunter Hospital ED such as the ACE CNC, OPTAs, ASET RNs and other Clinical Nurse Specialists (CNSs), the Clinical Nurse Educator (CNE) employed for the purposes of the project and ED RNs. Other key informants included nurse managers and nursing unit managers, medical and allied health staff working in the JHH ED; RACF personnel and staff within relevant service departments and wards beyond the ED. These participant groups were invited to participate in interviews or focus groups

General Practitioners who provided services to the 4 pilot RACFs and representatives from NSW Ambulance were informed about the project but did not provide a formal response to the evaluation.

A sample of older people and/or their carers were invited to complete a patient satisfaction survey following discharge from the ED. The survey incorporated the Consumer Emergency Care Satisfaction Scale (CECSS), an internationally validated tool. In conjunction with the humanistic component of the research, audits of pertinent health service information pre and post the introduction of the MOC was also undertaken.
Overview of findings

Overall, the MOC was well received by stakeholders in the ED, RACFs and patients and their families. Staff in related units at the JHH have also commented positively on the concept and its implementation.

A service provided RNs who have knowledge and expertise in ED and Aged Care appears to discriminate effectively the needs of older people in terms of whether to transfer an older person residing in a RACF to the ED or not. The evaluation has demonstrated that such a service prevents presentations from RACFs to ED. While it is acknowledged that factors other than the ACE Service may have contributed to this, the availability of the ACE Service has clearly been an essential element in decisions not to transfer older people from these 4 RACFs to the JHH ED. The 4 RACFs using the ACE Service had a significant reduction in transfers while the control RACFs did not. The Service resulted in reduction in transfers and admissions to JHH ED from those 4 RACFs. However, it is not known what impact the ACE Service might have more broadly across the HNE LHD. Given that the evaluation of this service was limited to 4 pilot RACFs further investigation of the impact of an ACE Service with a larger number of EDs and RACFs within the HNE LHD is warranted. Funding to implement the ACE Service across JHH, Belmont and Calvary Mater EDs has been provided by NSW Health until June 2012 with the enrolment of a further 20 RACFs. This extension of the ACE Service will be evaluated by the team who evaluated this pilot project at JHH ED.

There is evidence of improved supportive care of older people who are in the ED at JHH as a result of the inclusion of screening into care processes and of OPTAs within the ED staff profile. The MOC has demonstrated that with appropriate training a non-professionally qualified workforce can undertake screening using a range of tools that are intended to identify older people at risk. The evaluation has found that screening by an appropriately trained assistant workforce is comparable to that undertaken by a professional workforce. Concomitantly, there has been improvement in compliance with screening of older people for known risk factors by staff in the ED since the introduction of OPTAs. The screening appears to assist in further assessment and/or interventions for older people by some health care staff, in particular the ASET RNs. However, there is evidence to suggest that the presence of OPTAs primarily within the treatment areas of the ED does not always facilitate prompt screening of older people and/or care responses. Furthermore, the extent to which improved screening rates translates to improved assessment and implementation of care appropriate to the older person’s needs in the ED has not been clearly established suggesting a need for further evaluation as the MOC becomes embedded in the ED.

Determining the impact of OPTAs on the quality of care of older people in the ED is less clear. In part this is due to the interrelated aspects of the roles and functions of the OPTA/ED RN/ASET RN and other staff in ensuring a quality experience for older people in the ED. While there is a consensus among respondents in interviews and focus groups that
OPTAs contribute positively to the care of older people in the ED, data sets examined during the evaluation suggest the need for improved care of older people in the ED in general. They demonstrate the need for a greater focus on the coordination of care relating to the range of health care needs of older people in ED. There is need for more comprehensive strategies to ensure optimal care of older people than simply the introduction of an assistant workforce. Essentially, there is a need for an improved approach to the care of older people guided by a shared philosophy about the care of older people within the ED and the need for clarity in related roles and responsibilities. Over the period of time the MOC has been implemented improved communication and engagement with stakeholders in the ED about the care of older people and the goals of the MOC has occurred. This appears to be heightening awareness of the range of responses necessary to ensure optimal care of older people in the ED. The way in which OPTAs, ED RNs and ASET nurses interact to ensure quality and safe care for older people needs review and examination in order to ensure roles and functions are complementary and avoid gaps or replication in care processes.

The study also revealed that there are important gaps in the documentation of aspects of care of older people in the ED. There is need for improved documentation of care processes such as prevention strategies for delirium and other undesired consequences of admission to EDs and hospitalisation generally. In addition there are some screening tools that appear to have limited utility in discriminating for risk among older people. For example, in a review of the results of Falls Risk Assessment undertaken during the evaluation, over 80% of people over the age of 75 who had valid screening completed were identified as a risk of a fall. This is not surprising given the most frequent reason older people attend the JHH ED is due to a fall.

There are a range of opportunities for improvements to the MOC that have been suggested by participants in the evaluation. These include: the development of a form to record the care activities provided by ED staff to older people; follow up communication from the ED with older people and their carers; improved transfer and discharge practices between RACFs and JHH ED and, improved mechanisms for medication management by RACFs when residents are discharged from the ED. Each of these should be implemented as part of the ongoing development and refinement of the MOC.

Given the nature of the presentations of those over the age of 75 to the ED, it is important to continue to question the suitability of ED care pathways and processes for those people who do not have triage category 1 or 2 needs. It is also important to acknowledge that the MOC is underdeveloped in terms of the extent to which it is ‘nurse-led’ however it does provide further insight into the potential for nurse-led services to respond to the needs of people 75 or over who attend EDs for non-urgent acute care.
Summary of Findings

EVALUATION OF THE ACE SERVICE

- There was a reduced number of presentations to ED from the 4 pilot RACFs since its inception. In a sample of 97 calls over a 3 month period, almost 50% were retained in the RACF.
- The availability of the Service improved relationships between ED and the 4 RACFs and highlighted shared philosophies of care for older people among RACF and ED. The Service has guided RACF staff in relation to care practices and resulted in a reduction in calls to the Service and transfer of older people to ED.
- A greater appreciation of the context of residential aged care for ED staff and vice versa has been highlighted.
- The Service has not resulted in as much ‘fast track’ within the ED as was anticipated.
- The Service does not necessitate a CNC position to do the telephone liaison, consultation and education unless research and other domains of CNC work remain part of the position.
- The Service could be expanded to a broader number of EDs and RACFs to determine impact at a regional level - this may necessitate the Service line report elsewhere rather than JHH ED.
- The Service appears cost effective; however, all costs associated with the Service have not been fully attributed to it. For example, further consideration of the impact on existing ASET resources at JHH ED, particularly in the hours the ACE Service operates beyond the hours of the sole RN (CNC) position is warranted.
EVALUATION OF THE OPTA ROLE

- Demonstrates the potential for an assistant workforce in the ED to provide supportive care to older people and their families in the ED
- Has identified the strengths and limitations of some of the screening tools for use in the ED
- Has revealed a need for improved responses to older people in the ED in general including a need for integration of screening into care pathways for people over 75 in the ED
- Has highlighted the need to strengthen RNs’ engagement in the delegation and supervision of activity to an assistant workforce should the decision be made to continue to use an assistant workforce in the ED
- Has resulted in a reduction in the number of concerns being raised about the care of older people in the ED to the Nursing Unit Managers (NUMs) and Nurse Managers (NMs)
- Has raised issues regarding the cost and role of the technical assistant in the ED and identified the challenges in reconfiguring the nursing skill mix in the ED to be inclusive of an Assistant in Nursing (AIN) role
- Has identified the challenges in seeking to determine cause and effect relationship between the introduction of the OPTAs and indicators of quality care and patient and carer satisfaction.
OVERALL

- The vast majority of people over 75 who present to the ED are in triage category 3&4
- They spend considerable time waiting for a bed in the ED and on average longer than 4 hours in the ED
- The model of care has not had an adverse impact on people over the age of 75 in EDs or in RACF
- There is a need to develop the model to refine roles and responsibilities of the assistant workforce, RNs and ASET nurses
- Three factors that emerge in the data related to the care of older people in the ED are the need to embed care processes, improve documentation and continue to re-align workforce to roles and responsibilities with care processes.
- Expansion of the ACE Service to a broader LHD role needs further consideration of resource allocation within the LHD and line reporting for the Service and continued evaluation of outcomes.
Recommendations

This initial evaluation suggests that the MOC has merit and should further evaluation confirm this, a sustainable approach to implementing the MOC is required. This has the potential to necessitate considerable care and workforce redesign in the JHH and other EDs in HNE LHD. In particular, there is evidence that the ACE Service has potential to contribute to an effective demand management strategy for the ED in line with the National Emergency Access Target (NEAT).

Based on the findings of this evaluation it is recommended that:

- The ACE Service be expanded and further evaluated using a randomised clinical trial (RCT) design with the recruitment of additional EDs and RACFS within the HNE LHD. The CNC position continues in order to establish the expansion, coordinate the Service and participate in data collection and synthesis. Thus it is recommended that HNE LHD consider funding the ACE Service and its evaluation until at least December 2013 in order to enable meaningful conclusions about its impact.

- The care processes for older people in the ED at JHH be reviewed so that screening and supportive care of older people takes place immediately on arrival to ED or prior to transfer from RACFs where possible. This necessitates screening and supportive care be provided to older people within the ED waiting room, Ambulance Bay and Emergency Short Stay Unit (ESSU) particularly given the introduction of NEAT.

- Any care process review needs to consider greater mobility of an assistant workforce to provide supportive care within and across the ED and ESSU.

- There be further consideration by management of JHH ED of the extent to which an assistant workforce is sustainable in the ED. Coupled with this, the benefits and limitations of a Technical Assistant rather than an Assistant in Nursing workforce should be determined.

- A robust and continuous communication strategy with stakeholders within the EDs involved in the MOC be developed and maintained.

- There be further reinforcement of the ED RN role and responsibility for governance of the care of the older person and improved delineation between the accountabilities of RNs and ASET nurses in the ED.

- The need for improved documentation of the care of older people in the ED consistent with the evidence based literature and with specific regard to delirium prevention and other aspects of safe and quality care for older people in the ED be addressed.
There be continued evaluation as the MOC is implemented, particularly with regard to the impact of the MOC on delirium prevention and consumer satisfaction with ED care.
SECTION 1

BACKGROUND TO THE PROJECT; RATIONALE AND DESCRIPTION OF THE MODEL OF CARE

Background

The care of older people who require non-urgent medical care is a significant component of work in Emergency Departments (EDs) in Australia and overseas. Older people are at greater risk of hospital admissions and unplanned readmissions than any other population group. Currently, they account for greater than 60% of all hospital admissions (Australian Institute of Health and Welfare 2010). Older people who become acutely unwell in residential aged care facilities (RACFs) make up a significant number of all ED presentations (Arendts and Howard 2010; Crilly et al 2008). There is national and international recognition that there is a need to better manage both the demand placed on EDs and the quality of care of older people who present to the ED (McCusker, Ionescu-Ittu et al. 2007; Rich, Hustey et al. 2009). The Society for Academic Emergency Medicine (SAEM) Geriatric Task Force (Terrell et al.2009) has identified three conditions where there are quality gaps in the care of older patients who do present to the ED. These are cognitive assessment, pain management, and transitional care in both directions between RACFs and EDs.

It is acknowledged that new approaches to the care of older people are required in order to ensure the care they receive is optimal during periods of non-emergent care (Bird, Kurowski et al. 2007; Hwang and Morrison 2007; Leah and Adams 2010; Kaskie, Obrizan et al. 2011). Although there is no consistent definition of the term ‘model of care’ (MOC) (Queensland Health 2000). Davidson et al. (2006 p. 49) describe a MOC as:

An overarching design for the provision of a particular type of health care service that is shaped by a theoretical basis, EBP and defined standards. It consists of defined core elements and principles and has a framework that provides the structure for the implementation and subsequent evaluation of care. Having a clearly defined and articulated model of care will help to ensure that all health professionals are all actually ‘viewing the same picture’, working toward a common set of goals and, most importantly, are able to evaluate performance on an agreed basis.

In 2010, a nurse-led MOC for people aged over 75 years was proposed for introduction into the ED at the John Hunter Hospital (JHH). The model of care was intended to optimise use of ED resources and address care quality gaps for older people in the ED. This Report presents an evaluation of the MOC which was commenced in March 2011. The MOC and the evaluation were funded by NSW Health through the Ministerial Taskforce on Emergency Care (MTEC). Funding for the MOC has been provided to June 2012.
The MOC consists of the introduction of two new elements to the ED: an Aged Care in Emergency (ACE) Service coordinated by a Clinical Nurse Consultant (CNC) and Older Person Technical Assistants (OPTAs). The purposes of the CNC and OPTA roles are to:

1. Improve emergency care for people living in Residential Aged Care Facilities (RACFs) through dedicated services in the form of telephone triage, guidance, direction and support provided by the ACE CNC
2. Improve the care of older people in the ED through systematic screening and supportive care of older people provided by OPTAs.

In this pilot of the MOC, 4 RACFs agreed to work in partnership with the ACE Service in order to improve access to appropriate services for residents and avoid unnecessary transfer to ED. The 4 pilot RACFs had each previously partnered with the JHH ED study team in order to identify the factors that impact on decisions to transfer older people to the ED (Stokoe et al 2012) Among these was a lack of clarity about how to manage commonly occurring, non-urgent yet acute onset conditions in the RACF.

Rationale for the pilot of a new model of care

The rationale for the introduction of each of the two roles in the MOC varied based on the factors they were intended to impact upon. The CNC and OPTA roles are described below:

**THE ACE SERVICE CNC**

According to the Project Scoping document approved by NSW Health (Ministerial Taskforce on Emergency Care 2010) p.1), the aims of the ACE Service were to:

1. Identify triggers for patients being transferred from residential aged care facilities to ED and what they require as part of their ED visit.
2. Develop an ASET emergency outreach model where RACF can liaise with ED ASET CNC to facilitate an assessment in the RACF
3. Develop a system to facilitate a rapid transfer and fast-track through ED for specific diagnostics back to the RACF or admission to hospital including to the Medical Assessment Unit
4. Improve linkage between acute care and primary and community care
5. Develop pathways for patients from RACF to access resources and linkages with Severe Chronic Disease management strategy, extended care paramedics, Community and Post-Acute Care services, in partnership with general practitioners
6. Develop ED RACF clinical quality indicators for patient transfers.
Several studies show that when compared to older people who do not reside in RACFs, residents in RACFs have a significantly higher proportion of admission to ED, representation to ED, readmission to hospital and increased length of stay (LOS) in both ED and hospital (Crilly, Chaboyer et al. 2008; Arendts, Reibel et al. 2010; Crilly, Chaboyer et al. 2012). Older people are also known to be at risk of a range of adverse consequences related to attending EDs and hospitalisation (Aminzadeh and Dalziel 2002; Bird, Kurowski et al. 2007). Research is currently being undertaken to examine the preferences of older people and carers with regard to how acute care services could best meet the needs of residents in RACFs from the perspectives of older people and their carers (Howard, Arendts et al. 2012). Other recent studies examined the challenges faced by staff in RACFs when caring for acutely unwell older people and concluded there were a number of factors including a lack of trained staff in the RACFs, lack of resources and support, the need for education and training, a need for improved communication between settings, a lack of awareness of community resources and the unavailability of general practitioners (GPs) (Arendts et al. 2010; Stokoe et al. 2012). Research by Codde et al. (2010) evaluated the impact of primary care services provided by nurses with ED experience operating from a GP network under the direction of GPs to older people in RACFs. The findings of this study revealed a reduction in the number of people transferred to EDs. The researchers proposed that acute nursing care at the RACF reduced the need for residents to present to the ED and thus both ED and hospital admissions were reduced. The research by Stokoe et al. involved the conduct of focus groups at JHH with the 4 pilot RACFs and GPs about challenges and facilitators for managing acutely unwell patients in RACFs and identified enablers and inhibitors to effective patient transfers. Issues identified included staffing levels, skill mix and support and resources in the residential aged care facilities, lack of advanced care directives, communication between service providers, conflicting responsibilities of general practitioners and knowledge about available community services. ASET RN support was identified as one of the solutions by focus group participants.

