Contents
Foreword........................................................................................................................................... 3
The School of Medicine ..................................................................................................................... 4
The Division of Rehabilitation and Ageing ..................................................................................... 5
Research ........................................................................................................................................... 6
Health of Older People ................................................................................................................. 7
   About ........................................................................................................................................ 7
   Aim ........................................................................................................................................... 7
   Research ................................................................................................................................... 7
Community Rehabilitation ............................................................................................................ 8
   About ........................................................................................................................................ 8
   Aim ........................................................................................................................................... 8
   Research ................................................................................................................................... 8
Long Term Conditions .................................................................................................................. 9
   About ........................................................................................................................................ 9
   Aim ........................................................................................................................................... 9
   Research ................................................................................................................................... 9
Stroke Rehabilitation .................................................................................................................... 10
   About ....................................................................................................................................... 10
   Aim .......................................................................................................................................... 10
   Research .................................................................................................................................. 10
Health Economics ........................................................................................................................ 11
   About ....................................................................................................................................... 11
   Aim .......................................................................................................................................... 11
   Research .................................................................................................................................. 11
Current Projects ............................................................................................................................ 12
Impact ........................................................................................................................................... 15
Collaborations ............................................................................................................................. 17
   CLAHRC: The Collaboration for Leadership in Applied Health Research and Care .............. 17
   EMAHSN: East Midlands Academic Health Science Network ............................................. 17
   EMRAN: East Midlands Research into Ageing Network ..................................................... 18
Patient and Public Involvement ........................................................................................................19

The Nottingham Stroke Research Partnership Group .................................................................19
Health Care of Older People - Patient and Public Involvement in Research Group .................................................................19

Nottingham International Collaboration on Educational Research Group .........................20

Teaching ........................................................................................................................................21

1. Undergraduate Teaching .............................................................................................................21

2. Health Education East Midlands Clinical Scholars .................................................................21

3. Masters ....................................................................................................................................21

   Rehabilitation Psychology MSc .................................................................................................21

   Health Psychology MSc .............................................................................................................22

4. Postgraduate Study and the Centre for Doctoral Training .......................................................22

Research collaborations ..................................................................................................................24

International research collaborations ............................................................................................25

Publications ....................................................................................................................................26

Looking ahead .................................................................................................................................28

   The Ossie Newell Foundation Trust .............................................................................................28

Find out more ................................................................................................................................29
Foreword

“This document highlights the variety of, the practicability of, and the economic need for the teaching and research undertaken by the Division of Rehabilitation and Ageing at The University of Nottingham. With increasing numbers of people living longer, including those with complicated long term health needs, it is essential that they are provided with the best evidence to enable participation in activities such as work, exercise, sport, family, arts, leisure, learning and caring for others.

The team presented are a multi-disciplinary group including academics, contract researchers, students and the public, with many of the staff holding a clinical post in the NHS or social care. This is strongly reflected in the topics taught and researched and the involvement of the public at all stages of the process. The information in this document is of relevance not only to health care providers, but also industry, charities, service providers and the public. I hope that this overview highlights that rehabilitation and ageing, teaching and research are an essential part of our society.”

Professor Pip Logan
Head, Division of Rehabilitation and Ageing

(May 2016)
The School of Medicine

“Our mission is to improve human health and quality of life locally, nationally and internationally through outstanding education, research and patient care.”

The University of Nottingham is a research-led university which is consistently ranked in the top ten universities in the UK according to major league tables. Part of the Faculty of Medicine and Health Sciences at the University of Nottingham, Rehabilitation and Ageing is one of twelve divisions in the School of Medicine.

The largest school in the University, the School of Medicine, encompasses a wide range of medical and surgical disciplines. Staff and students in the School of Medicine conduct a variety of world-leading research, from basic and translational science through to clinical trials, epidemiology, and health services research.

In order to deliver even greater benefits for patients and the public, the School of Medicine enjoys a strong partnership with the NHS. Staff working in the School of Medicine are closely integrated with NHS clinical colleagues and many continue to carry out clinical work alongside academic research.

Teaching and learning also remain priorities for the School of Medicine, providing training and teaching for tomorrow’s doctors, allied health professionals and specialised postgraduates.
The Division of Rehabilitation and Ageing

The Division of Rehabilitation and Ageing has an established track record of supporting a variety of health professionals and early career researchers to become research leaders. Our academic and research staff come from a range of backgrounds and disciplines, including many allied health professionals and physicians.

The division has gained recognition both nationally and internationally as a prominent centre for rehabilitation research with a particular expertise in conducting trials of occupational therapy, clinical psychology and neuropsychology interventions in both hospital and community settings.

Therapists within the division lead and contribute to clinical practice nationally and internationally. Our staff members sit on advisory boards for the National Institute for Health and Care Excellence, The Royal College of Physicians and the World Health Organisation. Staff members serve on national funding bodies such as the NIHR Health Technology Assessment and NIHR Research for Patient Benefit, and for charities such as The Stroke Association and MS Society.

