Welcome

The first issue for 2011 includes:

- April Falls Day 2011- information, ideas and resources.
- Consumer engagement and its importance in falls prevention.
- Abstracts and resources - the latest abstracts from the research literature and other resources as well as websites.

The NSW Falls Prevention Network Forum will be held on Friday 27th May 2011, please go to our website for further information and a link to register: http://fallsnetwork.neura.edu.au/

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http://fallsnetwork.neura.edu.au/

April Falls Day 2010 at Fairfield Hospital
Friday 1st April 2011 is April Falls Day,

A day for your Health Service to promote Falls Prevention messages to
Staff and Patients,
Families and Carers,
Community Services and
General Community

Background

April Falls Day was initiated in Northern Sydney Central Coast Area Health Service (NSCCAHS) to promote falls prevention with staff, community service providers and the general community.

The Clinical Excellence Commission (CEC) has supported April Falls Day since 1st April 2008 and has arranged for it to be gazetted in the NSW Health Calendar on April 1st.

April Falls Day in NSW is to promote falls prevention best practice in hospital, community and residential aged care.

April Falls Day 2011

Our focus in 2011 is to promote:

• The Australian Commission on Safety Quality and Health Care (ACSQHC) 2009 falls prevention best-practice guidelines: Preventing Falls and Harm from Falls in Australian hospitals, Community Care and Residential Aged Care.

• Staying Active and On your Feet, a Community Falls Prevention resource booklet - which provides key messages on
  • Simple Home Based Exercises essential to staying active
  • A Health and Lifestyle Checklist
  • A Home Safety Checklist
  • Tips for staying active and healthy

• www.activeandhealthy.nsw.gov.au – a new website, Active and Healthy that provides a web-based directory of falls prevention physical activity programs in NSW and information for physical activity providers and the general community.

Activities that have worked well on previous April Falls Days include:

› Falls Prevention display and distribution of falls prevention information in:
  • The front foyer of a hospital
  • Local shopping centres and areas
  • Community Health Centres
**Involve local Allied Health Workers:**

- **Optometrist/orthoptist** to offer simple vision tests and to promote clean glasses
- **Physiotherapists** to conduct balance and gait tests
- **Podiatrist** to offer foot exams and talk about well fitting shoes

**Physical Activity Demonstrations and distribution of information**

- Tai Chi
- Strength and Balance exercises
- Information on where to participate in exercise programs that incorporate strength and balance exercise’s locally.

**Conduct Community Forums**

- Invite local community service providers to a forum/session on falls prevention and distribute information.

In the past some areas have extended *April Falls Day* to *April Falls Month* with activities over the month including Community Forums and activities in Residential Aged Care Facilities.

*April Falls Day* activities conducted in 2010 across NSW were highlighted in the NSW Falls Prevention Network Newsletter:


**April Falls Day for Hospital Staff**

This is a great opportunity to raise awareness of The Australian Commission on Safety Quality and Health Care (ACSQHC) 2009 falls prevention best-practice guideline, *Preventing Falls and Harm from Falls in Australian hospitals*.

Information about these guidelines can be obtained from:
Clinical Excellence Commission (CEC) website:

Copies of the guidelines and guidebook and a CD are available.
Please contact: Ingrid Hutchinson,
Falls Prevention Project Officer, CEC ph: 02 9269 5516
or email: ingrid.hutchinson@cec.health.nsw.gov.au

*Falls Prevention Strategies for Hospital* a summary can be downloaded from the CEC website:
For more information please go to the NSW Falls Prevention Network website:
A Special Issue, Falls Link Newsletter (Volume 5, Issue 4, 2010) was circulated in October 2010 about the ACSQHC Falls Prevention Guidelines and you will find it on the website under News: Newsletter Archive:
Suggestions for April Falls Day Activities with staff.

• **Plan and conduct falls prevention education sessions for staff during April.** The CEC has developed a DVD/CD education resource: Preventing Falls in NSW Hospital. It includes an education manual and Power Point presentations for education sessions and is presents 4 video case scenarios based on falls hospital incidents. These have been distributed across the state but you can obtain a copy by contacting: Ingrid Hutchinson ph 02 9269 5516 or Email: ingrid.hutchinson@cec.health.nsw.gov.au

• **Display Graphs which identify where and when falls are occurring on your ward.** To raise awareness of where and when the falls are occurring on your ward review your IIMS falls incident data and graph where and what time falls have occurred on your ward in the last month. Encourage staff to talk out the falls, why they happened and what could have been done to prevent them.

• **Falls prevention competition.** In the past few years hospitals have had competitions across the wards for the best falls prevention displays. This has involved decorating wards, staff dressing up and promoting falls prevention information to patients.

**Poster - Falls Look Out Please**

This can be downloaded from the CEC website:

Falls remain the most common incident reported in the Incident Information Management System (IIMS) and occur particularly in: Medicine-General, Aged Care-Geriatrics, Rehabilitation, Surgical- Orthopedics and Surgical-General wards.

**Key falls prevention strategies include:**

• Standardised falls risk screening all patients admitted to hospital > 65 years.
• Referral for multidisciplinary falls risk assessment.
• Monitor and assess any changes in cognitive function which include early identification of delirium. Treat underlying cause of delirium (infection, pain, dehydration, constipation).
• Implement regular toileting rounds and treating any urinary tract infection if continence is an issue.
• Review medications and in particular reduce the use of psychotropic and night sedation.
• Investigate episodes fainting or dizziness.
• Review the ward environment to reduce clutter and floor surfaces are clean and dry.
• Ensure that patients can access call bell, personal items and that bed is at right height and wheels are locked.
• Provide walking aids for patients with balance problems.
• Ensure patients are wearing safe footwear.
• Investigate and treat any vision impairment issues.
• Closely monitor patients at high risk of falling. Increase observation and supervision.
• When a patient falls in hospital implement post-fall assessment and management guideline.
• Report fall incidences in, IIMS, and provide feedback to ward staff. Ensure that information is included at handover.