A number of studies have found that for certain disorders or conditions; effective treatment does not necessitate presentation to ED. For example, those with acute infections treated in their residence have similar or better survival and less complications compared to those transferred to hospital for treatment, even accounting for severity (Boockvar, Gruber-Baldini et al. 2005; Finn, Flicker et al. 2006; Loeb, Carusone et al. 2006). While there is evidence that there are conditions that have resulted in presentations by older people to the ED which could be equally or better managed in other settings (Codde et al. 2010), Chu et al. (2009) have observed that the ED is likely to remain an important point of entry to the health care system for older people and that older people patients frequently require different types of care in both ED and hospital to other populations as “The proportion of episodes for rehabilitation, geriatric evaluation and management, and maintenance care all increase with age” (Chu et al. 2009, p.117).
In 2011, JHH ED had over 67,000 presentations 13% of whom were over 75 years of age (Hullick and Hewitt 2012). The four facilities which partnered with JHH ED to pilot the ACE Service are large and have a mixture of both high care beds (n=147), and low care beds (n=283). Initial analysis of ED presentation data revealed, the 4 partner RACFs in this pilot of the MOC sent over 900 patients to three Emergency Departments in the Newcastle area during 2009. Of these, 72% (n=652) were presentations to JHH ED. Of these 652 patients, there were 468 admissions accounting for 4376 bed days which equates to 12 occupied bed days every day of the year.

Over recent years both the Commonwealth government and NSW Health have recognised the need for community based health care and the preference for people to age in place. Throughout NSW, Aged Services Emergency Teams (ASET) were introduced in 2002 and have become integral members of the ED workforce, facilitating patient assessment and management of older people. According to Shanley et al (2009)

Standard areas in a comprehensive assessment include functional status; cognitive status, including assessment for delirium; history of falls and an assessment of the risk of falls; psychosocial issues impacting on presentation; review of medications; review of previous medical history; and whether the person is a current or past client of community support services (p.130).

ASET nurses in the JHH ED are specifically skilled at identifying available community resources and services that facilitate discharge of older patients to their home. ASET programs have concentrated on facilitating patients’ discharge with the support they need after presentation to ED. However, the proposal for the ACE Service argued there is a gap in supporting staff in RACF to facilitate residents’ non-life threatening acute care needs being met within the facility and avoiding an ED presentation. Extending the role of the ASET to provide a support service for the assessment and management of residents in RACFs prior to an ED presentation was proposed as a mechanism to avoid a JHH ED presentation and reduce hospital admission of residents from RACFs wherever possible. Thus, the ACE Service was introduced with the overarching goal of developing mechanisms that allow early access to interventions in the RACF and avoiding unnecessary transfer to ED. It was also intended that the ACE Service would facilitate improved care for frail, vulnerable older people which was aligned to their individual ‘goals of care’. An experienced ASET nurse was appointed as the CNC for the ACE Service to coordinate the introduction of the Service and contribute to the evaluation of the Service.
A care assistant role for the ED

The aims of the project with regard to the care assistant role were to:

1. Develop and pilot the role of the Aged Care Assistant
2. Validate the ability of Aged Care Assistants to administer the geriatric assessment tools
3. Validate the use of geriatric tools in Australian emergency department, given most were developed internationally and not specifically designed for the ED setting.
4. Evaluate the Aged Care Assistants’ impact on reduction of delirium (Ministerial Taskforce on Emergency Care 2010 p.3)

EDs are designed for acutely ill and injured people. The work environment, and types of care provided mean that the older patients’ needs can be overlooked in the ED. The concept of geriatric screening, assessment and consultation in the ED has a long history and has been demonstrated to facilitate improved discharge of older people from EDs and reduce functional decline, hospital admissions and representations to ED (Gold and Bergman 1997; McCusker, Verdon et al. 2001; Caplan, Williams et al. 2004; McCusker and Verdon 2006; Yuen, Lee et al. 2012). In NSW ASET have improved the profile, assessment and management of the older person, however it is widely acknowledged globally that many challenges still exist in effective management of older people in the ED (Salvi 2007; Hastings 2008; Nolan 2009). It was proposed that an appropriately trained, non-professional, assistant workforce could provide supportive care and undertake screening for known risk factors for older people who present to the ED.

Older people, in particular those over 75, are at risk of developing delirium. They may present to the ED with delirium (prevalent) or develop delirium in hospital (incident). Delirium has a high mortality and is often under recognised and under-diagnosed (Day, Higgins et al. 2008; Han, Morandi et al. 2009). With early recognition of risk factors, early detection of delirium using screening tools and early intervention, it can be prevented and or mitigated. The consequences of delirium include extended hospital stay, high risk of falling, rapid functional decline with admission to RACF and premature death (Han, Eden et al. 2011). Recognition of risk factors for delirium through screening and its prevention is critical to effective management and improved health outcomes (Anderson 2005; Traynor and Britten 2011). There is also evidence that multi-component prevention of delirium is cost effective (Akunne, Murthy et al. 2012). Thus, a primary focus of the OPTA work was intended to focus on delirium prevention activities now considered to be essential in the care of hospitalised older people (Australian and New Zealand Society for Geriatric Medicine 2008; Ski and O’Connell 2006). Many guidelines currently recommend the use of professionally qualified clinicians to conduct screening for delirium (Harding 2009). The use of a non-professional workforce to screen older people who present to the ED has not previously been examined in NSW Health.
The MTEC Project Scoping Document cited information provided from JHH ED which indicated “At the JHH, which has an ASET team 7 days a week, 12 hours a day, only 46% of patients over age 75 had an aged care assessment of some kind” (MTEC 2010 p.3). Therefore it was proposed that initial screening to inform geriatric assessment and care planning and enhance the supportive care activities known to prevent the occurrence of delirium could be performed by an assistant workforce trained to undertake these tasks under the direction of the ASET.

Although the overarching goal of the OPTA component of the model of care was to prevent delirium and improve the care experience of people over 75 in the JHH ED, the initial Project Scoping Document identified other aspects to the OPTA role including follow up phone calls for older patients discharged from the ED, arrangement of transfers home, escorting families into the ED, advocacy for patients and their families and providing necessary comfort for elderly patients who are agitated and confused.
Description of the model of care

Pathways

The MOC consists of a pathway for older people from RACFs with non-life threatening emergency conditions to be referred via the ACE Service, screening of people over the age of 75 in the ED by OPTAs and delivery of supportive care to older people and their families in the ED by OPTAs.

Figure 1 presents the pathway for residents from each of the 4 RACFs prior to presenting at JHH ED:

Figure 2 presents the pathway for people presenting to the JHH ED who are over the age of 75, including those from each of the 4 RACFs, and not experiencing life threatening conditions and the role of the OPTA within that.
Figure 2: Pathway in ED following presentation

**OPTA Meets and Greets**
- assist with transfer to ED bed
- pan as necessary conduct U/A & stool specimen as available
- bring in carer/accompanying person
- ensure has access to aids (hearing, glasses, etc)
- ensures environment safe & orients to ED (eg lowers bed gives call bell)

**NO FOOD OR FLUIDS UNTIL DIRECTED BY RN**

**ED RN Assesses, plans & delegates**
- RN assesses person & determines plan of care in collaboration with ASET RN as necessary and directs & delegates tasks to OPTA. In delegating to OPTA, ED RN considers OPTA work scope & patient complexity.
- If phone call to be made to relatives/significant others ED RN makes initial call
- **ED RN is at all times accountable for patient’s care.**

**OPTA further activity**
- initial screening (tools = fall, waterlow and ISAR)
- continue support and comfort needs as directed by RN
- food and fluids as directed by RN
- attends hygiene needs as directed by RN
- rings family as directed by RN for requests (eg bring change of clothes, medications etc)
- If directed by RN undertakes further screening to inform RN & ASET nurse care planning
- Routine pain score at 2 hours after admission to ED (ED RN does initial pain assessment) and prior to discharge
Roles within the model of care

The ACE CNC role

The overall purpose of the ACE CNC role is to provide consultancy, education and support to staff of RACFs. The focus of the role is on the management and care of older people who may be considered for transfer to the hospital ED for non-emergency or urgent acute events. The ACE Service was intended to complement the ASET service. The ACE Service provides a telephone service to RACF staff for concerns regarding older people with non-urgent acute care needs; and determining whether a transfer to ED was required and justified. If transfer is not necessary, the ACE RN advises appropriate alternatives to transfer to the ED, for example, referral to general practitioners or community services.

The ACE Service clinical decision-making process uses evidence based clinical guidelines as the basis for the clinical advice to staff in RACFs. These clinical guidelines have been locally modified and are based on those previously used at Concord and Hornsby hospitals which have been in place for several years and are based on well established guidelines described and evaluated in the international literature. When an older person is transferred to the ED the ACE Service also aims to facilitate care planning within the ED by communicating as needed with relevant specialist groups or units including the GP. The ACE Service Coordinator also aimed to follow up on an older resident’s status within 72 hours of contact with the RACF staff. The ACE CNC Position Description, identified the role tasks associated with the Service thus:

- Phone advice and triage of patients from RACF
- Identify patients and support Extended Care Paramedics
- Review and follow up patients in nursing homes
- Refer patients to CAPAC, MACU, advanced care plans
- Facilitate ED transfer for example, X-rays and hospital discharge
- Educate nursing home staff

For the purposes of the project, the ACE CNC was also required to assist in the scoping of the project, develop the project communication strategy, assist in the recruitment of OPTAs, develop training materials and provide training to OPTAs, collect and collate data pertinent to the Project and assume the role of change agent within the JHH ED.
The OPTA role in the ED

There are three domains within the OPTA work role:

- Assist with screening older people
- Improve the patient and carer’s experience
- Support delirium prevention

In addition, OPTAs documented and communicated the needs of older people within the ED at JHH under the supervision of the ED ASET nurses who are Clinical Nurse Specialists (CNS). Position descriptions for OPTAs, the ACE CNC and the scope of practice initially proposed for OPTAs are presented in Appendix 1. The supportive care provided by OPTAs is aligned to the body of research about delirium prevention and quality care of older people as well as NSW Health Delirium Management Guidelines and the NSW Health Orthogeriatric MOC and associated policies. The screening tools used by OPTAs are described in Table 1 and included in Appendix 2.
<table>
<thead>
<tr>
<th>Tool</th>
<th>Purpose &amp; Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Falls Risk Screen</td>
<td>The FRHOP (Falls Risk for Hospitalised Older People) is a risk assessment tool developed by the National Ageing Research Institute. It has been shown to have a high retests and inter-rater reliability and to have moderate ability to predict falls in older people in hospital and has been modified to become the FROP-Com for use in the community setting. It consists of 13 risk factors rated on a graded 0-3 scale. The tool has good reliability and a moderate capacity to predict falls (Department of Human Services Victoria n.d.). The LHD Emergency Department Adult Assessment, Treatment and Observation Form screens people over the age of 65 using 3 questions from the FROP-Com to examine Falls History, Functional ADL status and balance. Each question is graded 0-3 and a total score of 4-9 equates to high risk.</td>
</tr>
<tr>
<td>Identification of Seniors at Risk</td>
<td>This screening tool has been developed to detect severe functional impairment and depression and predict increased depressive symptoms and increased utilisation of health services. The tool is a six-item, self-administered questionnaire. It was developed to identify seniors in an ED setting at high risk of subsequent functional decline (including institutionalisation or death). The ISAR consists of six assessment items: presence of home help, increased dependency, history of hospital admissions, visual problems, memory problems, and polypharmacy (&gt;=3 drugs). Response to these questionnaire items is dichotomous (e.g. yes–no). A patient is considered to be at risk if the answers to two or more questions are positive. (McCusker, Bellavance et al. 1999).</td>
</tr>
<tr>
<td>Six Item Screen</td>
<td>The six-item screener is a brief and reliable instrument for identifying subjects with cognitive impairment and its diagnostic properties are comparable to the full MMSE. It can be administered by telephone or face-to-face interview and is easily scored by a simple summation of errors (Callahan, Unverzagt et al. 2002).</td>
</tr>
</tbody>
</table>
The Implementation of a Nurse Led Model of Care for older people in the Emergency Department at John Hunter Hospital

Cognitive Assessment Method Instrument (JHH ED version)

JHH ED uses the Confusion Assessment Method (CAM) Diagnostic Algorithm (Inouye, van Dyck et al. 1990) to screen older people for the presence of delirium. The CAM itself includes two parts: Part One is an assessment instrument that screens for overall cognitive impairment and Part Two (the section used in JHH ED) includes only those four features found to have the greatest ability to distinguish delirium or reversible confusion from other types of cognitive impairment (Wazynski 2001).

Pain

The HNELHD Emergency Department Adult Assessment, Treatment and Observation Form screens asks people over the age of 8 to rate their pain on a numerical scale of 0 (no pain) to 10 (worst pain) or for elderly/Culturally and Linguistically Diverse populations to use a 5 scale presentation of faces.

Pressure Ulcer Risk Screen

The HNELHD Emergency Department Adult Assessment, Treatment and Observation Form includes an adapted Waterlow score to screen all patients. It is also intended to be used following clinical change. OPTAs complete the sections on general risk. Other sections relate to special risks (tissue malnutrition, neurological deficit, major surgery and medication and are intended to be completed by RNs. The patient is allocated a total score where 10 to 14 is at risk, 15-19 is high risk and over 20 is very high risk and requires preventive devices to be applied in the ED.

Personalised Older Patient Care Information

This tool, developed in the JHH ED, collects a range of information from older people and/or their carers regarding sensory aids, nutrition, hydration, medication, mobility, elimination, hygiene, cognition, sleep, pain and comfort measures usually used by the older person. It is intended to be completed by the OPTA and reviewed by the RN in the ED.

Mini Nutritional Assessment

The MNA® is a validated nutrition screening and assessment tool that can identify geriatric patients age 65 and above who are malnourished or at risk of malnutrition. Originally comprised of 18 questions, the current MNA® now consists of 6 questions and streamlines the screening process. The current MNA® retains the validity and accuracy of the original MNA® in identifying older adults who are malnourished or at risk of...
The Implementation of a Nurse Led Model of Care for older people in the Emergency Department at John Hunter Hospital

Malnutrition (Nestle Nutrition Institute n.d).

| The Modified Carer Strain Index | The Modified Caregiver Strain Index (CSI) is a tool that can be used to quickly screen for caregiver strain with long-term family caregivers. It is a 13-question tool that measures strain related to care provision. There is at least one item for each of the following major domains: Employment, Financial, Physical, Social, and Time. This instrument can be used to assess individuals of any age who have assumed the role of caregiver for an older adult. The Modified Caregiver Strain Index is a version of the Caregiver Strain Index developed in 1983. The tool was modified and developed in 2003. Scoring is 2 points for each ‘yes’, and 1 point for each ‘sometimes’ response. The higher the score, the higher the level of caregiver strain (Thornton and Travis 2003). |

Table 1: Description of screening tools used by OPTAs
Implementing the new model of care

A Project Team was established to oversee the implementation and evaluation of the model of care. Project team members and their roles are presented in Table 2.

<table>
<thead>
<tr>
<th>Team member</th>
<th>Position &amp; Role in Project Team</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professor Isabel Higgins</td>
<td>Lead Investigator</td>
</tr>
<tr>
<td>Dr Carolyn Hullick</td>
<td>Director of Emergency Department JHH/Lead Investigator</td>
</tr>
<tr>
<td>Associate Professor Jane Conway</td>
<td>Co-investigator</td>
</tr>
<tr>
<td>Ms Jacqueline Hewitt</td>
<td>ACE CNC/Co-investigator</td>
</tr>
<tr>
<td>Ms Deborah Armitage</td>
<td>CNC Older Persons JHH/Co-investigator</td>
</tr>
<tr>
<td>Ms Catherine Bendall</td>
<td>Project Support Officer</td>
</tr>
<tr>
<td>Professor John Attia</td>
<td>Statistician/Co-investigator</td>
</tr>
</tbody>
</table>

Table 2- Team members and their roles:
The implementation of the model of care included:

- The model of care was approved through HNE LHD and funded by NSW Health through MTEC.
- Communication with stakeholders in ED, RACFs, GPs, Ambulance Service, JHH and broader HNE LHD occurred through a series of meetings and presentations.
- A series of brochures about the ACE Service were developed and distributed (Appendix 3).
- A manual for RACFs to guide their responses in non-life threatening situations was developed and confirmation of consistency between the care protocols of the RACF and those in the manuals was sought from each RACF (Appendix 4).
- Screens for recording ACE and OPTA activity were developed in order to populate a database for the purposes evaluation (Appendix 5).
- Position descriptions were developed in consultation with stakeholders.
- Formal notification about the project was provided to the NSW Nurses' Association.
- Recruitment for the position of ACE CNC, OPTAs and a Clinical Educator for the OPTAs was completed in February 2011. During March 2011 OPTAs were employed and a period of training occurred.

