The Global Acute Care Excellence Forum

20-21 FEBRUARY 2017, BRISBANE AUSTRALIA

GLOBAL ACUTE CARE EXCELLENCE FORUM 2017

ABSTRACT EXTRACTS

KEYNOTE PRESENTATIONS

Keynote Presentation: International launch of the interRAI Hospital Systems and new interRAI Acute Care

Len GRAY[1],

1. The University of Queensland, Queensland, Australia

Functional and psychosocial problems are highly prevalent among hospital patients. Many patients are at risk of adverse events during hospitalisation, and beyond discharge. Identification of these problems and risks is essential to ensure safe and efficient care. Current systems typically vary among hospitals, and usually comprise a blend of published syndrome specific tools and items created in house. This approach leads to excessive documentation burden, inconsistent measurement across the phases of care, and incompatibility with out-of-hospital systems.

The interRAI Acute Care network has constructed a group of assessment systems that fulfil these functions across the hospital continuum, from the emergency department, to acute and post-acute care. These systems include relevant clinical observations and a suite of applications to support diagnostic and risk screening, measurement and monitoring of severity, and quality indicators. The interRAI Hospital Systems are fully compatible with interRAI out of hospital systems, including those for home care, long term care and mental health. By sharing items and applications at every stage of care, there are considerable advantages in transfer of information, monitoring progress, training of staff and in assessing overall outcomes.

Keynote Presentation: Improving the Care of Older People in Hospital

Samir SINHA[1],

1. Sinai Health System and University Health Network Hospitals, Canada

Older Adults represent 16.1% of Canada's current population but 40% of its hospital admissions and 60% of its hospital days every year. While older patients represent the greatest users of our health care systems, it is clear that while the users have changed, our systems haven't. In dealing with modern hospital systems designed over 50 years ago, when the average Canadian was 27 years of age, it is clear that we need to adapt them to meet the needs of the older patients with increasingly complex needs that now rely on them the most. In this talk, Dr. Sinha will discuss how he came to understand a great opportunity to develop and research new effective ways to care for older adults under the banner of the Acute Care for Elders or ACE Strategy that encompasses a proactive, evidence-based and interprofessional team-based approach to providing comprehensive and integrated patient and family-centred care across the care continuum. This approach that was pioneered at Mount Sinai Hospital in Toronto, Canada has achieved significant reductions in admissions to hospital, lengths of stay and hospital readmissions, significant improvements in quality of care measures and in patient and staff satisfaction as well as considerable cost savings. This model which has been promoted by the Commonwealth Fund and is now being spread across Canada and internationally through the Canadian Foundation for Healthcare Improvement (CFHI) demonstrates that many of the key things we can do to make our health care systems sustainable as our populations continue to age are within our grasp and achievable by all.

Keynote Presentation: New Standards for Comprehensive Care

Amanda WALKER[1]

1. Australian Commission on Safety and Quality in Health Care, Australia

In 2017 the Australian Commission on Safety and Quality in Healthcare will release the second version of the National Safety and Quality Health Service Standards for implementation in 2018 and eventual accreditation in 2019.

The standards have been reviewed to reduce duplication and incorporate an updated evidence base. They address safety and quality gaps in cognitive impairment, mental health, end-of-life care, and care of Aboriginal and Torres Strait Islander people. There will also be a version of the standards adapted to apply in Multi-Purpose Services.

One of the most significant changes is the development of a standard for comprehensive care, acknowledging the challenge to provide continuous and collaborative care that supports patients with multiple co-morbidities. This care is aligned with the patient's expressed goals of care and health care needs, considering the impact of the patient's health issues on their life and well-being.

The standard will address the need to develop a comprehensive care plan for a patient using a flexible approach to standardisation, using targeted screening where relevant, and partnering with patients in their own care. It supports staff to consider an episode of care as part of the broader continuum of care for the patient and work to safely manage transitions between episodes of care.

This new standard will incorporate components of previous stand-alone standards on pressure injuries & falls and address further specific harms including poor nutrition, cognitive impairment, unpredictable behaviour, self-harm, aggression, and restrictive practices. There is also a strong focus on delivering excellent end-of-life care.

Keynote Presentation: Senior friendly emergency departments – their evolution and inevitability

Andrew COSTA[1],

1. McMaster University, Canada

Older adults are the fastest growing population segment in the emergency department. Often their health conditions are a complex and dynamic mix of acute and chronic states. Traditional emergency care principles are often not aligned with geriatric and chronic disease care principles. This presentation will describe the continuing evolution of senior friendly emergency departments and will describe promising strategies.

Keynote Presentation: After assessment: preventing geriatric syndromes across the hospital

Alison MUDGE[1]

1. Queensland Health – Royal Brisbane and Women's Hospital, Australia

Assessment tools are an important part of hospital care for older patients to identify current care needs, identify patients at increased risk of hospital-acquired harm, and inform discharge goals. Many competing tools and assessment approaches have been developed and debated. However this session will argue that the more pressing issue is how we can translate these myriad assessments into individualised care to improve outcomes.

The session will focus on the challenges in preventing common hospital-acquired geriatric syndromes such as delirium, functional decline and falls. Using an implementation science approach, the speaker will examine features of the evidence, staff implementing the evidence, and the care context which might interfere with linear assumptions about risk assessment and care processes. The session will examine some of the barriers and enablers to implementing evidence-based practice in acute care of older patients, and discuss how systematic approaches to common shared risk factors can support patient-centred care and reduce geriatric syndromes.

Keynote Presentation: Translating nursing assessments into person-centred fundamental care

Alison KITSON[1]

1. University of Adelaide, Australia

Abstract not provided

Keynote Presentation: Frailty in the acute care setting

Ruth HUBBARD[1],

1. The University of Queensland, Australia

Older inpatients often have complex care needs and multiple co-morbidities. These patients are vulnerable to poor outcomes (including falls, institutionalisation and death) – a vulnerability often linked with the term “frail" or “frailty". In this presentation, the measurement and management frailty in older inpatients are explored.

Different approaches to the **measurement** of frailty are reviewed, with particular emphasis on their potential clinical utility. Phenotypic measures of frailty may have limited feasibility in patients due to their dependence on performance-based tests. Subjective scales have high face validity but lack precision and may be better suited to screening. The frailty index approach has been criticised as too complex and mathematical but if the information required is collected as part of Comprehensive Geriatric Assessment, frailty quantification could be integrated into existing systems, which serve other clinical and administrative purposes. This could optimise clinical utility and minimise costs, without losing fidelity.

A frail older person is comparable to a complex system on the threshold of failure and the **management** of frail inpatients requires a multi-disciplinary, holistic approach. One important aspect of management is pharmacotherapy and, since medication can cause significant harm, appropriate prescribing according to frailty status will be considered.

In conclusion, understanding frailty has the potential to improve the clinical care of vulnerable older people in the hospital setting. Yet this is only the first step in more precise risk stratification. Quantification of the severity of insult plus individual resilience will be essential to obtain a more accurate picture of each patient’s likely trajectory.

Keynote Presentation: Transcending the care settings: Whole of system assessment

Anja DECLERCQ[1],

1. University of Leuven (KU Leuven), Belgium

As people live longer, healthcare and social care environments are increasingly confronted with older persons having chronic conditions and long-term care needs. In addition, the number and the diversity of services provided to older people increases. As a consequence, the complexity of caregiving rises and surpasses traditional models of care. As people move through this maze of healthcare providers, the need for integrated and coordinated assessment systems increases. The use of standardized, understandable and computerized data available to those who must make decisions at the personal, clinical, managerial, and public policy levels consequently becomes very important. The interRAI suite of assessment instruments addresses the changing strengths, preferences and needs of vulnerable people and offers opportunities to improve continuity as well as efficiency and quality of care.

In Belgium, different government-funded feasibility studies have been conducted on the implementation and use of interRAI instruments in home care, nursing home care and acute hospital care for frail older people. Concurrently, BelRAI—a web application (http://www.belrai.org)—has been developed to support the use of the instruments in the three official Belgian languages (Flemish-Dutch, French and German). BelRAI allows caregivers to assess the condition of a frail older person in a multidisciplinary way and to exchange information over time and between providers in different organizations in a secure way, anywhere and at any time. The whole system was developed in constant communication and collaboration with the potential users—caregivers and researchers.

Currently, the system is being elaborated further to include other groups of people with chronic or complex care needs, such as people with mental health problems and younger people who need rehab services.

Keynote Presentation: Designing Case Mix Systems for Acute Care

Brant FRIES[1]

1. University of Michigan, United States

Abstract not provided

Keynote Presentation: Information systems for better care

Nigel MILLAR[1]

1. Southern District Health Board, New Zealand

Abstract not provided

Keynote Presentation: The future of assessment

John HIRDES[1],

1. University of Waterloo, Canada

The advent of electronic health records was accompanied by important progress in the design of assessment systems. The first generation of assessments introduced standardization and scientific rigor to ensure that the data they generate would be consistent, comparable, valid and reliable. Second generation assessments added logical algorithms to use assessment data to trigger care planning, monitor quality and inform decisions related to resource allocation. interRAI's third generation assessments are designed to address the strengths, preferences and needs of vulnerable persons from all age groups with an integrated health information system that provides interoperable measures across the full continuum of care.

So, what lies ahead for the future of assessment? Several major trends are likely in the next decade:

- Seamless sharing of health data to empower individuals and their support network in a collaborative approach to decision-making;
- Longitudinal linkage of health records over the life course;
- Integration of self-assessment and clinician assessments to provide multiple perspectives of health on a continuous basis;
- Linkage of assessment data with other diverse information sources including genetic profiles, mobile technology, electronic medical devices and geo-spatial information;
- Mobilization of individual clinical data to support real time population health applications;
- Applications of big data analytics and artificial intelligence to maximize the effective use of complex health information from multiple sources of evidence.

ORAL PRESENTATIONS

Delivering Care Differently in Hospitals: Where is the Evidence from Nursing Science?

Elizabeth BEATTIE[1]

1. Queensland University of Technology, Australia

The quality of care of older people in acute care settings is a matter of global concern. Older people become more vulnerable when staff are unable to meet their special needs. Staff face dilemmas of caring for older people, including lack of knowledge, managing complex comorbidities, balancing risks and autonomy, and managing health care resources. Nursing care is pivotal to achieving overall positive outcomes yet the evidence base for nursing care of older people, in particular people with dementia and their families in acute care remains limited and implementation of known evidence into practice is slow. This presentation will review evidence from recent studies and suggest strategies for responsive practice change.

Preventing harm to older people in hospital: An analysis of the standard risk screening and assessment forms used in hospitals

Bernice REDLEY[1]

1. Deakin University, Australia

AIM
Describe how health services use standard risk screening and assessment tools in strategies to prevent harm to older people in hospitals.

METHODS
A descriptive cross-sectional study using a convenience sample of 11 metropolitan, regional and rural health services across Victoria, Australia. Data were collected using an audit of the standard risk screening and assessment tools used to assess older people in hospital and focus group discussions with key stakeholders responsible for implementation of strategies to prevent harm to older people at the hospital.