**April Falls Day for Community Care**

This is a great opportunity to raise awareness of the new Australian Commission on Safety Quality and Health Care (ACSQHC) 2009 falls prevention best-practice guidelines: *Preventing Falls and Harm from Falls in Community Care.*

Information about these guidelines can be obtained from Clinical Excellence Commission (CEC) website:
Falls Facts for people living in the Community

Falls are common among older people:

- More than one in four people aged 65 years or over have at least one fall per year and many fall more than once.
- In NSW each year falls lead to approximately 27,000 hospitalisations and at least 400 deaths in people aged 65 years and over.
- In 2006/07 an estimated 251,000 people aged 65 years or older (27% of this age group population) fell at least once.
- Even non-injurious falls can have negative impacts such as loss of confidence and activity restriction.

A systematic review (2009) of randomised controlled trials, assessing interventions for preventing falls in community-dwelling older people identified the following effective interventions.

- Certain exercise programs:
  - Home exercise program including balance retraining and muscle strengthening (such as the Otago exercise program), individually prescribed by a trained health professional
  - Certain forms of Tai Chi group exercise
- Group exercise programs that include balance retraining and muscle strengthening, with sufficient frequency and intensity multi-factorial interventions, which include assessment of falls risk factors followed by individualised interventions, usually involving a multi-disciplinary team
- Home hazard assessment and modification that is professionally prescribed amongst older people at high risk of falls or with severe visual impairment
- Gradual withdrawal of psychotropic medication, where clinically appropriate.
- Pacemakers for those with carotid sinus hypersensitivity
- Cataract surgery

Resources available for Community Care

Staying Active and On your Feet

This resource includes:

- Simple strength and balance home based exercises essential to staying active
- A Health and Lifestyle checklist
- Pictures and description of how to get up from a fall
- A home safety checklist

Health Professionals are able to order this resource from:
The Resource Distribution Unit at Gladesville Hospital
Ph: 9879 0443 Fax: 9879 0994
email: TOBINFO@doh.health.nsw.gov.au
**Active and Healthy website:** www.activeandhealthy.nsw.gov.au

This new website allows you to:

- Find a **Falls Prevention Exercise Program** in your local area
- **New** community resource **Staying Active and On Your Feet**
- Simple **Home Based Exercises** essential to staying active
- A Health and Lifestyle Checklist
- A Home Safety Checklist
- Tips for staying active and healthy

### Residential Aged Care Settings

This is a great opportunity to raise awareness of the new Australian Commission on Safety Quality and Health Care (ACSQHC) 2009 falls prevention best-practice guidelines: *Preventing Falls and Harm from Falls in Residential Aged Care*. In particular for NSW Health services providing residential aged care, in multi-purpose services, and long stay wards.

Information about these guidelines can be obtained from:

Clinical Excellence Commission (CEC) website:

Copies of the guidelines and guidebook and a CD are available.

Please contact: Ingrid Hutchinson, Falls Prevention Project Officer, CEC, Phone: 02 9269 5516 or

Email: ingrid.hutchinson@cec.health.nsw.gov.au

### Falls Facts for people living in Residential Aged Care

Falls Rates for people living in Residential Aged Care Facilities (RACF) are between one and five falls per resident per year have been reported. This means up to half of all residents experience one or more falls in a 12-month period. Research evidence has shown that Vitamin D supplementation as an effective intervention for preventing falls among residents of residential aged care facilities. Multi-factorial” programs tailored to each person’s falls risk factors that includes exercise, review of medications, and provision of vitamin D supplementation have been found to be effective.

All residents should be screened and then assessed for falls risk factors upon admission, then regularly (every 6 months) or when there is a change in functional status is evident.

### Resources available for Residential Care:

- **Poster - Falls Look Out Please**
  
  This can be downloaded from the CEC website:
  


### Other resources available:

### Education CDs

1. **Falls Prevention Experts**

To support the distribution of the ACSQHC 2009 Falls Prevention Best Practice Guidelines: *Preventing Falls and Harm from Falls in Australian Hospitals, Community Care and Residential Aged Care* a number of KEY presentations by falls prevention experts and falls champions were filmed and will be made available via the NSW Falls Prevention Network. Presentations include:
• Professor Stephen Lord, Neuroscience Research, Australia - Falls Prevention Guidelines, Falls Risk Assessment and Vision Interventions in Older People
• Dr Cathie Sherrington, The George Institute: Exercise prescriptions for Hospital, Community and Residential Aged Care
• Ms Margaret Armstrong, Falls Prevention Co-ordinator: Implementing best practice falls prevention in the community
• Mr John Senior, Clinical Nurse Consultant: The role of Vitamin D and calcium in preventing falls in the older population.
• Ms Mandy Harden, Clinical Nurse Consultant: ACSQHC National Falls Prevention Guidelines for Residential Care
• Ms Colleen McKinnon, Clinical Nurse Consultant: Confusion and Falls in Older People

2. NSW Falls Network Rural Video Conference
During November 2010 the NSW Falls Network in collaboration with the CEC conducted a Falls Prevention Rural Video Conference sessions to support the distribution of the ACSQHC 2009 Falls Prevention Best Practice Guidelines. These presentations have been filmed and will be available on CD.
Speakers included:
• Professor Stephen Lord, Neuroscience Research, Australia: Falls Prevention Guidelines, Falls Risk Assessment and Vision Interventions in Older people.
• A/Professor Lindy Clemson, Sydney University: Engaging older people in fall prevention activities
• Dr Cathie Sherrington, The George Institute: Exercise prescriptions for hospitals, community and residential Aged care.
• Ms Colleen McKinnon, Dementia Care Clinical Nurse Consultant: Confusion and Falls in Older people.
• Dr Daniel Lalor, CEC: Medications and Falls
• Mr John Senior, Clinical Nurse Consultant: Vitamin D and Falls
• Ms Kathy Bullen, Director of Nursing: Implementing best practice in hospitals
• Dr John Ward, Geriatrician: Implementing best practice in residential aged care.