There are a number of active research projects within the department in rehabilitation research, led by key researchers in the field. These cover research into health and social care service configuration and implementation, falls prevention, social participation, stroke rehabilitation, health behaviours, vocational rehabilitation, outdoor mobility, dressing after stroke and the division also conducts the largest cognitive rehabilitation trials in multiple sclerosis and traumatic brain injury worldwide.

Rehabilitation aims to lessen the impact of disease and disability on everyday life, and to assist people in reaching their fullest potential. Our studies allow the development and evaluation of complex interventions through which we aim to enable the implementation of research knowledge in order to change practice and improve health.
Research

The work of the division is categorised into four key research groups, alongside our research in health economics:

- Injury Epidemiology and Prevention Research Group – Division of Primary Care
- Rehabilitation Medicine Research – Division of Medical Sciences and Graduate Entry Medicine
- Stroke Research Group – Division of Clinical Neuroscience
- The Centre for Dementia – Division of Psychiatry and Applied Psychology

We also work closely with the Rehabilitation Research Group from the School of Health Sciences.

Health economics

In addition to these four key research groups, the Division of Rehabilitation and Ageing also hosts research in Health Economics. In this area of research, we also work collaboratively with colleagues in the School of Medicine and the wider clinical community beyond Nottingham.
Health of Older People

About

As the average life expectancy continues to rise, so does the amount of time spent at the later stage of life with disability and illness. Furthermore, the vast majority of health and social care costs encountered in the entire lifetime are incurred in the later stages of life, which are typified by complex health problems.

As a consequence, it is of great importance to find ways to optimise well-being in the latter phase of life through prevention, treatment or amelioration. It remains a major global challenge to make this phase of life one in which people can affordably live with dignity and meaning.

Tackling this issue requires skills drawn from a wide range of research disciplines ranging from those required to develop new interventions, to those required to put them into practice. The research in this area concentrates on hospital and community clinical interventions, using a wide range of research methods and working collaboratively with clinicians. Much of this research is led by Honorary Divisional staff in the NHS and by colleagues in the University of Nottingham in Derby.

Aim

To conduct internationally significant applied health research that leads to improvement in the health and well-being of frail older people, and to produce a sustainable critical mass of researchers in the field.

Research

The Health of Older People research group describes their work with five overlapping and closely-related topic areas:

- The health care of the residents of care homes
- People with delirium and dementia, and their families
- The aged musculoskeletal system: fractures, bone health, falls and exercise
- Community services for older people
- The education and training of staff in the care of older people
Community Rehabilitation

About

Long term conditions can affect people of all ages and they can leave people with physical limitations such as being unable to walk, eat, wash or drive a car. They may also develop cognitive and mood disorders such as poor memory, depression, anxiety and fatigue. They are more likely to fall and suffer from fractures than an age matched population. The impact of such conditions can make people housebound, depressed, dependent and in poorer health, leading to increased use of health and social care services and possibly a move into a care home.

Nevertheless, many people with long term conditions such as stroke, dementia and Parkinson’s disease wish to remain in their own homes and need access to evidence-based rehabilitation if they are to participate in activities of daily living such as washing, dressing, getting out of the house and getting to work.

Although most health and social care is provided in the community setting, there is very little research evidence or clinical guidance for patients, community based therapists, nurses or general practitioners about which techniques should be implemented, how services should be configured, or how the environment should be changed to improve or maintain health.

Aim

To find and implement rehabilitation techniques that improve the quality of life, in a cost effective way for people with severe health conditions.

Research

Key areas of investigation for the Community Rehabilitation research group are:

- Reducing the number, rate and impact of falls in older adults, stroke patients and people with dementia by developing specific rehabilitation programmes and evaluating their clinical and cost effectiveness
- Working with scientists to develop and test new rehabilitation programmes
- Understanding the how rehabilitation can best help prevent and treat musculoskeletal limitations
- Improving outdoor mobility by learning how health conditions impact on participation in activities and by evaluating rehabilitation techniques
Long Term Conditions

About

About 15 million people in England have a long-term condition (LTC) or chronic disease for which there is currently no cure. Although more prevalent among older people, LTCs also affect younger people and the numbers are rising. LTCs are not just a health issue but they can have a significant impact on a person’s ability to work and live a full life. Consequently, this research group hopes to enhance the quality of life for people with long term conditions and their families, optimising their ability to engage in meaningful lives. Our work in this area also includes those born with a disability.

Our research spans the rehabilitation spectrum from prevention to participation. It includes behaviour modifying interventions to prevent disease, supporting patients at the health care interface, strategies to enable people to cope with long term conditions and those that facilitate participation through education, social networks and engagement in everyday activities that promote financial wellbeing, such as driving and work. We work closely with service users, health and social care professionals, and employers to address challenges to participation.

Aim

To promote well-being and enable people with long term conditions to maximise participation in meaningful social lives.