RESULTS
Over 3,700 items from 152 standard assessment forms were examined; and 69 staff participated in focus groups. All hospitals used multiple standard assessment forms (median 11, range 8-27) and collected up to 586 individual data items (median 345, range 150-586) from each patient; 17% of data were duplicated across multiple forms. Items capturing data on skin integrity, mobility (incl. falls) and medical risks (e.g. vital signs, concurrent high risk medical conditions) were consistently used for every patient at all health services. Patient data about continence and medical risks such venous thromboembolism (VTE) and hospital acquired infection (HAI) (e.g. related to invasive devices) and high risk characteristics such as pre-existing cognitive impairment, self-care ability or substance abuse was inconsistent across hospitals. High workload and cognitive burden, and inconsistent actions to prevent harm emerged as consistent themes.

CLINICAL SIGNIFICANCE
Recommendations derived from good practice examples include:

1. Explore use of strategies to reduce delays to interventions;

2. Reduce burdens on patient and staff;

3. Build resilience in frontline clinical governance.

CONCLUSIONS
The multiple standard risk and assessment forms used in hospitals inconsistently capture some common preventable harms of hospitalisation and are burdensome for staff and patients.

Challenges in implementing a new comprehensive care standard for acute care

Veronica Casey[1]

1. Queensland Health, Australia

Abstract not provided

Screening of Older Adults in Emergency Departments: interRAI tool

Veronique BOSCART[1], Andrew COSTA[2]

1. Conestoga College, Canada
2. McMaster University, Canada

As the emergency department is an increasingly common entry point into the healthcare system for older adults, it is important to use reliable and valid tools in nursing assessment and practice. The interRAI Emergency Department Assessment System (ED Screener) is a key tool within the interRAI Hospital Assessment Systems and is designed for older adults who visit the emergency department. This presentation will introduce the ED Screener tool, discuss the application for the patient population, describe the tool's use and its influence on nursing practice. The discussion will be applied to a case study, and implications for an integrated use within the interRAI Hospital Assessment System.

It’s broke! Fix it! Challenging the status quo of geriatrics in acute care

George HECKMAN[1]

1. University of Waterloo, Canada

Acute care hospitalization is often a sentinel event in the progression of frailty in older persons. Yet, despite rising hospitalization rates among frail seniors, most acute care settings have been slow to adopt more senior appropriate assessment and care strategies. Access to geriatric medicine consultation services in acute care generally remains reactive, often being asked to intervene after delirium or significant functional decline has occurred. The purpose of this presentation is to describe how the interRAI Hospital Suite could be deployed to support a more efficient and proactive approach to the care of seniors in acute care, and support greater continuity of care following discharge.

Mobile Geriatric Unit: take care not only treat. A challenge for taking charge of frail patients from the emergency department

Clara GIRARDI[1], ssa Emanuela ZAMPROGNO[1], Fabiano MERONI[1]

1. Ente Ospedaliero Cantonale, Switzerland

Aim:
More and more elderly patients are turning to emergency departments due to acute health issues but hospital rarely can take care of frail patients properly.
The regional hospital of Lugano is actually a two hospitals facility. The number of visits per year is approximately 35,000; 30% of patients are aged ≥ 75 and about 27 % are for one of the big geriatric syndromes.

Method:
Since September 2015 a geriatric project is to ongoing to identify frail patients at their arrival to E.R and to take care of them throughout their stay in hospital.

At the arrival in E.R. the patients aged ≥ 75 undergo Modified ISAR score evaluation (1,2,3,) and in case of score≥ 2 are referred to geriatric consultant. At this point the geriatrician evaluates the patients with the emergency physician to establish the proper geriatric treatments and follow up.

Discussion:
The geriatrics inpatient are referred to the medicine and surgery departments. The geriatrician cooperate in a multidisciplinary assessment especially for frail patient with many colleagues according to common protocols and guidelines for geriatrics syndromes.

Conclusion:
Although a recent start up early results are encouraging. Our goals will be deliver the most appropriate hospital care to frail patients and decrease the risks of loss of autonomy whilst assuring a safe returning home.

G-COACH: geriatric co-management for cardiology patients in the hospital: development and implementation of a practical framework

Mieke DESCHODT[1], Bastiaan VAN GROOTVEN[1], Koen MILISEN[1], Johan FLAMAING[2]

1. University of Leuven, Belgium
2. University Hospitals Leuven, Belgium

Aim:
Geriatric co-management is characterized by collaboration and shared decision-making between the interdisciplinary geriatric team and treating physician. G-COACH aims to develop and test the efficacy of a geriatric co-management care model in cardiac patients.

Methods:
Multi-phase mixed methods research project incorporating a systematic literature review to identify structure, process and outcome variables; a two-round international Delphi study to determine quality indicators, and a before-after study to test the efficacy of a geriatric co-management intervention based on the selected indicators.

Results:
The review and Delphi-study results led to the development of a theoretical geriatric co-management framework. Based on a pilot-cohort study on four cardiology wards, stakeholder meetings, routine data analysis, and participative observation, a geriatric co-management program for cardiac patients has been developed. Key components of the interprofessional intervention include risk stratification based on comprehensive geriatric assessment, daily ward rounds by a geriatric advanced practice nurse, three-weekly wards rounds by a geriatrician, and early discharge management and rehabilitation. The model is currently being evaluated in a before-after intervention study including 200 patients aged 75 years or older in each cohort.

Clinical significance:
There is an urgent need to explore innovative care models that are able to sustain or improve healthcare outcomes for elderly as the current number of geriatricians and geriatric wards are inadequate to cope with the ageing population. Geriatric co-management may be the way forward.

Conclusion:
G-COACH is an exemplary case project that demonstrates how to develop and implement effective and sustainable care models using implementation science and stakeholder involvement

Profiling Patients Diagnosed as "Social Admissions"

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1. Queensland Health, Australia
2. University of Queensland, Australia

Background and Aims:
The term 'social admission' is defined as a hospital admission for which no acute medical issues are identified and the reasons triggering presentation could be either loss of support (temporary or permanent) or the increasing needs of the patient that could not be adequately and sustainably addressed by the care provider. This is often also referred to by derogatory terms such as "Acopia" or "Bed Blocker". This study aimed to define the baseline characteristics and outcomes of hospitalised older patients with significant health hazards related to socioeconomic circumstances.

Methods:
The study is a retrospective analysis of 1410 hospitalized inpatients, aged 70 and older who underwent a Comprehensive Geriatric Assessment using the InterRAI Acute Care. The International Classification of Diseases (ICD) "Z" codes were scrutinized to reliably identify individuals with significant socioeconomic problems.

Results:
The socioeconomically disadvantaged (SED) group (n=260; 18.4%) was significantly older (83.0 Vs 80.6 years) than the comparison group (n=1150; 81.6%) and more likely to be female (61.9% vs 53.5%). The mean Frailty Index (FI) was significantly higher in the SED group (p value <0.001), being 0.36 with a standard deviation (SD) of 0.13 (Comparison group FI was 0.32 with SD of 0.14). Compared to the control group, SED patients were significantly more likely to experience inpatient delirium (31.3% Vs 21.3 %) and falls (9.6% Vs 5%). Adverse outcomes included longer length of stay and being newly discharged to Residential Aged Care. The inpatient mortality and readmission rates were not significantly different between the groups.

Conclusions:
SED patients have high level of frailty and are at increased risk of a number of adverse outcomes during their hospital stay. Clinical Significance: Early identification of significant socioeconomic problems could potentially assist with discharge planning.

InterRAI AC-CGA: The Nordic Study and Icelandic Plans for Utilization of the Hospital System

Palmi JONSSON[1]

1. Landspitali National University Hospital, Iceland

The InterRAI hospital system has all the characteristics and potential as other assessment tools in the InterRAI family of instruments. It is reliable and can be used for care planning, quality monitoring, for research and assessment of outcome and resource utilization.

In a Nordic study, the main outcomes of care up to one year for elderly patients admitted to acute care hospitals in each of the Nordic countries and it's linkage to items of the InterRAI AC-CGA assessment on admission was described. A 160 person random sample, aged 75+ was selected from acute admissions in each of the Nordic countries. Data was collected within 24 hours with the InterRAI AC-CGA instrument and linked to the following outcomes. The percent with each of the following outcomes at one year; living at home 55%, in an institution 11%, diseased 28%, positive outcome at one year that is living at home for the year without hospital readmissions 21%. Different combinations of 16 admission variables had predictive value for the various outcomes for up to one year after admission.

Comparison of documentation between the InterRAI AC-CGA instrument and the traditional medical record shows that about half of clinically meaningful information with regards to co-morbidity and function is missing from the medical record in the first 48 hours. There is variability between the Nordic countries depending on special areas of interest. While much documentation is missing, there is at the same time double documentation by nurses and physicians.

Now InterRAI is launching the Hospital Assessment System. Plans of implementation and utilization of that system will be described and discussed.

Sarcopenia and frailty in older women: predictors, patterns and impacts on health service use

Paul GARDINER[1]

1. The University of Queensland, Australia

Frailty is a geriatric syndrome characterised by deterioration of multiple organ systems leading to decreased physiological reserve and resilience, making frail people more vulnerable to stressors. Sarcopenia is another geriatric syndrome that is characterised by loss of muscle mass and function. Frailty and sarcopenia are major causes of disability and health care costs and have attracted a lot of recent interest, both from clinical and research perspectives. However, there are still gaps in the knowledge around these syndromes, in particular the natural history and antecedents in community dwelling populations. This presentation uses data from 12,432 women born in 1921-26 who participated in the Australian Longitudinal Study on Women's Health. Women completed self-report surveys every 3 years from 1996-2011 and every 6 months from 2011. Frailty was assessed using the FRAIL scale and sarcopenia using the SARC-F scale. These scales were designed to be used as screening tools in clinical practice but have been validated for use in cohort studies. Patterns of frailty and sarcopenia were determined using group-based trajectory modelling. The number of years living with and without frailty and sarcopenia were calculated using estimation of life expectancies using continuous-time multi-state survival models. The impact of lifestyle and sociodemographic factors on membership trajectory and years lived with these conditions will be presented. Finally the impact of frailty and sarcopenia on number of general practitioner visits and admissions to hospital will be described.

Telegerontology: A Home Based Care Model using Skype

Roger BUTLER[1]

1. Memorial University of Newfoundland and Labrador, Canada

Over 9000 people in Newfoundland and Labrador are living with dementia. These patients have complex health care needs and most caregivers are spouses/family members who provide 24/7 care.The Canadian Institute for Health Information in its 2010 report on dementia care states that wandering and aggressive behaviours are the most common factors precipitating admission to a care institution. Also a common entry point is the emergency room where falls and delirium are the most common presenting features. This study using remotely delivered expertise is designed to help the caregiver in the patient's home in real time, as well as assist the rural physician in their management of their patient with dementia.This is initially done by a home assessment which screens for caregiver stress, assesses the patient for the dementia and does standardized cognitive and functional tests performed by a geriatrician. A video of the home is done for remote OT assessment to help reduce fall risk. . The family caregiver is given an iPad loaded with caregiver stess, depression and behavioral apps which are to be completed at regular intervals. The family physicians record is reviewed by the geriatrician and a meeting is held with the family physician to review their patient. A full report is sent to the family physician. The control group gets the same initial assessment however the test group in addition gets a weekly video/phone consult from the geriatrician. The getriatrician assess the patient and supports the caregiver on these weekly visits. The study will be completed in April 2017. Primary outcome measures include decreased hospital utilization and admission to long term care, caregiver stress, and patient safety (reduced fall /delirium risk). Secondary outcomes include physician /caregiver satisfaction,utility of home video assessments and weekly physician time log with interventions.