This resource should be available by early March 2011. Information will be provided at:
NSW Falls Prevention Network website: www.neura.edu.au/fallsnetwork

ACSQHC 2009 Falls Prevention Best Practice Guidelines for Australian Hospital, Residential Aged Care and Community Care.
The CEC still has a limited numbers of the free copies (for NSW Health Staff only) of the ACSQHC Falls Prevention Guidelines remaining:
These are available in hard copies and CD including a Guideline, Guidebook and CD (which has the complete set of the guidelines, guidebooks, implementation guide and fact sheets).
Free copies of the Community Care Guideline have all been distributed. These will now have to be purchased.

Ordering Copies of the ACSQHC 2009 Falls Prevention Guidelines, Guidebooks and CD
1. NSW Health Staff: If you would like to receive a copy of the guideline, guidebook and CD and you are employed by NSW Health please use the Order Form on the CEC website at:
If you have any queries please do not hesitate to contact: Ingrid Hutchinson, Project Officer, NSW Falls Prevention Program (Tues, Thurs and Fri)
Email: ingrid.hutchinson@cec.health.nsw.gov.au or Phone: 02 9269 5516
2. **All other persons** interested in obtaining a copy of the guideline, guidebook and CD (private providers, non-government agencies, community care and residential aged care) you can purchase copies from the Queensland Government Bookshop.
Phone: 13 13 04,
Email service@sds.qld.gov.au.

**More Resources available to purchase:**

**Fridge Magnets (these are pictured on page 9)**
Many of you would be aware of the Strength and Balance for Seniors fridge magnets developed by Sydney West Area Health Service (SWAHS). They have information on simple exercises that can be done at home. These can be purchased (cardboard version with magnets on the back) at a cost of $30 for 100 (including postage).
These are still available.
If you wish to purchase these, contact Yvonne Herrero on
e-mail: Yvonne.Herrero@wsahs.nsw.gov.au
Phone: (02) 4734 2689
In conjunction with SWAHS Aboriginal Health Unit have recently developed a version of the magnet for older aboriginal people/elders. This has a generic NSW Health logo.
This version is more expensive as it is larger (278mm x 121mm) and is fully magnetised, so is much more durable.
For a box of 200, the cost will be $225 inc GST.
Contact: Dave Hill -Customer Service,
Penrith Art Printing Works
Telephone: 02 4731 5242 Facsimile: 02 4731 2572 Email: Dave@papw.com.au

**T-Shirts, Pens and Mugs**
T-shirts, pens and mugs can be purchased from Good Gear who have the artwork from previous years.
Contact: Michelle Davidson, Executive Assistant
Unit 6/16 Jusfrute Drive, West Gosford NSW 2250 Direct Ph: 02 4320 1811
Ph: 02 4323 4884, Fax: 02 4323 4910
E: michelle@goodgear.com.au,
www.goodgear.com.au

**Northern Sydney Central Coast Health** (NSCCH) have developed a number of April Falls Day Resources including a Choose the Right Shoes brochure, Don’t Fall for It bookmark, and Prevent a Fall at Home Fridge Magnet, information on purchasing these resources can be obtained from:
Chris Lawrenson at Healthy Lifestyle, NSCCH Health Promotion Service Ph: 02 8877 5327 (W, Th, Fr) or 02 8877 5300 or Email: Clawrens@nsccahs.health.nsw.gov.au. An order form is available on the NSW Falls Prevention Network Website at:
References


Consumer engagement in Falls Prevention

The Australian Commission on Safety and Quality in Health Care (ACSQHC) developed a suite of evidence based 2009 falls prevention best practice guidelines: Preventing Falls and Harm from Falls in Australian Hospitals, Community Care and Residential Aged Care. Older people are at the centre of these guidelines.

The participation of the older person in their own health care is central to high-quality and accountable health services. It also encourages shared responsibility in health care. The older person can help facilitate change in health care practices. These guidelines were written to promote independence and rehabilitation of the older person in each of the care settings.

Health care professionals should consider the following issues to encourage older people to participate in falls prevention:

• Make sure the falls prevention message is presented within the context of staying independent for longer 1
• Be aware that the term ‘falls prevention’ could be unfamiliar and the concept difficult to understand for many people in this age group 1.
• Provide relevant and user-friendly information to allow older people and their carers to take part in discussions and decisions about preventing falls2 (use the fact sheets on preventing falls).
• Find out what changes an older person is willing to make to prevent falls, so that appropriate and acceptable recommendations can be made 2.
• Offer information in languages other than English, where required 3; however, do not assume literacy in their own language.
• Explore the potential barriers that may stop older people from taking action to reduce falls (such as low self-efficacy and fear of falling) and support older people to overcome these barriers 2.
• Develop falls prevention programs that are flexible enough to accommodate the older person’s needs, circumstances and interests 2.
• Ask the older person’s family to help in falls prevention strategies.
• Trial a range of interventions with the older person 3.

From ACSQHC Preventing Falls and Harm from Falls in Australian Hospitals, Community Care and Residential Aged Care which can be accessed at:

References


2 NCC-NSC(National Collaborating Centre for Nursing and Supportive Care) (2004). Clinical Practice Guideline for the Assessment and Prevention of Falls in Older People.

RECENT ABSTRACTS FROM THE RESEARCH LITERATURE

REVIEWS

Hip protectors for preventing hip fractures in older people.

