Welcome to this issue in which we feature the 2010 NSW Falls Prevention Network Meeting.

This meeting was held on June 23rd at the Mathews Theatres and Pavilions, UNSW and was attended by 214 professionals from hospital, community services, residential aged care and local government. The main theme for this meeting was dementia, delirium and falls prevention and featured a number of key presenters including A/Prof Jacqueline Close, Dr Eneida Mioshi, Professor Stephen Lord, Ms Joanne Smith (NSW DoH) and Ms Lorraine Lovitt (CEC).

Concurrent sessions for each of the settings (Hospital, Community and Residential Aged Care) featuring short presentations and discussion time, were run in the afternoon. The day finished with a final summation of the afternoon’s proceedings.

Presentations from the meeting are available at: http://fallsnetwork.neura.edu.au/events/index.php#event-home
Preventing Falls in People with Cognitive Impairment: Is there any Evidence?
A/Professor Jacqueline Close, Prince of Wales Hospital & Clinical School, Neuroscience Research Australia

This presentation focused on the evidence on preventing falls in people with cognitive impairment. People with cognitive impairment and/or dementia, have double the falls per year compared to that of the normal population, fractures are 3x more common, gait abnormalities are more common and psychotropic drugs use is more common. Randomised trials conducted on interventions for falls prevention have included people with cognitive impairment. Many studies use the MMSE test to identify cognitive impairment however it is not a reliable tool, an alternate tool the ACE-R (Addenbrooke Cognitive Examination) has the MMSE embedded in it but allows better identification of people with cognitive impairment.

Older people with cognitive impairment were found to have longer reaction time, less quadriceps strength and worse balance than older people without cognitive impairment.

Preventing inpatient falls in POWH Medical and Surgical wards was a journey and not an RCT and included:
- Falls Committee that meets regularly.
- Better reporting and sharing of information on falls per ward.
- Better recognition and prevention of falls.
- Review of data which highlighted patients with confusion.
- Delirium workshops and ward in-services.
- Delivery of CEC Education DVD Module: Preventing Falls in NSW Hospitals.

The review of hospital deaths in SESIAHS found:
- A high number with cognitive impairment, on anticoagulants and at high risk for falls.
- Issues with post fall management.
- No increased observation of those at high risk.

A case study was presented of a 77 year old female who presented to ED with digoxin poisoning and on warfarin therapy. This patient was admitted and subsequently there was a documented confusion which was not investigated. The patient worsened and required direction to the toilet and on day 4 was found on the bathroom floor. She became drowsy and a CT Scan showed bilateral subdural haemorrhage, and she subsequently died. A Root Cause Analysis (RCA) conducted identified a number of issues that arose before and after the fall including the failure to recognise confusion, high falls risk and also a reliance on Glasgow Coma Score (GCS) rather than monitoring cognitive change.


Frontotemporal dementia and its challenges. Dr Eneida Mioshi, Neuroscience Research Australia.

Dr Eneida Mioshi’s presentation focused on Frontotemporal Dementia (FTD) and its challenges. This presentation highlighted that FTD is a younger onset dementia, compared to other dementias and that there are 2 variants. The behavioural variant, is where the person displays alterations in behaviour and personality including developing strange obsessions and rituals, becoming disorganised, decline in self care, loss of empathy and warmth. The language variant has two subtypes the semantic variant where the person looses semantic knowledge (distinction between meaning of words) and progressive nonfluent aphasia (inability to express words) where the person has difficulty in language output and conversation but has preserved word knowledge.
FTD impacts peoples’ abilities to perform everyday activities (IADL) and basic personal care (ADL). These impairments are more marked than in Alzheimer’s disease. In FTD, people with ADL impairments are not identified using standard cognitive assessments therefore it is important to measure IADL and ADL.

Dr Mioshi’s studies have also found that carer stress is greater in carers looking after those with FTD compared to Alzheimer’s disease, therefore it is important to provide resources and support for carers of FTD patients.

Further information on Frontotemporal Dementia can be found at: www.ftdrg.org

“What’s that walker doing there?” Ms Isabel Baker, Dementia Behaviour Assessment and Management Service (DBAMS), Greater Southern Area Health Service.

This presentation covered general information about the various forms of dementia. A number of strategies were discussed on managing people with dementia including:

- The use of clear concise communication, keep letting the patient know what you are doing.
- Supervision whilst mobilising and toileting and use of mobility aides as required.
- Review of medications including antihypertensives, antipsychotics and anti-antidepressants and other drugs that may increase confusion and disorientation in elderly people.
- Medical review including the review of pain relief provision and prompt treatment of urinary tract infections and constipation as these can contribute to delirium.
- Engaging the person in exercise even light gentle exercise can make a difference.
- Use of volunteer sitters to engage persons in stimulating activities,
- Provide reassurance, orientation and assistance with meals.
- Improving nutrition by providing finger foods, small frequent meals, high protein food and fluids and ensure sufficient hydration
- Follow a familiar routine and provide opportunities for independent activities and for choice in their daily routine
- Provide a positive emotional environment and minimise stress.

A number of case studies were presented including a patient who forgot to use her walker and by naming it Fred, which was the name of her childhood dog, she always remembered she needed to take Fred for a walk.

Practical approaches to dementia care– wandering. Daneill Haberfield, Behaviour Assessment & Intervention Service (BASIS), Northern Sydney Central Coast Area Health Service.

This presentation focused on people with cognitive impairment who wander and covered issues associated with wandering.

Positive benefits of wandering include:

- Improving a persons sense of wellbeing.
- Physiological benefits of exercise.
- Stimulates appetite.
- Relieves boredom.
- Improves mood and aids in coping with stress.
- Feeling of empowerment and improves self esteem.
- May improve sleep.
People who wander need a safe place. It is important to understand the reasons for a patient's wandering behaviour. The possible risks associated with wandering include absconding, those with poor mobility increased falls and fractures, intrusiveness into other people's personal space.