Funding community care for older adults: findings from a case mix validation study in three New Zealand District Health Boards

Sally HEPPENSTALL[1]

1. interRAI Services, New Zealand

Health policy makers internationally are tasked with determining how to support and fund increasing numbers of older people who are living longer with support needs to receive care in their own homes.

In New Zealand, it has been mandatory since 2012 for older adults requiring publicly funded home and community support services or entry to residential care to have an interRAI Home Care assessment. With standardised assessment embedded in community care practice it is timely to explore the potential of the interRAI case mix system, known as Resource Utilisation Groups or RUGs, to support the development of an equitable, clinically proven service delivery system.

The purpose of this presentation is to report on the findings from the first small scale validation study of the RUG-III/HC case mix within the New Zealand context which was undertaken in 2014-15. The objectives of the research were to show the extent to which the RUG categories predict the cost of support services and to examine if there are differences in this between the three District Health Boards (DHBs).

Comparisons will be made with findings from the two large scale Canadian RUG-III/HC validation studies undertaken by Poss et al (2008) and Hirdes et al (2010). Implications and limitations of the study will be considered along with recommendations for future research and for practice in New Zealand.

Lessons learned: ACE Quality Improvement Spread Collaborative

Nicole POLLACK[1]

1. Canadian Foundation for Healthcare Improvement, Canada

The Canadian Foundation for Healthcare Improvement, in partnership with the Canadian Frailty Network, launched a 12-month quality improvement collaborative in March 2016, aimed at spreading innovative elder-friendly care practices, based on Sinai Health System's successes.

The Innovation:

Located in Toronto, Ontario, Sinai Health System has become Canada's most widely recognized elder-friendly hospital system, implementing evidence-informed models and point-of-care interventions to demonstrate better patient, provider and system outcomes (significant improvements in overall quality of care outcomes, reduced LOS, etc).

The Collaborative:

Participating healthcare delivery organizations across Canada and internationally receive funding, coaching, educational materials and tools to support the adaptation of Sinai Health System's emergency department, inpatient, outpatient and community care components to their local context. The goal is to support teams in becoming leaders in ACE-related continuous quality improvement activities; improving patient and staff experiences and satisfaction; providing more coordinated care across the care continuum; and driving system outcomes (e.g., patient complications, number of Emergency Department visits, hospitalizations). This collaborative is about turning best practices into common practices by supporting teams in undertaking the most effective evidence-based practice innovations as well as enhancing their quality improvement capability.

Preliminary Results / Lessons Learned:

CFHI/CFN issued a prospectus and received 29 applications, of which 18 teams were accepted. At the outset of the collaborative: they ranked, on average, 1.86 out of 5 on a self-assessed Quality Improvement Scale (progress will be monitored over time); had already implemented two out of 18 interventions, committing to implement at least one additional ACE Strategy component during the collaborative; and anticipated time/resources, resistance to change, lack of engagement and buy-in, and staff burnout to be the main barriers or challenges to achieving quality improvement. My presentation would highlight participating teams' progress on quality improvement efforts, preliminary results where applicable, successes and lessons learned.

Primary care geriatric assessment – the final frontier or a bridge too far?

Leon GEFFEN[1]

1. Samson Institute For Ageing Research, South Africa

interRAI instruments are used across the continuum of care. At present no instrument exists for assessment of older persons presenting and being managed at a primary health care (PHC) level. Well-functioning PHC systems are essential for delivering quality services to the population at risk.

Older persons presenting in PHC often have complex health needs due to multimorbidity, however these needs are seldom met at a PHC due to system constraints such as lack of healthcare professionals (HCP's) working in PHC, shortage of time that HCP's can spend with their patients, poor reimbursement models that support tertiary and secondary services and lack of skills based training amongst HCP's in the field of geriatrics. Poor communication between HCP's and to their patients often leads to negative outcomes.

As the demographic shift towards an ageing population occurs, so will the need be for a responsive and effective PHC geriatric service. The largest growth in older persons will occur in low and middle income countries which have the greatest burden of disease and are ill equipped to deal with an ageing population.

interRAI instruments allow for effective care planning, improved communication and improved outcomes across multiple care settings. The development of an instrument that can assist HCP's to assess older patients' needs in a PHC setting may improve their health and wellbeing and assist with building a PHC system that is equitable, effective and efficient.

The Development of a Geriatric Emergency Care Screening and Assessment System from a Multinational Context – Opportunities and Challenges

Andrew COSTA[1], Sergio ARIÑO-BLASCO[2], Katherine BERG[3], Veronique BOSCART[4], Antonio CHERUBINI, Els DEVRIENDT, Len GRAY[5], George HECKMAN[6], Pieter HEEREN, John HIRDES[6], Yvonne HORNBY-TURNER[5], Pálmi JÓNSSON[7], Melinda MARTIN-KHAN[5], Samir SINHA[8], Katrin SINGLER, Fredrik SJOSTRAND, Walter SWOBODA, Eva TOPINKOVÁ[9], Nathalie WELLENS[10]

1. McMaster University, Canada
2. University Hospital of Granoillers, Spain
3. University of Toronto, Canada
4. Conestoga College, Canada
5. The University of Queensland, Australia
6. University of Waterloo, Canada
7. Landspitali National University Hospital, Iceland
8. Sinai Health System and University Health Network Hospitals, Canada
9. Charles University, Czech Republic
10. Public Health Department of the Canton Vaud, Switzerland

Geriatric patients presenting to the emergency department should be screened to identify geriatric complications, prioritize those most vulnerable, and to recognize those who will require additional geriatric resources. Various geriatric screening and assessment tools have been developed and validated for such purposes, however few have been compared from a multinational context. We evaluate the clinical utility and performance of a set of geriatric screening and risk assessment tools from a multinational context.

We conducted two prospective studies that included over 4,000 clinically representative older emergency department patients from Australia, Belgium, Canada, Czech Republic, Germany, Iceland, India, Italy, Spain, and Sweden. Patients who were expected to die within 24 hours or did not speak the native language were excluded. Patients were assessed at ED admission with a standardized screening or assessment. Outcomes were examined for admitted patients and those discharged home. We developed an integrated assessment system for geriatric care in the ED. It included two companion tools – a geriatric screener and focused geriatric assessment.

Functional impairment and geriatric syndromes affected the majority of older patients attending the emergency department across nations. Despite different care systems, the probability of negative post-discharge outcomes was detectable at the multinational level with moderate accuracy. Agreement between case-finding tools and blinded geriatricians was high. The clinical utility of specific screeners varied according to the prevailing patient disposition patterns.

The studies demonstrate the utility of incorporating standardized geriatric tools in routine clinical examination of older patients in the emergency department. Defining appropriate outcome measures remains challenging.

Feasibility and Validity of the InterRAI ED Screener

Elfa GRETARSDOTTIR[1], Gunnar TOMASSON[2], Anna BJÖRG JONSDOTTIR[1], Ester EIR GUDMUNDSDOTTIR[1], Ingibjörg HJALTADOTTIR[1, 2], Ingibjörg SIGURTHORSDOTTIR[1], Iris BJORK JAKOBSDOTTIR[1], Thordis THORSTEINSDOTTIR[1, 2], Palmi V JONSSON[1, 2]

1. Landspítali-The National University Hospital of Iceland, Iceland
2. University of Iceland, Iceland

Background:
The InterRAI ED Screener (RAI-ED) is a novel risk stratification instrument incorporating functional and social aspects intended to better identify older adults at increased risk for adverse health outcomes. We assessed the feasibility of the instrument in an emergency department (ED) and its construct validity with established instruments.

Methods:
Data from a convenience sample of 67 years and older patients at the ED of a university hospital were used. The items of the RAI-ED, Triage risk screening tool (TRST) and Identification of Seniors at risk (ISAR) were verbally administered. Correlation coefficients was calculated between RAI-ED with ISAR and TRST respectively. Linear regression was used to determine the scores of the RAI-ED that best corresponded to accepted cut-offs for the TRST and ISAR.

Results:
Of 237 approached patients, 201 provided consent for participation. The mean age was 78.9 years (range 67-97years and sd 7.4) and 44.5% were male. Majority of the participants (85%) lived at home, 43% lived alone and 52% received home care. RAI-ED and ISAR scores could be obtained for 187 participants (93%) and TRST scores for 163 (81%). The mean scores were 3.19 (1.53), 2.22 (1.43) and 2.16 (1.36) for the RAI-ED, ISAR and TRST respectively. The correlation of RAI-ED with ISAR and TRST was 0.56 and 0.41 respectively. Scores of 3.02 and 3.01 on RAI-ED corresponded to the accepted cut-offs of 2 on the ISAR- and TRST instruments respectively.

Conclusion:
These data provide initial support for the utility of the RAI-ED instrument in the Emergency department.

Feasibility and acceptability of the interRAI Emergency Department Screener© (iED Screener) at the triage in the Emergency Department

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2. Réseau Nord Broye, Switzerland

Background:
Older adults often enter into the health care system by the Emergency Department (ED). Systematic screening identifies those who might benefit from a geriatric assessment to prevent adverse events or decline. This study explored the feasibility and acceptability of screening by nurses at the triage in ED.

Method:
First, a descriptive feasibility study evaluated nurse's perception of the need for further assessment independent from the iEDScreener and Fried's phenotype collected by a study nurse, in a convenience sample of 30 stable community-dwelling patients aged 75 years and older.
Second, acceptability according to the Technologie Acceptance Model was judged by ten randomly selected triage nurses whom applied the iEDScreener smartphone application on three videos showing clinical cases.

Results:
Most of the predefined feasibility and acceptability criteria were reached. Completion time of the iEDScreener was less than two minutes [median 79,2 seconds (IQR 34,8)]. Fried's phenotype and the iEDScreener measure different concepts, the former frailty focussing on physical variables solely, the latter vulnerability including functional dependence, social factors and self-rated health.

Conclusion:
The iEDScreener is feasible and acceptable at ED triage. It is rapid and easy to use. It helps clinicians to target for whom an assessment seems appropriate (e.g. interRAI ED Contact Assessment). The added-value of risk stratification (score 1 to 6) is the potential to adjust strategies that fit local resources and geriatric competences. Before implementation, the current care processes should be optimized for vulnerable older persons and follow-up and coordination between the care partners should be streamlined.

Comparison of interRAI Emergency Department Screening Tool, Isar and Trst to Predict Adverse Outcomes After ED Discharge

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Introduction:
Emergency departments (ED) only recently started operating in larger hospitals in the country. The two most used ED risk screening tools ISAR and TRST and the newly developed interRAI ED Screener (EDS) were used to describe ED patient profile and to compare their ability to predict adverse outcomes.