ABSTRACT
BACKGROUND: Hip fracture in older people usually results from a fall on the hip. Hip protectors have been advocated as a means to reduce the risk of hip fracture.
OBJECTIVES: To determine if external hip protectors reduce the incidence of hip fractures in older people following a fall.
SEARCH STRATEGY: We searched the Cochrane Bone, Joint and Muscle Trauma Group Specialised Register (January 2010), The Cochrane Library 2010, Issue 2, MEDLINE (1950 to November 2009), MEDLINE in-process (30 December 2009), EMBASE (1988 to 2009 week 52), CINAHL (1982 to February 2009), BioMed Central (January 2010) and reference lists of relevant articles.
SELECTION CRITERIA: All randomised or quasi-randomised controlled trials comparing the use of hip protectors with an unprotected control group.
DATA COLLECTION AND ANALYSIS: Two authors independently assessed risk of bias and extracted data. We sought additional information from trialists. Data were pooled using fixed-effect or random-effects models as appropriate.
MAIN RESULTS: Pooling of data from 13 studies (11,573 participants) conducted in nursing or residential care settings found a marginally significant reduction in hip fracture risk (risk ratio (RR) 0.81, 95% confidence interval (CI) 0.66 to 0.99); statistical significance was lost following exclusion of five studies (3757 participants) assessed at high risk of bias (RR 0.93, 95% CI 0.74 to 1.18). Pooling of data from three trials (5135 community-dwelling participants) showed no evidence of reduction in hip fracture risk (RR 1.14, 95% CI 0.83 to 1.57). There was no evidence of a statistically significant effect on incidence of pelvic or other fractures, or on rate of falls. No important adverse effects of the hip protectors were reported but adherence, particularly in the long term, was poor.
AUTHORS’ CONCLUSIONS: The effectiveness of the provision of hip protectors in reducing the incidence of hip fracture in older people is still not clearly established, although they may reduce the rate of hip fractures if made available to frail older people in nursing care. It remains unknown from studies identified to date if these findings apply to all types of hip protectors. Some cluster-randomised trials have been associated with high risk of bias. Poor acceptance and adherence by older people offered hip protectors have been key factors contributing to the continuing uncertainty.

EPIDEMIOLOGY AND RISK FACTORS

Conflicting trends in fall-related injury hospitalisations among older people: variations by injury type.

ABSTRACT
Despite advances in prevention, fall-related hospitalisation rates among older people are still increasing. Rates between 1998/1999 and 2008/2009 for non-facture-related injuries increased by 6.1% while fracture injuries declined by -0.4%. Varying trends in rates of different injury types makes it difficult to provide a definitive explanation for these changes.
INTRODUCTION: Despite advances in fall prevention research and practice, the rate of fall-related hospitalisations continues to increase. However, hip fracture rates appear to be declining. An examination
of trends in types of injuries that contribute to the overall fall injury rate is required to establish which injuries are driving the falls admission rate. The aim of this paper is to examine trends in fall-related injury hospital admissions by injury type in New South Wales (NSW), Australia.

METHODS: A retrospective review of fall-related injury hospitalisations in NSW among individuals aged 65+ years, by injury type, was conducted from 1 July 1998 to 30 June 2009. Direct age-standardised admission rates were calculated. Negative binomial regression was used to examine the statistical significance of changes in trend over time of different hospitalised fall-related injuries.

RESULTS: The fall-related hospitalisation rate increased by 1.7% each year (p < 0.0001; 95% confidence interval (CI), 1.3-2.1%). However, the rate of fracture declined by -0.4% (p < 0.03; 95% CI, -0.8-0.0%); whereas, the non-fracture rate increased by 6.1% (p < 0.0001; 95% CI, 5.5-6.7%) annually. Rates for severe head injuries, rib and pelvic fracture increased while those for hip and forearm fracture declined.

CONCLUSIONS: It appears that while fall prevention efforts in NSW are not yet affecting the overall rate of injury hospitalisation, there has been a significant decline in the rates of some fractures. Opposing trends in the rates of other fracture admissions and a significant increase in the rate of non-fracture injuries associated with falls makes a definitive explanation for these changes difficult.

Foot and ankle strength, range of motion, posture, and deformity are associated with balance and functional ability in older adults.

Spink MJ, Fotoohabadi MR, Wee E, Hill KD, Lord SR, Menz HB. Arch. Phys. Med. Rehabil. 2011; 92(1): 68-75. Affiliation: Musculoskeletal Research Centre, Faculty of Health Sciences, La Trobe University, Bundoora, Australia; Department of Podiatry, Faculty of Health Sciences, La Trobe University, Bundoora, Australia. DOI: 10.1016/j.apmr.2010.09.024  PMID: 21187207 (Copyright © 2011, Elsevier Publishing)

ABSTRACT

Foot and ankle characteristics, particularly plantar flexor strength of the hallux and ankle inversion-eversion range of motion, are important determinants of balance and functional ability in older people. Further research is required to establish whether intervention programs that include strengthening and stretching exercises for the foot and ankle may achieve improvements in balance and functional ability and reduce the risk of falls in older people.

Testing balance and fall risk in persons with Parkinson disease, an argument for ecologically valid testing.


ABSTRACT

INTRODUCTION: Despite clear deficits in postural control, most clinical examination tools lack accuracy in identifying persons with Parkinson disease (PD) who have fallen or are at risk for falls. We assert that this is in part due to the lack of ecological validity of the testing.

METHODS: To test this assertion, we examined the responsiveness and predictive validity of the Functional Gait Assessment (FGA), the Pull test, and the Timed up and Go (TUG) during clinically defined ON and OFF medication states. To address responsiveness, ON/OFF medication performance was compared. To address predictive validity, areas under the curve (AUC) of receiver operating characteristic (ROC) curves were compared. Comparisons were made using separate non-parametric tests.

RESULTS: Thirty-six persons (24 male, 12 female) with PD (22 fallers, 14 non-fallers) participated. Only the FGA was able to detect differences between fallers and non-fallers for both ON/OFF medication testing. The predictive validity of the FGA and the TUG for fall identification was higher during OFF medication compared to ON medication testing. The predictive validity of the FGA was higher than the TUG and the Pull test during ON and OFF medication testing.
DISCUSSION: In order to most accurately identify fallers, clinicians should test persons with PD in ecologically relevant conditions and tasks. In this study, interpretation of the OFF medication performance and use of the FGA provided more accurate prediction of those who would fall.