Research

The Long Term Conditions research group divide their work into five key areas:

- Supporting people with long term conditions to return to and remain in work
- Addressing psychological aspects of long term conditions and healthcare
- Reducing the long term impact of cognitive problems
- Supporting social networks for people with long term conditions
- Using information technology to prevent or reduce the impact of long term conditions
Stroke Rehabilitation

About

Stroke is the third most common cause of death in the UK and is the main cause of disability in a community setting. It can frequently have a devastating impact on the lives of stroke survivors and their families and may lead to difficulties with everyday activities, low mood or depression, and problems regaining a meaningful life. Stroke rehabilitation aims to promote recovery and minimise the long-term effects of stroke. Research is essential in order to inform the development and delivery of effective rehabilitation interventions and services for stroke survivors.

The University of Nottingham leads world class stroke rehabilitation research, rooted in more than 30 years’ experience. Stroke is a priority area of research with activity taking place across multiple divisions, schools and faculties. The Stroke Rehabilitation group in the Division of Rehabilitation and Ageing embrace interdisciplinary research and have the largest critical mass of health service research occupational therapists anywhere in the world.

Aim

To conduct innovative and high quality research in stroke rehabilitation which informs the delivery of evidence-based care and improves the lives of stroke survivors and their families.

Research

The focus of our research is the development and implementation of evidence that will enhance the quality of life of stroke survivors and their carers.

Our strategic aims are to:

- Conduct high quality randomised controlled trials to evaluate the clinical and cost effectiveness of rehabilitation interventions to aid recovery from stroke
- Conduct research investigating the needs of carers of stroke survivors to inform development of support interventions
- Develop stroke research that spans health and social care domains
- Develop approaches to facilitate implementation of research evidence into clinical practice, so that stroke survivors and carers receive the best evidence based care
- Inform policy, clinical practice and the commissioning of stroke rehabilitation services
- Build an international portfolio of stroke rehabilitation research
Health Economics

About

Research funding is scarce, to succeed in this competitive environment the Division of Rehabilitation and Ageing needs to be able to demonstrate it has the skills to deliver high quality research that demonstrates not only efficacy, but increasingly cost effectiveness. The health economics team offers specialist skills in this field, both within the division and the School of Medicine. It is also committed to expanding the profile of health economics at Nottingham in the national and international arenas.

The primary objective for the research is applied economic evaluation. The current research portfolio is wide and is concentrated upon the practical application of economic evaluation in a number of research settings.

Research into health economics spans the work of the Division of Rehabilitation and Ageing, and the School of Medicine more widely. Current areas of research are in ophthalmology, orthopaedics, orthotics, pharmaceuticals, respiratory medicine, primary care, mental health, diabetes, cardiac care, A&E medicine, obstetrics and gynaecology. Additionally, a large programme grant is held in ophthalmology research.

National achievements include the production of the economic guidance for the National Service Framework in Screening for Diabetic Retinopathy based on original research, economic modelling and evidence review. Cost utility analysis has been a further focus of this applied research using health utility indices such as EuroQoL (EQ5D) to assist purchasers in making prioritisation decisions.

Aim

To conduct high quality and innovative research in clinical and economic evaluation, and to inform the evidence base for the health community, patients, society and policy makers.