There are a number of ways to overcome these risks including the use of a Safe 2 walk device (www.safe2walk.com.au), CCTV, boundary lasers, use of sensory aprons and boxes, exercise programs to improve mobility and the use of hip and head protectors.

**Fall and Fracture Prevention – Research update. Professor Stephen Lord, Neuroscience Research Australia.**

This presentation provided an update on five different studies where significant progress has been made:

- Risk factors for indoor and outdoor falls.
- Multiple Profile Assessment for understanding falls.
- Cochrane hospital and aged care review update.
- Vitamin D and falls and fractures.
- Q Fracture Score calculator.

There are different risk profiles for indoor and outdoor falls. Indoor falls are more likely in older females and people with impaired balance, poor grip strength, slower walking speeds, co-morbidities, obesity, fear of falling and, poor cognition. Outdoor falls are more likely in males, and people who are in better health, have more leisure time physical activities, have better physical functioning, are less obese, able to walk faster, and those with a visual impairment and alcohol consumption.

A Multiple Profile Assessment for understanding falls was developed for community dwelling older people by using a decision tree analysis. The model developed helps in understanding the underlying factors that contribute to falls in older people and will guide the choice of optimal interventions for individual older people. This study has been accepted for publication in the *Journal of the American Geriatrics Society*, Delbaere et al 2010, *A Multifactorial approach to understanding falls risk in Older People*.

The Cochrane Review, by Cameron and colleagues 2010 entitled interventions for *Preventing falls in older people in nursing care facilities and hospitals* reviewed 41 trials with a total of 25,422 participants, 75% females and average age of 83 years. Many participants had cognitive impairment. Multifactorial interventions were not effective in preventing falls in nursing care facilities but could be effective if interventions are co-ordinated using a team approach. Vitamin D supplementation did reduce falls as did medication review by a pharmacist. No evidence that single interventions reduced falls including exercise. Patients who are in hospital for greater than a few weeks multifactorial interventions were effective as was exercise as a single intervention. The main limitations of the studies included in this review were small number of hospital studies, variability of interventions, difficulty in isolating individual components of multifactorial interventions. This review can be accessed at [http://www2.cochrane.org/reviews/en/ab005465.html](http://www2.cochrane.org/reviews/en/ab005465.html).

Two recent reviews on Vitamin D supplementation found that:

- High dose supplementation is not recommended (a single 500,000IU loading dose in an older female population has been shown to increase falls and fractures).
- Vitamin D supplementation of 1000IU-2000IU per day in people with deficiency or at risk of deficiency is likely to be safe and beneficial.
- Up to 60,000IU per month may be safe, higher doses than this may not be safe.
- In certain sub-groups of the population moderate doses may be justified.
- When recommending vitamin D supplements, it would be prudent to aim for serum levels of 25-hydroxyvitamin D between 50 and 100nmol/L.

Risk of fractures in men and women, was a prospective study by Hippisley-Cox and Coupland (BMJ 2009;339: b4229) with over 2 million participants over many years to develop an algorithm for risk of fractures. This tool can be accessed at [http://www.qfracture.org/](http://www.qfracture.org/) and a persons’ details can be entered and this then provides a risk for fracture within the next 10 years score. This QFracture score can be used to identify people in the primary care population who are at high risk of a fracture who could benefit from interventions to reduce this risk.

**NSW Health Plan for Prevention of Falls and harm from Falls Among Older People: 2010-2014.**  
*Ms Joanne Smith, Director, Centre for Health Advancement NSW Department of Health*

This presentation reiterated that falls prevention was one of the priority areas in the NSW State Health Plan and that the development of a second Statewide Plan was commissioned to build on supporting the infrastructure that had been developed in the implementation of the first plan.

The new plan includes a range of inputs:

- The evaluation of the first plan.
- Interviews with key stakeholders and experts.
- Development of best practice recommendations for physical activity.
- Modelling of the cost effectiveness of evidence based falls prevention initiatives.
- Study of the incidence and costs of falls injury in NSW.
- Review of falls prevention physical activity programs.
- CATI survey of 5,000 people on falls risk and protective factors.
- Development of a prospective monitoring and evaluation framework.

Consultations were conducted by consultants with stakeholders across the Area Health Services, relevant branches within NSW Department of Health, Ambulance Service of NSW, Justice Health, Agency for Clinical Innovation, Area Falls Prevention Coordinators (AFCs), the Clinical Excellence Commission (CEC) and other relevant organisations.

Joanne acknowledged the work that had already been completed as part of the first plan and especially the contribution of the AFCs and the work of the NSW Falls Prevention Program based at the CEC and the NSW Falls Prevention Network over a number of years, their dedication and commitment to falls prevention has been recognised across the Areas, the NSW Department of Health and communities. The AFCs have worked in collaboration with Area Health Falls Management Committees and Working Groups for Hospital, Community and Residential Aged Care in each AHS. They have engaged with staff working in hospitals and the community and have put in place a variety of interventions. NSW Department of Health will continue to support these activities.

The New Falls Prevention Plan will be launched once the final approval processes have been completed. A monitoring and evaluation framework will also be released later in 2010.

**Falls prevention: a community resource and web-based directory.**  
*Ms Lorraine Lovitt, Leader, NSW Falls Prevention Program Clinical Excellence Commission (CEC)*

Lorraine’s presentation summed the development of the consumer falls prevention community resource. This involved developing a best-practice audit tool in consultation with key experts to review current resources. A draft document was focus tested with community participants and feedback has been incorporated in the final resource *Staying Active and on Your Feet*. Copies of this document should be available in late August and will be notified on the NSW Falls Prevention Network.