The ACE Service formally commenced in January 2011 and the OPTA role was fully operational by April 2011.
SECTION 2

DESCRIPTION OF THE EVALUATION STUDY

Aim
The aim of the study was to evaluate the implementation of a Nurse Led model of care for older people in the emergency department at John Hunter Hospital.

Research questions

The study addressed the following research questions:

1. Can a CNC service reduce transfer of patients to the ED from aged care facilities? Can this service also reduce ED length of stay, reduce admissions and reduce occupied bed days for those who are transferred?
2. What is the range of reasons staff in RACFs request transfer of older people to ED?
3. Which of the clinical guidelines are most frequently used by the ACE CNC to guide decision making?
4. Does a CNC consultation and liaison service discriminate among the needs of older people for whom transfer to the ED is proposed in ways that are safe?
5. If the CNC redirects the older person from the RACF to other services, what are these services and what is the volume of referral to each service?
6. What is the range of reasons that older people within the community present at ED?
7. Does the employment of OPTAs in the ED optimise delivery of care for older people in the ED? In particular, does the employment of OPTAs in the ED increase the accurate screening of older people for the range of identified risk factors and provide care which older people and/or those accompanying them to the ED find satisfactory?
8. What is the experience of older people, their carers and staff of the model of care?
9. How does the model of care impact the acute care system against a range of standard indicators (e.g. number of transfers to ED, ED LOS, admissions greater than 24 hours and occupied bed days) used within NSW Health?
Evaluation methodology

Evaluation Framework

The framework for the evaluation is consistent with the Context-Input- Process and Product (CIPP) approach to evaluation proposed by Guba and Stufflebeam. The work of Guba and Stufflebeam (1970) provides a mechanism to evaluate context, input, process and product holistically and in interaction in order to inform decision making about the future direction of innovations in care.

The constructs within the CIPP approach are applicable to the evaluation of models of care as follows:

**Context** evaluation focuses on the environment in which a model of care occurs, requires determination of discrepancies between desired and achievable goals, and assists in judgments about the problems to be addressed (Guba and Stufflebeam 1970). Significantly it can be adapted to determine the extent to which goals of a MOC are aligned to the needs of the population to be served and enable examination of the impact of a MOC. **Input** evaluation is used to determine how to use resources to best meet goals (Guba and Stufflebeam, 1970, p.48). Input evaluation also determines the design and procedures for implementing a strategy and facilitates determination of the extent to which human and other resources have been appropriate. **Process** evaluation is used to determine points of particular strength or failure (including replication) in a process, serves as a continuous quality improvement process and informs interpretation of a project’s relative success or failure. **Product** evaluation is designed to “measure and interpret attainments” (Guba and Stufflebeam, 1970, p.41).

Study design and method

This pilot study used pre and post intervention approach whereby the intervention was the Nurse Led Model of care: specifically the introduction of the ACE Service and OPTAs and the associated protocols and processes. Approval for the study was obtained from Hunter New England Health Human Research Ethics Committee reference no. 11/02/16.5.01; HREC/10/HNE/402; SSA/10/HNE/402)
Data Collection

The use of multiple data collection methods enhances rigour through adding to completeness in the data analysis as it enables triangulation of data sets particularly when one source of data is limited. Thus, data collection consisted of the following iterative process:

- Literature review
- Document analysis including policy review and examination of other documents pertinent to the implementation of the MOC (eg position descriptions, meeting minutes, induction program)
- Interviews and focus groups including:
  - 9 key informant interviews with medical, nursing and allied health staff in the ED
  - 5 interviews with OPTAs
  - 3 interviews and focus groups with staff of units external to the main area of the ED
  - 4 focus groups with staff of RACFs
  - 6 focus groups with RNs in ED
  - 2 focus groups with medical staff in the ED
- Examination of meeting minutes and communication related to implementation of the MOC
- Distribution of a survey to older people and their carers who attended the ED pre and post the implementation of the OPTA role. The survey sample was drawn from those who presented in three months prior to the introduction of the MOC (1st November 2010 and 31st January 2011) and in the first three months of the MOC (1st April to 1st July 2011)
- Review of outcomes related data provided by HNELHD including: ED length of stay, bed days for admissions, and 28 day readmission rates
- Audit of a random selection of 63 clinical records prior to the OPTA role being introduced using an audit tool developed to record documented screening and care activity
- Review of the validation of OPTA screening undertaken by ASET nurses
- Identification of expenditure associated with the introduction of the model of care.

Interviews were semi structured and guiding questions sought information about the respondent’s role and relationship to the model of care, their understanding of the goals of the program and their expectations of the program and the extent to which they perceive these had been met. Focus groups followed a similar process. The respondents’ perspective of what worked well, could be improved and outcomes were also requested. Appendix 5 presents the questions used in interviews and focus groups.
It was also proposed to examine 100 records of those admitted to JHH in the 3 months after commencement of the model of care to determine if risk factors identified through ED screening were documented as having been followed up and reassessed within 24 hours of admission. An initial review of charts indicated documentation quality was so varied that the audit would not produce useful information.

**Participants**

Groups invited to participate in interviews or focus groups included staff of the JHH ED (ie ACE CNC, OPTAs, ASET nurses, the ACE Clinical Nurse Educator (CNE) and key informants such as Emergency Physicians and ED nursing staff); RACF personnel; General Practitioners (GPs) and staff within relevant service departments and wards beyond the ED. More than 50 staff from JHH ED and 26 staff from RACFs participated in interviews or focus groups. No GP elected to participate in interviews or focus groups or provide formal feedback about the MOC. While Ambulance Service personnel were informed of the evaluation and gave feedback about the MOC to the ACE Service, they were did not participate directly in interviews or focus groups.

A randomly selected sample of older people and/or their carers were invited to complete a patient satisfaction survey following discharge from the ED. Patient and carer surveys were adapted from the Consumer Emergency Care Satisfaction Scale (CECSS) (Davis, Bush et al. 1997) with permission from Professor Barbara Davis, the copyright owner of the survey. The survey incorporated the Consumer Emergency Care Satisfaction Scale (CECSS). The CECSS is an internationally recognised tool that has demonstrable reliability and validity. It has been used previously used in EDs in Australia to compare levels of satisfaction with ED nursing in rural and urban EDs (Davis and Duffy 1999) and to inform a comparative study about patient experiences of EDs in California and Kentucky in the United States of America, Slovenia and Victoria (Davis and Bush 2003).

The current version of the CECSS which is licensed for use comprises 19 items, each of which is a statement about ED nurses’ behaviours, actions, or attitudes. The items are divided into two subscales – Caring, which comprises 12 items, and Teaching, which comprises three items. The measures of the reliability of the current version of the CECSS based on aggregated data from numerous studies are Cronbach’s alpha coefficient of 0.97 for the Caring subscale, and 0.88 for the Teaching subscale (Davis et al 2005).

Surveys were sent to 300 older people and their carers who attended the ED prior to implementation of the OPTA role and 300 who attended the ED since the OPTA role was implemented.
Other Data Collection

In conjunction with the humanistic component of the research, an audit of pertinent health service information pre and post the introduction of the model of care was also undertaken. This included a comparison of the numbers of presentations over the age of 75 from the 4 pilot RACFs and ‘control’ RACFs of similar size and clientele to the JHH, Belmont, Calvary Mater and Maitland EDs as well as examination of rates of screening pre and post OPTAs, review of records of care activity undertaken by OPTAs and detailed analysis of the nature and outcomes of calls to the ACE Service. The control RACFs were matched by number of beds, ratio of high and low care beds and the presence of dementia specific beds.

Table 3 presents the interrelationships among the CIPP framework, elements of a model of care, the research questions and data collection processes.

Data Analysis

Qualitative data sets, including interviews and focus groups were analysed thematically. Here significant statements that were relevant to the research questions were highlighted and clustered into main themes. Document data sets were analysed for relevant content relating to the research questions. Auditable data sets and the survey data were analysed using descriptive statistics only.
<table>
<thead>
<tr>
<th>Elements of evaluation framework</th>
<th>Considerations in changing a model of care</th>
<th>Related evaluation questions</th>
<th>Data source</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Guba &amp; Stufflebeam 1970)</td>
<td>(Qld Health 2000)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Context</strong></td>
<td>What is the issue or problem with the current model of care delivery?</td>
<td>What is the range of reasons staff in RACFs request transfer of older people to ED?</td>
<td>Triage data and primary reason for presentation coming in to hospital via ACE/community</td>
</tr>
<tr>
<td></td>
<td>What are the values and principles that underpin the proposed model of care?</td>
<td>What is the range of reasons that older people within the community present at ED?</td>
<td>Interview data</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Literature review</td>
</tr>
<tr>
<td><strong>Input</strong></td>
<td>Staff and skill mix</td>
<td>What is the range of reasons staff in RACFs request transfer of older people to ED?</td>
<td>Salaries and wages data</td>
</tr>
<tr>
<td></td>
<td>Accountability</td>
<td></td>
<td>Budget for project activity</td>
</tr>
<tr>
<td><strong>Process</strong></td>
<td>Care delivery processes</td>
<td>Which of the clinical guidelines are most frequently used by the ACE CNC to guide decision making?</td>
<td>ACE Activity Record</td>
</tr>
<tr>
<td></td>
<td>Referral patterns</td>
<td>Does a CNC consultation and liaison service discriminate among the needs of older people for whom transfer to the ED is proposed in ways that are safe?</td>
<td>Interview data as well as incident/mortality data</td>
</tr>
<tr>
<td></td>
<td>Communication processes between staff</td>
<td>If the CNC redirects the older person from the RACF to other services, what are these services and what is the volume of referral to each service?</td>
<td>ACE Activity Records</td>
</tr>
<tr>
<td></td>
<td>What is the experience of older people, their carers and staff of the model of care?</td>
<td>Interviews with staff of ED – Client and carer surveys; OPTA activity records, Chart audits</td>
<td></td>
</tr>
<tr>
<td>--------------</td>
<td>----------------------------------------------------------------------------------</td>
<td>------------------------------------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>Product</td>
<td>Patient outcomes</td>
<td>ACE Service activity records and presentation and ED disposition data</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Stakeholder expectations</td>
<td>Number of presentations pre and post ACE</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cost of service delivery</td>
<td>Record of OPTA Screening activity, validation of OPTA screening by RN, chart audit, client and carer survey, key informants interview, focus group data and complaints data</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Can a CNC service reduce transfer of patients to the ED from aged care facilities? Can this service also reduce ED length of stay, reduce admissions and reduce occupied bed days for those who are transferred?</td>
<td>Readmissions: ACE vs non ACE (24 hours, 1 week, 28 days)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Does the employment of OPTAs in the ED under the optimize delivery of care? In particular, does the employment of OPTAs in the ED increase the accurate screening of older people for the range of identified risk factors and provide care which older people and/or those accompanying them to the ED find satisfactory?</td>
<td>Time in ED Time to bed data</td>
<td></td>
</tr>
<tr>
<td></td>
<td>How does the model of care impact the acute care system against a range of standard indicators (e.g. number of transfers to ED, ED LOS, admissions greater than 24 hours and occupied bed days) used within NSW Health?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Table 3: Interrelationships among the CIPP framework, elements of a model of care, the research questions and data collection processes**
SECTION 3

PRESENTATION OF FINDINGS

The findings are presented aligned to each of the evaluation questions with questions clustered in accordance with the ACE CNC and OPTA components of the model of care.

ACE CNC related questions

The impact of the ACE Service on ED presentations

1. Can a CNC service reduce transfer of patients to the ED from aged care facilities? Can this service also reduce ED length of stay, reduce admissions and reduce occupied bed days for those who are transferred?

Table 4 presents a comparison of the total number of presentations to the JHH ED for the 4 pilot RACFs for the period 1st March to 31st May for each year 2009-2011. It demonstrates an increase in admissions among those who present to ED from the four RACFs. The trend to an increase in admissions may suggest greater alignment among the needs of those who present to the services provided by the acute hospital. There may also be a range of other reasons for this including an overall increase in the acute and or urgent needs of older people in the study RACFs, an increase in the number of beds available within the RACFs or an increase in the turnover of residents in the study RACFs.

While there has been an increase in the average LOS of these patients in the ED, the average length of hospital inpatient stay of admitted patients from the four RACFs has decreased over the 3 years (Table 5).
Table 4 Presentations, length of stay, admissions and in-patient admissions for study RACFs 2009 - 2011 (1 March to 31st May)

<table>
<thead>
<tr>
<th></th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>+ 57 ACE calls</th>
</tr>
</thead>
<tbody>
<tr>
<td>ED Presentations</td>
<td>140</td>
<td>115</td>
<td>117</td>
<td></td>
</tr>
<tr>
<td>ED LOS (mins)</td>
<td>65 779 (average 469.9)</td>
<td>54 499 (average 473.9)</td>
<td>6358 0 (average 543.4)</td>
<td></td>
</tr>
<tr>
<td>Admissions</td>
<td>65 46%</td>
<td>72 63%</td>
<td>82 70%</td>
<td></td>
</tr>
<tr>
<td>In Patient LOS (days)</td>
<td>496 (average 7.6)</td>
<td>476 (average 6.6)</td>
<td>397 (average 4.8)</td>
<td></td>
</tr>
</tbody>
</table>

Table 5 Presentations, length of stay, admissions and in-patient admissions for study RACFs June-September 2011

<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>ED Presentations</td>
<td>154</td>
<td>+ 43 ACE calls (NB includes 3 calls from ACE to RACF to follow up on a person who did not attend ED despite being advised to do so)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ED LOS (mins)</td>
<td>100 163 (average 650.4)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Admissions</td>
<td>121 79%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IP LOS (days)</td>
<td>587 (average 3.8)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

A snapshot of the ACE Service and its outcomes was analysed in detail. The period examined was 1/3-31/08/2011. There were 97 calls made to the ACE Service, of those 57 (59%) resulted in a transfer to the JHHED. Only 1 RACF made a repeat call to the ACE.
Service within 24 hours of an initial call. That RACF was advised to transfer the resident to ED on the second call for management of dehydration.

Of the 57 who presented to ED, 28 (49%) were not admitted to the hospital. The average LOS in the ED for these people was 367 minutes. This was 67% of the average time compared to the overall average LOS in 2011, 71% compared with the 57 presentations to ED. The range was from 49 minutes to 1446 minutes with a standard deviation of 300 minutes. Of the 57 presented to ED, the average LOS in the ED was 512 minutes with a standard deviation of 389 minutes. The majority of these 57 presentations were in Triage Category 3 and 4 (Table 6).

<table>
<thead>
<tr>
<th>Triage Category</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>3</td>
<td>16 (28%)</td>
</tr>
<tr>
<td>4</td>
<td>34 (60%)</td>
</tr>
<tr>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>TOTAL</td>
<td>57</td>
</tr>
</tbody>
</table>

Table 6 ED presentations following ACE consultation by triage category

Of the 29 RACF clients admitted to hospital following presentation to ED, 8 patients went to ESSU and 1 to MACU. Six patients were admitted to the hospital for less than 24 hours. The average LOS in hospital for those admitted was 6 days. Five were admitted for one day, 6 for between 2 and 5 days, 5 between 6 and 9 days and 5 for more than 12 but less than 18 days. The longest period in hospital was 17 days (n=1). This patient had a fracture necessitating surgery.

