15th International Falls and Postural Stability Meeting

8th September 2014
Manchester Metropolitan Business School

Delegate Pack

CPD accreditation has been applied for this event

About the British Geriatrics Society Falls and Bones Section

Membership of the Section is open to all members of the British Geriatrics Society as well as non-members.

To join the Section, visit the BGS website: www.bgs.org.uk
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To express an interest in attending future BGS Falls and Bones Section Meetings, please email: conferences@bgs.org.uk
## Programme

### SESSION 1

**9.00 - 11.00**  
Chair: Prof Dawn Skelton, Glasgow Caledonian University, Glasgow  
09.00 Registration and coffee  
09.25 Chair’s Introduction  
09.30 Professor Lorenzo Chiari, University of Bologna, Italy  
**Learning about techniques for prevention of falls: what’s next?**  
10.00 Professor Lillemor Lundin-Olsson, UMEA University, Sweden  
**Preventing falls in hospitals and care homes- misuse of scales**  
10.30 Dr Kate Robertson, Nottinghamshire Healthcare NHS Trust  
**The role of the occupational therapist in falls prevention- a systematic review**  

### SESSION 2

**11.30 – 12.30**  
Chair: Prof Tahir Masud, Nottingham University Hospitals NHS Trust  
11.30 The Great Ashes Debate: This house believes that quality improvement is of more benefit than research in falls prevention  
**This house believes that quality improvement is of more benefit than research in falls prevention**  
For the Motion: Dr Jonathan Treml, University Hospitals Birmingham, Birmingham  
Against the Motion: Professor Stephen Lord, Neuroscience and Research, Australia  

### SESSION 3

**13.30 -14.30**  
Parallel Workshops  
**Workshop 1:** Behaviour change techniques to increase physical activity participation for the prevention of falls  
Ms Charlotte Dunkel, Northumbria University, Newcastle (Facilitator)  
Dr Samuel Nyman, Bournemouth University (Chair)  
**Workshop 2:** Falls and the Vestibular System  
Dr Marousa Pavlou, King’s College, London (Facilitator)  
Dr Adam Darowski, John Radcliffe Hospital, Oxford (Chair)  
**Workshop 3:** Osteoporosis Update  
Professor Peter Selby, Manchester Royal Infirmary, Manchester (Facilitator)  
Dr Aamer Ali, Queens Medical Centre, Nottingham (Chair)  
**Workshop 4:** Interactive gaming interventions in falls  
Dr Eling DeBruin, Dept. Health Science and Technology, ETH Zurich, Zurich, Switzerland (Facilitator)  
Dr Martin Gronbech Jorgensen, Aalborg University Hospital, Denmark (Chair)  

### SESSION 4

**14.30-15.30**  
Co-chairs: Dr Rob Morris, University of Nottingham Hospitals NHS Trust and Dr Julie Whitney, Kings College Hospital, London  
14.30 Dr Anne-Marie Hill  
**Providing a tailored education program reduces falls in rehabilitation units: a pragmatic stepped wedge cluster randomised controlled trial**  
14.40 Dr Alexandra Mavroedi  
**Seasonal variation of 25(OH)D at 57ºn in relation to falls, grip strength and physical activity levels: Results from the Aberdeen nutrition, sunlight and vitamin d study (ANSAVID)**  
14.50 Dr Mirjam Pijnappels  
**Predicting falls by ambulatory assessment of the amount and quality of daily life gait**  
15.00 Dr Julie Whitney  
**The feasibility of a national audit of falls prevention in acute hospitals**  
15.10 Dr Devorah Spiegel  
**The effect of a non-contact monitoring system on reducing falls and re-hospitalisations in skilled nursing facilities**  
15.20 Dr Erin Smith  
**Does the addition of a secondary task decrease gait speed in community dwelling older adults? a systematic review and meta-analysis**  

### SESSION 5

**16.00 – 17.00**  
Chair: Dr Victoria Goodwin, University of Exeter  
16.00 Professor Steve Iliffe, University College, London, UK  
**The ProAct-65+ exercise trial and falls in old age**  
16.30 Professor Rose-Anne Kenny, Trinity Centre for Health Sciences, Dublin, Ireland  
**Falls and the heart- what’s new?**  
17.00 Presentations of prizes and closing remarks.
Speaker Biographies and Presentation Summaries

Dr Lorenzo Chiari PhD is Associate Professor of Biomedical Signal Processing and head of the Personal Health Systems Lab at the Department of Electrical, Electronic, and Information Engineering; Vice-Director of the Health Sciences and Technologies - Interdepartmental Center for Industrial Research; University of Bologna.

He is currently the coordinator of the EU-funded FARSEEING project. FARSEEING aims to promote better prediction and prevention of falls and to support older adults with a focus on ICT devices and the unique proactive opportunities they can provide to older adults to support them in their own environment. His main research interests are in the areas of neurobiomechanics of balance and movement in health and disease, and in the exploitation of wearable and mobile technologies for fall prevention and the objective clinical assessment and rehabilitation of motor function.