A project to develop a NSW web-based resource directory of Community Falls Prevention Physical Activity Programs commenced in February 2010. This resource directory is for members of the community, exercise providers and health professionals. Providers have been asked to register their programs following a template. These are assessed for components of falls prevention exercises according to a
set of defined best-practice criteria, before inclusion on the website. Users of the web-site will be able to access programs in their local area by entering their postcode. This website will also provide comprehensive program information, community resources, guidelines, guidebooks, relevant publications and research documents. A regular newsletter will be circulated to the exercise provider network.

Website address: www.activeandhealthy.nsw.gov.au

Information on the launch of this website will be posted to the Falls Network and a link available from our website.

The above plenary session presentations were also filmed and are available on CD (free of charge), to order a copy send an e-mail to e.vance@neura.edu.au and include your AHS and clinical area you work in and your postal address details.

In the afternoon the 3 concurrent sessions focused on each of the sectors Hospital, Community and Residential Aged Care and featured 4-7 short sharp presentations with time for questions and discussions. The PDF versions of the presentations are available on the Falls Network website at http://fallsnetwork.neura.edu.au/

Concurrent Session Presentations included:

**Session 1 Hospital**

Sharing ideas- two successful programs - Ms Denise Tomassini, Clinical Quality Manager, & Ms Gaye Sykes, Southern Hospitals Network, South Eastern Sydney Illawarra Area Health Service.

Implementation of an in-hospital post fall sticker - Ms Cheryl Baldwin, Ortho-Geriatric CNC, Gosford Hospital, Northern Sydney Central Coast Health (NSCCH) & Margaret Armstrong, NSCCH Falls Prevention Coordinator.

Development of the Prediction of Falls In Rehabilitation Settings Tool (Predict_FIRST): a prospective cohort study - Dr Cathie Sherrington, Senior Research Fellow, George Institute for International Health.

The challenges of falls prevention in people with Motor Neurone Disease - Ms Elizabeth Taylor, Physiotherapist, St Joseph’s Hospital, Sydney West Area Health Service.

Reduction in the use of night sedation to reduce the risk of falls - Margaret Hargraves, Hospital Pharmacist, Prince of Wales Hospital, South Eastern Sydney Illawarra Area Health Service.

**Session 2 Community**

WIIFY (What’s In It For You) Program - Ms Kath Hayes, Senior Case Manager, Central Coast Case Management Services.

Falls Prevention Pilot Project - Ms Shilo Preston-Stanley, Therapy ACT, ACT Government.

Translating evidence into practice: Implementing the “Stepping On Program” - Ms Monique Johns, Project Officer, Statewide Major Projects Branch, Centre for Health Advancement, NSW Department of Health.

BEST at Home - Ms Amanda Bates, Health Promotion Service, South Eastern Sydney Illawarra Area Health Service.

Incorporating exercises in activities of daily living: will it result in increased adherence to exercises post-program? - Ms Josephine Mortimer & Ms Minh Pham, Fairfield Hospital Falls Intervention Team, Sydney South West Area Health Service.

Video games for falls risk reduction - Dr Stuart Smith, Senior Research Officer, Neuroscience Research Australia (NeuRA).

The “Challenge”: social marketing for falls prevention - Ms Jenny Bawden, Falls Prevention Coordinator, Sydney West Area Health Service & Ms Sharon Butler, Better Balance Coordinator, Anglican Retirement Villages.

**Session 3 Residential Aged Care**

“Basic Steps” A 3 hour exercise training project for staff working in Residential Care Settings: Lessons Learnt - Mrs Sally Castell, Physical Activity Coordinator, Northern Sydney Central Coast Health.

Advanced Care Planning in Residential Aged Care - Ms Anne Meller, CNC Advanced Care Directives, Prince of Wales Hospital, South Eastern Sydney Illawarra Area Health Service.

Developing forms to promote action and improved outcomes in falls prevention - Ms Mandy Harden, CNC Aged Care Education/Community Aged Care Services, Hunter New England Area Health Service.
2010 NSW FALLS PREVENTION NETWORK MEETING

Dr Kerry Chant, DDG NSW DoH

Ms Mandy Harden, HNEAHS

Emma Fitzgerald, GWAHS, Margaret Armstrong & Cheryl Baldwin, NSCCAHS

*MLALC-Metropolitan Local Aboriginal Land Council
RECENT ABSTRACTS FROM THE RESEARCH LITERATURE

REVIEWS

Vitamin D Treatment for the Prevention of Falls in Older Adults: Systematic Review and Meta-Analysis.
DOI: 10.1111/j.1532-5415.2010.02949.x PMID: 20579169 (Copyright © 2010, John Wiley and Sons)

ABSTRACT

OBJECTIVES: To systematically review and quantitatively synthesize the effect of vitamin D therapy on fall prevention in older adults. DESIGN: Systematic review and meta-analysis. SETTING: MEDLINE, CINAHL, Web of Science, EMBASE, Cochrane Library, LILACS, bibliographies of selected articles, and previous systematic reviews through February 2009 were searched for eligible studies. PARTICIPANTS: Older adults (aged >/=60) who participated in randomized controlled trials that both investigated the effectiveness of vitamin D therapy in the prevention of falls and used an explicit fall definition. MEASUREMENTS: Two authors independently extracted data, including study characteristics, quality assessment, and outcomes. The I(2) statistic was used to assess heterogeneity in a random-effects model. RESULTS: Of 1,679 potentially relevant articles, 10 met inclusion criteria. In pooled analysis, vitamin D therapy (200-1,000 IU) resulted in 14% (relative risk (RR)=0.86, 95% confidence interval (CI)=0.79-0.93; I(2)=7%) fewer falls than calcium or placebo (number needed to treat =15). The following subgroups had significantly fewer falls: community-dwelling (aged <80), adjunctive calcium supplementation, no history of fractures or falls, duration longer than 6 months, cholecalciferol, and dose of 800 IU or greater. Meta-regression demonstrated no linear association between vitamin D dose or duration and treatment effect. Post hoc analysis including seven additional studies (17 total) without explicit fall definitions yielded smaller benefit (RR=0.92, 95% CI=0.87-0.98) and more heterogeneity (I(2)=36%) but found significant intergroup differences favoring adjunctive calcium over none (P=.001). CONCLUSION: Vitamin D treatment effectively reduces the risk of falls in older adults. Future studies should investigate whether particular populations or treatment regimens may have greater benefit.