Overall, between March and December 2011 there 146 calls to the Service

- Approximately 36% of ACE calls resulted in patient remaining in the RACF
- 40% managed in JHH ED
- 23% were admitted to hospital

It is important to note that what has not been captured in the data sets are those patients who prior to the introduction of the ACE Service would have been sent to the ED but since the introduction of the ACE Service have not been sent nor has there been a call to the
Service. Anecdotal evidence suggests that RACF staff have become more confident in their ability to manage people in the facility since the Service commenced. Comments from focus groups and interviews highlight the extent to which the relationship between the ACE Service and the provision of guidelines have assisted in this as well as the extent to which factors beyond the ED can impact transfer decisions:

"The calls and transfers have really dropped off. I think that is because people are a lot more clear about what to do and what they can do in their facility. We have given them the tools to make decisions and feel supported.

Just knowing you have someone to talk to who doesn’t make judgements about your practice and you can talk to nurse to nurse makes a big difference. I feel more confident now in managing things in the facility and knowing that there is back up if I need it. There are things I do now that I would have called an ambulance for before.

We have changed managers and that has had a big impact on us... The previous manager would just say transfer to cover ourselves and now we are more encouraged to keep the person here.

The whole Service seems predicated on the assumption that we have organisational policies and staffing that supports enacting the guidelines. Many aged care facilities don’t have that, especially low care facilities. It is important that the acute system understands sometimes we have no capacity to manage other than through transfer.

There are times when we are simply the only place for people to come. For example, a person from a RACF needed a blood transfusion. They did not need to be admitted, the RACF could not manage the transfusion and store blood products. In the ED we tried alternatives but there was no option other than for the person to come to the ED for a few hours.

When our own practices in the RACF change that will have an impact on how often we transfer. For example we are looking at reducing the number of GPs who come to the facility and running regular GP clinics in the facility for all residents. Other facilities have told us this has reduced their transfer to EDs and hospital admissions…

It really depends on the Ambulance Call System and the matrix. We do not direct which EDs people are transferred to...If we have spoken to an RACF and advised transfer to ED on some occasions they will not come to JHH. If we know the ambulance is directing them to an ED other than JHH then we try and call that ED and communicate with them about the person.

Examples were also provided that illustrate how a single presentation to the ED which is case managed by the ACE Service rather than treated as a need to respond to the presenting problem can result in reduced presentations to the ED:

"The RACF rang and said the person needed transfer for a cannula to be inserted for administration of a medication. They weren’t comfortable with giving it intramuscularly as the person had come to ED for previous administration of the medication. I pulled up the patient notes and sure enough, five previous presentations for medication administration
were there. The person was transferred to the ED but the medical staff and I worked to arrange that the person would have intramuscular medication rather than IV and that would be communicated to the GP by the medical staff. I was then able to speak with the residential facility staff and talk them through their concerns. We discussed that while administration of the medication intramuscularly was quite painful for the short term, there were risks associated with transfer to ED and waiting in the ED to be seen that outweighed their beliefs about cannulation being less painful than intramuscular injection. To my knowledge they have not sent the person to ED since and are managing the medication in the RACF. I can give you two more examples of where we have case managed and supported the RACF to provide care without regular transfer to ED.

2. What is the range of reasons staff in RACFs request transfer of older people to ED?

The range of reasons people from RACF present to ED are consistent with that of the older population in general. Of the 57 people who presented to ED after contacting Service in the three month period the 1st March to 31st May 2011, 18 of 57 (31%) presented with fall or fall related injury. Of the 29 admitted to hospital the top 2 categories of ED diagnosis were falls (n=6) and cellulitis (n=4). Other diagnostic categories were urinary, cardiac and respiratory related. Only 1 person had a documented diagnosis of delirium while 2 had a diagnosis of dehydration/malnutrition. Similar patterns were evident across the remainder of the 2011 calendar year.

Those calls to the ACE service that did not result in presentation to ED within 24 hours (n = 38) had the following diagnoses recorded by the ACE service:

<table>
<thead>
<tr>
<th>Diagnosis</th>
<th>Frequency</th>
<th>Diagnosis</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall</td>
<td>7</td>
<td>Lethargy</td>
<td>2</td>
</tr>
<tr>
<td>General medicine</td>
<td>7</td>
<td>Dizziness</td>
<td>2</td>
</tr>
<tr>
<td>Urinary symptoms/infection</td>
<td>5</td>
<td>Constipation</td>
<td>1</td>
</tr>
<tr>
<td>Pain</td>
<td>3</td>
<td>Chest pain</td>
<td>1</td>
</tr>
<tr>
<td>Respiratory</td>
<td>3</td>
<td>Rash</td>
<td>1</td>
</tr>
<tr>
<td>IDDM</td>
<td>2</td>
<td>Not recorded</td>
<td>4</td>
</tr>
</tbody>
</table>

Table 7: Diagnosis non presenters to ED from ACE within 24 hours

In addition to providing evidence about the conditions for which RACF staff contact the ACE Service, the evaluation has also revealed that RACF staff contact the service for support and validation of their own responses to situations. Examples of this are provided in response to
Question 8: What is the experience of older people, their carers and staff of the model of care? (see page 59 of this report)

3. Which of the clinical guidelines are most frequently used by the ACE CNC to guide decision making?

The ACE CNC, other RNs in JHH ED who answered the ACE Service telephone and staff of RACF used the clinical guidelines relevant to the older persons presenting symptoms. As expected, the most frequently used guidelines were those related to post falls management, breathlessness, chest pain and pain management. Uptake of the guidelines has improved since the MOC has been introduced although calls to the ACE Service continue to be made without commencement of the guidelines. As has been indicated previously, in some cases this is because of inconsistencies between the ACE guidelines and the RACF policy (eg the RACF workforce is not permitted to administer analgesia or oxygen).

4. Does a CNC consultation and liaison service discriminate among the needs of older people for whom transfer to the ED is proposed in ways that are safe?

No adverse events have been reported to JHH ED that were attributed to a decision to manage a person’s care in the RACF.

Of the calls to the ACE service where the resident did not present to ED, 23 (40%) didn't present to any ED within HNE LHD within 28 days. Ten (17%) patients did present: 8 (14%) were for entirely different issues to the reason for the call to ACE; 1 (2%) for the same issue (haematuria ongoing) and 1 (2%) when family insisted on transfer against the resident’s Advanced Care Directive. Seven (12%) of the residents died within 28 days. For each of these people, the original ACE calls related to the need for palliation. None of these 7 presented to a hospital and all were palliated within facility. A similar pattern existed across the months June-December 2011.

Some RACF respondents expressed concern that advice from the ACE Service to keep residents in RACF for a period of time and monitor them further may result in:

Delivering the inevitable and the person’s condition worsening while in the RACF. It could mean we then are sending someone in the evening that could have gone in the morning to the ED. I sometimes worry about that and that they will be worse off because we have delayed transfer. It also doesn’t help when the ambulance arrives and the say the RACF has led to them doing overtime when we could have sent the person earlier…

5. If the CNC redirects the older person from the RACF to other services, what are these services and what is the volume of referral to each service?

Examination of ACE Service activity indicated there were no formal referrals to services other than GPs for follow up. These referrals were not directly to the GP from the ACE Service rather they were recommendations to the RACF from the Service or as part of the discharge summary of residents of RACF who had presented to the ED. When asked about
the extent to which they felt the ACE Service could enhance their links with other services, RACF staff indicated they did not think this was necessary as they already had strong links with community and other outreach services such as palliative care teams and continence specialists. Although one of the components of the ACE Service was intended to be a follow up call to the RACF within 24 hours, it was reported from JHH ED that this only occurred on a few occasions.

OPTA related questions

1. What is the range of reasons that older people within the community present at ED?

During 2012, 13 % of presentations (n=8612) to the JHH ED were people aged 75 or older. During the period 1\textsuperscript{st} March to 31\textsuperscript{st} May 2011, there were 1980 presentations from people over the age of 75 to the JHH ED. As can be seen in Table 8, this constitutes 40\% of all presentations over the age of 75 to the lower Hunter Region EDs.

<table>
<thead>
<tr>
<th>Hospital</th>
<th>Number of Presentations &gt;75 (% of total)</th>
<th>Avg age</th>
<th>Min age</th>
<th>Max age</th>
</tr>
</thead>
<tbody>
<tr>
<td>Belmont</td>
<td>1022 (21%)</td>
<td>84</td>
<td>76</td>
<td>101</td>
</tr>
<tr>
<td>Mater</td>
<td>1082 (22%)</td>
<td>83</td>
<td>76</td>
<td>100</td>
</tr>
<tr>
<td>Maitland</td>
<td>833 (17%)</td>
<td>83</td>
<td>76</td>
<td>109</td>
</tr>
<tr>
<td>John Hunter</td>
<td>1980 (40%)</td>
<td>84</td>
<td>76</td>
<td>101</td>
</tr>
<tr>
<td>Total</td>
<td>4917</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 8: Presentations over the age of 75 to the lower Hunter Region EDs.

The primary reasons people over the age of 75 present to the JHH ED during the period 1\textsuperscript{st} March – 31\textsuperscript{st} May in 2011 were fall (18\%), chest pain (8\%), pain (8\%) and respiratory disorder. Similar patterns of presentation occur across the entire over 75 population regardless of whether they live in residential care. As indicated in Table 9, almost 80\% of presentations to ED among those 75 or older are triaged in Category 3 or 4.
Does the employment of OPTAs in the ED optimize delivery of care for older people? In particular, does the employment of OPTAs in the ED increase the accurate screening of older people for the range of identified risk factors and provide care which older people and/or those accompanying them to the ED find satisfactory?

Data examined in order to address this question included Pressure Ulcer Prevention (PUP) reports for 2010 and 2011; a sample of patient records of people older than 75 admitted to the ED; and database records of screening and care activity undertaken by OPTAs in the ED during the period 1st March-31st May 2011. Between April 1 and December 1 2011, 2414 pressure ulcer risks were recorded by OPTAs in the JHH ED.

### Pressure Ulcer Prevention Reports

Pressure Ulcer Prevention (PUP) reviews undertaken in JHH during 2010 and 2011 asked the question: *Has pressure ulcer risk assessment been completed in the JHH Emergency Department?* Results to this question, drawn from PUP data collated in the LHD are presented in Table 10. The results demonstrate that there has been an improvement in the rates of risk assessment in the ED of those over the age of 75 from 35% in 2010 to 72% in 2011.

---

**Table 9 Number of presentations and % of total presentations by Triage Category to ED and ACE Service 1 March to 31st May 2011**

<table>
<thead>
<tr>
<th>Triage Category</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>ACE</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Belmont</td>
<td>2</td>
<td>100</td>
<td>273</td>
<td>516</td>
<td>131</td>
<td>NA</td>
<td>1022</td>
</tr>
<tr>
<td>%</td>
<td>0.20</td>
<td>9.78</td>
<td>26.71</td>
<td>50.49</td>
<td>12.82</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mater</td>
<td>14</td>
<td>97</td>
<td>295</td>
<td>573</td>
<td>103</td>
<td>NA</td>
<td>1082</td>
</tr>
<tr>
<td>%</td>
<td>1.29</td>
<td>8.97</td>
<td>27.26</td>
<td>52.96</td>
<td>9.52</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maitland</td>
<td>5</td>
<td>87</td>
<td>246</td>
<td>419</td>
<td>76</td>
<td>NA</td>
<td>833</td>
</tr>
<tr>
<td>%</td>
<td>0.60</td>
<td>10.44</td>
<td>29.53</td>
<td>50.30</td>
<td>9.12</td>
<td></td>
<td></td>
</tr>
<tr>
<td>John Hunter</td>
<td>23</td>
<td>244</td>
<td>657</td>
<td>904</td>
<td>95</td>
<td>57</td>
<td>1980</td>
</tr>
<tr>
<td>%</td>
<td>1.16</td>
<td>12.32</td>
<td>33.18</td>
<td>45.66</td>
<td>4.80</td>
<td></td>
<td>2.88</td>
</tr>
<tr>
<td>Approx. % across all 4 EDs</td>
<td>1</td>
<td>10</td>
<td>29</td>
<td>50</td>
<td>9</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---
Table 10 PUP Data in ED re and post OPTAs

Analysis of PUP data also revealed:

- In 2010, 48% of those who did not have screening completed but whose records indicated they should have were over 75. In 2011, this was reduced to 25%.
- In both 2010 and 2011, 55% of those who should have had screening and did have screening were over 75.
- Overall rates of screening for pressure risk assessment in the ED have improved from 32% to 55% in 2011 when compared to 2010.

It should be noted that for the purposes of this analysis a valid record was one that had a result of yes or no recorded in the PUP audit in response to the question about pressure risk assessment in the ED. The analysis did not exclude incomplete records although a review of a sample of patient records from which PUP audit data was drawn indicated that there were several situations in which the PUP assessment was commenced but not fully completed in the ED. In order to determine the extent to which OPTAs may have had a positive impact on the rates of pressure risk assessment, an examination of the 83 valid sampled records for people over 75 in 2011 was undertaken. This revealed that OPTAs had only been directly involved in the ED assessment of pressure risk in less than 20% of the patient notes audited for PUP. However, review of the OPTA records indicates they commenced screening for
pressure injury risk in 72% of people over 75 who they saw in the ED and have contributed to an increase in screening for this risk.

ii. Medical Record Review

Analysis of 100 randomly selected medical records undertaken by ED staff before and after the introduction of OPTAs suggests a similar overall improvement in the rate of screening for pain, falls and pressure ulcer risk since the introduction of OPTAs (Table 11).

<table>
<thead>
<tr>
<th></th>
<th>Pain</th>
<th>Fall</th>
<th>Pressure</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>74</td>
<td>30</td>
<td>42</td>
</tr>
<tr>
<td>2011</td>
<td>84</td>
<td>74</td>
<td>62</td>
</tr>
</tbody>
</table>

Table 11: Results of a sample of 100 charts of people over 75 admitted to the ED pre and post OPTAs

The medical records of 63 people who were admitted to ED prior to the introduction of the OPTAs and who were sent the ED patient survey were examined. No attempt to correlate returned surveys and patient records was undertaken given the low number of returned surveys and constraints on time and funding for data analysis. Records were examined in order to determine the extent to which screening, assessment and care interventions known to prevent delirium and other adverse events in older people were documented as having been undertaken in the ED. Table 12 presents the results of this review. It is important to note that the lack of documentation of an activity does not necessarily mean it did not occur however a key element of effective care provision is comprehensive documentation. Nevertheless the results of the review do not reflect a focus on the documentation of care activity known to prevent delirium, nor a high level of compliance with the NSW directives which indicate patients should be screened for Falls Risk and Pressure Ulcer Prevention as well as Pain.
### Table 12: Review of Medical Records for Screening Tools/Delirium Prevention Strategies

<table>
<thead>
<tr>
<th>Screening tools</th>
<th>Delirium prevention</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Comprehensive Assessment</td>
</tr>
<tr>
<td>Pain</td>
<td>51</td>
</tr>
<tr>
<td>Falls</td>
<td>29</td>
</tr>
<tr>
<td>Waterfall</td>
<td>26</td>
</tr>
<tr>
<td>Nutrition</td>
<td>1</td>
</tr>
<tr>
<td>ISAR</td>
<td>0</td>
</tr>
<tr>
<td>CAM-III</td>
<td>0</td>
</tr>
<tr>
<td>Carer Strain Index</td>
<td>0</td>
</tr>
<tr>
<td>Quality of screening record</td>
<td>Complete</td>
</tr>
<tr>
<td>No screening/completed</td>
<td>12</td>
</tr>
<tr>
<td>Activity</td>
<td>7</td>
</tr>
</tbody>
</table>

*Med. Officer* 1 | 1 | 4 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1

*Allied Health personnel* 1 | 1 | 7 | 1 | 1 | 1 | 2 | 1 | 1 | 1 | 1 | 1 | 1

Unable to identify designation 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1

Documented by ED RN (EN) 51 | 29 | 26 | 26 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1

ASET 9 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1

Med. Officer 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1

Unable to identify designation 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1

*Pharmacist* 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1

Unable to identify designation 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1

Comments 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1

The Implementation of a Nurse Led Model of Care for older people in the Emergency Department at John Hunter Hospital
iii. Recorded screening of older people by OPTAs

A primary role of the OPTA was screening of older people using standardised tools. Following training in the use of the tools, as part of the study design in order to ensure the OPTAs were as accurate at screening as a professionally qualified workforce, it was intended that the OPTAs use of each of tool be confirmed as accurate by a RN. The goal was for a total of 100 of each of the screening tools completed by a range of OPTAs to be reviewed. Where possible this was to be part of the role of the CNE for whom funding of 0.5 FTE was provided from NSW Health. Table 13 presents the progress on this for the period 1st May – 30th June 2011. It is intended to complete this prior to June 2012.