Methods:
A prospective observational cohort study of 122 ED patients aged ≥70yrs recruited sequentially in a single ED in tertiary hospital. Repeated ED visit, extended hospital stay, discharge to LTC and death were recorded during 1 and 3 month follow-up.

Results:
Mean age 82.1±6.8 yrs, 69.7% female. 50.8% needed regular help, one third was cognitively impaired, 59.0% had mobility problems, and 69.7% were using ≥5 medications. Overall 78.7% were in ISAR high risk (2+), 71.3% in TRST high risk (2+) strata and. EDS in medium 49.2% and high risk 36.1% respectively. 1-month ISAR ROC AUC area= 0.62(95% CI 0.52-0.73); 3-month= 0.66(0.56-0.76). The respective values for TRST were 0.54(0.47-0.58) and 0.70(0.60-0.79) and EDS 0.65(0.55-0.75 and 0.70(00.60-0.79) for predicting any adverse outcome. The sensitivity to predict any adverse outcomes was high for all tools (ISAR=82- 89%); TRST=74-89%); EDS=88-94%, however the specificity did not exceed 31% (ISAR), 46% (TRST) and 25% (EDS).

Conclusions:
This is the first national study of older ED patients using standard instruments. All three tools predicted with comparable but only modest accuracy individual and composite adverse outcomes. The study demonstrates potential utility of ED risk screening instruments to identify seniors at risk for whom geriatric risk management is required.

CARE-PACT: optimising systems across the care continuum for acutely unwell residents of aged care facilities

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1. Queensland Health-Princess Alexandra Hospital, Australia

Population ageing creates a strong clinical and fiscal imperative for health care systems to develop sustainable models of quality acute care that reduce dependence on emergency and inpatient hospital services. Current models of acute care do not optimally meet the needs of older persons from residential aged care facilities (RACFs), with this cohort having high rates of iatrogenic complications and readmission.
This presentation will provide an overview of CARE-PACT, a collaborative model of integrated acute care for RACF residents, and explore associated outcomes including its impact on demand for hospital services.

Implementing the interRAI AC nursing assessment

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1. The University of Queensland, Australia
2. Canterbury District Health Board, New Zealand
3. Queensland Health – QEII Jubilee Hospital, Australia

The introduction of a new assessment system in nursing presents numerous challenges. There are likely to be clinical practice, training, and workflow issues. For some, it may involve a transition from a paper-based to electronic environment. At the symposium, an overview of the opportunities and challenges associated with the new interRAI Acute Care system will be presented. Representatives of 2 early adopter hospitals – the Christchurch Hospital in New Zealand and the Queen Elizabeth II Hospital in Brisbane – will describe their experience in preparing for implementation of the system. An interRAI trainer will provide a perspective on training and initial perceptions of utility and acceptability.

The format will enable considerable time for discussion and sharing of ideas.

Structured geriatric assessment using the interRAI Acute Care for Comprehensive Geriatric Assessment

Len GRAY[1]

4. The University of Queensland, Australia

Older patients represent a growing proportion of hospital inpatients. Acute illnesses are often accompanied significant comorbidities, functional decline, geriatric syndromes and challenges to independence and support after discharge. Comprehensive assessment and care planning is a critical response to patients with these problems.

The interRAI acute care systems, particularly the interRAI Acute Care for Comprehensive Geriatric Assessment (AC-CGA), are designed to support this procedure. The system provides structure for case preparation, which is particularly useful when assessments are performed remotely by telehealth.
In this presentation, procedures to use the AC-CGA will be described, including results of our research, which demonstrates that assessments performed online, without direct physician interaction with the patient, may dramatically improve efficiency without loss of assessment fidelity.

Potential iatrogenic decline of functional capacity during acute care episode, in 5 hospitals, in Finland

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Abstract not provided

Using interRAI Data to identify our Elderly who may be at Risk of Suicide

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1. Southern District Health Board, New Zealand

Background:
Concerned about the Coroner's 2014 report which noted a continuing trend of increasing suicides among older people, we looked to our large data set from interRAI to find an opportunity for quality improvement.

Aim:
To see if we could use interRAI data, to make a difference to the increasing trend of suicide in the older population.

Method:
Three indicators were chosen initially, with further refinement added based on emerging research on factors linked to suicide ideation. Factors chosen were loneliness, diagnosis of depression and/or Mood CAP triggered and self-reporting of poor health.

We then searched the interRAI data for older people whose assessments displayed all factors, to identify a target group. In a collaborative effort by District Health Board Assessors and Home and Community Support Service (HCSS) staff, the target group were reviewed to assure that care plans were developed and implemented that provided protective factors and improved function, contribution within their local community and meaningful social activities. Our HCSS Alliance agreed to run this data analysis every six months and review the Care Plans for these older people, to make sure that these issues are being addressed and protective factors put in place.

Results & Clinical Significance:
We have not yet looked at reassessments for these clients, to see if this has had a significant impact on client outcomes in these areas, but this would be a logical way to measure if the intervention had been successful. In future, we will be able to compare assessment outcomes over time.

Conclusion:
interRAI data can be used to determine a group of clients, such as those at risk of suicide, who would benefit from a specific intervention.

Utility of a Frailty Index in Geriatric Surgery

Hui-Shan Stella LIN[1], Nancye PEEL[1], Jacqueline WATTS[1], Ian SCOTT[2], Deepak VARDESH[2], Palvannan SIVALINGAM[2], Rebecca MCBRIDE[2], Ruth HUBBARD[1]

1. The University of Queensland, Australia
2. Queensland Health, Australia

AIM:
The number of older patients undergoing surgery is increasing; measurement of frailty may facilitate identification of vulnerable surgical patients. The study aimed to examine the feasibility of deriving a Frailty Index from comprehensive geriatric assessment (FI-CGA) and determine its association with adverse post-operative outcomes.

METHODS:
246 patients aged 70 years and over undergoing acute or elective intermediate to high risk surgery in the Princess Alexandra Hospital were recruited. Patient outcomes included length of stay, discharge destination, post-operative complications, mortality, and readmissions at 30 days and 12 months follow-up post-surgery. Logistic regression examined the relationship between FI and outcomes, adjusting for age, gender and acuity of surgery.

RESULTS:
Mean age of the cohort was 79 years old (SD 6) with 52% being female. 42% underwent acute surgery and 92% of surgery was intermediate risk. The mean FI was 0.28 (SD 0.14). 89% were admitted from the community and 8.5% from nursing homes. Patients undergoing acute surgery were older (82 vs 77, $p<0.001$), with a greater proportion of females (52% vs 48%, $p=0.003$) than those having elective surgery. 25% experienced intraoperative complications while 35% experienced inpatient complications. Mortality at 30 days was 2.4% and 46% patients suffered either death or a readmission at 12 months. The FI was predictive of 30 day post-operative mortality and complications, and 1 year mortality and hospital readmissions.

CONCLUSIONS:
FI-CGA was feasible and had predictive validity in older surgical patients.

CLINICAL SIGNIFICANCE:
The identification of at risk surgical patients would facilitate implementation of surgical management strategies.

Assessment of Adult Inpatients: The interRAI Acute Care

Nancye PEEL[1], Yvonne HORNBY-TURNER[1], Bonnie PIMM[1], Len GRAY[1]

1. The University of Queensland, Australia

Aim:
To test the psychometric properties of a nurse administered assessment system (the interRAI Acute Care), for all adult patients admitted to acute care, that records and interprets functional and psychosocial information, including diagnostic and risk assessments for common geriatric syndromes.

Methods:
Field testing was conducted in four Australian hospitals in 2015-16, including a large teaching facility, a regional community hospital and two rural hospitals. Assessments were conducted by trained nurses using a web-based application operated on iPads. All adult patients were eligible to participate, with deliberate oversampling of patients aged ≥70. Ethics approval for the study was obtained from Hospital Human Research Ethics Committees and patients gave informed consent to participate. This presentation reports the prevalence of functional and psychosocial problems across ten year age groups so as to determine the feasibility of the assessment system for all adult inpatients.

Results:
The study included 920 patients with median age of 66 (range 18-99), and 43% were aged ≥70 years. Females comprised 48% of the total sample, similar across all age groups. Although significantly more prevalent among older patients, so-called “geriatric” syndromes were common in all age groups (e.g., fall in previous 90 days, balance and mobility problems, incontinence, ADL limitations, and cognitive impairment). Other functional problems (e.g., mood disturbance, pain, sleep disturbance, and skin problems) were equally as common among younger patients.

Clinical Significance:
The early identification of functional and psychosocial issues are critically important to good clinical care.

Conclusions:
Functional and psychosocial problems are common among all adult age groups in the hospital population, suggesting the need for routine assessment and risk evaluation.

Better Assessment, Better Care, Better Outcomes

Brigette MEEHAN[1]

1. interRAI Services, New Zealand

Aim. Health systems design is an important factor in achieving integrated care. This paper describes infrastructure and government policy for a system of assessment that influences better care, particularly better care transitions for older people. Methods. a description of the infrastructure and policy adopted in New Zealand that supports integrated care between home and community living and aged residential care. The paper will use the assessment information collected from interRAI home care assessments and compare them with outcomes of older people that have been admitted to an aged residential care facility. Results demonstrate that assessment information may be easily shared across the continuum of care and is useful for planning care and influencing better outcomes for older people. Clinical significance. In New Zealand an interRAI home care assessment is required prior to accessing an aged residential care facility. Once admitted each resident is assessed within 21 days using the interRAI Long Term Care Facilities assessment and the assessment is repeated a minimum of every 6 months thereafter in order to inform the older persons care plan. Conclusion. Assessment information is available for comparisons of health outcomes across location and over time, however education and support is required for end users to understand and use this information.

Results from interRAI Assessments in New Zealand: Comparing Outcomes for Older People in Home Care, Long Term Care with Clients in Acute Care

Michele MCCREADIE[1]

1. Central Region's Technical Advisory Services, New Zealand

TAS became the national provider of interRAI Services in New Zealand in July 2015. The provision of a national interRAI service is agreed in a Memorandum of Understanding between the New Zealand Ministry of Health and TAS.

The author will first provide an overview of the development journey for interRAI in New Zealand. Today, interRAI Services provide:

- training, education and support for interRAI assessors
- secretariat support for the interRAI New Zealand Governance Board
- interRAI data analysis and reporting and
- interRAI software services.

The author will then share some of the national results comparing interRAI outcomes scales and clinical assessment protocols (CAPs) for older people in home care, long term care and in acute care.
In New Zealand, the choice on the type of interRAI assessment completed by an interRAI assessor for a client in hospital depends on the model of care adopted by the local District Health Board. This can impact on the assessment outcomes.

In 2015/16, about 10% of interRAI assessments in New Zealand were completed when the client was in hospital. The vast majority of these assessments completed in hospital were home care assessments. Home care assessments completed in a hospital setting generally had worse outcomes than those completed in the private home of the client.