Self Administered Physical Activity Questionnaires for the Elderly: A Systematic Review of Measurement Properties
Forsen L, Loland NW, Vuillemin A, Chinapaw MJM, van Poppel MNM, Mokkink LB, van Mechelen W, Terwee CB.
Sports Medicine, Volume 40, Number 7, 1 July 2010 , pp. 601-623(23)

ABSTRACT

Objective To systematically review and appraise studies examining self-administered physical activity questionnaires (PAQ) for the elderly. This article is one of a group of four articles in Sports Medicine on the content and measurement properties of PAQs. Literature Search Methodology Searches in PubMed, EMBASE and SportDiscus (until May 2009) on self-administered PAQ. Inclusion criteria were as follows: (i) the study examined (at least one of) the measurement properties of a self-administered PAQ; (ii) the questionnaire aimed to measure physical activity (PA) in older people; (iii) the average age of the study population was >55 years; (iv) the article was written in English. We excluded PA interviews, diaries and studies that evaluated the measurement properties of a self-administered PAQ in a specific population, such as patients. We used a standard checklist (qualitative attributes and measurement properties of PA questionnaires (QAPAQ)) for appraising the measurement properties of PAQs. Findings Eighteen articles on 13 PAQs were reviewed, including 16 reliability analyses and 25 validity analyses (of which 15 were on construct validity, seven on health/functioning associations, two on known groups -validity and one on responsiveness). Many studies suffered from methodological flaws, e.g. too small sample size or inadequate time interval between test and retest. Three PAQs received a positive rating on reliability: IPAQ-C (International Physical Activity Questionnaire-Chinese), intraclass correlation coefficient (ICC) >=0.81; WHI-PAQ (Women's Health Initiative-PAQ), ICC =0.76; and PASE (Physical Activity Scale for the Elderly), Pearson correlation coefficient (r) =0.84. However, PASE was negatively rated on reliability in another study (ICC =0.65). One PAQ received a positive rating on construct validity: PASE against Mini-Logger (r=0.52), but PASE was negatively rated in another study against accelerometer and another PAQ, Spearman correlation coefficient =0.17 and 0.48, respectively. Three of the 13 PAQs were tested for health functioning associations and all three were positively rated in some categories of PA in many studies (r>0.30). Conclusions Even though several studies showed an association between the tested PAQ and health functioning variables, the knowledge about reliability and construct validity of self-administered PAQs for older adults is still scarce and more high-quality validation studies are needed.

EPIDEMOIOLOGY AND RISK FACTORS FOR FALLS

Inpatient falls in adult acute care settings: influence of patients’ mental status
Journal of Advanced Nursing 66(8), 1741-1746.

ABSTRACT

Aim. This paper is a report of a study of fallers mental status as one of the patient related intrinsic risk factors for falls. Background: Whether confusion is one of the most important risk factors associated with risk of falling in hospital settings is unclear. Literature reviews have not identified consistent evidence for effective preventive interventions for patients with mental status deficits. Methods: This retrospective research was conducted in six adult acute care units in a community hospital in the United States of America. The data source was the 1017 fall incidents occurring between 1 July 2005 and 30 April 2009. De-
The relationship of fall-related fractures to social deprivation.
Court-Brown CM, Aitken SA, Ralston SH, McQueen MM.


ABSTRACT
The relationship between fall-related fractures and social deprivation was studied in 3,843 patients. The incidence of fractures correlated with deprivation in all age groups although the spectrum of fractures was not affected by deprivation. The average age and the prevalence of hip fractures decreased with increasing deprivation. INTRODUCTION: This study examines the relationship between social deprivation and fall-related fractures. Social deprivation has been shown to be a predisposing factor in a number of diseases. There is evidence that it is implicated in fractures in children and young adults, but the evidence that it is associated with fragility fractures in older adults is weak. As fragility fractures are becoming progressively more common and...
increasingly expensive to treat, the association between social deprivation and fractures is important to define. METHODS: All out-patient and in-patient fractures presenting to the Royal Infirmary of Edinburgh over a 1-year period were prospectively recorded. The fractures caused by falls from a standing height were analysed in all patients of at least 15 years of age. Social deprivation was assessed using the Carstairs score and social deprivation deciles, and the 2001 census was used to calculate fracture incidence. The data were used to analyse the relationship between social deprivation and fall-related fractures in all age groups. RESULTS: The incidence of fall-related fractures correlated with social deprivation in all age groups including fragility fractures in the elderly. The overall spectrum of fractures was not affected by social deprivation although the prevalence of proximal femoral fractures decreased with increasing deprivation. The average age of patients with fall-related fractures also decreased with increasing social deprivation as did the requirement for in-patient treatment. CONCLUSIONS: This is the first study to show the relationship between fall-related fractures and social deprivation in older patients. We believe that the decreased incidence of proximal femoral fractures, and the lower average age of patients with fall-related fractures, in the socially deprived relates to the relative life expectancies in the different deprivation deciles.