Research

There are a number of key areas in which the health economics team work

- Randomised Controlled Trials
- Economic Modelling
- Outcome measurement
- Costing
- Naturalistic studies: within clinical and health care fields; within screening, treatment and rehabilitation
<table>
<thead>
<tr>
<th>Title of Project</th>
<th>Acronym</th>
<th>Funded by</th>
<th>Duration</th>
<th>Div Investigators</th>
</tr>
</thead>
<tbody>
<tr>
<td>The ProactivE healthcare for older people in Care Homes Study</td>
<td>PEACH</td>
<td>Dunhill Medical Trust</td>
<td>2015 – 2018</td>
<td>Gordon, Gladman, Logan</td>
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<tr>
<td>Hypertension in Dementia Feasibility Study</td>
<td>HIND</td>
<td>NIHR Research for Patient Benefit Programme</td>
<td>2014 – 2016</td>
<td>Van Der Wardt, Gladman, Logan, Gordon</td>
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<td>The LPZ and United Kingdom Care Homes Study</td>
<td>LaUnCH</td>
<td>East Midlands Patient Safety Collaborative</td>
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<td>Preventing falls in people with dementia: The Promoting Activity, Independence and Stability in Early Dementia Study</td>
<td>PrAISED</td>
<td>NIHR Programme Grant for Applied Research and an Alzheimer’s Society Clinical Training Fellowship</td>
<td>2016 – 2022</td>
<td>Harwood, Van Der Wardt, Logan, Masud, das Nair, Gladman, Booth</td>
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<td>Communication training for hospital staff caring for people with dementia</td>
<td>VOICE</td>
<td>NIHR Health Service and Delivery Research Programme</td>
<td>2015 – 2018</td>
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<td>Peri-operative Enhanced Recovery hip Fracture Care of PaTiEnts with Dementia</td>
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<td>NIHR Programme Grant for Applied Research</td>
<td>2013 – 2018</td>
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<td>Supporting Older People’s Resilience through Assessment of Needs and Outcomes</td>
<td>SOPRANO</td>
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<td>Perindopril and Leucine to improve muscle function in older people Study</td>
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<td>NIHR Efficacy and Mechanism Evaluation Programme</td>
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<td>The Physical activity Implementation Study In Community-dwelling Adults</td>
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<td>Optimal models of health care in care homes</td>
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<td>Older People Living with Frailty</td>
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<td>EMAHSN</td>
<td>2014 - 2016</td>
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<td>Rehabilitation and recovery of people with Aphasia after Stroke: RELEASE</td>
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<td>NIHR Health Service and Delivery Research Programme</td>
<td>2015 – 2017</td>
<td>Thomas</td>
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<td>An evaluation of community hospitals</td>
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<td>NIHR Health Service and Delivery Research Programme</td>
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<td>Prevention of falls in care homes</td>
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<td>NIHR Health Technology Assessment</td>
<td>2016 – 2019</td>
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<td>Research to Implement Evidence Based In-hospital Stroke Rehabilitation</td>
<td>REVIHR</td>
<td>NIHR CLAHR East Midlands</td>
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<td>Walker, Fisher</td>
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<td>Family-Led Rehabilitation after Stroke in INDia</td>
<td>ATTEND</td>
<td>National Health and Medical Research Council, Australia</td>
<td>2013 – 2016</td>
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<td>Title of Project</td>
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<td>Electrical Stimulation to prevent Complications in the Arm Post-Stroke</td>
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<td>NIHR Research for Patient Benefit Programme</td>
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<td>Behavioural Activation therapy for Depression after Stroke</td>
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<td>NIHR Health Technology Assessment</td>
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<td>Home-Administered Pre-surgical Psychological Intervention for Knee Osteoarthritis</td>
<td>HAPPIKNEES</td>
<td>NIHR Research for Patient Benefit Programme</td>
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<td>Rehabilitation of Memory in Brain Injuries</td>
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<td>NIHR Health Technology Assessment</td>
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<td>Facilitating Return to work through Early Specialist Health-based interventions trial</td>
<td>FRESH</td>
<td>NIHR Health Technology Assessment</td>
<td>2013 – 2017</td>
<td>Radford, Walker, Phillips</td>
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<td>Cognitive Rehabilitation for Attention and Memory in people with Multiple Sclerosis</td>
<td>CRAMMS</td>
<td>NIHR Health Technology Assessment</td>
<td>2014 – 2018</td>
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<td>Leisure and Social activities after stroke</td>
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<td>NISCHR Social Care Research Award</td>
<td>2013 – 2016</td>
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<td>Personalised Guidance Services for lifestyle management and Obesity prevention in teenagers</td>
<td>PEGASO</td>
<td>7th Framework Programme, EU Commission</td>
<td>2013 – 2016</td>
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<td>Managing Affective-learning Through Intelligent atoms and Smart Interaction5</td>
<td>MATHISIS</td>
<td>H2020</td>
<td>2016 – 2018</td>
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<td>Brain in Hand Technology supporting independence, promoting wellbeing in people with acquired brain injury</td>
<td>AMBITION</td>
<td>Hermes Fellowship</td>
<td>2015 – 2018</td>
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<td>Peer Coaching for participation following Acquired Brain Injury</td>
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<td>Slater and Gordon Health Projects Research Fund</td>
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<td>Helping Parents with Chronic Kidney Disease talk to their Children: Exploring parent-child communication about kidney disease and developing resources.</td>
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<td>Nottingham Hospitals Charity and NUH Department of Research and Development Pump Priming</td>
<td>2015 – 2017</td>
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<td>Adjustment post stroke and aphasia: Supporting well-being through Peer Befriending</td>
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<td>Stroke Association Priority Programme Award</td>
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<td>Preventing depression and reducing the impact of aphasia in stroke patients and their caregivers: a cluster randomised control trial of the Action Success Knowledge (ASK) program</td>
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<td>Autologous Chondrocyte Transplantation / Implantation Versus Existing Treatments</td>
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<td>Medical Research Council</td>
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<td>Reducing Repeated Use Of Unscheduled Care By Tackling Health Anxiety: Randomised Controlled Trial Of Clinical And Cost Effectiveness Of Cognitive Behaviour Therapy Delivered Remotely</td>
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<td>Fracture Fixation Ankle Surgery: use of Tourniquet and Early Recovery Management Trial</td>
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<td>NIHR Research for Patient Benefit Programme</td>
<td>2012 – 2016</td>
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<td>Surgical interventions for treating low-impact distal radius fractures: a randomised controlled trial of internal fixation with plate &amp; screws versus percutaneous Kapandji wiring: Distal Radius Internal Fixation Trial</td>
<td>DRIFT</td>
<td>NIHR Research for Patient Benefit Programme</td>
<td>2012 – 2016</td>
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<td>Introducing personalised risk based intervals in screening for diabetic retinopathy: development, implementation and assessment of safety, cost effectiveness and patient experience.</td>
<td>ISDR</td>
<td>NIHR Programme Grant</td>
<td>2013 – 2018</td>
<td>James, Harding, Broadbent, Fischer, Vora</td>
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<td>Safety and efficacy of adding clopidogrel to routine antiplatelet therapy for reducing recurrence and its resulting dependency after acute ischaemic stroke or transient ischaemic attack: the TARDIS randomised controlled trial</td>
<td>TARDIS</td>
<td>NIHR Health Technology Assessment</td>
<td>2012 – 2017</td>
<td>James, Bath</td>
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<td>Closing the gap between research and routine care: The Clinical utility of an objective measure of activity and attention (QbTest) in the diagnosis and assessment of therapeutic response to medication in children and young people with ADHD.</td>
<td>AQUA</td>
<td>NIHR CLARHC East Midlands</td>
<td>2014 – 2016</td>
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Impact