Influence of zolpidem and sleep inertia on balance and cognition during nighttime awakening: a randomized placebo-controlled trial.
Frey DJ, Ortega JD, Wiseman C, Farley CT, Wright KP.

ABSTRACT
OBJECTIVES: To determine whether sleep inertia (grogginess upon awakening from sleep) with or without zolpidem impairs walking stability and cognition during awakenings from sleep.
DESIGN: Three within-subject conditions hypnotic medication (zolpidem), placebo (sleep inertia), and wakefulness control randomized using balanced Latin square design.
SETTING: Sleep laboratory.
PARTICIPANTS: Twelve older and 13 younger healthy adults.
INTERVENTION: Five milligrams of zolpidem or placebo 10 minutes before scheduled sleep (double-blind: zolpidem or sleep inertia); placebo before sitting in bed awake for 2 hours after their habitual bedtime (single-blind: wakefulness control).
MEASUREMENTS: Tandem walk on a beam and cognition, measured using computerized performance tasks, approximately 120 minutes after treatment.
RESULTS: No participants stepped off the beam on 10 practice trials. Seven of 12 older adults stepped off the beam after taking zolpidem, compared with none after sleep inertia and three after wakefulness control. Fewer young adults stepped off the beam: three after taking zolpidem, one after sleep inertia, and none after wakefulness control. Number needed to harm analyses showed one tandem walk failure for every 1.7 (95% confidence interval (CI)=1.4-2.0) older and 5.5 (95% CI=5.2-5.8) younger adults treated with zolpidem. Cognition was significantly more impaired after zolpidem exposure than with wakefulness control in older and younger participants (working memory: older, -4.3 calculations, 95% CI=-7.0 to -1.7; younger, -12.4 calculations, 95% CI=-18.2 to -6.7; Stroop: older, 76-ms increase (95% CI=13.5-138.4 ms); younger, 126 ms increase, 95% CI=34.7-217.5 ms), whereas sleep inertia significantly impaired cognition in younger but not older participants.
CONCLUSION: Zolpidem produced clinically significant balance and cognitive impairments upon awakening from sleep. Because impaired tandem walk predicts falls and hip fractures and because impaired cognition has important safety implications, use of nonbenzodiazepine hypnotic medications may have greater consequences for health and safety than previously recognized.

J. Nutr. Health Aging 2011; 15(1): 72-77. Affiliation: O. Beauchet, MD, PhD, Department of Internal Medicine and Geriatrics, Angers University Hospital, 49933 Angers Cedex 9, France ; E-mail: olbeauchet@chu-angers. PMID: 21267523 (Copyright © 2011, Serdi Publisher)

ABSTRACT
Background: While the association between benzodiazepines (BZD) and single fall is long-known, the association between BZD and recurrent falls has been few studied.
Objective: The aims of this study were 1) to examine whether BZD were associated with recurrent falls while taking into account the effect of potential confounders, and 2) to determine whether there was
an interaction in terms of risk of falls between BZD and balance impairment in a community-dwelling population-based adults aged 65 and older.

**Study design:** Cross-sectional.

**Setting:** Three health centers in North-East of France. Population: 7643 community-dwelling volunteers aged 65 and older.

**Outcome measures:** The use of BZD, the Mini Mental State Examination (MMSE) score, the Clock Drawing Test (CDT), the One Leg Balance (OLB) test, the Five Times Sit-To-Stand test (FTSS), and a history of falls were recorded. Subjects were separated into 4 groups based on the number of falls: 0, 1, 2 and ≥ 3 falls.

**Results:** Among the 1456 (19.2%) fallers, 994 (13.0%) were single fallers and 462 (6.1%) were recurrent fallers (i.e., > 2 falls). The number of falls increased significantly with age (Incident Rate Ratio (IRR)=1.04, P < 0.001), female gender (IRR=2.24, P < 0.001), the use of benzodiazepine (IRR=1.65 P < 0.001) and especially while subjects used bromazepam (IRR=1.44, P=0.006), clobazam (IRR=3.01, P=0.014) and prazepam (IRR=2.29, P < 0.001). A low MMSE score (IRR=0.96, P < 0.001), an impaired CDT (IRR=0.91, P < 0.001), and a bad performance at OLB and FTSS (respectively IRR=1.85, P < 0.001 and IRR=1.26, P < 0.001) were related to the recurrence of falls. After adjustment only the advance in age (IRR=1.02, P < 0.001), female gender (IRR=2.15, P < 0.001), clobazam (IRR=2.54, P=0.04), prazepam (IRR=1.63, P=0.03) and OLB (IRR=1.55, P < 0.001) were still significantly related to the number of falls.

**Conclusion:** The current study shows that the age, the female gender, the use of clobazam or prazepam and a low score at OLB are related to the recurrence of falls.

**Falls in older hospital inpatients and the effect of cognitive impairment: a secondary analysis of prevalence studies.**

Harlein J, Halfens RJ, Dassen T, Lahmann NA.


**ABSTRACT**

**AIMS AND OBJECTIVES:** The objective of this study was to compare fall rates in older hospital inpatients with and without cognitive impairment. Relationships between age, gender, mobility, cognitive impairment, care dependency, urinary incontinence and medical disciplines were investigated.

**BACKGROUND:** Falls are common in older people with cognitive impairment, but studies in the hospital setting are rare.

**DESIGN:** A secondary analysis of three nationwide prevalence studies in German hospitals from the years 2005, 2006 and 2007 was conducted.

**METHOD:** Trained staff nurses used a standardised instrument to collect data about accidental falls within the last two weeks in their institutions and about other patient characteristics. Data from 9246 patients aged 65 years or older from 37 hospitals were analysed.