Geographic Distribution of New Zealand's interRAI Cohort

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1. University of Canterbury, New Zealand
2. University of Otago, New Zealand

Geographic Information Systems offer health geographers the ability to examine how exposures in the physical and social landscape can affect positive and negative health outcomes. Factors such as access to health services, proximity of family support, and neighbourhood composition can be modelled to determine whether they correlate with resilience and ageing. Through exploring whether spatial exposures may have a protective effect, such work has the potential to help contribute to reducing the economic burden of publicly funded aged care. Spatial analysis can also identify inequity in terms of health service access. Using New Zealand interRAI data from 2012-2016, the spatial distribution of the first assessment cohort was examined. Urban and rural distribution, socioeconomic status, and ethnicity within the interRAI cohort was compared against total population and population aged 65 plus. The percentage of people 65 plus living in rural areas in New Zealand was 13.6%, compared to 8.3% for people being assessed for the first time. Relative to the socioeconomic status of the 65 plus cohort, those people being assessed for the first time were more likely to live in socially deprived areas. Preliminary analysis suggests that ethnicity and treatment seeking behaviours do not account for the socioeconomic trends observed in New Zealand interRAI assessment. Further analysis is required to unpack whether rural people are more resilient, or less likely to seek care due to distance or other social factors. This research represents the first stage of geographic analysis, future work will incorporate access to mental health services and dementia.

Pain in Older New Zealanders Using the interRAI-HC

Jennifer JORDAN[1], Marie CROWE[1], Deb GILLON[1], Cate MCCALL[1], Hamish JAMIESON[1]

1. University of Otago, New Zealand

Pain is highly prevalent in older persons and is strongly associated with decreased physical function, fatigue and risk of falls however elevated levels of depression and anxiety have also been reported to accompany pain. The relationship among these variables however is not well understood. The study examined the relationship of the interRAI-Home care pain severity scale with demographics, key physical and psychiatric variables in a large New Zealand sample of people over 65 years assessed using interRAI-HC. Methods: Participants were 45,044 persons aged 65 year and older first assessed between July 2012 and June 2014. Variables were demographics, anxiety, depression, falls, and fatigue, in relation to the presence of severe daily pain. Statistics were Chi-square and logistic regression models. Results: The mean age of the sample was 82 years, 62% were female and ethnicity was predominantly European 88.9% with other ethnicities including Maori (5%) under-represented. Female gender, relatively younger age and ethnicity (European / Maori) predicted being in the severe daily pain group. Subsequent logistic regression analyses, co-varying for gender, age and ethnicity, found high levels of fatigue and depression and more prevalent recent falls were associated with the presence of severe daily pain. A sizable group reported inadequate control of pain. Discussion: These results from this large sample of older persons in New Zealand confirm previously identified associations between pain and falls, fatigue and depression, after co-varying for demographics. It is unlikely that pain, falls, depression and fatigue are independent symptoms. Further prospective research is required to clarify the sequence of symptoms and underlying biological relationships (e.g. pro-inflammatory cytokines) that may influence each of these variables. These findings highlight the need for pain to be adequately screened in this population, particularly in this generation who may be more stoic and may not spontaneously report pain.

Urinary incontinence, but not faecal incontinence, is a risk factor for admission to aged residential care of older persons in New Zealand

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1. University of Canterbury - Te Whare Wananga o Waitaha, New Zealand
2. University of Otago, Christchurch, New Zealand
3. Canterbury District Health Board, New Zealand

Aims:
To determine if urinary incontinence (UI) and faecal incontinence (FI) were independent risk factors for aged resident care (ARC) admissions for older people, after controlling for confounders and applying apposite statistical methods.

Methods:
Since 2012, all community care recipients in New Zealand have undergone a standardised needs assessment using the Home Care International Residential Assessment Instrument (interRAI-HC). The interRAI-HC instrument elicits information on 236 questions over 20 domains, including UI and FI frequency within the last 3 days. Those aged 65+ years with an interRAI-HC assessment between 1 July 2012 and 31 May 2014 were matched to national mortality and ARC databases, and competing risk regression models applied to those without collection devices or indwelling catheters who were admitted to ARC or alive 30+ days after their interRAI-HC assessment.

Results:
Overall, 32,285 people were eligible, with average age of 82.1 years (range 65, 105 years) of whom 20,627 (63.9%) were female. UI and FI was reported by 36.4% and 12.9% of people, respectively. By 30 June 2014, 5,993 (18.6%) had an ARC admission and 5,443 (16.9%) had died before any such admission. In the multivariable analysis, the subhazard ratio (SHR) for ARC admission was significant for UI (SHR=1.11, 95% CI: 1.05, 1.18) but not for FI (SHR=1.07, 95% CI: 0.99, 1.16).

Conclusion:
UI is a common, independent risk factor for ARC admissions. Identifying the extent of incontinence and its impact on ARC admissions is the first vital step in addressing the burgeoning need for better community continence services.

New Zealand interRAI Data

Hamish JAMIESON[1]

1. Canterbury District Health Board, New Zealand

New Zealand was one of the first countries in the world to use the interRAI-HC assessment for all older people requiring assessment for government funded supports or entry into aged residential care (ARC). The interRAI-HC has been used nationally in New Zealand since 2012. All data can be linked to other health outcomes using a unique identifier. This creates a huge potential to identify trajectories of ageing and to identify opportunities for early interventions in older people.

In the year 2014/15, 36,900 interRAI-HC assessments and 27,200 interRAI-LTCF assessments were completed in New Zealand. This large data set will be added to with repeat assessments and with the addition of further interRAI-LTCF data now that it is a compulsory part of assessment in ARC in New Zealand.

This interRAI data base is large and ethnically diverse and provides a unique opportunity for researchers and health professionals to better understand older persons' health and health care at a national level. As well as providing a valuable research data base in its own right, the answers to demographic, social and medical questions within the interRAI assessment allow for the consideration of a large number of potential confounding factors

Some of the results from this world leading project will be presented at this conference.

Barriers and interventions to bring about change in hospital care for people with cognitive impairment

Fred GRAHAM[1]

1. Dementia and Delirium Clinical Nurse Consultant, Princess Alexandra Hospital, Brisbane Australia

Hospitals face significant challenges in providing high quality care for people with cognitive impairment. Dementia and delirium are the most common causes of cognitive impairment and are highly prevalent among older people in hospitals. Even though dementia and delirium are not the primary reasons for most admissions, it is the coexistence of these conditions that can significantly complicate patient care and lead to high rates of adverse outcomes. Care for people with cognitive impairment is often complicated by communication difficulties, individual patient's sensitivity and responses to stimulation (low and high), and the presence of behavioural and psychological symptoms such as aggression, agitation, hallucinations and wandering. These symptoms can be challenging to manage and distressing for both the patient and carers alike.

Research suggests that quality care outcomes for patients with cognitive impairment can be achieved in care settings where care providers value personhood and relationships, allow flexibility and encourage nurse-patient reciprocity. However, hospital environments have not traditionally been designed to cater for these needs and have been identified as having inappropriate environments, ineffectual systems and poor staff knowledge. As complex systems, with high patient throughput and multiple priorities, it is no simple matter for hospitals to reframe their care provision toward adopting such psychosocial therapeutic approaches to care. This presentation discusses a range of interventions and system changes which have been proposed to improve hospital care for people with cognitive impairment. The challenges of implementing practice changes in relation to care for hospitalised people with cognitive impairment are explored.

CogChamps: a model of implementing evidence-based care in hospitals

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1. Dementia Collaborative Research Centre (DCRC): Carers and Consumers, School of Nursing, Queensland University of Technology (QUT), Australia
2. Dementia and Delirium Clinical Nurse Consultant, Princess Alexandra Hospital, Australia
3. Nursing Director | Nursing Practice Development Unit, Princess Alexandra Hospital, Australia
4. School of Nursing, Queensland University of Technology, Australia

Background
Delirium and dementia (Cognitive Impairment; CI) are common in older hospital patients and both are associated with serious adverse outcomes. Despite this, and despite delirium often being preventable, it is frequently not recognized in the hospital setting, which may be partly due to hospital nurses not having received adequate education in the recognition or management of CI. The aim of this project, conducted in 2015-2017, was to redress this by developing, implementing and evaluating a multi-component non-pharmacological intervention, with a major educational and practice change component, for hospital nurses.

Methods
The project was implemented at the Princess Alexandra Hospital, Brisbane with the support of the hospital executive. Cognition Champions (experienced nurses) were identified to become CogChamps (n=38), and received comprehensive education in evidence-based delirium assessment, prevention and management, and practice change skills. They were mentored throughout the project to raise staff awareness, educate other staff in delirium assessment and adopt best practices for preventing and managing delirium. Insofar as possible, procedures were embedded within existing hospital practices to promote sustainability. Both qualitative and quantitative data were collected at multiple time-points to evaluate processes, impacts and outcomes.

Results
CogChamps provided delirium education to approximately 150 ward nurses and introduced a range of initiatives to improve the care of patients with CI when hospitalised. Some improvements in care practices were also found and these results will be discussed in this presentation.

Conclusion
The CogChamps project shows that improving care practices for older patients with CI in acute hospitals is possible but requires consistent, dedicated effort.

Improving the Care of Older People with Dementia in ED

Linda SCHNITKER[1], Kristina BACKWELL[1], Glenn ARENDTS[1], Christopher CARPENTER[2], Elizabeth BEATTIE[1]

1. Queensland University of Technology, Australia

In Australia approximately 350,000 people live with dementia. If they are acutely unwell, many of those will present to the emergency department (ED). There are concerns that the care for persons with dementia in ED is suboptimal and there is evidence that older ED patients with cognitive impairment are at increased risk for negative events and health outcomes, including death. Older ED patients often have complex physical, cognitive and social needs, which impact on ED resources required. Evidence based care is associated with improved outcomes and it is recommended that all staff working with people with dementia receive specific dementia training. However, many ED staff have limited geriatric knowledge and training in evidence based care. To address this knowledge gap, our project aims to develop a dementia training program for the multidisciplinary staff in the ED – The Geriatric ED Dementia Care Training Program. The overall aim of this project is to improve the dementia care knowledge of ED staff. This program will be developed and tailored using feedback from an expert panel, which will include consumers as well as experts working in the field of geriatric emergency medicine and nursing, dementia care and research. Educational outcomes to be measured will include learning and achievement of outcomes; this will be done using pre- and post-training surveys. Also, the training program itself will be evaluated to provide information about its effectiveness.

Outcome Quality Indicators in Acute Care

Melinda MARTIN-KHAN[1]

1. The University of Queensland, Australia

Aim:
The aim of this project was to develop outcome oriented quality indicators in relation to common geriatric syndromes and function for the care of the frail aged hospitalised, and hospitalised people with dementia.

Methods:
A formal approach was taken for the development of outcome quality indicators (QIs) , including expert opinion, field study data and a formal voting process. A systematic review of the literature identified existing QIs (there were no outcome QIs pertaining to common geriatric syndromes and function in acute care) and evidence of interventions which improve outcomes for older persons in acute care. Preliminary indicators were developed by two expert panels following consideration of the evidence, Field testing was conducted in nine Australian hospitals. Following analysis of the data (indicator prevalence, variability across sites), a final panel meeting refined the QIs prior to a formal voting process resulting in a set of outcome indicators for older persons in acute care.

Results:
Ten outcome QIs were established which focused on common geriatric syndromes and function for the care of the frail aged hospitalised in acute general medical wards. The QIs target:, delirium, cognition, continence, mobility, self-care, pain, skin integrity, falls, length of stay and discharge to long term care.