<table>
<thead>
<tr>
<th>Tool</th>
<th>Number of times an OPTA score was reviewed by an ASET RN</th>
</tr>
</thead>
<tbody>
<tr>
<td>Six Item Screen</td>
<td>35</td>
</tr>
<tr>
<td>Cognitive Assessment Method</td>
<td>24</td>
</tr>
<tr>
<td>Falls Risk Screen</td>
<td>41</td>
</tr>
<tr>
<td>Pressure Ulcer Risk Screen</td>
<td>28</td>
</tr>
<tr>
<td>Mini Nutritional Assessment</td>
<td>18</td>
</tr>
<tr>
<td>Identification of Seniors At Risk</td>
<td>31</td>
</tr>
<tr>
<td>Pain</td>
<td>23</td>
</tr>
<tr>
<td>Modified Carer Strain Index</td>
<td>11</td>
</tr>
</tbody>
</table>

*Table 13 Record of OPTA screening reviewed by RN*

Detailed analysis of the screening undertaken by OPTAs was conducted through review of OPTA database records for each screening tool. A total of 793 patients over 75 were recorded as being seen by OPTAs during the period 1st July to 31st August. A summary of the results of analysis of each screening item is presented below. A valid score refers to complete scores where a scored result was recorded correctly. Where a yes or no rather than a numeric response was recorded on a tool that required a numeric score, this was not included as a valid score but was included as an attempt to screen.
1. Six Item Screen

Of 793 patients screening using the Six item Screen was recorded for 80% (n=635). Of those recorded screens 65% (n=410) were valid (i.e., a score was recorded). Of those where there was a valid score, 19% (n=77) resulted in scores of 3 or less. When taken as a % of the whole 793 patients, there was a 10% recorded incidence of a score of 3 or less using the SIS.

2. Confusion Assessment Method (CAM)

52% of patients (n=412) had screening for CAM attempted. Of those 41% were valid (i.e., completed in full). 11% (n=18) of patients with valid screen had +ve CAM. 11 of these patients were in triage category 3 and the other 7 were in triage category 4 perhaps indicating this had not been recognised at triage.

3. Identification of Seniors at Risk

Screening using this tool was attempted on 618 (78%) of patients over 75 in the ED in the period 1st May-31st March 2011. Of these, 451 (73%) had valid scores recorded. Within the valid scores, 44% of patients scored 3 or more which indicates risk of further functional decline.

4. Falls risk screen

74% (n=590) patients had falls risk screening commenced. Valid scores were recorded for 73% of those (n=434). Of these 434 people, 815 (n=351) had scores between 4 and 9 indicating high risk of falls.

5. Pain screen

OPTAs recorded commencing a pain screen on 58% (n=458) of the 793 patients. 80% (n=411) of these screens were completed and 135 (32%) patients had a pain score greater than 0. This equated to an average of 32% of patients in each of the triage categories 2, 3 & 4 reporting some pain when screened by OPTAS in the ED.

6. Mini Nutritional Assessment

This screen was attempted on 57% (n=451) of the 793 patients. 21% (n=97) had valid scores recorded. Within those 50% (n=49) had scores of less than 12 indicating risk. The triage categories of the people in this group were; triage category 2: 33% (n=3); triage category 3: 46% (n=19); triage category 4: 57% (n=27).

7. Pressure Risk

There was no record of an attempt by OPTAs to screen for pressure ulcer risk in 28% (n=221) of patients. It should be noted that pressure risk assessment that was completed in its entirety by the RN was not recorded on the OPTA database. Of the 72% (n=572) where screening was commenced 79% had a valid score recorded by the OPTA. 45% (n=204)
were recorded by OPTAs as having scores within the range 10-14; 26% (n=120) within the range 15-19 and 13% (n=59) as having a score of 20+. The tool used for pressure risk assessment requires input from staff other than OPTAs in order to gain an accurate score. Review of the medical records of patients pre and post the introduction of OPTAs did not demonstrate a high degree of consistency and accuracy in completion of these sections and tallying of total scores.

8. Carer Strain Index

It is unknown how many of the 793 patients presenting in the period had carers present however, 466 Carer Strain Index screens were recorded as being commenced by OPTAs. Of these 119 (25%) were completed and among those, 21% (n=25) carers scored 7+ on the scale indicating carer strain.

9. Personalised Older Patient Care Information

These questionnaires were fully completed on 186 (23%) of patients in the ED over 75.

Analysis of the reasons provided for non-commencement of screening was attempted. The most commonly recorded reason was ‘Patient too unwell’ and the next most common was ‘Patient declined’. Some patients appeared to be too unwell or to decline all screening while others had some screening commenced and/or completed. Several patients had the reason ‘Person is resident in RACF’ entered as the rationale for not commencing screening during the first few weeks of OPTAs being employed. This has since been addressed and all older people are being targeted for screening.

An assumption in the study was that screening of patients by OPTAs would inform the care planning undertaken by the RN and influence the work of others, particularly the ASET nurse. While all staff in the ED, including medical staff, reported a heightened awareness of falls risk in the ED since the OPTA screening, the major factor in this was greater consistency in identifying the patient at risk by OPTAs flagging it on the “White Board” which profiles the individual patient flow in the ED and within the notes at the patient’s bedside. The extent to which other aspects of screening translated into communication, decision-making and care planning was less well identified from the medical records and OPTA record of activity and not discussed widely in focus groups and interviews. Since completing initial data collection, 2 examples of where the OPTAs have screened using the JHH ED CAMI and identified a positive result which has resulted in escalation of the older person’s care in the ED by NUMS have been reported.

The process of communicating results of screening appeared to involve replication of effort and transcribing of data by OPTAS, ASET RNs and ED RNs. For example, in order to ensure the ASET nurse was aware of the screening results, the OPTA prints out a patient label and records the screens completed and their scores in a communication book for the ASET. The mechanism for communication to the RN about the patient from the OPTA seems more varied and reliant on one to one conversation. At the time of interviews and focus groups, this conversation appeared most likely to be initiated by the OPTA rather than
the RN, however there is anecdotal evidence that RNs have become more proactive since then and are engaging with OPTAs re screening and care activities more

During interviews undertaken during July and August 2011, a number of RNs working in the ED indicated they did not draw upon screening undertaken by the OPTAs to inform their care planning as they felt the screening results were to guide ASET nurse decision making. In contrast to this, RNs in the Emergency Short Stay Unit and Medical Assessment Coordination Unit felt the screening provided useful information to guide their assessment and care planning for the patient:

As RNs we do our own assessment…The tools are probably useful at a later stage of the hospitalisation or for community follow up but in the ED we are focused on different things

I am quite unclear about what they are and why they are used… we could probably do with an update now they are in place. We had some information beforehand but a refresher now it is place would be good.

It all probably affects ASET team more than RN in ED and has lessened ASET load I would imagine.

It is just data collecting for long term but not sure of relevance to immediate ED care.

Well I have noticed that the falls risks are signposted.

The information that is collected can have some usefulness for allied health but it really depends on the extent to which we have capacity in both our workload and influence in the ED.

I have found that we have a better sense of the person and their needs when they arrive from ED to our unit. I use the screens to guide what we need to be doing and to inform discharge planning … They are quick reference guides to build upon.

ASET staff felt the screening tools formalised and standardised much of the initial assessment they previously undertook. During interviews, ASET nurses indicated

- Screening is very useful in assisting targeting by ASET
- Has changed work flow but not workload necessarily
- OPTAs use the score as well as their general observation to inform discussion with ASET
- Screening facilitates engagement in issues by the medical staff (eg CAM results indicate need to address cognition)

Although ASET nurses indicated they used the screening to inform their prioritisation of clients, some OPTAs also indicated that they had priorities about which older people they would screen. In most cases this related to workload although, some comments made by OPTAs indicated they felt they could make a judgement about the person’s status and whether they needed or were likely to agree to participate in screening.
There was some critique of some of the screening tools initially selected in terms of their utility, reliability and specificity to the ED:

The tool chosen initially for nutritional assessment is not accurate for people with limited range of motion and weight bearing capacity. There are others which are more accurate for older people and which are less demanding on the older person.

Well, it is hardly surprising that people are falls risks, after all that is why so many of them come to the ED with a fall.

Comments made at interview also reflected the extent to which RNs were uncomfortable with separating screening and assessment, particularly with regard to pain and cognitive status:

Pain is among the main symptoms people have when they come to ED. It is the RNs role to manage that and that requires the RN assesses pain.

When someone comes in to the ED, they usually have pain. I know older people may not report their pain or it can manifest differently in them so I think the RN should do an assessment of their pain not just a score.

I am sad to say this but sometimes it is the person’s pain that is the first reason you engage with them as a RN.

It can seem a bit of a repeat effort…If someone finds something on the screening then I have to confirm that by doing an assessment before I take action. But, having said that, the screening may help discriminate among those who need me to do something and those who don’t.

The assessment of a person’s cognitive functioning and the interpretation of any of the screening in order to reach a diagnosis is not the role of the OPTA. Whether there has been a change in the person’s attentiveness or demeanour really requires the carer to answer that in a lot of cases.

However in contrast to this last view, the following comment was offered:

So we will get a few false positives on cognitive screening. I am comfortable with that. All screening requires a further assessment anyhow and we can exclude things then or in fact we may find other things that are important to us understanding more about the person and caring for them.

During a focus group with medical officers, a note of caution about the overuse of screening was raised:

The more you screen for, sooner or later you will find something. There are two questions then: Is it something that needs a response and is the ED the place for that response? Once the issue is documented is there an expectation from the patient or family that we act on it? Rather than reining in treatment costs etc. it may be that a whole new set of expectations is created.
The impact of the OPTA role

One of the aspirations of the model of care was to increase the numbers of patients over 75 who receive some form of geriatric screening and assessment in JHH ED from 46%. There were 1923 presentations that were allocated a triage category in the data set provided (this excluded ACE presentations that were not given a triage category in the data set provided). During 1st March -31st May 2011, although there was an increase in the overall percentage of people who had some form of geriatric screening in the ED to at least 51.5%, 48.5% of those 1923 patients were discharged from the ED and were not recorded as being seen by either an OPTA or an ASET. Of those discharged to home from the ED, 74% were seen by either an OPTA or and ASET as were 68% of those admitted to the hospital from ED. This demonstrates an improvement in the number of patients over the age of 75 who have had an interaction with ED staff whose role focuses on their specific care needs within the ED. Further those patients not seen by OPTA or ASET may have had some form of geriatric assessment completed by other ED staff as ASET have consistently seen about 30% within the 46% reported as having some form of assessment prior to the model of care since ASET was introduced suggesting that personnel other than ASET nurses conduct some form of geriatric assessment. For example, review of medical record indicated that Junior Medical Officers conducted geriatric assessment on people in the ED. As demonstrated in Table 14, across each of the EDs around 30% of presentations over 75 were seen by ASET or Emergency Department Aged Care (EDAC) nurses and at JHH ED a similar percentage were seen by OPTAs. It is important to note that not all EDs have the same level of ASET provision. Not all ASETs in NSW are staffed by RNs and, within the HNE LHD there is variation in the number of hours and times EDAC/ASET RNs are available.

<table>
<thead>
<tr>
<th>ED</th>
<th>Seen by OPTA</th>
<th>Seen by EDAC/ASET</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>Belmont</td>
<td>0</td>
<td>1022</td>
</tr>
<tr>
<td>%</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>Mater</td>
<td>0</td>
<td>1082</td>
</tr>
<tr>
<td>%</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>Maitland</td>
<td>0</td>
<td>833</td>
</tr>
<tr>
<td>%</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>JHH</td>
<td>619</td>
<td>1361</td>
</tr>
<tr>
<td>%</td>
<td>31.26</td>
<td>68.74</td>
</tr>
</tbody>
</table>

*Table 14: An analysis of the number of patients seen by OPTAs and /or EDAC / ASETs during the period 1/3 to 31/5 2011 across 4 EDs*
As demonstrated in Table 15, during the period 1\textsuperscript{st} April -31\textsuperscript{st} May 2011, 743 patients were recorded as being seen by OPTAs and/or ASET nurses. Analysis of the 258 seen by both OPTA and ASET by triage category reveals 1 person (0.4\%) was in triage category 1; 19 were in triage category 2 (7.4\%); 90 in triage category 3 (35\%) ,143 were in triage category 4 (55.4\%) and 5 were in triage category 5 (2\%). It is unclear whether screening by OPTAS filters out patients that ASET nurses do not need to see or if there is overlap in OPTA and ASET work with those patients seen by both.

The time to bed from waiting room or ambulance bay of older people presenting to JHH ED over 3 years has improved but remains on average over 1 hour for people over 75 in 2011 (Table 16). Again it is important to note that this does not imply a cause and effect relationship with the introduction of OPTAs, rather it is important to note there is a considerable period of time where older people could require supportive care.

<table>
<thead>
<tr>
<th>Year (Mar to May)</th>
<th>ED LOS (mins)</th>
<th>Arrival to bed (mins)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>433</td>
<td>75</td>
</tr>
<tr>
<td>2010</td>
<td>432</td>
<td>79</td>
</tr>
<tr>
<td>2011</td>
<td>408</td>
<td>68</td>
</tr>
</tbody>
</table>

Table 16: Time to bed data for people over age of 75 at JHH ED

Given that those people over 75 in triage categories 3 and 4 spend at least 4 and more likely 6-8 hours in the ED, it is concerning that a large number of people are not seen by OPTAs or ASET/EDAC across EDs, particularly as the majority of them present to the ED during the hours of 8000-2000 when OPTA and ASET are on duty at JHH ED (Table 17). The lack of screening and supportive care to those people may be related to their low triage category and the workload and activity of OPTAs and ASET RNs in a busy ED. Nevertheless, when compared with another ED, JHH ED appears to send proportionately fewer older people from the ED without some form of interaction with staff specifically employed to focus on responding to the needs of the older person.