RISK ASSESSMENT
ABSTRACT
OBJECTIVE: To develop and internally validate a simple falls prediction tool for rehabilitation settings. DESIGN: Prospective cohort study. PARTICIPANTS: A total of 533 inpatients. METHODS: Possible predictors of falls were collected from medical records, interview and physical assessment. Falls during inpatient stays were monitored. RESULTS: Fourteen percent of participants fell. A multivariate model to predict falls included: male gender (odds ratio (OR) 2.70, 95% confidence interval (CI) 1.57-4.64), central nervous system medications (OR 2.50, 95% CI 1.47-4.25), a fall in the previous 12 months (OR 2.21, 95% CI 1.07-4.56), frequent toileting (OR 2.14, 95% CI 1.27-3.62) and tandem stance inability (OR 2.00, 95% CI 1.11-3.59). The area under the curve for this model was 0.74 (95% CI 0.68-0.80). The Predict_FIRST tool is a unit weighted adaptation of this model (i.e. 1 point allocated for each predictor) and its area under the curve was 0.73 (95% CI 0.68-0.79). Predicted and actual falls risks corresponded closely. CONCLUSION: This tool provides a simple way to quantify the probability with which an individual patient will fall during a rehabilitation stay.

The Development and Validation of a Brief Performance-Based Fall Risk Assessment Tool for Use in Primary Care.
ABSTRACT
BACKGROUND: To report the development, external validity, reliability, and feasibility of a falls risk assessment tool for use in primary care. METHODS: Two prospective cohort studies, a test-retest reliability study, and a feasibility study were included. Seven hundred and sixty four older community-living people (mean age = 75.3 years, SD = 5.8) participated in the tool development study, 362 people (mean age = 80.25 years, SD = 4.5) participated in the external validation study, 30 older people took part in the test-retest reliability study, and 32 clinicians participated in the feasibility study. RESULTS: The fall risk assessment score (number of risk factors) displayed a good ability to discriminate between multiple fallers (those who experienced two or more falls) and non-multiple fallers in the external validation study (area under the receiver operating characteristic curve = 0.72, 95% confidence interval = 0.66-0.79). Each of the performance items; low contrast visual acuity, tactile sensitivity, sit to stand, alternate step, and near tandem stand ability; and measures of previous falls and medications could discriminate between prospectively categorized multiple fallers and non-multiple fallers with relative risk values ranging from 1.4 to 2.4 in the development study. The probability of future multiple falls increased from 7% with the identification of zero or one risk factor up to a probability of 49% with the identification of six or more risk factors. The assessment items exhibited moderate to excellent test-retest reliability and a high degree of acceptance by health professionals. CONCLUSION: The assessment tool is an externally validated, reliable, and feasible falls risk assessment that can accurately predict multiple falls and assist with guiding interventions in community living older people.

Assessing falls in the elderly: should we use simple screening tests or a comprehensive fall risk evaluation?
ABSTRACT
The risk for falling increases in the older population, resulting in an increase in serious outcomes and associated health care costs. Incorporating a falls assessment measure into the routine clinical evaluation is important for early identification of elders
who are at greater risk for falls and provide information that can guide interventions. This article reviews a sample of available falls assessment approaches that are targeted to community dwelling older adults, ranging from simple questionnaires to more functional-based assessments. Newer high-tech and laboratory-based procedures still under development also are discussed. Finally, additional factors related to older individuals, specifically cognition- and emotion-based features that can impact falls risk are discussed as related to their importance for consideration in routine falls assessments. This paper summarizes information to help guide the clinician in choosing the most appropriate currently available tool. As many of these measures are similar in their sensitivity and specificity, decisions on which approach to take in many cases may have to be informed also by the clinic setting and existing resources available to the clinician.

FEAR OF FALLING
Fear of falling in older fallers presenting at emergency departments
Hill K., Womer M., Russell M., Blackberry I. McGann A.
Journal of Advanced Nursing 66(8), 1769-1779, 2010
ABSTRACT
Aim. This paper is a report of an investigation of fear of falling in older people presenting to emergency departments after a fall. Background: Falls are a common and disabling cause of attendance at emergency departments. Fear of falling is an often unrecognized consequence of falls that affects older peoples function. Methods: Sub-analysis was conducted of a randomized trial of a falls prevention programme for people aged 60 years and older presenting to emergency departments after a fall. Data were collected between 2003 and 2006 with 712 participants recruited (mean age 75, 70% female). Baseline and 12 month measurements included fear of falling (Modified Falls Efficacy Scale), falls risk, depression, and balance mobility measures. Intervention participants received interventions based on assessment findings, while control participants received usual care. Repeated measures analysis of variance and logistic regression were used to determine change over time between groups and factors associated with fear of falling, respectively. Results: Sixty per cent of participants had fear of falling. Statistically significant improvement occurred in overall fear of falling (repeated measures analysis of variance -F= 37.3; P < 0.001) and 13 of 14 sub-items of the Modified Falls Efficacy Scale at 12 months, but there was no difference between groups. Multivariate logistic regression identified a number of factors associated with statistically significant increased odds of higher fear of falling persisting at 12 months, including higher baseline fear of falling and multiple falls in the 12 month follow up. Conclusion: Nursing staff in emergency departments have an important role in identifying fear of falling, which may guide the need for referral for further assessment and management after discharge from the emergency department.