Conclusion:
Ten outcome QIs were developed. These QIs can be used to identify areas where specific action will lead to improvements in the quality of care delivered to older persons in hospital including people with dementia.

Unlocking the Power of Data: From Point of Care to Health System Performance in Canada

Adrian DALLO[1]

1. Canadian Institute for Health Information (CIHI), Canada

The Canadian Institute for Health Information (CIHI) provides essential information on Canada's health systems and the health of Canadians that is used to accelerate improvements in health care, health system performance and population health across Canada. Through its longstanding partnership with interRAI, CIHI supports the implementation and use of interRAI instruments in several health care settings across Canada. An overview of CIHI's role, the use of interRAI data from the point of care to system level, recent successes with publically reported quality indicators in long-term care, and new initiatives using interRAI instruments and data in Canada will be provided.

Early ADL Improvement as Predictor of Successful Discharge from PAC

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1. University of Toronto, Canada
2. Brown University, United States of America
3. MPh, doctoral student

The objective of this study was to examine the effect of early improvement in basic activities of daily living (ADL) on successful discharge from post-acute care. Successful discharge is defined as remaining in the community without a re-admission to hospital or nursing home for 30 days following discharge from post-acute care. Overall, 2.7 million Medicare fee for service beneficiaries admitted to skilled nursing facilities (SNF) between 2012 and 2014 met the inclusion criteria. Change in ADL Long Form score was examined between at day 5 and day 14. Results of mult-variate analyses showed that a 2 point change in ADL was associated with higher odds, aOR 2.0 (95% CI 2.0,2.1) of a successful discharge in both the total sample. Analyses stratified by baseline ADL quintiles showed a positive effect of a 2pt change with patients with baseline ADL scores of 17 or 18 having the highest OR 2.5 (95% CI 2.4, 2.5). As might be expected poorer cognitive function, continence, pressure ulcers and certain diagnoses were associated with a lower probability of successful discharge. We also examined facility factors associated with successful discharge. Numbers of physical therapists and physical therapy assistants were associated with a higher probability of successful discharge as was the ratio of RN/LPN per 100 beds. The results highlight the need to focus on early improvement in function in order to increase the probability of successful discharge. Early improvement may indicate effective information transfer from acute care and timely and appropriate inter-professional care planning and implementation.

Singapore's Telerehabilitation Experience: Its Basis, How It Works and Preliminary Findings

Gerald KOH CHOON HUAT[1]

1. National University of Singapore, Singapore

The barriers of continuing with post-discharge rehabilitation include functional (unable to ambulate in the community), social (caregivers need to accompany the patient to rehabilitation centre), financial (high cumulative cost of rehabilitation), medical (co-morbidity reducing effort tolerance) and perceptual (unawareness of value of rehabilitation or ageist attitudes). Home rehabilitation is a possible solution as it reduces physical barriers (therapists come to the patient's home instead) and social barriers (caregivers do not need to take time off to accompany the patient to rehabilitation centre). However, home rehabilitation is three times more expensive than centre-based rehabilitation. Telerehabilitation also does not require the therapist to visit patients at their homes, and patients and their caregivers do not need to travel to day rehabilitation centres. However, it is still two times more expensive than centre-based rehabilitation. Current published studies on telerehabilitation have used a combination of home visits, in-home messaging devices, telephony and store-and-forward video recording by therapy assistants during home visits. These systems do not leverage on real-time video-conferencing which is more cost-effective and efficient, and do not collect physical data which is important in telerehabilitation (unlike telepsychiatry and teledermatology). The tele-rehabilitation system will be presented in this session, which includes the use of video-conferencing, sensors to capture physical data to help therapists assess recovery process and prescribe next level of exercises; and customisable training videos which are pushed to patients' end-user system when therapists prescribe an exercise programme to their patients. The tele-rehabilitation system is currently being evaluated in a randomised controlled trial where the intervention group receiving tele-rehabilitation for three months will be compared to the control group receiving usual care. The target sample size is 50 acute stroke subjects in each group and the primary outcome measure is functional status at three months. The trial is targeted to be completed in June 2016. An interim analysis of the first 30 subjects recruited in the study (16 intervention and 14 control subjects) will also be presented.

Aging and service use among adults with intellectual and developmental disabilities

Lynn MARTIN[1]

1. Lakehead University, Canada

Adults with intellectual and developmental disabilities (IDD) represent a small, but growing segment of the population. Throughout their life, adults with IDD experience higher occurrence of many health conditions, including complex comorbidity. As in the general population, the need for health care services increases with age. This talk presents projections for the size of the aging population with IDD in Canada, prevalence of frailty and changes in frailty status, as well as use of home care and long-term care services. The findings highlight premature aging among adults with IDD, as evidenced by higher occurrence of frailty and home care and long-term care use at much earlier ages than those without IDD. The need for the health care sector to accurately understand the needs of aging adults with IDD and prepare for further increases in demand for services is briefly discussed.

Understanding Post-Acute Care in the US

John MORRIS[1]

1. Hebrew Senior Life (HSL), United States of America

Abstract not provided

Data sharing across care settings enabled by the interRAI Suite: A pilot study on the perspective of the acute hospital setting

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4. Lucas-Centre for Care Research and Consultancy, Policy Research Centre for Welfare, Public Health and the Family, KU Leuven, Belgium
5. Center for Health Services and Nursing Research, KU Leuven, Leuven, Belgium

Background:
The interRAI Acute Care-Comprehensive Geriatric Assessment generates a summary profile, risk screeners, problem lists, and care planning suggestions. A web-based platform for clinical use and data exchange was evaluated.

Methods:
In an explorative qualitative multicenter study, trained staff (nurses, occupational therapists, social workers, and geriatricians; N=29) assessed 410 older inpatients in routine clinical practice on four geriatric wards in three acute hospitals.

A 5-step procedure was introduced: data collection upon admission, input, interpretation and discussion of outcomes, integration in care plan, and data transfer at discharge.

A web-based platform integrating various instruments of the interRAI Suite facilitated data sharing between fourteen home care and five residential facilities.

Focus groups, observations, and questionnaires enabled to map the Strengths, Weaknesses, Opportunities and Threats (SWOT-analysis). Results were validated by participants.

Results:
The primary strengths were a structured overview of patients' condition early after admission and promotion of multidisciplinary care planning.

The study pioneered electronic data exchange. The transfer of accurate and structured interRAI-compliant data resulted in improved collaboration between care settings. The strict regulations of access, security, and privacy met users' expectations. Medical, nursing and allied health professionals data which are often fragmented were centralized in a unique way.

Weaknesses were time-consuming procedures and overlap with assessments or registration forms. User-friendliness and efficiency of the software should be improved.

Opportunities were systematic and timely problem/risk detection of geriatric syndromes and continuity of care.

Full integration in clinical procedures, training, and collaboration issues were the most important threats.

Conclusion:
The web-based platform enabled centralization and transfer of standardized multidisciplinary data, in a secure way, allowing hospitals to optimize interaction. However, weaknesses and threats exist and must be tackled prior to large scale implementation.

Identifying Frailty in the Emergency Department Patients with a Brief Geriatric Assessment

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Objective
Frailty is a key overarching concept in geriatric medicine. However its utility in the emergency department (ED) is not well studied. Our objectives were to develop a frailty index (FI) from variables collected during a brief geriatric ED assessment; and to evaluate its ability to predict adverse outcomes.

Method
This was a post-hoc analysis of two large prospective cohort studies: the Management of Older Persons in Emergency Departments (MOPED) Study and interRAI Multi-national ED Study. Included participants were ≥75 years and presenting to an ED. The FI-ED was built from the interRAI ED-Contact Assessment, administered at ED admission. Logistic regression was used to evaluate the FI for adverse outcomes.

Results
The FI was normally distributed. The mean FI was 0.32; the 99th percentile 0.81. In the multinational data, a frail condition related to admission (OR 1.09 [95%CI 1.02-1.15]), death (OR 1.57 [95%CI 1.39-1.79]), prolonged hospital admission (OR 1.18 [95%CI 1.06-1.31]), and need for Comprehensive Geriatric Assessment (OR 1.86 [95%CI 1.71-1.79]) In the Canadian data, results were similar with the addition of a significant association for discharge to long-term care and alternate level of care designation.

Conclusion
The FI-ED conformed to characteristics previously reported in inpatient populations and was accurately developed from a brief geriatric assessment in the ED. The FI-ED could be used in a clinical setting as an indicator of adverse outcomes.

Gait speed and frailty status in relation to adverse outcomes in older inpatients: A prospective cohort study

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Aims:
Both gait speed and measures of frailty are associated with adverse outcomes in community-dwelling older people. However using these measures to assess vulnerability in inpatient geriatric rehabilitation has yet to be explored. Here we aim to assess the feasibility of deriving a frailty index (FI) from routinely collected data in geriatric rehabilitation, to examine the relationship between FI and gait speed and their ability to predict adverse outcomes.

Methods:
All patients aged 65 and older were included in a single centre prospective cohort study conducted in inpatient geriatric rehabilitation wards. Data routinely recorded as part of comprehensive geriatric assessment, including gait speed, were collected contemporaneously. The FI was calculated as accumulation of deficits across multiple domains of the Functional Independence Measure, number of comorbidities and medications, using a well-defined methodology.

Results:
258 participants were recruited. Mean age was 79 years and 54% were females. Mean (Standard deviation) FI on admission was 0.42(0.13) and gait speed was 0.26 (0.33) m/sec. Those unable to complete a timed-walk on admission (50%) were allocated a gait speed of 0. FI correlated significantly with gait speed (coefficient -0.396). Both parameters were significantly associated with length of stay ≥56 days (75th percentile), worse discharge outcome (to supported care or died), and delirium, but not with inpatient falls.

Conclusion:
This study shows that deriving a FI from routine patient assessment data is feasible for all patients, while only half the study participants could complete the timed-walk. Both measures showed predictive validity for adverse outcomes.

Frailty index predicts chemotherapy outcomes

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AIM
This prospective, longitudinal study determined whether a frailty index (FI) could predict chemotherapy outcomes in a consecutive series sample of 175 patients with solid tumours aged ≥ 65 years.

The objectives were to:
1. Develop an FI derived from a comprehensive geriatric assessment (CGA) process.
2. Compare established FI cut-points of ≤ 0.25 and > 0.25 with:
    a. Baseline assessments of fitness for chemotherapy derived from Vulnerable Elder's Survey-13 (VES-13) and oncologists' assessments, and prescribed chemotherapy.
    b. Treatment outcomes (intra-treatment chemotherapy alterations, treatment completions, one-year survival).

METHOD
Variables included baseline CGA, VES-13 and oncologists' assessments, and longitudinal treatment outcomes (e.g. treatment changes, one-year survival). The total number of CGA deficits measured per patient was 42. The FI was determined as the number of deficits per patient divided by the number of deficits measured, to elicit a continuous measure (0.0 to 1.0) signifying extent of deficit accumulation and likely frailty. FI > 0.25 flags increasing frailty to the theoretical maximum of 1.0.