Presentation summary: The talk shall report on major findings and achievements of the FARSEEING project. Building on such an inspiring and multidisciplinary experience the speaker shall try to summarize what we've learned so far from an intensive and unprecedented recording of real world falls by means of wearable sensors and how these novel data can reasonably be turned into a better knowledge of falls and hence into better, ICT-based, prevention programs.

Professor Lillemor Lundin-Olsson is Professor in Physiotherapy at the Department of Community Medicine and Rehabilitation. Her research theme is identification of fall risk factors, evaluation of fall risk prediction tools and of fall prevention programmes in old age. She has an interest in the evaluation and implementation of staff judgment of older people's risk of falling and she has had an important role in the development of the Swedish National Fall Prevention Guidelines in hospitals and residential care facilities.

Presentation summary: Many risk factors are identified as contributing to falls among older people in hospitals and residential care facilities. Numerous fall risk prediction tools have been developed. Many of these tools have been criticized for low predictive accuracy, particularly when they are used in hospitals. Prevention of falls in hospitals and residential care facilities is a multifaceted task and more complex than a total score of a fall risk prediction tool. This talk will expand upon the specific impracticalities and what approaches within the teams at these facilities can be planned and implemented as risk reduction strategies.

Dr Kate Robertson is Consultant Therapist in Falls Prevention for Nottinghamshire Healthcare NHS Trust, UK, providing clinical expertise in falls prevention and management across a large NHS Trust including in-patient and community based services, adult mental health, older people's mental health services, forensic and Intellectual Disability services. She has worked in elderly medicine, paediatrics, adult mental health and older person’s mental health specialities. She co-authored the Nottingham Falls Strategy in 2005 and was lead author of the College of Occupational Therapists “Falls Management” guideline in 2006. This guideline is currently being re-written with Kate as Project Lead. Her current research interests include falls in care homes and falls in early dementia and mild cognitive impairment. She has published a research based “Guide to Action for Falls Prevention Tool”. Kate is also Associate Lecturer at the University of Derby, leading falls modules as part of an MSc programme.

Presentation summary: The College of Occupational Therapists Specialist Section for Older People has developed a practice guideline for occupational therapists Falls: the role of occupational therapy in the prevention and management of falls in adults. The College was the first Allied Health Professions body to have its guideline development process accredited by NICE (January 2013). The production of the falls practice guideline has provided a comprehensive and up to date review of the evidence base for effective occupational therapy intervention with adults who fall or are at risk of falling.

Dr Jonathan Treml is currently a consultant geriatrician at Queen Elizabeth Hospital, Birmingham. His interests include orthogeriatrics, prevention and management of falls and fractures, end of life care, delirium and clinical audit. He is an Associate Director of the Clinical Effectiveness and Evaluation Unit at the Royal College of Physicians, London, where he leads the falls workstream of the Falls and Fragility Fracture Audit Programme. He is Co-Chair of the British Geriatrics Society Falls and Bone Health Section.

Presentation summary: Falls are a common and serious problem affecting older people. Evidence from research has helped to identify risk factors for falling and trials have shown that falls rates can be reduced. However, falls and fracture rates show little sign of reduction in practice. It is proposed that quality improvement strategies will be of more benefit to reducing falls in older people in the real world.

Professor Stephen Lord is a Senior Principal Research Fellow at Neuroscience Research Australia, Sydney, Australia. He has published over 300 papers in the areas of applied physiology, instability, falls and fractures in older people and is acknowledged as a leading international researcher in his field. His research follows two main themes: the identification of physiological risk factors for falls and the development and evaluation of falls prevention strategies. A key aspect of this research has been the design, implementation and evaluation of exercise programs for the general population of older people as well as for those identified as being at increased risk of falls, i.e. people with Parkinson’s disease, stroke, dementia and frailty.

Presentation summary: Prof Lord will be speaking against the motion: “This house believes that quality improvement is of more benefit than research in falls prevention”. He will present a case arguing that current research findings are inadequate for adequately informing policy and practice for fall prevention and that more research is urgently required to bring about effective fall prevention strategies in the future.

Dr Samuel Nyman is a Senior Lecturer in Psychology at Bournemouth University, UK, who researches the psychosocial aspects of falls and their prevention among older people. His interest is in maximising older people’s uptake and adherence to falls prevention interventions and in particular physical activity interventions. He also leads the research theme of ‘improving services and care provision’ in the Bournemouth University Dementia Institute.

Ms Charlotte Dunkel is a psychology graduate from Northumbria University presently working on the STRIDE trial run by Newcastle University. STRIDE is looking at ways to increase confidence, independence and energy levels in people aged over 60 with a fear of falling. Ms Dunkel delivers the brief CBT intervention which practically applies the theories Dr Nyman researches.
**Workshop summary:** The workshop will provide a brief overview of the current taxonomy of behaviour change techniques and how they might be applied to increase participation in exercise-based interventions for the prevention of falls. It will then provide delegates opportunity to try some of the techniques that they might use in everyday practice.