**RESULTS:** The fall rate for cognitively impaired patients was 12.9%, while only 4.2% of older persons without cognitive impairment experienced a fall. Comparison between medical disciplines showed great differences concerning fall risk for confused and non-confused inpatients. In multivariate logistic regression analysis, the odds-ratio association of cognitive impairment and falls was 2.1 (CI 1.7-2.7). Higher age (OR 1.5, CI 1.2-1.9), greater care dependency (OR 1.6, CI 1.1-2.1), reduced mobility (OR 2.6, CI 1.9-3.7) and being a patient on a geriatric ward (OR 1.8, CI 1.1-2.9) were also statistically significant predictors in this model.

**CONCLUSIONS:** Cognitively impaired older people constitute a high-risk group for accidental falls in hospitals.

**RELEVANCE TO CLINICAL PRACTICE:** Fall prevention strategies in the hospital setting should address cognitively impaired inpatients as an important high-risk group.
**RISK ASSESSMENT**

**A simple tool predicted probability of falling after aged care inpatient rehabilitation.**
Sherrington C, Lord SR, Close JC, Barraclough E, Taylor M, O’Rourke S, Kurrle S, Tiedemann A, Cumming RG, Herbert RD.

*J. Clin. Epidemiol.* 2011; ePub(ePub): ePub. Affiliation: The George Institute for Global Health, University of Sydney, PO Box M201, Missenden Road, Sydney NSW 2050, Australia; Neuroscience Research Australia, University of New South Wales, Sydney, Australia; School of Public Health, University of Sydney, Sydney, Australia. DOI: 10.1016/j.jclinepi.2010.09.015   PMID: 21247735 (Copyright © 2011, Elsevier Publishing).

**ABSTRACT**

**OBJECTIVE:** To develop and internally validate a falls prediction tool for people being discharged from inpatient aged care rehabilitation.

**DESIGN AND SETTING:** Prospective cohort study. Possible predictors of falls were collected for 442 aged care rehabilitation inpatients at two hospitals.

**RESULTS:** One hundred fifty participants fell in the 3 months after discharge from rehabilitation (34% of 438 with follow-up data). Predictors of falls were male gender (odds ratio [OR] 2.32, 95% confidence interval [CI]=1.00-4.03), central nervous system medication prescription (OR 2.04, 95% CI=1.00-3.30), and increased postural sway (OR 1.93, 95% CI=1.00-3.26). This three-variable model was adapted for clinical use by unit weighting (i.e., a score of 1 for each predictor present). The area under the receiver operating characteristic curve (AUC) for this tool was 0.69 (95% CI=0.64-0.74, bootstrap-corrected AUC=0.69). There was no evidence of lack of fit between prediction and observation (Hosmer-Lemeshow P=0.158).

**CONCLUSION:** After external validation, this simple tool could be used to quantify the probability with which an individual will fall in the 3 months after an aged care rehabilitation stay. It may assist in the discharge process by identifying high-risk individuals who may benefit from ongoing assistance or intervention.

**INTERVENTION STUDIES**

**Reducing the fear of falling among community-dwelling elderly adults through cognitive-behavioural strategies and intense Tai Chi exercise: a randomized controlled trial.**
Huang TT, Yang LH, Liu CY.

*J. Adv. Nurs.* 2011; ePub(ePub): ePub. Affiliation: Tzu-Ting Huang PhD RN Professor School of Nursing, Chang-Gung University, Taoyuan, Taiwan Lin-Hui Yang MSN RN Preceptor Chang-Gung Institute of Technology, Taiwan Chia-Yih Liu MD Chairperson Chang-Gung Medical Center, Department of Psychiatry,
ABSTRACT
Aim: To examine the effectiveness of cognitive-behavioural strategies with/without intense Tai Chi exercise in reducing fear of falling among community-dwelling elderly adults.

Background: Fear of falling is a major health problem among community-dwelling older persons. The prevalence of this fear ranges from 29% to 77%, indicating the importance of developing effective strategies to reduce fear of falling among elderly adults.

Methods: Data were collected from January to December 2007. A randomized controlled trial with three groups (control, cognitive-behavioural and cognitive-behavioural with Tai Chi). Participants were assessed at baseline for demographic data, falls-related history, and fear of falling. Data on these variables plus falls, mobility, social support behaviour and satisfaction, and quality of life were also collected at 2 and 5 months after interventions.

Results: Participants in the three groups differed significantly in both measures of fear of falling (F=20.89, P<0.001; F=6.09, P<0.001) and mobility (F=30.33, P<0.001), social support behaviour and satisfaction (F=3.32, P<0.05 and F=6.35, P<0.001, respectively), and quality of life (F=16.66, P<0.001). In addition, participants who received the cognitive-behavioural intervention with Tai Chi had significantly lower fear of falling scores (P<0.001) and higher mobility (P<0.001), social support satisfaction (P<0.01) and quality of life (P<0.001) than the cognitive-behavioural alone and control groups at 5 months. The three groups did not differ significantly in falls.

Conclusion: The results of this trial suggest that the cognitive-behavioural intervention with Tai Chi exercise helped community-dwelling elderly adults to enhance their mobility, to manage their fear of falling and to increase their quality of life.

Enhancing Functional Balance and Mobility Among Older People Living in Long-Term Care Facilities.
Nitz JC, Josephson DL.

ABSTRACT
This study of long-term care residents investigated whether a balance strategy training program (BSTP) developed for older people living in the community is effective in improving functional mobility and reducing falls when adapted to resident functional abilities. The BSTP was delivered twice weekly over 12 weeks. Outcome measures compared pre- and post-intervention measured Timed Up and Go, Functional Reach, timed 5 sit-to-stand movements, and number of falls in 12 weeks before intervention with 12-week follow-up period. Forty-seven residents participated, 26 of whom were cognitively impaired. There was a significant improvement in all functional balance and mobility measures, but this was clinically significant only in 5 sit-to-stand time. There was no reduction in falls, although this outcome was confounded by all fallers being acutely ill at the time of falling. These results suggest participation in a BSTP by residents of long-term care improves resident functional mobility and balance.