Table 15 Numbers of people seen by OPTA, ASET and both at JHH 1 March-31 May 2011

<table>
<thead>
<tr>
<th>Seen by OPTA only</th>
<th>Seen by ASET only</th>
<th>Seen by both OPTA and ASET</th>
</tr>
</thead>
<tbody>
<tr>
<td>361</td>
<td>124</td>
<td>258</td>
</tr>
<tr>
<td>48.7%</td>
<td>16.7%</td>
<td>34.8%</td>
</tr>
<tr>
<td>Triage Category</td>
<td>People NOT SEEN by OPTA or ASET (JHH)</td>
<td>People NOT SEEN by EDAC (Belmont)</td>
</tr>
<tr>
<td>-----------------</td>
<td>---------------------------------------</td>
<td>----------------------------------</td>
</tr>
<tr>
<td></td>
<td>People who went home (n=307)</td>
<td>people who were admitted (n=625)</td>
</tr>
<tr>
<td></td>
<td>went home (n= 379)</td>
<td>were admitted (n=299)</td>
</tr>
<tr>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>AVG. LOS. 14 (2%)</td>
<td>AVG LOS 292</td>
</tr>
<tr>
<td></td>
<td>AVG. LOS. 0</td>
<td>AVG. LOS. 0</td>
</tr>
<tr>
<td></td>
<td>AVG. LOS. 1 ( 0.3%)</td>
<td>AVG. LOS. 241</td>
</tr>
<tr>
<td>Presented 7:45-20:00</td>
<td>11/14 (80%)</td>
<td>1/1 (100%)</td>
</tr>
<tr>
<td>2</td>
<td>24 (8%)</td>
<td>392</td>
</tr>
<tr>
<td></td>
<td>AVG. LOS. 111 (18%)</td>
<td>AVG LOS 424</td>
</tr>
<tr>
<td></td>
<td>AVG. LOS. 27 (7%)</td>
<td>AVG. LOS. 364</td>
</tr>
<tr>
<td></td>
<td>AVG. LOS. 49 (16%)</td>
<td>AVG. LOS. 310</td>
</tr>
<tr>
<td>Presented 7:45-20:00</td>
<td>13/24 (54%)</td>
<td>67/111 (60%)</td>
</tr>
<tr>
<td></td>
<td>AVG. LOS. 53/76 (72%)</td>
<td>AVG LOS 14/27 (52%)</td>
</tr>
<tr>
<td></td>
<td>AVG. LOS. 38/49 (78%)</td>
<td>AVG. LOS. 38/49 (78%)</td>
</tr>
<tr>
<td>3</td>
<td>68 (22%)</td>
<td>377</td>
</tr>
<tr>
<td></td>
<td>AVG. LOS. 235 (38%)</td>
<td>AVG LOS 432</td>
</tr>
<tr>
<td></td>
<td>AVG. LOS. 76 (20%)</td>
<td>AVG. LOS. 328</td>
</tr>
<tr>
<td></td>
<td>AVG. LOS. 107 ( 36%)</td>
<td>AVG. LOS. 391</td>
</tr>
<tr>
<td>Presented 7:45-20:00</td>
<td>42/68 (62%)</td>
<td>169/235 (72%)</td>
</tr>
<tr>
<td></td>
<td>AVG. LOS. 53/76 (70%)</td>
<td>AVG LOS 53/76 (70%)</td>
</tr>
<tr>
<td></td>
<td>AVG. LOS. 77/107 (72%)</td>
<td>AVG. LOS. 77/107 (72%)</td>
</tr>
<tr>
<td>4</td>
<td>178 (58%)</td>
<td>288</td>
</tr>
<tr>
<td></td>
<td>AVG. LOS. 253 (40%)</td>
<td>AVG LOS 450</td>
</tr>
<tr>
<td></td>
<td>AVG. LOS. 211 (56%)</td>
<td>AVG. LOS. 301</td>
</tr>
<tr>
<td></td>
<td>AVG. LOS. 127 (43%)</td>
<td>AVG. LOS. 428</td>
</tr>
<tr>
<td>Presented 7:45-20:00</td>
<td>130/178 (73%)</td>
<td>139/253 (55%)</td>
</tr>
<tr>
<td></td>
<td>AVG. LOS. 167/211 (79%)</td>
<td>AVG LOS 94/127 (74%)</td>
</tr>
<tr>
<td>5</td>
<td>37 (12%)</td>
<td>160</td>
</tr>
<tr>
<td></td>
<td>AVG. LOS. 11 (2%)</td>
<td>AVG LOS 417</td>
</tr>
<tr>
<td></td>
<td>AVG. LOS. 65 (17%)</td>
<td>AVG. LOS. 181</td>
</tr>
<tr>
<td></td>
<td>AVG. LOS. 15 (5%)</td>
<td>AVG. LOS. 388</td>
</tr>
<tr>
<td>Presented between 7:45-20:00</td>
<td>35/37 (95%)</td>
<td>10/11 (90%)</td>
</tr>
<tr>
<td></td>
<td>AVG. LOS. 55/65 (84.6%)</td>
<td>AVG LOS 14/15 (93%)</td>
</tr>
</tbody>
</table>

Table 17: A comparison between JHH and Belmont EDs of people who were not seen by either an OPTA or an EDAC/ASET.
Given that those people over 75 in triage categories 3 and 4 spend at least 4 and more likely 6-8 hours in the ED, it is concerning that a large number of people are not seen by OPTAs or ASET/EDAC across EDs, particularly as the majority of them present to the ED during the hours of 8000-2000 when OPTA and ASET are on duty at JHH ED (Table 17). The lack of screening and supportive care to those people may be related to their low triage category and the workload and activity of OPTAs and ASET RNs in a busy ED. Nevertheless, when compared with another ED, JHH ED appears to send proportionately fewer older people from the ED without some form of interaction with staff specifically employed to focus on responding to the needs of the older person.

As demonstrated in Tables 18 and 19, approximately 80% of patients seen by both OPTAs and ASET/EDAC are in Triage Categories 3 & 4:

<table>
<thead>
<tr>
<th>Triage category</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of people JHH</td>
<td>10</td>
<td>79</td>
<td>233</td>
<td>269</td>
<td>28</td>
<td>619</td>
</tr>
<tr>
<td>% of presentations</td>
<td>1.6</td>
<td>12.7</td>
<td>37.6</td>
<td>43.4</td>
<td>4.5</td>
<td></td>
</tr>
</tbody>
</table>

Table 18: Triage category when seen by OPTA 1/3-31/5/2011
<table>
<thead>
<tr>
<th>Number and % of presentations per Triage category</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Belmont</td>
<td>1</td>
<td>24</td>
<td>78</td>
<td>154</td>
<td>29</td>
<td>286</td>
</tr>
<tr>
<td>%</td>
<td>0.35</td>
<td>8.39</td>
<td>27.27</td>
<td>53.85</td>
<td>10.14</td>
<td></td>
</tr>
<tr>
<td>Mater</td>
<td>1</td>
<td>27</td>
<td>85</td>
<td>182</td>
<td>20</td>
<td>315</td>
</tr>
<tr>
<td>%</td>
<td>0.32</td>
<td>8.57</td>
<td>26.98</td>
<td>57.78</td>
<td>6.35</td>
<td></td>
</tr>
<tr>
<td>Maitland</td>
<td>2</td>
<td>29</td>
<td>98</td>
<td>156</td>
<td>18</td>
<td>303</td>
</tr>
<tr>
<td>%</td>
<td>0.66</td>
<td>9.57</td>
<td>32.34</td>
<td>51.49</td>
<td>5.94</td>
<td></td>
</tr>
<tr>
<td>JHH</td>
<td>10</td>
<td>76</td>
<td>212</td>
<td>252</td>
<td>26</td>
<td>576</td>
</tr>
<tr>
<td>%</td>
<td>1.74</td>
<td>13.19</td>
<td>36.81</td>
<td>43.75</td>
<td>4.51</td>
<td></td>
</tr>
</tbody>
</table>

Table 19: Patients seen by EDAC/ASET by Triage Category 1/3-31/5 2011
The supportive care activities undertaken by OPTAS

The care activities recorded by OPTAs in the database included: generic care on entry to the ED (for example, change into a gown, make comfortable in the cubicle), mobility, orientation, food and oral fluid, toileting, provision of sensory assistance and therapeutic activities.

Table 20 presents the results of analysis of care activity provided and recorded by OPTAs on the OPTA database during the period 1st May- 31st July 2011. An additional 547 comments were made in free text boxes in the OPTA record. These comments were, in the main, a written description of what had previously been captured (e.g. 'falls risk conducted, patient panned, patient fed by family; patient mobilised to toilet with assistance twice, patient placed in gown'). There were four instances where the conduct of a urinalysis had been recorded in the OPTA record. Fourteen instances of recording identified the duration an OPTA had spent with a patient as a 'special'. These ranged from 15 minutes to 70 minutes for reasons such as 'patient needed to drink all of contrast'; 'patient in ambulance bay confused and disoriented', 'patient very distressed, stayed with her 20 minutes at the request of the RN' and 'patient confused about why she is here.'

The data sets did not include occasions on which OPTAs had undertaken follow up telephone calls as, although this was one of the aspirational goals of the OPTA role, it was not introduced during this early implementation phase of the MOC. Nevertheless the OPTAs were reported as consistently communicating with other ED staff to ensure that they were aware of patient and carer status, needs and concerns during their time in the ED.

<table>
<thead>
<tr>
<th>Activity</th>
<th>Generic</th>
<th>Mobility</th>
<th>Orientation</th>
<th>Meal/ Food/fluid</th>
<th>Sensory assistance</th>
<th>Therapeutic activity</th>
<th>Toileting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of people recorded as having activity provided</td>
<td>39</td>
<td>238</td>
<td>439</td>
<td>292</td>
<td>279</td>
<td>129</td>
<td>259</td>
</tr>
<tr>
<td>% of total number of people to whom this activity was provided by OPTA (n=793)</td>
<td>50%</td>
<td>30%</td>
<td>55%</td>
<td>37%</td>
<td>35%</td>
<td>17%</td>
<td>32%</td>
</tr>
</tbody>
</table>

Table 20: Analysis of care activity recorded on OPTA database
Whilst the intent of the supportive care undertaken by OPTAs was to prevent delirium, the consequences of acute illness and to provide a positive ED experience for older people and their carers in the ED, when interviewed in June and July 2011, ED RNs expressed views that indicated suggested they were not fully cognisant of this. Many viewed the OPTA activity as “nice” to have rather than essential, particularly for delirium management, as reflected in the following comments:

It is nice the oldies have a cup of tea and something to eat now. Prior to the OPTAs we were all too busy to give those little extras that make such a difference.

*Having the OPTAs here means I can do things like ECGs and cannulation, put up blood etc. and know that the older person is getting supportive care.*

*Having the family member made to feel welcome is important to them.*

In contrast to this, ASET nurses were more likely to express the OPTAs care activity as part of a delirium prevention strategy. These different perspectives are suggestive of a different focus for RNs and ASET nurses whereby ED RNs are focused on the presenting problem to the ED and ASETs are focused on preventing the consequences of hospitalisation and ‘continuum of care’ issues aimed at reducing representation and readmission.
Questions relevant to both ACE and OPTA roles:

1. What is the experience of older people, their carers and staff of the model of care?

Patient and Carer Experience of the MOC:

Feedback via RACF staff has been that the Service has been well received with residents and their families appreciating the intent of the Service as being ‘right care; right place’ and to avoid the distress associated with ED transfer whenever possible. To date, only one family member has requested their older relative be transferred to the ED despite the advice from the ACE CNC that the resident be managed in the facility. The reasons for the decision to proceed with the transfer from the RACF was that staff and management were concerned the family member would make a formal complaint if the request was not met rather than their belief that there was a clinical need to transfer.

Positive feedback about the ACE Service and the OPTA work in the ED has been provided in writing to the ED and HNE LHD Executive from family members of older people. In several cases, these family members have previous experience of JHH or other EDs and drawn favourable comparison between their 2011 and prior ED experiences.

ED complaints data were considered as indicators of client and staff satisfaction, however, this proved challenging because there were only 2 formally identified complaints related to care in the ED for people over the age of 75 in the data set provided as part of the evaluation. As one key informant commented:

*It all depends on what you call a complaint and when and how it is recorded. Is a person telling you they have been waiting for some pain relief for an unacceptable period of time and you attending to them and documenting that in the notes a complaint and record or is it the formal complaints that are recorded in the complaints management system?*

Nevertheless, senior nursing staff in ED consistently reported fewer comments had been made to them about older people needing blankets, hygiene and toileting and assistance with feeding since the OPTA had been in the ED.

However, despite positive perceptions among JHH ED staff, patient and carer surveys did not reveal as positive an improvement as was anticipated. It is important to note that the survey results are not intended as a reflection of the OPTAs performance, however given that the OPTA was introduced to enhance nursing care in the ED, it was hoped there would have been a positive improvement in patient and carer experience of the ED post OPTAs. It is possible that the surveys were distributed too early during the implementation of the MOC to observe the full impact of the OPTAs on the ED experience, or that several respondents to the survey did not attend the ED between the hours of 0800 and 2000. Respondents to both pre and post OPTA client and carer surveys were demographically similar in terms of age, living and care arrangements, gender and previous presentations to the ED. Response rates were: 89 (29%) returned from patients and 59 (20%) from carers in the pre-OPTA
period and 68 (23%) returned from patients and 96 (32%) from carers in the post-OPTA period. The statistical significance of responses to the survey was not determined.

Table 2 demonstrated that patients and carers report being generally satisfied with the ED both before and after the model of care was introduced.

<table>
<thead>
<tr>
<th>Patients</th>
<th>Carers</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Before</td>
</tr>
<tr>
<td>Very satisfied</td>
<td>47 (53%)</td>
</tr>
<tr>
<td>Satisfied</td>
<td>32 (36%)</td>
</tr>
<tr>
<td>Not very satisfied</td>
<td>4 (5%)</td>
</tr>
<tr>
<td>Dissatisfied</td>
<td>1 (1%)</td>
</tr>
<tr>
<td>Did Not Answer</td>
<td>3 (3%)</td>
</tr>
</tbody>
</table>

Table 21: Overall satisfaction with the ED

Qualitative responses to questions in each survey were sparse. They reflected individual experiences (eg waiting too long) as well as a general satisfaction with the ED experience, albeit in some cases coupled with a sense of resignation that EDs were busy, short staffed and may well have other priorities than the older person or their carer at any given time.

Despite the levels of satisfaction expressed with the ED, responses to questions in the survey from the CSESS which focused on the nursing care in the ED from each of the before and after patient and carer groups were analysed. Responses to the survey suggest that perceptions about the nurse in relation to skills and approach to care did not change as a result of the introduction of OPTAs. Overall, patients and carers did not provide responses that were reflective of care that met consumer expectations of nursing care in the ED although qualitative responses from patients and carers sought to provide a rationale for this. For example, only 40% of patients pre and post the introduction of OPTAs felt procedures were explained before they were done, 34 and 41 % of patients pre and post felt “nurses seemed too busy to spend time taking with me”, less than 40 % felt the nurse seemed genuinely concerned about pain fear and anxiety and only 50% of respondents perceived the nurse as friendly. It is intended to repeat the survey as part of the ongoing evaluation of the MOC.
The extent to which the carer needs in the ED were met was also interrogated through the survey. A list of needs drawn from the literature, informal complaints to ED management and the expertise of the Project Team was created and carers were asked to comment upon the extent to which these were met. The number of responses was less than anticipated and conclusions therefore cannot be generalised.

Staff experience of the MOC

Staff experiences of the MOC in both the JHH ED and RACFs were captured through interview and focus group data. Key themes in this data were:

- A shared valuing of the older person’s perspectives and desires:

  I think having the ACE Nurse allows us to have conversations about the person and their wishes and to know about that before we commence anything in the ED. I use the term ‘goals of care’ in the conversations we have with RACFs and support them to do the same with the resident and family. I think using this language helps us all be on the same page… if it is palliation or symptom management rather than further investigation that makes a difference in how the person is best managed.

  As OPTAs, it feels as if there is a genuine interest in person centred care and best practice around patient outcomes come first in the ED and this is not the situation in the aged care sector. ED doctors seem interested in more than the Medicare rebate.

  It is good to know that people in the ED are as concerned as we are about residents who go to the ED. It is nice to hear that…

  The best things about my role is being able to let the patient know they are a person not just a patient and they are our focus – it is on them as a person not the illness. We have opportunity and time to spend with people and have a conversation and make them feel like a person not a number.

  Since I started work as an OPTA, I have been really pleased at the high level commitment to being “person oriented not just goal oriented” in JHH.

There were comments from RACF staff that reflected the perception that people who used the ACE Service were consistently fast tracked through the ED:

Once we were familiar with how it works and staff felt more comfortable with it there are benefits which include a better focus on resident’s needs particularly the faster turnaround time for residents that minimises any distress they may experience; the residents being ‘received’ by ACE nurse and fast tracking the person’s care; reassurance that the care, particularly nurse initiated care, is being planned the once the person was in transit without them having to wait in ED.

Knowing they are fast tracked is good- seem to get returned to RACF quicker or if they are in contact seems to be quicker from the ED re the person staying at JHH.
However, despite this perception, fast tracking of older people from RACFs did not occur routinely:

*It all depends on the ED at a given time. As the ACE nurse I can try to influence that but it depends on what is occurring and to some extent who I am asking to consider fast tracking.*

*We have a triage system. That is what directs the priority for being seen. There are lots of people with similar needs… there is a question of equitable access for everyone not just those from RACFs.*

*I think the screening has potential to assist with fast tracking…or maybe it is a ‘retriage’… the other day a person was in the waiting room and the OPTA did a CAM screen on her. It was positive we were then able to move her from the waiting room to the ED and get early intervention.*

- Mutual appreciation and understanding of the differing work environments (ED and RACF), greater collaboration for improvements, particularly in relation to medication management:

  *The care in some facilities and standards of care is apparent in some facilities when you get the contacts from the RACF. It is reflective of staffing in the facilities.*

  *If you don’t know what the capability of the RACF is how do you make a decision re what you need to do to support the RACF? There is variation in each facility so that all needs to be unpacked and codified.*

  *It would be useful to know the name of people who look after the residents in the ED and who they are (in terms of their role). The case management model eg discharge planning at Maitland would be good. Nice to have a list and build rapport with ASET team.*

  *I had no idea about low and high care residents in nursing homes and how the staffing varies as well as the type of services they can provide. You aren’t aware of that as a Resident in the public hospital.*

  *Knowing the challenges low care facilities face in medication administration when we send people back to them has given us some areas to improve.*

  *There is an issue re pharmacy being contacted and not the RACF – if the GP doesn’t agree with changes then resident has unnecessary /missing medications.*

- Enhanced continuity of care based on a relationship between RACF and the ACE Nurse

  *Having the ACE nurse to talk to means we can have nurse-nurse conversations.*

  *I don’t feel as if I am being intimidated or talked down to because I work in a nursing home and am not a RN when I talk to the ACE nurse.*
There have been times when I have had difficulty getting the message through to the person in ED – the ACE nurse seems to be on the same page as us.