RESULTS
The FI could be calculated on all patients. The index had a right-skewed distribution with mean (SD) of 0.31 (0.14), and median (IQR) of 0.27 (0.21-0.39). The 99% limit to deficit accumulation was below the theoretical maximum of 1.0, at 0.75. FI was significantly related ($p < 0.001$) to vulnerability as assessed by VES-13 and doctors' assessments of frailty. Baseline frailty was associated with treatment outcomes (Terminated, Completed, Not Planned) ($p < 0.001$). The "Not Planned" group were significantly frailer than the other two groups. Kaplan-Meier analysis indicated a trend for better cumulative survival in the < 0.25 group compared with the > 0.25 group.

CONCLUSION
The FI could contribute to oncogeriatric decision-making in the chemotherapy setting. The FI demonstrated good construct validity against the VES-13 and the treating oncologists' assessments of fitness for treatment.

Mid-life patterns of sitting time predict frailty in older women

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Background: Prolonged sitting time is associated with several health outcomes; with limited evidence also suggesting its association with frailty. The aims of this study were to identify patterns of sitting time over 12 years in middle-aged women and examine associations of these patterns with frailty in older age.

Methods: Women born in 1946-1951 from the Australian Longitudinal Study on Women's Health self-reported sociodemographic attributes and daily sitting time in 2001. Sitting time was self-reported three-yearly until 2013. Frailty was assessed in 2001 and every three years until 2013 using the FRAIL scale (score 0 = healthy; 1-2 = pre-frail; 3-5 = frail). Group-based trajectory analyses identified trajectories of sitting time. Logistic regression analyses examined associations of the trajectories with frailty, adjusted for age, relationship status, education, body mass index, smoking status, alcohol consumption, physical activity and employment. Women were included if they were healthy and reported sitting time in 2001 and had complete data for all confounders and frailty at 2013.

Results: 5,462 women were included in this study with 7.3% of them were frail in 2013. Five sitting time trajectories were identified: low (27.5%); medium (41.5%; reference); increasing (8.2%); decreasing (18.0%); and high (4.9%). In adjusted models, the likelihood (odds ratio: 95% confidence interval) of being frail were statistically higher for those in the increasing (1.29: 1.01-1.57) and high (1.44:1.12-1.86) trajectories. In contrast, the low (0.83: 0.73-0.95) trajectory group was less likely to be frail. Further analysis showed significant association between sitting trajectories and two of the FRAIL scale component; fatigue and resistance.

Conclusions: Patterns of sitting time over 12 years in middle-aged Australian women predict frailty in older age.

POSTER PRESENTATIONS

Telegerontology: A Home Based Care Model Using Skype

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Over 9000 people in Newfoundland and Labrador are living with dementia. These patients have complex health care needs and most caregivers are spouses/family members who provide 24/7 care.The Canadian Institute for Health Information in its 2010 report on dementia care states that wandering and aggressive behaviours are the most common factors precipitating admission to a care institution . Also a common entry point is the emergency room where falls and delirium are the most common presenting features. This study using remotely delivered expertise is designed to help the caregiver in the patient's home in real time, as well as assist the rural physician in their management of their patient with dementia.This is initially done by a home assessment which screens for caregiver stress, assesses the patient for the dementia and does standardized cognitive and functional tests performed by a geriatrician. A video of the home is done for remote OT assessment to help reduce fall risk. . The family caregiver is given an iPad loaded with caregiver stess, depression and behavioral apps which are to be completed at regular intervals. The family physicians record is reviewed by the geriatrician and a meeting is held with the family physician to review their patient. A full report is sent to the family physician . The control group gets the same initial assessment however the test group in addition gets a weekly video/phone consult from the geriatrician. The getriatrician assess the patient and supports the caregiver on these weekly visits. The study will be completed in April 2017. Primary outcome measures include decreased hospital utilization and admission to long term care ,caregiver stress, and patient safety(reduced fall /delirium risk). Secondary outcomes include physician /caregiver satisfaction,utility of home video assessments and weekly physician time log with interventions.

Using interRAI Data to Identify Our Elderly Who May Be at Risk of Suicide

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Background
Concerned about the Coroner's 2014 report which noted a continuing trend of increasing suicides among older people, we looked to our large data set from interRAI to find an opportunity for quality improvement.

Aim
To see if we could use interRAI data, to make a difference to the increasing trend of suicide in the older population.

Method
Three indicators were chosen initially, with further refinement added based on emerging research on factors linked to suicide ideation. Factors chosen were loneliness, diagnosis of depression and/or Mood CAP triggered and self-reporting of poor health.

We then searched the interRAI data for older people whose assessments displayed all factors, to identify a target group. In a collaborative effort by District Health Board Assessors and Home and Community Support Service (HCSS) staff, the target group were reviewed to assure that care plans were developed and implemented that provided protective factors and improved function, contribution within their local community and meaningful social activities. Our HCSS Alliance agreed to run this data analysis every six months and review the Care Plans for these older people, to make sure that these issues are being addressed and protective factors put in place.

Results & Clinical Significance
We have not yet looked at reassessments for these clients, to see if this has had a significant impact on client outcomes in these areas, but this would be a logical way to measure if the intervention had been successful. In future, we will be able to compare assessment outcomes over time.

Conclusion
interRAI data can be used to determine a group of clients, such as those at risk of suicide, who would benefit from a specific intervention.

Prevalence of Functional and Psychosocial Problems in The Acute Hospital Setting by Migrant Status

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Aims
To report the prevalence of functional and psychosocial problems across migrant status; Australian, Indigenous Australian, and Australian Immigrant.

Methods
Data were collected using the interRAI Acute Care. Adult patients were recruited from urban and rural acute hospitals, in Queensland and Victoria, in 2015-16. Assessments were conducted by trained nurses using a web-based application operated on iPads. All adult patients were eligible to participate, with deliberate oversampling of patients aged ≥70. Ethics approval for the study was obtained from Hospital Human Research Ethics Committees and patients gave informed consent to participate.

Results
The study included 910 patients with median age of 66 (range 18-99), and 43% were aged ≥70 years. The sample comprised of Australian 66.8%, Indigenous Australian 2.3% and Australian Immigrant 30.9%. Females comprised 48% of the total sample, similar across all migrant groups. Rural patients comprised 16% of the sample, differing by migrant group. After controlling for age and gender; self-rated health, communication and vision, and allergy problems differed significantly across migrant groups, with Australian Immigrants more likely to report poor self-rated health, and problems with allergies, and communication and vision than Australians.

Conclusions
Functional and psychosocial problems are evident among all migrant status groups in the hospital population. Differences in the prevalence of problems can vary according to migrant status. The proportion of Indigenous Australians in this sample is in line with the national population, despite this a larger sample is required to confirm observations.

Validation of A Screening Tool for Identifying Older Australians In Need of Specialist Assessment

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EDs are inefficient at diagnosing and treating elderly people with geriatric complexity. To meet the needs of older adults in ED, high risk screening for those most in need of targeted assessments, risk reduction interventions, as well as those who would benefit from community based care/services is warranted. The aim of this study is to validate the interRAI ED Screener to categorize high risk older adults at triage.

364 patients (50% female) aged 70+ years, presenting to ED were assessed with the interRAI ED screener. The interRAI ED screener scores were compared with hospital identified frail elderly persons whose needs are sufficiently complex to warrant further assessment, as well as those most in need of specialist support services after leaving ED. Secondly, we tested for an association between the interRAI ED screener score and hospital admission (N=364), ED representations (N=102), referrals for specialist services (N=364), and prolonged length of hospital stay (N=262).

Implementing the interRAI ED screener instrument into EDs may help identify those in need of further comprehensive geriatric assessment. An implementation case study will be described as one site has adopted the screener as part of standard clinical practice.

Frailty in Home Based Older Adults in New Zealand

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The aim of this study was to develop a frailty scale to help predict mortality and aged residential care admission in community dwelling older people using data from the interRAI Minimal Data Set (MDS).

This regional cross sectional study included 5657 community dwelling older people (mean age 82, 61.2% female) living in Canterbury New Zealand that had an interRAI MDS assessment completed between 2008-2012. Answers to 42 questions within the interRAI MDS assessment were selected as variables in this study which were then recoded as deficits. A frailty score was created from the frailty index as an incremental scale between 0 (least frail) and 5 (most frail).

The five-year mortality rate was 68.1% (n=3852). The relationship between the frailty score and mortality was significant. At five years, 48% (n=194) of people with a baseline frailty score of 0 remained alive compared to 5% (n=5) of those with a frailty score of 5. Five-year entry into aged residential care was high for those with a high frailty scale score. At five years 67% (n=271) of people with a frailty score of 0 were still living at home compared to 27% (n=3) of those with a frailty score of 5.

Evidence suggests that frailty may be modifiable, and therefore by identifying older people at risk of health decline and mortality a frailty score can help target specific health interventions and services.

The interRAI CHESS Score and Health Outcomes

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The aim of this study was to examine the relationship between the interRAI CHESS Score and Hosiptal Admissions and Life Expectancy in Older New Zealanders.

This project reviewed hospital admission and mortality data following the completion of an interRAI assessment between 1/7/2012 and 30/6/2014. More specifically, older people with an interRAI CHESS score of 5 were reviewed with regards to demographics, hospital admissions, mortality and place of death.

The interRAI assessment tool is used in New Zealand for all older people requiring Government funded supports or assessment for admission to aged residential care. The Change in End Stage Signs and Symptoms Score (CHESS) is one of the outcome measures produced for individual interRAI Assessments, and is a measure of a person's health instability. An individual's CHESS score is measured between 0 and 5 with a score of 5 indicating greatest health instability.

471 older people (median age 80.6, 47.6% female) had a CHESS score of 5. At the end of the 2-year study period, 44 (9%) were still alive. 220 (47%) died in the community with no further admissions. 95 (20%) died in hospital in the same admission as the completion of their interRAI. 52 (11%) had further admissions and died in hospital and 60 (13%) had further admissions but died in the community.

Completion of an interRAI and identification of those with a CHESS score of 5 can be utilised to help with future care planning distribution of resources given the high mortality rates in these vulnerable people. Our study has shown that some older people continue to have multiple hospital admissions and die as in-patients which may be an area for improvement.

Best Clinical Administrative Practices for Geriatric Assessment Units

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Background
The GAU's reference framework dates back to 1986. Our community of practice (RUSHGQ) has undertaken a consultation among physicians and managers of GAU regarding its mission, admission criteria and key elements of an efficient and safe discharge planning.

Objectives
1) Update the data on the clientele and some operating elements of GAU; 2) Consult those responsible for elaborating consensus recommendations.

Methods
An electronic questionnaire covering information of interest was submitted to the RUSHQG representative of GAU members (n= 500). A structured consultation process among those responsible has then been performed across the province.

Results
A total of 44 representatives have provided data on their GAU. Some 42 physicians and 45 managers participated in one of the nine regional focus groups. The results have allowed the steering committee to identify 81 written proposals. These latter have been submitted to the participants for an individual validation process. Proposals not meeting the target level of agreement (IPRAS < IPR or < 75 % of participants given a score between 7 and 9 on a scale from 1 to 9) were debated during a meeting of delegates from regional groups. The report containing the final recommendations was completed in March 2016.