Environmental assessment and modification to prevent falls in older people.
Pighills AC, Torgerson DJ, Sheldon TA, Drummond AE, Bland JM.
J. Am. Geriatr. Soc. 2011; 59(1): 26-33. Affiliation: Martin Bland Department of Health Sciences, York Trials Unit, University of York, York, United Kingdom; Division of Rehabilitation and Ageing, Nottingham University Medical School, Queens Medical Centre, Nottingham, United Kingdom. DOI: 10.1111/j.1532-5415.2010.03221.x PMID: 21226674 (Copyright © 2011, John Wiley and Sons).

ABSTRACT
To assess the effectiveness of an environmental falls prevention intervention delivered by qualified occupational therapists or unqualified trained assessors.

DESIGN: A pilot three-armed randomized controlled trial.
SETTING: Airedale National Health Service Trust catchment, North and West Yorkshire, England.

PARTICIPANTS: Two hundred thirty-eight community-dwelling adults aged 70 and older with a history of falls in the previous year.

INTERVENTION: Assessment and modification of the home environment of people at greater risk of falls.

MEASUREMENTS: Fear of falling was the primary outcome measure, and an analysis of covariance was conducted on the area under the curve at 12 months. As a secondary outcome, falls were analysed using negative binomial regression. Quality of life and independence in activities of daily living (ADLs) were also measured.

RESULTS: The intervention had no effect on fear of falling (P=.63). The occupational therapy group had significantly fewer falls than controls 12 months after the assessment (incidence rate ratio (IRR)=0.54, 95% confidence interval (CI)=0.36-0.83, P=.005). There was no significant effect on falls in the trained assessor group (IRR=0.78, 95% CI=0.51-1.21, P=.34).

CONCLUSION: Environmental assessment had no effect on fear of falling. Environmental assessment prescribed by an occupational therapist significantly reduced the number of falls in high-risk individuals whereas that prescribed by a trained assessor did not. Further research in other settings is needed to confirm this, to explore the mechanisms, and to estimate cost-effectiveness.

A multifaceted intervention to implement guideline care and improve quality of care for older people who present to the emergency department with falls.

Waldron N, Dey I, Nagree Y, Xiao J, Flicker L.

ABSTRACT

BACKGROUND: Guidelines recommend that older people should receive multi-factorial interventions following an injurious fall however there is limited evidence that this is routine practice. We aimed to improve the delivery of evidence based care to patients presenting to the Emergency Department (ED) following a fall.

METHODS: A prospective before and after study was undertaken in the ED of a medium-sized hospital in Perth, Western Australia. Participants comprised 313 community-dwelling patients, aged 65 years and older, presenting to ED as a result of a fall. A multi-faceted strategy to change practice was implemented and included a referral pathway, audit and feedback and additional falls specialist staff. Key measures to show improvements comprised the proportion of patients reviewed by allied health, proportion of patients referred for guideline care, quality of care index, all determined by record extraction.

RESULTS: Allied health staff increased the proportion of patients being reviewed from 62.7% in the before period to 89% after the intervention (P < 0.001). Before the intervention a referral for comprehensive guideline care occurred for only 6/177 (3.4%) of patients, afterwards for 28/136 (20.6%) (difference = 17.2%, 95% CI 11-23%). Average quality of care index (max score 100) increased from 18.6 (95% CI: 16.7-20.4) to 32.6 (28.6-36.6).

CONCLUSIONS: A multi-faceted change strategy was associated with an improvement in allied health in ED prioritizing the review of ED fallers as well as subsequent referral for comprehensive geriatric care. The processes of multi-disciplinary care also improved, indicating improved care received by the patient.

Evaluation of a health service delivery intervention to promote falls prevention in older people across the care continuum

Nancye M. Peel Catherine Travers Rebecca A. R. Bell Kate Smith

ABSTRACT

Rationale, aims and objectives: The incidence of falls and fall-related injuries in older age is predicted to increase concomitantly with global population ageing, representing a serious challenge to health care
systems. In spite of the availability of policy and practice guidelines for the prevention of falls and fall-related injuries, a considerable gap remains between best practice and current health service delivery. This paper describes the method and results of the implementation and evaluation of a state-wide workforce enhancement strategy to promote the uptake of evidence-based falls prevention activities for older people.

**Methods:** The project was undertaken in Queensland, Australia in 2008 across the community, acute and residential aged care sectors. Six Falls Safety Officers (FSOs) were appointed to implement a 1-year pilot of strategies aimed at enhancing workforce capacity to deliver a coordinated approach to falls prevention across the care continuum. The project was independently evaluated for process, impact and outcome. Both quantitative and qualitative data were extracted from records maintained by the FSOs for the evaluation and additional data were obtained from interviews with key stakeholders.

**Results:** Considerable progress was achieved towards the project’s objectives, including the wide dissemination of information and resources, as well as the establishment of working groups to continue falls prevention planning and implementation. Barriers and facilitators to the project’s implementation were identified.

**Conclusion:** The formal evaluation provides evidence for the development of a cross-continuum service delivery model for implementing coordinated state-wide falls prevention strategies for the prevention of falls in older people.

**Relationship between pre-discharge occupational therapy home assessment and prevalence of post-discharge falls**

Johnston K, Barras S & Grimmer-Somers K.


**ABSTRACT**

**Rationale, aims and objective:** Pre-discharge occupational therapy home assessments are common practice, and considered important for falls prevention in older people. This prospective, observational cohort study describes the association between pre-discharge home assessment and falls in the first month post-discharge from a rehabilitation hospital.

**Methods:** 342 inpatients were recruited and followed up 1 month post-discharge. Patients were classified into diagnostic groups (cardiac, orthopaedic trauma, spinal, peripheral joint surgery, neurological and deconditioned). Age, gender, falls risk [Falls Risk Assessment Scoring System (FRASS)], functional independence scores (FIM™) and receipt (or not) of a home assessment were recorded. Patients completed a diary to document post-discharge falls. Logistic regression analysis tested the effect on falling of receiving a home assessment, age, gender, diagnostic group, FRASS and FIM™.