Having the manuals means I can feel confident what I am doing is right. I also know I can call back if I need to know more.

I guess in some ways it is quite empowering … particularly with some of the ambulance officers who speak down to us because we work in aged care. We can say we have spoken to ACE and they say we should transfer…they don’t seem as keen to question the ED as they are us.

Having the ACE Nurse talk with the nursing home staff and get all the information we need in ED makes a big difference. Having a nurse that speaks the language of both ED and RACF has really helped in ensuring we (medical staff) get accurate information. Previously you would get a patient and then need to ring up and get more information… Often you would get a response from staff like : Oh, you should talk to so and so but she’s left for the day. I don’t know anything about why the person was transferred. Now the information we need is there when the person arrives ..well usually...

The critical thing is establishing goals of care. To be able to speak with the RACF staff and get an insight into the older person and their carer views about what they want as the outcome of care is critical. To know more about the older person’s history lets us know more than simply a report of a medical condition. For example if we know that the person has had a fall but falls everyday and has been fully investigated for that but might need an Xray or some sutures or analgesia and that is what the purpose of coming to the ED is, then we have an agreed plan related to the goals of care. If on the other hand this is the person’s first fall and the goal is to investigate the cause of the fall as well as treat any consequences of that of course we take that path. It is also important to be aware that goals of care are not necessarily the same as an advanced care directive but it certainly helps if there is an advanced care directive … I know someone has begun a conversation with the person and their carers and the RACF can build on that depending on what is occurring for the person that results in the ACE call.

Additionally some respondents provided commentary about the value of the ACE CNC role as opposed to a CNS role:

I think that for the taking and managing of the calls, the ASET nurses can do that. We have already shown we can manage that as we do it when the CNC is on leave or has other priorities… but there are other components to the role, the communication with all the stakeholders, the reinforcement of the model, follow up and education as well as the research component related to the model of care that are within that role. That is a far broader role than support and care coordination…. Maybe as the model progresses to more RACFs we will see greater distinction between those two components. 

If the demand stays as it is, the ASET nurses can deal with the phone calls and support the transfer of the person to the ED as necessary… that is within the current scope of an experienced RN who has extensive knowledge of the care of older people… nevertheless there are aspects of the ACE role now that are appropriate for a CNC..
The evaluation revealed a greater ambivalence about the role of the OPTAs than the ACE CNC role. This centred on an initial lack of role clarity for OPTAs, RNs and ASET nurses within the model as well as professional, industrial and financial concerns.

Despite information sessions within the ED about the approach to be taken within the model of care, there remained a lack of clarity about the work of the OPTA in the ED. Medical Officers indicated they were not fully aware of the changes or the rationale for the model of care. Some of this may be due to the rotation of junior medical staff for terms in the ED.

RNs were initially unclear of the OPTA role and its focus on older people rather than as an assistant to the RN in his/her work irrespective of the age of the patient in the ED. Some RNs suggested that the OPTAs lacked direction initially and 'spent too much time entering data rather than providing care." Other RNs seemed to experience a sense of disquiet in delegating activity to OPTAs:

\[
\text{They only have a limited scope of work so it is important everyone recognises that.}
\]

\[
\text{I feel pretty bad asking them to do things that are the tedious and not so pleasant tasks:}
\]
\[
\text{You know changing people, feeding them… that sort of thing…}
\]

Despite the initial uncertainty, RNs and ASET staff all commented positively on the communication skills of the OPTAs, their willingness to ‘fit in’ and their caring manner with patients and families. Some staff suggested that there was a need for improved rostering of OPTAs as there is a 4 hour overlap between the morning and evening shift of the OPTAs.

Since the initial few months of bedding down the role, there has been greater understanding of the role and role boundaries of the OPTAs in part due to responsive reinforcement about these when issues have arisen. Nevertheless the extent to which RNs use the screening information collected by OPTAs and direct and guide the OPTAs care of the older person in ED as part of the RNs’ role in governance of patient care in the ED remains unclear. There seems to be a continuing sense that the OPTA works primarily with the ASET nurse.

OPTAs themselves reported a greater sense of confidence as the role progressed and increasing ability to clarify when an activity was out of their scope of work or placed competing demands on them. As well as a commitment to the care of older people, all OPTAs indicated that a key motivator for them to apply for the position was the dynamism of being in the ED. Feedback from the majority of OPTAs about their training for the role was that they found it demeaning to be asked to have a vocational qualification and then be reassessed on aspects of that qualification (such as bed making, hygiene etc.) but appreciated the intent was to ensure appropriate standards of practice. It has been reported OPTAs have sought further training within the ED but there have been few specific examples of the requested content provided to the evaluation team.

Some respondents also suggested the OPTAs were introduced at a time of considerable RN workforce shortage in the ED and this led to gaps in care of older people as well as minimised resistance to the role as it was ‘another set of hands'. Review of information
provided by JHH ED does not indicate there was staff shortage at the time (although there was a staffing budget deficit). Rather it indicates that the ED was consistently staffed above budget in order to meet clinical demand and that since that period, there has been additional budget allocated to ensure staffing is not constrained by budget limitations.

It is important to recognise that both components of the model of care were staffed through non-recurrent funding. A number of respondents commented on this:

“Well of course we like having extra staff... the question is how sustainable is the funding?

Even though I believe they may be more expensive than an Assistant in Nursing, I prefer that OPTAs have been introduced as a technical workforce. If they are introduced as an assistant in nursing, they will get counted in the nursing numbers and we may face a reduction in RN staff within our existing staff establishment. I don’t believe that would be as readily accepted.

Others were of the view that introducing a technical assistant rather than an AIN ensures the OPTA focuses on older people but avoids industrial concerns about workforce substitution in the ED. Communication from the NSW Nurses Association (2011) suggests otherwise and highlights the potential for professional and industrial issues to arise from the employment of Technical Assistants:

A review of the job description you provided reveals that many of the activities referred to as 'technical' within the document are in fact nursing activities, including screening and assessment activities as well as personal care and other activities requiring an understanding of nursing and the acute care environment. This role is therefore clearly most suited to a nurse or a nursing worker such as an EN or AIN rendering the creation of another category of worker redundant.

For noting, the cost of the implementation of an ACE CNC and 4 OPTAs as Technical Assistants compared with 4 AINs working the same shifts OPTAs have done is presented in Table 22. It is important to be aware that there are 44 hours of ACE Service offered each week during times the ACE CNC is not rostered on duty and that there are occasions during the time the ACE CNC is working that the incumbent is at meetings and is not staffing the Service. ASET RNs have answered the ACE Service telephone when the ACE CNC is not available however no additional ASET resources have been provided to support this. Concerns have been raised about the capacity of ASET nurses to continue to respond to calls to the ACE Service given their workload in a busy department which frequently has 15-20 older people in the ED who have complex needs, multiple co-morbidities and social issues. As the ACE Service moves to across other EDs, appropriate staffing including leave replacement will need to be factored into budgets.
Salary and Wages  

<table>
<thead>
<tr>
<th></th>
<th>With Super and skim added</th>
</tr>
</thead>
<tbody>
<tr>
<td>CNC</td>
<td>$118,882</td>
</tr>
<tr>
<td>Technical Assistant</td>
<td>$278,927</td>
</tr>
<tr>
<td>Assistant in nursing</td>
<td>$249,690</td>
</tr>
</tbody>
</table>

Table 22: Comparison of CNC, TA and AIN costs

2. How does the model of care impact the acute care system against a range of standard indicators (e.g. number of transfers to ED, ED LOS, admissions greater than 24 hours and occupied bed days) used within NSW Health?

As indicated in Table 23, people over the age of 75 consistently represent 12-13% of presentations to JHH ED yet more than 25% of admissions from the ED. More than 60% of older people who present to the ED are likely to have a hospital admission.

<table>
<thead>
<tr>
<th>Year</th>
<th>Total presentations</th>
<th>Total admissions</th>
<th>% of presentations admitted</th>
<th>75+ Total presentations</th>
<th>% of Total presentations</th>
<th>75+ Total admissions</th>
<th>% of Total admissions</th>
<th>% of Total admitted aged 75+</th>
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<tr>
<td>2009</td>
<td>62788</td>
<td>19192</td>
<td>30.6</td>
<td>7777</td>
<td>12.4</td>
<td>4939</td>
<td>63.5</td>
<td>25.7</td>
</tr>
<tr>
<td>2010</td>
<td>65421</td>
<td>20742</td>
<td>31.7</td>
<td>8227</td>
<td>12.6</td>
<td>5594</td>
<td>68.0</td>
<td>27.0</td>
</tr>
<tr>
<td>2011</td>
<td>67393</td>
<td>22061</td>
<td>32.7</td>
<td>8612</td>
<td>12.8</td>
<td>5829</td>
<td>67.7</td>
<td>26.4</td>
</tr>
</tbody>
</table>

Table 23 Presentations to JHH ED of people over the age of 75

Table 24 presents the impact of the ACE Service on ED presentations, ED admissions and inpatient bed days by comparing the 4 case RACFs and control RACFs and all presentations of people over 75 during the period March to December. It demonstrates significant reduction in presentations and admissions from the 4 pilot RACFs.
### ED Presentations

<table>
<thead>
<tr>
<th></th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2010 to 2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>Case</td>
<td>399</td>
<td>421</td>
<td>353</td>
<td>16% down (p=0.009)</td>
</tr>
<tr>
<td>Control</td>
<td>402</td>
<td>403</td>
<td>419</td>
<td>4% up</td>
</tr>
<tr>
<td>All over 75s</td>
<td></td>
<td></td>
<td></td>
<td>4% up</td>
</tr>
</tbody>
</table>

### ED Admissions

<table>
<thead>
<tr>
<th></th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2010 to 2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>Case</td>
<td>233</td>
<td>278</td>
<td>226</td>
<td>19% down</td>
</tr>
<tr>
<td>Control</td>
<td>229</td>
<td>245</td>
<td>282</td>
<td>15% up</td>
</tr>
<tr>
<td>All over 75s</td>
<td></td>
<td></td>
<td></td>
<td>9% down</td>
</tr>
</tbody>
</table>

### Total inpatient bed days

<table>
<thead>
<tr>
<th></th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2010 to 2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>Case</td>
<td>1764</td>
<td>1725</td>
<td>1135</td>
<td>35% down</td>
</tr>
<tr>
<td>Control</td>
<td>2001</td>
<td>1814</td>
<td>2074</td>
<td>14% up</td>
</tr>
<tr>
<td>All over 75s</td>
<td></td>
<td></td>
<td></td>
<td>4% up</td>
</tr>
</tbody>
</table>

Table 24: Comparison of presentations, admissions and inpatient bed days for case and control RACFs

Cost escalation is prevented through the ACE Service. For example a conservative estimate of an ED presentation is that each presentation costs $500. For each avoided transfer from a RACF, there are also cost and demand savings to the NSW Ambulance Service. Hullick and Hewitt (2012) argue that effective demand reduction at JHH through the period 1st March to 1st December 2012 with just 4 case RACFs in the pilot of the MOC reduced demand on the ED to the extent that $708,000.00 was not expended. In comparison, the costs associated with demand from the control RACFs increased by $288,000.00 in the same period.
Determining the impact of the OPTAs on indicators such as inpatient bed days is challenging. Nevertheless, the next phase of the evaluation will seek to determine the impact of supportive and preventive care commenced in the ED and aimed at the prevention of risks associated with the hospitalisation of older people, in particular delirium.
SECTION 4

DISCUSSION OF FINDINGS

The discussion of findings is structured around the elements of the conceptual framework for the evaluation.

Context Analysis:

The model of care emerged from two interrelated drivers: an increased demand for ED services and the need to ensure that those older people who attend EDs have their needs identified and responded to appropriately. In particular, it is important to prevent avoidable presentations to the ED and avoidable admissions to hospital in order to minimise the potential for undesirable consequences of attendance at hospital such as distress, delirium, discomfort and disorientation. While it is important to prevent these consequences for individuals, numerous studies have identified the characteristics of older people that result in undesirable impacts at a system level including increased LOS, increased adverse events and increased discharge to RACF (Conforti, Basic et al. 2004; Anpalahan and Gibson 2008; Australian and New Zealand Society for Geriatric Medicine 2009; Basic and Khoo 2009).

Many studies have focussed on screening and other strategies intended to reduce readmission to hospital following an ED presentation (Caplan et al. 2004; McCusker et al. 2009; Hastings and Helfin 2005; Hegney et al. 2006; Boyd et al. 2007; Fealy et al. 2009; Hastings et al. 2009). There have also been a range of service models intended to provide alternatives to EDs such as afterhours GP services including trials of telephone triage services (Dunt et al. 2007), nurse-led Walk in Clinics (Parker et al. 2011), and commitment to improving access to health services in the community for older people including those living in RACFs (Borbasi et al. 2011). Nevertheless, EDs are likely to continue to be an important point of access to health care for older people (Chu et al. 2009). As the population ages, and continues to live with chronic conditions, demand for services targeted to acute needs as well as palliative needs of older people will increase and that in the absence of primary health care services, ED use is likely to continue to be high, particularly among populations who are isolated and feel vulnerable (Fulde and Duffy 2006; Kirby, Dennis et al. 2010).

Consistent with national and NSW policy directions which focus on ED demand management, the ACE Service was proposed as a mechanism to facilitate management of older people with non-urgent acute care needs from RACFs within the RACF. The evaluation is consistent with other research which has identified there are shared concerns among residents, families, RACF staff and ED staff about the extent to which an ED presentation is desirable for residents of RACFs. The role of the GP and other agencies in supporting a model of care which supports effective management of older people in the RACF where.
appropriate has been reinforced in the evaluation. Despite some concerns being expressed that the availability of the ACE Service would increase transfer to EDs there is no evidence that the RACFs are using the ED as a substitute for GP consultation.

The importance of an appropriately skilled and qualified RACF workforce with a scope of practice that enables them to initiate care recommended by the ACE Service has also been highlighted in this study. Scope of practice refers to ‘the full spectrum of roles, functions, responsibilities, activities and decision-making capacity which individuals within a profession are educated, competent and authorised to perform’ (Fox-Young and Ashley-Coe 2006 p.2). Although the Quality of Care Principles supporting the Aged Care Act specify that residents receiving a high level of care are to have “Initial and on-going assessment, planning and management of care for residents, carried out by a registered nurse” and that “There are appropriately skilled and qualified staff sufficient to ensure that services are delivered in accordance with these standards and the residential care service’s philosophy and objectives”, the challenges in recruiting and retaining RNs and other staff in RACFs are well known (Productivity Commission 2008). The extent to which the ACE Service component of the MOC is suitable for RACFs where staff have a limited scope of practice has been raised as has the need to align RACF policy and procedure with those in the ACE Manual.

**Input Analysis**

The funding provided to implement the model of care included funds for 1 FTE CNC, 0.5 CNE and 4 FTE Technical Assistants. The evaluation has demonstrated that the ASET nurses who are graded as CNS have the capabilities to provide the day–to–day aspects of the ACE Service in the JHH ED. While funding for a CNE was seen as important to implementing the model, the extent to which a 0.5 CNE is required to support 4 FTE is highly questionable. The employment of an assistant workforce under the Health Service Employees Award had merit for the purposes of the project but given the cost difference between Technical Assistants and Assistants in Nursing, the nature of technical work undertaken by Technical Assistants at other EDs and the communication from the NSW Nurses Association, further consideration of this is warranted. There may be potential to integrate screening, supportive care and technical tasks such as venepuncture and ECG recording into one role within the ED however this would require significant change management and industrial consultation and negotiation.