INTERVENTION STUDIES
Low acceptance of treatment in the elderly for the secondary prevention of osteoporotic fracture in the acute rehabilitation setting.
Berry SD, Misra D, Hannan MT, Kiel DP.
Aging Clin Exp Res 2010; 22(3): 231-7. Affiliation: Institute for Aging Research, Hebrew SeniorLife, 1200 Centre Street, Boston, MA 02131, USA. sarahberry@hrca.harvard.edu. DOI: unavailable PMID: 20634646 (Copyright © 2010, Editrice Kurtis)
ABSTRACT
BACKGROUND AND AIMS: Given the high risk of subsequent fracture among elderly persons with fracture, it is important to initiate secondary treatment for osteoporosis. Acute rehabilitation centers may offer a unique opportunity to introduce treatment. Therefore, we evaluated willingness-to-participate and compliance with evidence-based interventions for the secondary prevention of osteoporotic fracture in a non-randomized study conducted in the acute rehabilitation setting. We also described differences in baseline characteristics between study participants and non-participants. METHODS: All consecutive, communitydwelling admissions to an acute rehabilitation unit (Boston, MA) with the diagnosis of fracture were screened for enrollment. Eligible subjects were offered a free, 6-month supply of alendronate/cholecalciferol (70 mg/2800 IU weekly), calcium and vitamin D supplements, and fall prevention strategies. Six-month compliance (>75% consumption of medication or supplement) with the interventions was determined at a home visit. RESULTS: Among 62 eligible subjects, 25 agreed to participate. Non-participants were older than participants (86 vs 80 yrs, p<0.01). There was no significant difference between other characteristics of participants and non-participants including sex, weight, type of fracture, cognitive status, and functional status. The most common reason for non-participation was reluctance to take another medication. Among participants, only 52% were compliant with alendronate and 58% were compliant with calcium and vitamin D supplementation at 6 months. CONCLUSIONS: Willingness-to-participate and compliance with secondary prevention strategies for osteoporosis was low in the acute rehabilitation setting, even when medications were provided free of cost. Educating individuals with fracture and their families on the consequences and treatment of osteoporosis may help to decrease the risk of sustaining a second fracture by accepting secondary preventive measures.

Modelling the population-level impact of Tai-Chi on falls and fall-related injury among community-dwelling older people.
Day L, Finch CF, Harrison JE, Hoareau E, Segal L, Ullah S.
**ABSTRACT**

Objective: To model the population level impact of tai-chi on future rates of falls and fall-related injury in older people as a tool for policy development. Design: An epidemiological and economic model for estimating population-level effectiveness of tai-chi. Setting: Australia, 2009. Patients or subjects: Australian community-dwelling population aged 70+ years, ambulatory and without debilitating conditions or profound visual defects. Intervention: Group-based tai-chi, for 1 h twice weekly for 26 weeks, assuming no sustained effect beyond the intervention period. Main outcome measure: Total falls and fall-related hospitalisation prevented in 2009. Results: Population-wide tai-chi delivery would prevent an estimated 5440 falls and 109 fall-related hospitalisations, resulting in a 0.18% reduction in the fall-related hospital admission rate for community-dwelling older people. The gross costs per fall and per fall-related hospital admission prevented were $A4414 (euro3013) and $A220 712 (euro150 684), respectively. A total investment of $A24.01 million (euro16.39 million), equivalent to 4.2% of the cost of fall-related episodes of hospital care in 2003/4, would be required to provide tai-chi for 31 998 people and achieve this effect. Conclusions: Substantial investment in, and high population uptake of, tai-chi would be required to have a large effect on falls and fall-related hospitalisation rates. Although not accounted for in this study, investment in tai-chi is likely to be associated with additional significant health benefits beyond falls prevention. This approach could be applied to other interventions to assist selection of the most cost-effective falls-prevention portfolio for Australia and other countries.

The Effects of a Home-Based Exercise Program on Balance Confidence, Balance Performance, and Gait in Debilitated, Ambulatory Community-Dwelling Older Adults: A Pilot Study

Miller, Kenneth L. DPT; Magel, John R. PhD; Hayes, Joseph G. DPT.

*Journal of Geriatric Physical Therapy:* April-June 2010 - Volume 33 - Issue 2 - p 85 to 91

**ABSTRACT**

Purpose: The purpose of this pilot study was to evaluate the effects of a home-based standing exercise and balance training program on balance confidence, balance performance, and gait in debilitated, ambulatory community-dwelling older adults. Methods: A quasi-experimental single group pre-to posttest design was utilized in 14 subjects, 9 male and 5 female, aged 71 to 85 years receiving home care. Measurements included the Falls Efficacy Scale (FES), Performance Oriented Mobility Assessment (POMA), and the One-Leg Stance Test (OLST) administered prior to and following 4 weeks of exercise and balance training. Participants trained twice per day, 5 days per week for 4 weeks, and maintained exercise logs. Results: Pre-to posttest differences on the FES, POMA, and OLST were analyzed with the Wilcoxon signed rank test and the 2-tailed paired t test, respectively, with statistical significance set at .05. Analysis demonstrated significant improvements on the FES, POMA, and OLST following 4-weeks of standing exercise and balance training. Conclusions: The results of the present pilot study demonstrated significant improvement in balance confidence, balance performance, and gait in debilitated, ambulatory community-dwelling older adults following participation in a home-based exercise and balance training program. However, definitive conclusions need to await validation from more rigorously designed studies before the present training program can be confidently recommended to physical therapists engaged in home care practice.

Impact of Participation in a Wellness Program on Functional Status and Falls Among Aging Adults in an Assisted Living Setting

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**ABSTRACT**

Problem: Aging adults residing in assisted living facilities are vulnerable to the effects of cumulative chronic illness and increasingly sedentary lifestyle, both contributing to risk of functional decline over time. Participation in regular exercise appears to preserve functional status and may minimize the rate of functional decline. Purpose: This quasi-experimental study evaluated the longitudinal impact of regular participation in a wellness exercise program on functional status of residents in assisted living. Methods: Thirty-six aging adults participating in a multimodal wellness program were evaluated on enrollment and after 12 months of participation. Cognitive status (Mini-Mental State Examination score), postural control/fall risk (Berg Balance Scale score), and cardiovascular endurance/mobility (6-Minute Walk Test distance) were examined on enrollment and at annual reassessment. Falls over 12 months were determined by tracking annual reported incidence of falls. Subjects were classified as regular or nonregular exercisers on the basis of participation frequency and adherence. Chi-square analysis and analysis of variance were used to screen for initial differences between groups. Repeated-measures analysis of variance evaluated differences in cognitive status, falls, and functional measures between groups at annual reassessment. Results: Mean age (SD) of participants was 85.5 (6.3) years (range = 72 to 96 years). There were no differences between groups at the time of enrollment. At annual reassessment, regular exercisers demonstrated better preservation of functional status and a lower rate of falling than nonregular exercisers. Conclusion: Regular participation in an individualized wellness program as little as twice weekly for 9 of 12 months provides protection against functional decline and risk of falls in older adults in assisted living settings.
Multifactorial intervention to reduce falls in older people at high risk of recurrent falls: a randomized controlled trial.