Dr Eling DeBruin’s research is focussed on the mechanical interaction with the environment (e.g. exerting a force on the environment in a specific direction), the use of perceptual information, the effects of specific movement parameters (e.g., speed, amplitude, and frequency) on the stability of patterns of coordinated movements, and the acquisition of perceptual-motor skills in learning. These topics are being studied in people of all ages and in people with specific (neurological) movement disorders.

**Presentation summary:** The health and well-being of a person depends on the complex interactions in physical, cognitive and social domains. Even in the absence of overt pathology, motor functioning can deteriorate, evidenced by the incidence and impact of falls in aging populations. Falls are one of the most common reasons for medical intervention in older people and their occurrence might initiate a vicious cycle of decline leading to fear of falling, nursing home admittance and loss of independence.

Although more traditional training programmes are able to increase muscle strength and improve balance and, therefore, positively influence some measures of gait, they often do not impact on spatial and temporal characteristics of gait that are associated with distinct brain networks, e.g. gait assessed under dual task conditions. A way to bring in a cognitive element into an exercise program is the use of virtual reality techniques.

This workshop will focus on the relation between the use of exergames and their influence on physical functioning of elderly.

Dr Martin Gronbech (Ph.d.) has during his PhD published studies, which explores the use of the NWBB both as an assessment tool and as a training device for key proxy fall risk factors in community-dwelling older adults. Additionally, MGJ has developed software capable of extracting raw data from the NWBB during various physiological tests (balance performances, reaction time and muscle strength). In addition, MGJ has thru his clinical work at the fall clinic gained extensive knowledge on the field of fall prevention.

Professor Steve Iliffe is an academic general practitioner who has worked in a large socially diverse inner-city group practice in N.W.London for 30 years. The first Professor of Primary care for Older People in the UK, his research interests are in health promotion in later life and in mental health, particularly dementia syndrome. He was Chief Investigator of the HTA-funded ProAct65+ trial of exercise promotion for older people in general practice (2008-13), and also has experience of research in care homes.

**Presentation summary:** The design of the ProAct65+ trial will be described to demonstrate how a class-based exercise programme for those aged 65 and over, recruited through general practice, can reduce sedentary behaviour, increase moderately vigorous physical activity for a year after the study, and reduce falls.

Professor Rose Anne Kenny is Professor of Medical Gerontology and Head of Dept. of Medical Gerontology at Trinity College, Dublin. She was founding Director of the Syncope Service in Newcastle upon Tyne, where she developed a world-class service and academic department over 16 years until her appointment to Trinity College Dublin and St James's Hospital in Dublin in 2006, where she co-directs a busy national clinical - research syncope facility, the Falls and Blackout Unit.

Professor Kenny has been faculty and keynote speaker at many international meetings and societies of syncope, cardiology, psychiatry, neurology and medical gerontology. She has published over 300 original papers, 45 chapters and 4 textbooks and has supervised 22 PhDs and 8 MScs. Her contribution to science has been recognised by many awards, most recently membership of the Royal Irish Academy.

Professor Kenny has held a number of key policy roles including the UK (NICE Guidelines for heart failure and falls), European Syncope Task Force and the American Geriatrics Society Falls Prevention Guideline Task force. She is currently the Chair the European Heart Rhythm Association position paper group on Syncope Management Units.

**Presentation summary:** Prof Kenny’s talk will examine new evidence for an association between cardiovascular disorders, in particular blood pressure behavior and falls, explore the underlying mechanism of an association, the prevalence of cardiovascular disorders with advancing age, methods of assessing disorders in the context of falls and appropriate interventions based on recent studies.

Dr Peter Selby is a Consultant Physician at Central Manchester University Hospitals NHS Foundation Trust. He is working in acute general medicine and endocrinology with an emphasis on disorders of calcium and bone metabolism. His main academic interests are the effect of non-skeletal diseases on bone and the assessment and treatment of osteoporosis. He is also a Trustee of the National Osteoporosis Society having previously been their Treasurer and secretary of the Bone and Tooth Society. Dr Selby is also a member of the NICE guidelines development group for osteoporosis. He also has an interest in Paget's disease and is currently chairman of the National Association for the Relief of Paget's disease and an international adviser to the Paget Foundation in the United States.

**Presentation Summary:** Dr Selby will be delivering a workshop update on osteoporosis.

Dr Marousa Pavlou is a Lecturer of Physiotherapy and a member of the Centre of Human and Aerospace Physiological Sciences (CHAPS). She obtained her PhD from Imperial College London. Her PhD as well as her post-doctoral research focuses on the assessment and rehabilitation of the physiological mechanisms operating in human balance primarily in patients with vestibular disorders and older adult fallers. She is a member of the Chartered Society of Physiotherapy, the International Society for Posture and Gait Research, and is an elected member of the International Bárány Society. She is currently vice-chairman of the Association of Chartered Physiotherapists interested in Vestibular Rehabilitation and will become Chair in April 2011.

**Presentation Summary:** Dr Pavlou will be delivering a workshop on Falls and the Vestibular system supported by Dr Adam Darowksi from the John Radcliffe Hospital.