In the Division of Rehabilitation and Ageing, we are committed to carrying out research that will have a positive impact beyond the academic environment. We conduct translational and applied research in order to bridge the gap between invention, evaluation and adoption. We hope that this will lead to significant changes in healthcare practice and clinical guidelines.

Associate Professor Kate Radford, Lead for the Long Term Conditions Research Group:

“One of our research topics is concerned with evaluating vocational rehabilitation interventions that assist people with acquired brain injuries in a return to work. These complex interventions cross service boundaries to engage with employers in supporting the brain injured employee in a return to work. The impact is to prevent job loss and improve health and financial well-being for the brain injured person and advise and educate the employer, family and patient about the impact of the brain injury on their ability to work.”

A patient who received support in a return to work following a traumatic brain injury as part of our FRESH study commented that the intervention “helped me just get into work with the least amount of stress and also helped people who were concerned, my managers and HR and the [workplace] doctor.”

Professor Marion Walker, Lead for Stroke Rehabilitation Research Group:

“We develop and evaluate new stroke rehabilitative interventions informed by the needs and real-life problems experienced by stroke survivors, for example dressing after stroke. Our Stroke Implementation research investigates how research findings can be used to inform clinical practice and improve the organisation of care provided to stroke survivors. We have developed a unique group of stroke survivors and carers – The Nottingham Stroke Partnership group – who work with us to guide and inform the research we do. As featured in a REF 2014 4* impact case study, our Early Supported Discharge research has informed provision of stroke services both nationally and internationally.”
Professor John Gladman, Lead for the Health Care of Older People Research Group:

“The health care of older people research theme has had a wide range of impacts. The educational research has shaped the training of doctors in the care of older people through its adoption in national and international curriculums. Our service research in intermediate care has provided much of the evidence that supports this central component of the modern NHS. Our falls research influences national guidelines such as our studies on the benefits of cataract surgery and liaison between ambulance services and community falls teams.”

Professor Marilyn James, Lead for Health Economics:

“By informing decision makers, health economics helps to ensure the best possible health care is provided within the resource envelope. The research helps to maximise benefit for a given resource. The work on screening has been pivotal in securing the UK programme in diabetic retinopathy. Health economics provides the bridge between clinicians, health care professionals, service users and policymakers.”

Professor Pip Logan, Lead for the Community Rehabilitation Research Group:

“Our research looking at whether fall prevention rehabilitation can reduce falls in older people who have called an emergency ambulance found that it was better and cheaper to provide rehabilitation for the people who are not taken to hospital by the ambulance service.

Our research was published in leading journals and has led to a number of NHS Trusts working together to provide a falls prevention service which starts immediately after the emergency call.

Implementation research is exploring how the services are best delivered.”

A quote from a service user was ‘… the assessment was good, they were very, very, very thoughtful and good, they were very anxious for me.’"
Collaborations

Our division receives support and funding from various collaborative organisations in order to conduct translational and applied research which will be of benefit to the health service and its users.

**CLAHRC: The Collaboration for Leadership in Applied Health Research and Care**

In 2013, the National Institute for Health Research awarded funding to 13 Collaborations for Leadership in Applied Health Research and Care (CLAHRCs) across England. CLAHRC East Midlands provides £28 million in funding from 2013 to 2018.

CLAHRC East Midlands brings together partners from the NHS, universities, the EMAHSN and other local organisations in order to conduct research of local relevance and international quality into five inter-related themes, with the aim of improving health outcomes across the region.

One of the five key themes is Caring for Older People and Stroke Survivors. The Division is closely involved with this work, the main aim of which is to deliver applied research to improve the health and well-being of older people and those who survive a stroke.

CLAHRC East Midlands is currently supporting three studies involving the Division, SOPRANO, REVIHR, and PhiSICAL, as well as funding several PhDs in the Division. Over the next five years, CLAHRC aims to deliver world class research, health service improvement, better patient outcomes and improved public health.

The Health Economics team is currently supporting 5 CLAHRC studies; AQUA, E-DASH, Health Anxiety, Self-Harm and Mood Disorders.

To find out more, follow the Collaboration for Leadership in Applied Health Research and Care East Midlands on Twitter at [https://twitter.com/clahrc_em](https://twitter.com/clahrc_em) or visit the webpage - [http://www.clahrc-em.nihr.ac.uk/](http://www.clahrc-em.nihr.ac.uk/).