**Results:** Considering all subjects, not receiving a home assessment increased the risk of falling 1 month post-discharge [odds ratio (OR) 2.6, 95% confidence interval (CI) 1.4–4.7, P = 0.003]. Neurological and orthopaedic trauma patients had significantly elevated risks of falling [OR (95% CI), respectively, 12.5 (4.7–33.2), 3.4 (1.4–8.4)] relative to the orthopaedic joint group. For all diagnostic groups except neurological, falls risk was mitigated by a home assessment. In non-neurological patients, adjusting for the effect of diagnostic group, FRASS and FIM™ scores indicated a significant association between not receiving a home assessment and falling (OR 4.2, 95% CI 2.1–8.2, P < 0.001).

**Conclusions:** Pre-discharge occupational therapy home assessments are sound post-discharge falls-prevention strategies in non-neurological patients. The decision to conduct a home assessment should consider diagnosis, falls risk and functional independence.

**Sustainability and Scalability of the Hospital Elder Life Program at a Community Hospital**

Rubin, FH, Neal K, Fenlon, K, Hassan S, Inouye SK.


**ABSTRACT**

The Hospital Elder Life Program (HELP), an effective intervention to prevent delirium in older hospitalized
adults, has been successfully replicated in a community teaching hospital as a quality improvement project. This article reports on successfully sustaining the program over 7 years and expanding its scale from one to six inpatient units at the same hospital. The program currently serves more than 7,000 older patients annually and is accepted as the standard of care throughout the hospital. Innovations that enhanced scalability and widespread implementation included ensuring dedicated staffing for the program, local adaptations to streamline protocols, continuous recruitment of volunteers, and more-efficient data collection. Outcomes include a lower rate of incident delirium; shorter length of stay (LOS); greater satisfaction of patients, families, and nursing staff; and significantly lower costs for the hospital. The financial return of the program, estimated at more than $7.3 million per year during 2008, comprises cost savings from delirium prevention and revenue generated from freeing up hospital beds (shorter LOS of HELP patients with and without delirium). Delirium poses a major challenge for hospital quality of care, patient safety, Medicare no-pay conditions, and costs of hospital care for older persons. Faced with rising numbers of elderly patients, hospitals can use HELP to improve the quality and cost-effectiveness of care.

RESOURCES


The complete and updated guideline, summary of recommendations and patient resources are available at: http://www.americangeriatrics.org/health_care_professionals/clinical_practice/clinical_guidelines_recommendations/2010/

An article published in the Journal of the American Geriatrics Society (Vol. 59(1) pp 148-157, 2011) provides additional discussion of the guideline process and the differences between the current and 2001 version of the guidelines and includes recommendations, algorithms and acknowledgements. This is also available at the above website.

Strengths and Weaknesses of Falls Prevention Strategies -Online Webcast

In Sept 2010, Dr Dawn Skelton was invited to Aberystwyth University to give a lecture to researchers, practitioners and health professionals on current strengths and weaknesses of falls prevention strategies. This lecture has been filmed and put onto a Webcast that can be viewed online. You will need a fast internet connection and occasionally the powerpoint slides do not match up to what is being said (ah, the fun of technology) but at least you can view in your own time.

Available at: http://issveccweb.psv.aber.ac.uk/Panopto/Pages/Viewer/Default.aspx?id=5322036d-6e85-4641-b0fe-8b3208ea052a

WEBSITES

Australian Government Productivity Commission


Caring for Older Australians- Draft Report

Australia’s aged care system needs a major overhaul to meet the challenge of an ageing population and improve the wellbeing of older Australians, according to this draft report released by the Productivity Commission.
NEW Website

www.activeandhealthy.nsw.gov.au

The NEW state wide consumer and professional resource for

- Falls Prevention Exercise Programs in your local area
- Staying Active and On Your Feet publication
- Simple and essential Home Based Exercises
- Health and Lifestyle tips and checklist
- A Home Safety Checklist

Falls can be prevented
NSW FALLS PREVENTION NETWORK FORUM

Date: Friday 27th May 2011  
Time: 9:00am - 4:00pm  
Venue: Wesley Conference Centre, 220 Pitt St Sydney

SPECIAL FOCUS:  
TRANSLATING RESEARCH INTO PRACTICE

Plenary Speakers

Professor Stephen Lord - Update on Falls Prevention research  
A/Professor Jacqueline Close - Risk factors for falls in cognitive impairment  
Dr Wendy Watson - Costing and Evaluation of Falls prevention  
NSW Department of Health - New Falls Plan and Implementation Strategies  
Falls - A Consumer Perspective  
Report on Translating Research into Practice (TRIP) workshop and facilitated discussion

Afternoon Concurrent Sessions

Exercise Programs and Falls Prevention

Professor Ian Cameron - Exercise and frailty  
A/Professor Catherine Sherrington - Post-hospital exercise programs  
A/Professor Cath Dean - Exercise Programs for Stroke  
Dr Colleen Canning - Exercise Programs for Parkinson's Disease

Falls Risk Factors, Assessment and Interventions

Dr Anne Tiedemann - ED Screening Tool  
Dr Kim Delbaere - Fear of Falling  
Dr John Ward - Sarcopenia  
Ms Robyn Speerin - Osteoporosis and fractures

Cost:

$50 per person  
includes arrival tea/coffee, morning tea and light lunch

For further details and registrations:  

Enquiries to Esther Vance  
e.vance@neura.edu.au  
(02) 9399 1063
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 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.

Network Information

Joining the Network

To join the NSW Falls Prevention Network listserv, send an email to: majordomo@lists.ealth.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 type unsubscribe nsw-falls-network on the next line type end

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

Share your news and information/ideas

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 we 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.