ABSTRACT
BACKGROUND: Falls occur frequently in older people and strongly affect quality of life. Guidelines recommend multifactorial, targeted fall prevention. We evaluated the effectiveness of a multifactorial intervention in older persons with a high risk of recurrent falls. METHODS: A randomized controlled trial was conducted from April 3, 2005, to July 21, 2008, at the geriatric outpatient clinic of a university hospital and regional general practices in the Netherlands. Of 2015 persons identified, 217 persons aged 65 years or older were selected to participate. They had a high risk of recurrent falls and no cognitive impairment and had visited the emergency department or their family physician after a fall. The geriatric assessment and intervention were aimed at reduction of fall risk factors. Primary outcome measures were time to first and second falls after randomization. Secondary outcome measures were fractures, activities of daily living, quality of life, and physical performance. RESULTS: Within 1 year, 55 (51.9%) of the 106 intervention participants and 62 (55.9%) of the 111 usual care (control) participants fell at least once. No significant treatment effect was demonstrated for the time to first fall (hazard ratio, 0.96; 95% confidence interval, 0.67-1.37) or the time to second fall (1.13; 0.71-1.80). Similar results were obtained for secondary outcome measures and for per-protocol analysis. One intervention participant died vs 7 in the control group (hazard ratio, 0.15; 95% confidence interval, 0.02-1.21). CONCLUSION: This multifactorial fall-prevention program does not reduce falls in high-risk, cognitively intact older persons.

Why multifactorial fall-prevention interventions may not work: Comment on "multifactorial intervention to reduce falls in older people at high risk of recurrent falls".
Mahoney JE.
Arch Intern Med 2010; 170(13): 1117-9. Affiliation: Department of Medicine, University of Wisconsin School of Medicine and Public Health, 2870 University Ave, Ste 106, Madison, WI 53705. Jm2@medicine.wisc.edu. DOI: 10.1001/archinternmed.2010.193 PMID: 20625016 (Copyright © 2010, American Medical Association)

ABSTRACT
This well-done study by de Vries et al reports no significant decrease in falls with a multifactorial fall-prevention intervention. This is not the first negative study; there have been plenty. However, before we toll the death knell for multifactorial interventions as a prevention strategy, we need to figure out why multifactorial interventions appear to work in some studies but not others. What makes a multifactorial intervention succeed in reducing falls? Success may depend on 3 constructs: content, process, and choice of target group.

The effects of Tai Chi on fall prevention, fear of falling and balance in older people: A meta-analysis.
Logghe IH, Verhagen AP, Rademaker AC, Bierma-Zeinstra SM, van Rossum E, Faber MJ, Koes BW.
Prev Med 2010; ePub(ePub): ePub. Affiliation: Department of General Practice, Erasmus MC, University Medical Centre Rotterdam, P.O. Box 2040, 3000 CA Rotterdam, The Netherlands; Avans Hogeschool, University of Applied Sciences, P.O. Box 90116, 4800 RA Breda, The Netherlands. DOI: 10.1016/j.ypmed.2010.06.003 PMID: 20558197 (Copyright © 2010, Elsevier Publishing)

ABSTRACT
OBJECTIVE: Tai Chi (TC) is an exercise training that is becoming increasingly popular as an intervention for single fall prevention. This meta-analysis was performed to evaluate the efficacy of TC on fall rate, fear of falling and balance in older people. METHODS: Randomized controlled trials published between 1988 and January 2009 were included. In the Netherlands (2009) we used random effects models for the analyses, with data reported as incidence rate ratios (IRR) for falls and standardized mean differences (SMD) for fear of falling and balance. RESULTS: Nine trials (representing 2,203 participants) were included in the analyses. Compared with exercise controls, TC participants showed significant improvements in fall rates (2 trials included, IRR: 0.51, 95% CI 0.38-0.68) and static balance (2 trials included, SMD: 0.47, 95% CI 0.23-0.72). Compared with non-exercise controls, no improvement was found for TC participants in fall rates (5 trials, IRR: 0.79, 95% CI 0.60-1.03) or static balance (2 trials, SMD: 0.30, 95% CI -0.50-1.10), but a significant improvement was found for fear of falling (SMD:0.37, 95% CI=0.03-0.70). CONCLUSIONS: Currently there is insufficient evidence to conclude whether TC is effective in fall prevention, decreasing fear of falling and improving balance in people over age 50 years.

Designing a falls prevention strategy that works.
J Nurs Care Qual 2010; 25(3): 198-207. Affiliation: Hamilton Health Sciences, Hamilton, Ontario, Canada. irelason@hhsc.ca DOI: unavailable PMID: 20535846 (Copyright © 2010, Lippincott Williams and Wilkins)

ABSTRACT
In implementing an evidence-based falls prevention strategy in acute care, planners are frequently pressed to meet organizational targets while allowing staff flexibility to match interventions with patient population needs and clinical realities. We describe the process of how one hospital creatively used evidence, systems change, staff engagement, expert consultation, policy
and protocols, staff and patient education, marketing, and celebration to design and implement a falls prevention strategy on 60 clinical units that reduced annual fall rates by 20%.

WEBSITES AND COURSES
NPSA/NRLS UK 2010 Update: Slips, trips and falls
http://www.nrls.npsa.nhs.uk/resources/?EntryId45=74567

Update on 2007 Figures: These data are taken from acute and community hospitals and mental health units in England and Wales in 2008-9. There is a slide set that updates the tables and graphs from Slips trips and falls in UK hospitals based on the twelve months ending 30 September 2009. Over 280,000 falls and almost 1,000 hip fractures (61% of the fractures) reported from hospitals in England and Wales each year.