**EMAHSN: East Midlands Academic Health Science Network**

The East Midlands Academic Health Science Network (EMAHSN) is one of 15 Academic Health Science Networks set up across the country “to transform health and patient care through innovation, and stimulate economic growth.”

The EMAHSN is a collaboration between NHS organisations, higher education institutions, industry, public health, local government and the third sector in the region. The EMAHSN concentrates on important health issues in the East Midlands, such as the care of frail older people and stroke rehabilitation.
The funding from the EMAHSN helps support the division in our work to transform services for older people across the East Midlands, concentrating on the provision of services that deliver comprehensive geriatric assessment, with particular focus upon urgent care, dementia and maintaining health.

The EMAHSN funded Stroke Rehabilitation Programme works to ensure that community stroke services are available in each region of the East Midlands to provide specialist stroke rehabilitation to survivors living at home.

To find out more, follow the East Midlands Academic Health Science Network on Twitter at @EM_AHSN or visit the webpage at http://www.emahsn.org.uk/.

**EMRAN: East Midlands Research into Ageing Network**

EMRAN’s objective is to facilitate collaborative applied research in to ageing and older people across the East Midlands. We do this by circulating calls to collaborate on new projects, hosting themed seminars at different research centres from across the region, disseminates information, events and funding calls of interest to members as well as publishing discussion papers on the EMRAN Discussion Paper website http://www.nottingham.ac.uk/emran.

The funding from the EMAHSN helps support the division in our work to transform services for older people across the East Midlands, in urgent hospital care, concentrating on the provision of services that deliver comprehensive geriatric assessment.

To find out more or to join this multi-disciplinary network, please contact emran@nottingham.ac.uk, follow us on Twitter @EMRAN_ageing or visit the website: http://www.clahrc-em.nihr.ac.uk/clahrc-em-nihr/emran.aspx
Patient and Public Involvement

We have a wide network of patients and members of the public, with links to many local groups and systems, such as CLAHRC East Midlands and local NHS organisations. We recognise the importance of involving patients and the people who represent them in all stages of the research process, as they bring valuable skills and resources from a wide range of real life experiences. Here are a few examples of ways in which we engage patients and members of the public with our work.

The Nottingham Stroke Research Partnership Group

The route to meaningful research activity can only be achieved by understanding the true impact caused by stroke. In recognition of this, the Nottingham Stroke Research Partnership Group was formed in 2004 as an independent partnership organisation of stroke researchers from the University of Nottingham and stroke survivors and carers. There has been a small core group of people involved over the years who have been principally engaged in the review of stroke research proposals, serving on trial steering groups, or participating in trials themselves. The group has involvement in research activities from inception of the idea through to steering group membership of successfully funded studies. The Group leads an annual Stroke Lay Conference and attracts over 120 stroke survivors, carers and family members affected by stroke.

Health Care of Older People - Patient and Public Involvement in Research Group

Created in 2008, the Patient and Public Involvement in Research group meets roughly once a month. The group was set up in order to include patients, carers and members of the public in all stages of our research so that we can improve future healthcare services for older people and those living with dementia. The members of the group help to review and improve our research and ensure it is relevant to the public.
This group for people with intellectual disabilities who are interested in research meet monthly at the local special school, Oakfield. The group started in 1997 to advise on a project funded by the National Lottery Fund. Since then, they have met regularly to review research proposals involving people with intellectual disabilities and advise on active research projects. Members have presented at international conferences, especially IASSID (International Association for the Scientific Study of Intellectual and Developmental Disabilities) when it was held in South Africa, Seattle and France. They have also contributed to undergraduate and postgraduate courses at both Nottingham universities.
Teaching
As a Division of the School of Medicine, education forms an important part of our work. As a group with a high number of clinical academics, we are well placed to ensure that postgraduate training and education is up to date and evidence-based.

1. Undergraduate Teaching

The Division of Rehabilitation and Ageing is involved with the teaching of the Medicine BMBS programme, providing a module in Health Care of Later Life, in Clinical Phase II in the fourth year of the course. The course examines clinical problems, ethical issues and multidisciplinary working related to Health Care of the Elderly. The module has a community focus and teaches students about the specialty fields of geriatric medicine, old age psychiatry and gerontology. Students learn how to deal with complex disability and continuing care.

2. Health Education East Midlands Clinical Scholars

The Division hosts several Health Education East Midlands (HEEM) Clinical Scholars, with seven students in 2015/16. This scheme offers up to 19 places for a diverse range of health professionals, registered in the East Midlands, in order to help them to develop a research career.

There are two HEEM award programmes which run alongside each other, the Clinical Scholar Bronze and Silver Awards. The Bronze Award is for those without a formal Master’s qualification who wish to explore an area of research, and the Silver Award is for those with a Masters or equivalent postgraduate qualification with the aim of preparing a PhD proposal.