The appointment of a CNC as the Project Lead was appropriate and consistent with the CNC classification in the award and the tendency to appoint CNCs to project management positions for a finite period in order to help facilitate change in service delivery models and assume short term service coordination positions.

During the evaluation it was reported that although ASET nurses in JHH ED attended the ACE Service telephone and could spend over an hour conducting a telephone assessment of an older person in a RACF, time spent on the ACE Service was not being recorded in the ASET nurse activity reports. This has since been addressed. The lack of additional resources to staff the ACE Service for the periods when the CNC has not been rostered on duty has been problematic in that it has placed additional demands on the ASET nurses at
JHH ED. As it is intended to roll the ACE Service out to include Belmont and Calvary Mater EDs and include 24 RACFs in the Service, there is urgent need to consider the impact of this on staffing arrangements. It will also be necessary to consider the need for an alternate line reporting mechanism for the Service to the current JHH ED should the Service be operationalized across more than one ED on a continuing basis.

**Process Analysis**

Process analysis indicates the MOC has improved care processes for older people in the ED and it is reasonable to assume this will continue as the model is bedded down in the usual practices of the ED.

There is evidence of improved supportive care of older people who are in the ED at JHH as a result of the inclusion of OPTAs in the ED staff profile. Although the evaluation has demonstrated that, with appropriate training, a non-professionally qualified workforce can accurately undertake screening using a range of tools that are intended to identify older people at risk, it will be necessary to ensure that screening and supportive care continues when an OPTA is not available. There is potential for some care processes to be perceived of as the work or task of specific personnel rather than embedded as usual care for older people in the ED and thus the responsibility of all staff.

There has been improvement in compliance with screening of older people in the ED for known risk factors since the introduction of OPTAs and the outcomes of that screening appear to be utilised by some staff, in particular ASET nurses, in decision making. It is unclear whether people who were seen by both OPTA and ASET did so as part of an escalation of care or a replication of screening. As has been noted previously, interviews with ASET nurses indicated a tendency for them to use the OPTA screening to inform their interaction with the patient and his/her family member suggesting there has been greater discrimination and focus in ASET work since the screening by an assistant workforce has been part of the care pathway although the extent which this occurred was not captured in this evaluation. There is evidence to suggest that the location of the OPTAs primarily within the treatment areas of the ED does not facilitate prompt screening of older people and care pathways as necessary based on screening results. Furthermore, the extent to which improved screening rates translates to improved assessment and implementation of care appropriate to the older person's needs in the ED has not been clearly established in this evaluation. An assumption in the study was that screening of patients by OPTAs would inform the care planning undertaken by ED RNs, however the evaluation has highlighted the potential that, in allocating screening activity to OPTAs, RNs may become disengaged in the care of the older person in ED. Greater clarification of the role expectations of the RN and ASET nurse in response to OPTA screening and supportive care is recommended. The model in Figure 3 may assist in conceptualising the complementary work of ASET and ED RN:
Some process improvements have been suggested related to both the ACE Service and the OPTA role during the evaluation. These could be addressed as quality improvement projects within JHH ED and include:

- Continued emphasis on the importance of establishing goals of care for older people from RACFs through processes such as advanced care directives
- Improvements in the quality of information provided to the ED from the RACF and vice versa
- Addressing issues related to medication administration in low care facilities. Medication administration has been highlighted as a particular example of how the scope of practice of the RACF personnel in low care facilities can impact on care of older people discharged from ED as personal carers are not able to administer medication that is not pre-packaged using a Webster or other system. Further education of staff in the ED about the needs and expectations of older people and their carers Documenting ACE consultations as part of the ASET occasions of service
- Time spent waiting for a bed in the ED and time in the ED could be better used for screening in order to identify risk and facilitate ‘fast tracking’
- Improvements in the experiences of carers of older people in the ED
- Enhanced documentation of the plan of care for older people in the ED related to the range of delirium prevention strategies used in the ED

Although there is potential for incremental improvement to care processes within the existing ED arrangements, there is need to consider the more fundamental question about the extent to which a busy ED is the most appropriate place for older people, the majority of whom are triaged as categories 3 & 4. Geriatric assessment takes time and is complex. Although there are validated screening tools available to assist with this process including: identifying elders at risk in the ED, cognition, delirium, depression, falls, pressure ulcer risk and family management of older patients at home; completing complex screening and assessments in the ED is often not prioritised in the light of staff needs to focus on the provision of emergency care to a diverse population. Given that care needs to be person centred, focus on delirium and other risk prevention, and provided within an older person friendly environment, alternative models of care are urgently needed in the ED in order to align care with evidence based practice and in accordance with international standards. There is some evidence to suggest that the busy ED environment intended to meet the needs of high acuity and low complexity patients such as those in Triage Category 1 & 2 is not an environment conducive to the timely care of older people. The ED environment itself appears to place demands on staff which (rightly) result in them establishing priorities that are not well aligned to the needs of older people for both supportive and preventive care. There is a need to question whether the aspirations of a nurse-led MOC for older people can better be met through further refinement and maturity of the model including consideration of a ‘Geriatric Emergency Service’ along the lines of geriatric EDs established overseas. Patients might benefit from early assessment and identification that they no longer need ED resuscitation and can be admitted to a short stay unit for more comprehensive screening and assessment in a more appropriate environment. This model may involve moving ASET activities from the ED and having an assistant at front of house assisting with identification of patients at high risk of delirium for early ED assessment. This would be in alignment with NEAT. For example, Figure 4 presents the current MOC and Figure 5 presents an alternative approach.
Current approach

- RACF
- ACE CNC
- TRIAGE
- WAITING ROOM/AMBULANCE BAY
- ED
  - Screening for risk factors
  - Supportive care
  - Medical review
  - Allied Health Review
  - ASET Review
  - Diagnostics
- Hospital admission
- Discharge

The Implementation of a Nurse Led Model of Care for older people in the Emergency Department at John Hunter Hospital
Suggested alternative approach:

NURSE LED OLDER PERSON ED (in Short Stay Unit)
- Includes ACE SERVICE and has beds dedicated to older people in triage Category 3, 4, and 5.
- Undertakes telephone triage for RACF patients, refers to main triage for Cat 1&2 and others as necessary.
- Accepts patients after early ED assessment.
- Provides supportive care, screening, nurse initiated diagnostics and medication, discharge from ED.
- Has medical and allied health teams available as necessary and can move patients to main ED if condition deteriorates.
- ASET Review.

RACF
- Screens
- Identifies goals of care
- Manages in facility with ACE Support
- Transfers to ED

TRIAGE

WAITING ROOM/AMBULANCE BAY
- Screening of older people and supportive care

COMMUNITY

ED
- Supportive & preventive care
- Medical review
- Diagnostics
- Treatment

Hospital Admission

Discharge
Product Analysis

The model of care has merit and potential to improve the health outcomes for older people and optimise ED performance on a range of health service indicators. There are well known challenges in capturing evidence of what has been prevented through quality supportive and preventive care. Despite this caveat there are positive indications that the components of the model are effective in reducing presentations to ED, improving screening rates and facilitating responses to the findings of screening and enhanced supportive care to older people in the ED.

As identified on page 15 of this Report, the ACE Service had a range of aims. The Service has clearly met the following aims:

1. Identify triggers for patients being transferred from residential aged care facilities to ED and what they require as part of their ED visit.
2. Develop an ASET emergency outreach model where RACF can liaise with ED ASET CNC to facilitate an assessment in the RACF

Initial indications are that the ACE Service intervention has improved appropriate referrals to the ED and shortened LOS in both the ED and as an inpatient for the four RACFs supported by the service. There is no evidence that the ACE Service has contributed to JHH ED being used as substitute for GP services by RACFS or that residents have attended other EDs in the region.

When compared to other RACFs in the region as controls, the four RACFs in the project demonstrated a reduction in ED presentations at a time when other RACF and general population attendances to ED in the lower Hunter were increasing. The reduction in attendances can be concluded to contribute to cost containment within HNE LHD. Given that an ED visit costs at least $500 and a hospital bed day costs $1200 a day, these savings are significant.

The Service continues to develop the following aims:

3. Develop a system to facilitate a rapid transfer and fast-track through ED for specific diagnostics back to the RACF or admission to hospital including to the Medical Assessment Unit
4. Improve linkage between acute care and primary and community care
5. Develop pathways for patients from RACF to access resources and linkages with Severe Chronic Disease management strategy, extended care paramedics, Community and Post-Acute Care services, in partnership with general practitioners
6. Develop ED RACF clinical quality indicators for patient transfers.
With regard to the OPTA component of the MOC, the project has met the aims of:

1. Develop and pilot the role of the Aged Care Assistant in the ED
2. Validate the ability of Aged Care Assistants to administer the geriatric assessment tools

The evaluation has not validated the use of geriatric tools in Australian ED, given most were developed internationally and not specifically designed for the ED setting. However, it has revealed the utility of the tools in the JHH ED and highlighted that some tools are not as sensitive as others in discriminating among older people who present to the ED.

The evaluation has revealed staff and patients are satisfied with the MOC although patient and carer survey responses suggest a need for further investigation of particular aspects of care in the ED. The impact of the OPTAs on the prevention and management of delirium and the safe and quality care of people over 75 in the ED has not been easily quantified. Given that safe and quality care including delirium prevention should be an integral component of ED care for people over the age of 75 it is more important to ensure that delirium prevention strategies are embedded in care processes within the ED rather than suggest a single group of people can result in a cause-effect outcome. There is evidence that the employment of OPTAs has raised awareness of the need for supportive, preventive care of older people in the ED and provided a workforce with a scope of practice focused on and limited to this. Employment of OPTAs has also raised the profile of delirium management within the ED.
SECTION FIVE

CONCLUSIONS AND RECOMMENDATIONS

EDs will continue to experience growth in demand for service and it appears that the ACE Service has been successful in reducing presentations from RACFs to the ED. An experienced RN can effectively discriminate among the needs of older people in terms of a decision to transfer or not to the ED. Therefore the ACE Service should be further embedded into the JHH ED and rolled out across other EDs and RACFs in HNE LHD. Further investigation of the impact of an ACE Service with a larger number of EDs and RACFs within the HNE LHD is warranted.

The evaluation has also illuminated the context of ED and highlighted the extent to which there is potential disconnect between the purpose of ED as for high acuity presenting problems and the complex, frequently chronic, yet relatively low acuity needs of many older people who present to the ED. The rapid assessment undertaken at triage focuses on a presenting problem rather than the need to prevent potential problems. Thus there is a need for further screening of older people in the ED in order to ensure risk factors are identified and addressed. The use of preventative strategies in ED, however, requires dedicated staff, robust screening, and comprehensive and systematic assessment and management of care and ongoing treatment. Care strategies that prevent delirium and other risks associated with ED presentation are foundational to quality nursing practice and focus on judicious monitoring and assessment, ensuring adequate nutrition and hydration, orientation, regular contact with family and mobilisation amongst other measures.

It is acknowledged that some aspects of data collection in the evaluation occurred relatively early in embedding the MOC and there has been and continues to be further refinement of the model. There is also potential for an entirely new MOC such as nurse-led older person ED or a Geriatric Inreach Service.

In summary
EVALUATION OF THE ACE SERVICE

- There was a reduced number of presentations to ED from the 4 pilot RACFs since its inception. In a sample of 97 calls over a 3 month period, almost 50% were retained in the RACF
- The availability of the Service improved relationships between ED and the 4 RACFs and highlighted shared philosophies of care for older people among RACF and ED. The Service has guided RACF staff in relation to care practices and resulted in a reduction in calls to the Service and transfer of older people to ED
- A greater appreciation of the context of residential aged care for ED staff and vice versa has been highlighted
- The Service has not resulted in as much ‘fast track’ within the ED as was anticipated
- The Service does not necessitate a CNC position to do the telephone liaison, consultation and education unless research and other domains of CNC work remain part of the position
- The Service could be expanded to a broader number of EDs and RACFs to determine impact at a regional level - this may necessitate the Service line report elsewhere rather than JHH ED
- The Service appears cost effective: however, all costs associated with the Service have not been fully attributed to it. For example, further consideration of the impact on existing ASET resources at JHH ED, particularly in the hours the ACE Service operates beyond the hours of the sole RN (CNC) position is warranted.
EVALUATION OF THE OPTA ROLE

- Demonstrates the potential for an assistant workforce in the ED to provide supportive care to older people and their families in the ED
- Has identified the strengths and limitations of some of the screening tools for use in the ED
- Has revealed a need for improved responses to older people in the ED in general including a need for integration of screening into care pathways for people over 75 in the ED
- Has highlighted the need to strengthen RNs’ engagement in the delegation and supervision of activity to an assistant workforce should the decision be made to continue to use an assistant workforce in the ED
- Has resulted in a reduction in the number of concerns being raised about the care of older people in the ED to the Nursing Unit Managers (NUMs) and Nurse Managers (NMs)
- Has raised issues regarding the cost and role of the technical assistant in the ED and identified the challenges in reconfiguring the nursing skill mix in the ED to be inclusive of an Assistant in Nursing (AIN) role
- Has identified the challenges in seeking to determine cause and effect relationship between the introduction of the OPTAs and indicators of quality care and patient and carer satisfaction.
OVERALL

- The vast majority of people over 75 who present to the ED are in triage category 3&4
- They spend considerable time waiting for a bed in the ED and on average longer than 4 hours in the ED
- The model of care has not had an adverse impact on people over the age of 75 in EDs or in RACF
- There is a need to develop the model to refine roles and responsibilities of the assistant workforce, RNs and ASET nurses
- Three factors that emerge in the data related to the care of older people in the ED are the need to embed care processes, improve documentation and continue to re-align workforce to roles and responsibilities with care processes.
- Expansion of the ACE Service to a broader LHD role needs further consideration of resource allocation within the LHD and line reporting for the Service and continued evaluation of outcomes.
Recommendations

This initial evaluation suggests that the MOC has merit and should further evaluation confirm this, a sustainable approach to implementing the MOC is required. This has the potential to necessitate considerable care and workforce redesign in the JHH and other EDs in HNE LHD. In particular, there is evidence that the ACE Service has potential to contribute to an effective demand management strategy for the ED in line with the National Emergency Access Target (NEAT).

Based on the findings of this evaluation it is recommended that:

- The ACE Service be expanded and further evaluated using a randomised clinical trial (RCT) design with the recruitment of additional EDs and RACFS within the HNE LHD. The CNC position continues in order to establish the expansion, coordinate the Service and participate in data collection and synthesis. Thus it is recommended that HNE LHD consider funding the ACE Service and its evaluation until at least December 2013 in order to enable meaningful conclusions about its impact.

- The care processes for older people in the ED at JHH be reviewed so that screening and supportive care of older people takes place immediately on arrival to ED or prior to transfer from RACFs where possible. This necessitates screening and supportive care be provided to older people within the ED waiting room, Ambulance Bay and Emergency Short Stay Unit (ESSU) particularly given the introduction of NEAT.

- Any care process review needs to consider greater mobility of an assistant workforce to provide supportive care within and across the ED and ESSU.

- There be further consideration by management of JHH ED of the extent to which an assistant workforce is sustainable in the ED. Coupled with this, the benefits and limitations of a Technical Assistant rather than an Assistant in Nursing workforce should be determined.

- A robust and continuous communication strategy with stakeholders within the EDs involved in the MOC be developed and maintained.

- There be further reinforcement of the ED RN role and responsibility for governance of the care of the older person and improved delineation between the accountabilities of RNs and ASET nurses in the ED.

- The need for improved documentation of the care of older people in the ED consistent with the evidence based literature and with specific regard to delirium prevention and other aspects of safe and quality care for older people in the ED be addressed.
There be continued evaluation as the MOC is implemented, particularly with regard to the impact of the MOC on delirium prevention and consumer satisfaction with ED care.
REFERENCES