Conclusion
These recommendations are based on a widespread consensus from those active in the field. The Ministry of Health will be able to draw from them the information that will facilitate the update of the program's reference framework.

Intervention to Prevent Functional Decline in Geriatric Assessment Units

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Background
Academic physiotherapists affiliated with the GAU at the IUGM have developed a physical retraining intervention (SPRINT) which adapts itself to the functional profile of patients admitted to GAU. SPRINT consists of ad-lib repetitions of motor activities prescribed after an evaluation of functional abilities ranging from chair transfer (level 1) to walking (level 4). The program engages the patient and solicits the contribution of any professional and caregiver who is around him/her on a daily basis.

Goal
Collect preliminary information regarding the ongoing implementation of SPRINT in order to determine the conditions required to generalize it to all GAU.

Methods
The experimentation comprised 4 phases: preparatory, pre-intervention, intervention and post-intervention.

Results
19 of the 50 patients having been admitted during the intervention period participated in SPRINT. The exercises have been performed most frequently with a nurse (37%), a physician (20%), an orderly (13%) or by the patient alone (22%). The caregivers participated 4% of the time only. Upon discharge from the GAU, 60% of patients consider that SPRINT has allowed them to maintain their functional abilities in their activities of daily living. Barriers and facilitators in applying SPRINT have been identified.

Conclusions
SPRINT appears relevant, safe and applicable for patients admitted to GAU and their caregivers, as well as professionals. However, participation from caregivers should not be taken for granted. Intervention to prevent functional decline in Geriatric Assessment Units

Self-Rated Health as A Proxy for Frailty in Older Adults at Emergency Departments

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Background
Despite the availability of screening tools to measure frailty, in the busy emergency department environment staff are restricted to measure objectively the parameters of existing tools. Therefore a rapid, practical instrument is required.

Aims
To determine if self-rated health could be used as a proxy for frailty on admission and as a high-risk flag for people who will need community support post hospital discharge.

Methods
Nurse-measured frailty scores using The Clinical Frailty Scale on consecutive older patients from a cohort 65+years old admitted via emergency departments during business hours to four large Sydney teaching hospitals. Frailty assessment repeated over the telephone within three to six months post admission. Logistic regression used to examine associations controlling for sociodemographic and clinical parameters.

Results
Within the cohort, 909 (77%) of patients (51.8% female) with mean and median age 80 years had data at baseline and follow-up. Preliminary results showed that self-rated health was significantly associated with baseline frailty in univariate analysis (OR 3.92, 95%CI 2.97-5.18). After adjusting for age, sex, socio-economic status and comorbidities, poor self-rated health had a strong and statistically significant association with frailty (OR 4.21, 95%CI 3.06-5.80 p<0.001). Self-rated health on admission was also an independent predictor of needing community services at follow–up (OR 1.65, 95%CI 1.25-2.17 p<0.001).

Conclusion
Poor self-rated health on admission may be a useful proxy for frailty in the emergency department environment where comprehensive frailty instruments cannot be fully administered. It could also guide clinicians to anticipate the need for community services at discharge.

Understanding Changes in Frailty in Home Care Users with Intellectual and Developmental Disabilities

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BACKGROUND
Understanding the changing needs of adults with intellectual and developmental disabilities aging in the community is important to ensure that this vulnerable population is properly supported. AIM: This study aimed to determine factors associated with changes in frailty in home care users with intellectual and developmental disabilities over time.

METHODS
A retrospective, observational, longitudinal study of 5,222 adults (18 to 99 years) with intellectual and developmental disabilities in Ontario, Canada was undertaken. Frailty was measured using a 42-item frailty index, which was developed using variables provided by the Resident Assessment Instrument- Home Care. The rate of deficit accumulation was also determined, adjusted for relevant covariates.

RESULTS
At baseline, 69.6% were non-frail, 16.3% pre-frail and 14.1% frail. In the first 6 months, 11.7% of the non-frail worsened, 48.7% of the frail improved while 38.3% of the pre-frail improved and 18.9% worsened. Individuals who were frail at baseline had an estimated mean incidence rate of 4.1 deficits per year, versus 0.46 deficits per year in adults who were non-frail at baseline. Age was the second largest predictor of deficit accumulation, while poor cognition and some home care services were also associated with deficit accumulation.

CLINICAL SIGNIFICANCE
The results of this study may provide information to better support persons with intellectual and developmental disabilities living in the community and contribute to our understanding of frailty across time.

CONCLUSIONS
An individual’s initial frailty status strongly predicts the rate of accumulation of deficits, and may indicate worsening of health.

Profiling Patients Referred for Geriatric Consultation

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Background
Despite frail older people being disproportionate users of health care, there is little data available describing their complex care needs. This study aimed to describe the clinical characteristics and outcomes of hospitalised older people referred for specialist geriatric consultation.

Method
A retrospective analysis was conducted of comprehensive geriatric assessment (CGA) data on patients referred for specialist geriatric consultation at a large Brisbane teaching hospital from May 2006 to June 2015, and recorded on the CeGA database. CeGA is web-based software supporting CGA using structured assessment based on the interRAI Acute Care instrument. A global measure of health status, the Frailty Index (FI) was calculated for each patient based on accumulated deficits, using a well-defined methodology. Frequency distributions were used to describe the characteristics of the population. The risk of adverse outcomes based on frailty status was calculated using logistic regression models, with results expressed as Odds Ratios (OR) with 95% Confidence Interval (CI).

Results
The mean age (SD) of 2823 patients referred for initial geriatric consultation was 78.7 (9.3) years and 53% were female. Geriatric syndromes were prevalent, with 1642 (59%) having falls in the previous 90 days, 1584 (56%) requiring extensive assistance in basic Activities of Daily Living and 739 (26%) with moderate to severe cognitive impairment. The mean (SD) FI was 0.44 (0.14), indicating severe frailty. In logistic regression models adjusted for age and sex, higher levels of frailty were significantly associated with being newly discharged to institutional care [OR:1.28 (95% CI 1.20-1.37)], inpatient mortality [OR:1.56 (95% CI 1.41-1.74)] and long length of stay (>28 days) [OR:1.33 (95% CI 1.26-1.41)].

Conclusion
Frailty levels are high in hospitalised older patients referred for geriatric consultation with consequent increased likelihood of adverse outcomes.

Clinical Significance
A measure of frailty status may help target more appropriate care.

Developing the Delirium Action Response in ED

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Approximately one tenth of the older population presenting to emergency departments (ED) experience delirium. In the acute care setting, this number is even higher – over half. In ED, people with dementia are at risk of developing delirium. Without early recognition and management, delirium can result in adverse outcomes, including death. Delirium is a preventable condition that is under-recognised with limited prevention strategies available in ED. To prevent delirium in people with dementia a number of changes in ED processes and structures are required. The Delirium Action Response in ED (DARe-ED) intervention project aims to develop a valid multi-component (i.e. targeting multiple risk factors) delirium prevention intervention for the ED population with dementia. The intervention will be developed by translating existing evidence and knowledge into clear and practical intervention protocols. These protocols will target the following delirium risk factors: cognitive impairment, pain, visual impairment, hearing impairment, mobility, hydration, nutrition, medication, environment, sleep, and emotional stress. These protocols will also emphasise the importance of family involvement during the ED episode of care. An expert panel, which will include consumers as well as experts working in the field of geriatric emergency medicine and nursing, dementia care, and research, will formally assess the content of the draft protocols of the novel intervention using pre-set criteria, including relevance, appropriateness, and effectiveness. This project will culminate in clear protocols outlining each component of the DARe-ED intervention and will produce a detailed implementation plan to determine the intervention's acceptability, adoption, feasibility, fidelity, and sustainability in ED.

Bridging the gaps with common assessments in paramedic care

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Patient assessments documented through electronic patient care reports (ePCR) represent an unrealized research potential. Challenges exist in integrating records between care settings, provinces, and service providers resulting in an inability to measure patient outcomes. The interRAI suite of tools are internationally standardized, used in multiple settings and jurisdictions, and designed to be integrated with each other.

This study presents a qualitative evaluation of 5 tools from the interRAI suite. The evaluation focuses on assessments designed for emergency departments, acute care, home care, and mental health care. Length of assessment, number of components, mode of documentation, and common elements were assessed and compared to paramedic ePCRs.

Evidence based paramedic practice and future research will benefit from assessment tools that capture the full breadth and depth of paramedic practice. The value of these tools can be realized through integration across transitions of care.

The Development of a Geriatric Emergency Care Screening and Assessment System from a Multinational Context – Opportunities and Challenges

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Guidelines suggest that geriatric patients presenting to the emergency department should be screened to identify geriatric complications, prioritize those most vulnerable, and to recognize those who will require additional geriatric resources. Various geriatric screening and assessment tools have been developed and validated for such purposes, however few have been compared from a multinational context. We evaluate the potential clinical utility and performance of a set of geriatric screening and risk assessment tools from a multinational context.

We conducted two prospective studies that included over 4,000 clinically representative older emergency department patients from Australia, Belgium, Canada, Czech Republic, Germany, Iceland, India, Italy, Spain, and Sweden. Patients who were expected to die within 24 hours or did not speak the native language were excluded. Patients were assessed at ED admission with a standardized screening or assessment. Outcomes were examined for admitted patients and those discharged home. We developed an integrated assessment system for geriatric care in the ED. It included two companion tools – a geriatric screener and focused geriatric assessment.

Functional impairment and geriatric syndromes affected the majority of older patients attending the emergency department across nations. However, countries vary considerably in how they configure specialist geriatric services as well as patterns of patient discharge. Despite different care systems, the probability of negative post-discharge outcomes was detectable at the multinational level with moderate accuracy. Agreement between case-finding tools and blinded geriatricians was high. The clinical utility of specific screeners varied according to the prevailing patient disposition patterns.

The studies demonstrate the utility of incorporating standardized geriatric tools in routine clinical examination of older patients in the emergency department. Defining appropriate outcome measures remains challenging.

Patterns of Patient Safety Events and Transition Processes from the Emergency Department: Results from the Trans-ED-HC) Study

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Introduction

Retrospective cohort study employing quantitative analysis of the transitions from Emergency Department (ED) to home care was completed for fiscal year 2013/14.

Objectives were to quantify:

1. Incidence of patient safety and other adverse health events among ED patients who transitioned to home care from the ED.
2. Influence of poor referral processes on the incidence of adverse health events.
3. Influence of adverse health events on negative health outcomes.

Methods

Analysis of hospital data validated the incidence of adverse patient safety events at 90 days post ED discharge. Adverse outcomes were tracked. Factors related to these transitions that may explain the likelihood of adverse health events were examined. Logistic regression analysis was used to examine the association between patient safety events and variations in referral processes, as well as between patient safety events and negative health outcomes.

Results

At least 16% of home care patients will have an adverse patient safety event 90-days post ED visit. This rate is twice as high as all home care patients, which is already higher than the general population. All home care patients should be considered as ‘high risk’ for an adverse patient safety event. The main risks or priorities are: Falls, Medication Issues, or Delirium.

Conclusion

The results of this research may be extrapolated, providing guidance with respect to the incidence of adverse events in this population. Hospitals and those providing care within the community would be better able to evaluate the risk to their patients upon discharge from an ED.