Dementia Collaborative Research Centres

This website includes links to information on dementia assessment and better care, early diagnosis and prevention and information for carers and consumers

Age UK
http://www.ageuk.org.uk/

Age Concern & Help the Aged are now Age UK with a range of information for both consumers and health professionals.

New from AIHW (Australian Institute of Health and Welfare)
Australia’s Health 2010

Australia’s health 2010 is the 12th biennial health report of the Australian Institute of Health and Welfare. It’s the nation’s premier source of statistics and informed commentary on: determinants of health and keys to prevention; diseases and injury; how health varies across population groups; health across the life stages; health services, expenditure and workforce; the health sector’s performance.

Australian Hospital Statistics 2008-09

Australian hospital statistics 2008-09 presents a detailed overview of Australia’s 1,317 public and private hospitals. In 2008-09, there were 8.1 million separations from Australia’s hospitals including: 4.5 million same-day acute separations; 3.3 million overnight acute separations; almost 300,000 non-acute separations. There were 7.2 million presentations to public hospital emergency departments, with 70% of patients seen within the recommended times for their triage categories.
NSW Health Promotion Networks invite your participation in this Symposium.

**Where:** Wesley Conference Centre, Pitt St, Sydney.
**When:** Thurs 11\(^{th}\) Nov – Fri 12\(^{th}\) Nov, 2010


The focus will be to explore, promote and discuss the issues emanating from the theme of *Challenges and Successes in Achieving Equity-Focused Outcomes.*

Achieving equity is a challenge and this is an opportunity to profile the challenges, opportunities and successes in achieving ‘equity focused outcomes’.

Registrations are open now.
**Early Bird before 6\(^{th}\) Sept:**
- Sydney Metropolitan $210
- Non Sydney Metropolitan $180

Supported by: NSW Health - Centre for Health Advancement; the NSW Health Promotion Workforce Development Network; NSW Health Promotion Research and Evaluation Network; the Health Equity Practico Network; with the support of the Health Promotion Communication Network; the NSW Health Promotion Director’s Forum; with sponsorship from NSW Health Centre for Health Advancement; the NSW Institute of Rural Clinical Services and Teaching; and the NSW Branch of the Australian Health Promotion Association.
Abstract submission has now closed for the above conference.
Registrations are now open and the Early Bird rate closes on 20th September, 2010
ANZFP Website at: http://www.otago.ac.nz/fallsconference/index.html

Staying Active, Staying Safe
New Ways Forward for Injury Prevention in the 21st Century
A satellite meeting of the PHAA 40th Annual Conference

This forum will bring together key researchers, advocates and leaders to set a national strategic injury prevention agenda to build the profile of injury as a significant public health issue. This is a partnership between PHAA Special Interests Groups (SIG) in Injury Prevention and health Promotion, the Australian Injury Prevention Network and the Safe, Sufficient ans Sustainable Mobility Consortium.

Date: Thursday 30 September, 2010 9am – 5pm
Venue: Intercontinental Hotel, Adelaide (next to the Convention Centre)
Cost: $50 for PHAA, AIPN members, $80 for non-members

Register online at http://www.phaa.net.au/injuryPrevention.php

Public Health in a 21st Century Society: New ways of knowing doing living
Invited speakers include Prof Fran Baum, Prof Barbara Pocock, Prof Alan Peterson, Prof Janet Hiller, A/Prof Jenny Baker and A/Prof Daryle Rigney
Further information and registration at: http://www.phaa.net.au/40thPHAAAnnualConference.php
NSW FALLS PREVENTION NETWORK BACKGROUND

The NSW Falls Prevention Network has existed since 1993. The role of this network has grown since its inception and now includes:

- Meetings for discussion of falls related issues;
- Dissemination of research findings both local and international;
- Sharing resources developed and exploration of opportunities to combine resources in joint initiatives;
- Encouragement of collaborative projects and research;
- To act as a group to influence policy;
- To liaise with NSW Health to provide information on current State/Commonwealth issues in relation to falls and
- Maintenance of resources pertinent to the field

The main purpose of the network is to share knowledge, expertise, and resources on falls injury prevention for older people.

The NSW Falls Prevention Network activities are part of the implementation of the NSW Falls Prevention Policy funded by the NSW Department of Health.

JOINING THE NETWORK

To join the NSW Falls Prevention Network listserv:
- Send an email to:
majordomo@lists.health.nsw.gov.au
- In the body of the message type
subscribe nsw-falls-network
on the next line type end
- Do not put anything in the subject line
- You will receive an e-mail to confirm you have been added to the listserv
- To unsubscribe send an e-mail to the above address and in the body of the message write
unsubscribe nsw-falls-network
on the next line type end

If you have any problems contact Esther at e.vance@pwmri.edu.au.

SHARE YOUR NEWS AND INFORMATION/IDEAS ON FALLS PREVENTION

Do you have any news on Falls Prevention you want to share with others on the network, or do you want to report on a project that is happening in your area.

Please email Esther with your information. We also welcome suggestions for articles and information you would like to see in this newsletter.

Send your information to e.vance@neura.edu.au

THE NETWORK LISTSERV

It is great to see the increased activity on the listserv and want to continue to promote this. To send an item to the listserv where all members of the network can see it, send an email to:
nsw-falls-network@lists.health.nsw.gov.au

You need to be a subscriber to the listserv to send an email that will be distributed to all members of the on the listserv. Remember to put a short description in the subject line.

Recently some posts to the listserv have bounced due to email address changes in the area health services, you need to re-subscribe with your new e-mail address and unsubscribe from your old address following the Join the Network instructions as shown on this page.