These awards form the first stages of the Department of Health’s Clinical Academic Training Pathway (CATP) within the East Midlands, part of the Government’s strategy to improve health outcomes and the patient care experience by training high-quality research professionals.

To find out more about HEEM Clinical Scholar programmes, please visit the website: http://clinicalscholar.co.uk/.

3. Masters

The Division offers two Masters programmes which reflect our expertise.

Rehabilitation Psychology MSc
The MSc Rehabilitation Psychology focuses on physical and psychological rehabilitation, chronic illness and disability. The course is designed for psychology graduates and those working as part of a multidisciplinary team as assistant psychologists, or conducting rehabilitation research in healthcare settings. It is also suitable as a preparation for
clinical psychology training. There is a focus on clinical application throughout the course – how to use what you learn in practical settings.

**Health Psychology MSc**
This course is approved by the British Psychological Society (BPS) for accreditation towards becoming a Chartered Psychologist and is intended for those wishing to pursue a career as a professional health psychologist or for those with an interest in the psychological concomitants of physical health. Career opportunities for health psychologists are available in a wide variety of settings including the NHS, industry and academia.

The course received seven commendations in December 2015 by the British Psychological Society including the passion and enthusiasm of the course team, student support and Professional Skills/careers development.

To find out more please visit the course webpages:

- [http://www.nottingham.ac.uk/go/mscrehabilitationpsy](http://www.nottingham.ac.uk/go/mscrehabilitationpsy)
- [http://www.nottingham.ac.uk/go/mschealthpsy](http://www.nottingham.ac.uk/go/mschealthpsy)

### 4. Postgraduate Study and the Centre for Doctoral Training
We have a thriving group of postgraduate students in a newly established Centre for Doctoral Training Rehabilitation and Healthcare Research (CDT RHR). The establishment of the CDT RHR in 2014 demonstrates our commitment to developing research in non-medical professions and to offering interdisciplinary doctoral training programmes. The CDT aims to deliver world-class doctoral training, centred in healthcare and rehabilitation research and based on the needs and aspirations of each student.

In the CDT RHR, we hope to graduate in excess of four occupational therapists, clinical psychologists, psychologists, health psychologists, neuropsychologists, nurses, doctors, health economists, medical statisticians, physiotherapists and speech and language therapists per annum, providing them with the skills to become leaders in translational healthcare and rehabilitation research.

“I chose Nottingham as the CDT has a vibrant community of clinical academics from a range of disciplines which provides a great peer support network. It also has international leaders in therapy research who have been invaluable in providing advice and support to develop my career.”

– Katie Robinson, Research Physiotherapist and PhD student

In its first year, the Centre for Doctoral Training secured studentships to enrol seven students from the Alzheimer’s Society, Nottingham CityCare Partnership, CLAHRC and the Nottingham University Impact Campaign, with six more studentships in 2015/16.

The areas of postgraduate research reflect the diverse and multidisciplinary nature of the Division. Our PhD students carry out a wide range of research in order to understand and help to reduce the physical, cognitive, emotional and psychological impact that neurological and other long term conditions can have on patients and their carers. Topics examined by our PhD research include, but are not limited to:
- Stroke
- Multiple Sclerosis
- Brain injuries
- Dementia
- Low back pain
- Cognitive impairment
- Musculoskeletal problems
- Diabetes
- Learning disabilities
- Complex regional pain syndrome

Many of our PhD students also aim to examine and improve hospital and community based services for the care and rehabilitation of people with long term conditions, older people and the residents of care homes.

To find out more please visit the CDT webpage: [www.nottingham.ac.uk/go/CDTRHR](http://www.nottingham.ac.uk/go/CDTRHR)
Research collaborations

The Division of Rehabilitation and Ageing works collaboratively with many other institutions and groups with shared interests in order to carry out our research. This collaborative approach includes the following national establishments:

- NIHR Collaboration for Leadership in Applied Health Research and Care East Midlands
- East Midlands Academic Health Science Network
- East Midlands Research into Ageing Network
- The University of Nottingham Impact Campaign
- Nottingham Stroke Network:
  - Stroke Research Partnership Group
  - Stroke Research Strategy Committee
- Nottingham University Hospitals NHS Trust
- Nottingham City Council
- Derby Hospitals NHS Foundation Trust
- Nottinghamshire Healthcare NHS Trust
- University Hospital of North Staffordshire NHS Trust
- Robert Jones and Agnes Hunt Orthopaedic Hospital Shropshire
- Nottingham CityCare Partnership
- Mansfield Clinical Commissioning Group
- Institute for Mental Health
- University of Leicester
- University of Liverpool
- University of Keele
- MRC ARUK Centre for Musculoskeletal Research (CMAR) with the University of Birmingham
- Enabling Research in Care Homes Network (ENRICH)
- Arthritis Research UK Pain Centre
- The Alzheimer’s Society
- The Ossie Newell Foundation Trust
- The Stroke Association
- The MS Society
International research collaborations

The Division of Rehabilitation and Ageing works collaboratively on an international scale, with institutions including:

- Chinese University of Hong Kong, Hong Kong
- Friedrich-Alexander-Universität Erlangen-Nürnberg, Germany
- Gruppo Sigla, Genoa, Italy
- Information Agency of Quality Assessment and Health (AAQUAS), Barcelona, Spain
- Masku Neurological Rehabilitation Centre, Finland
- Mellen Center for MS at the Cleveland Clinic, Ohio, USA
- The Norwegian Multiple Sclerosis Competence Centre, Bergen, Norway
- Politecnico Di Milano, Milan, Italy
- Pontifical Catholic University of Rio Gande do Sul (PUCRS), Brasil
- Rio De Janiero State University, Brazil
- Serious Games Institute, Coventry University, United Kingdom
- Swiss Microtechnology Centre of Research And Development (CSEM), Neuchatel, Switzerland
- Tianjin Normal University, China
- The University of Applied Sciences and Arts Western Switzerland, (HES-SO) Fribourg, Switzerland
- The University of Lleida, Spain
- The University of Maastricht, Netherlands
- The University of Malaysia, Malaysia
- The University of Melbourne, Australia
- The University of Nijmegen, Netherlands
- The University of Queensland, Australia
- The University of Southern Denmark and Municipality of Odense, Denmark
- The University of Sydney, Australia
- The University of Technology Sydney, Australia
- Universidade Federal do Parana, Curitiba, Brasil
- Universidade Federal de Sao Paulo, Brasil
- Usher Institute of Population Health Science & Informatics, The University Of Edinburgh, United Kingdom.
- VU University Medical Centre, Amsterdam, Netherlands
Some examples of publication by staff and students in the Division are as follows:

- Goldberg SE, Bradshaw LE, Kearney FC, Russell C, Whittamore KH, Foster PER, Mamza J, Gladman JRF, Jones RG, Lewis SA, Porock D, Harwood RH. Comparison of a specialist Medical and Mental Health Unit with standard care for older people with cognitive impairment admitted to a general hospital: a randomised controlled trial. BMJ 2013;347:f4132 doi: 10.1136/bmj.f4132
- Logan, PA; Coupland, CAC; Gladman JRF, Jones et al Community falls prevention for people who call an emergency ambulance after a fall: randomised controlled trial. British Medical Journal 2010; 340 c2102
qualitative analysis – the Community In reach Rehabilitation And Care Transition (CIRACT) study. Southampton (UK): NIHR Journals Library; 2016 Feb. PMID: 26937535


Looking ahead

Looking to the future, we hope to continue to conduct high quality research in the Division of Rehabilitation and Ageing in order to ensure maximum impact and benefit for patients. Building on our significant body of work, the division’s research will continue to focus on our five key areas.

We hope to continue our success in providing world-class training for future researchers in our teaching programmes and in the Centre for Doctoral Training, supporting the individual needs of each student and their particular research aspirations. Within the next three years, the CDT aims to have eighteen students and to continue working closely with CLAHRC, the EMAHSN, the MRC ARUK Centre, the NIHR and HEEM to secure reliable and ongoing funding to further establish the centre. We expect links within the University’s Musculoskeletal Health in Ageing and Well-being Research Priority Area to provide opportunities for collaboration, especially in the translation of fundamental developments in this area.

The Ossie Newell Foundation Trust

2016 will usher in the creation of The Ossie Newell Foundation Trust, the brain child of a stroke survivor, good friend and strong supporter of the University, Ossie Newell. The Foundation aims to contribute to academic research, particularly in the specialism of stroke rehabilitation, by extending educational resource at the University of Nottingham and by attracting high quality graduates to study for Doctoral Degrees. With the support of the Vice Chancellor, the University of Nottingham School of Medicine, particularly the Division of Rehabilitation and Ageing, will act as a key stakeholder in the venture along with the Foundation itself.

The Foundation hopes to secure funding for one graduate student each year for the first three years, as soon as sufficient funds can be raised. Following this, the aim is to provide total funding for the first Foundation PhD student in the third year following the launch, or sooner if funds are available. In addition to sponsorship for one student, provision must be made to provide for a second student in the second year and a third in the third year. The long term ambition is to continue such a procedure year on year, enabling continuity of the process into the future.

The Foundation has a funding target of £200,000 to be raised as quickly as possible through various fundraising channels. To sponsor each PhD will require funding amounting to £20,000 per annum over a period of three years, thus a total of £60,000 is required for each Doctorate. Consequently, funding totalling £180,000 will be required to sponsor the first three PhD students.

The Ossie Newell Foundation will be officially and formally launched during 2016 and fundraising will begin soon after. To find out more about the Foundation, please visit the webpage - www.ossienewellfoundation.co.uk.
Find out more

The Division of Rehabilitation and Ageing
The University of Nottingham School of Medicine
Medical School, QMC
Nottingham, NG7 2UH
W: https://www.nottingham.ac.uk/medicine/about/rehabilitationageing/index.aspx

Contact
Joanna Zuranska
Divisional Administrator
T: +44 (0)115 82 30230
E: joanna.zuranska@nottingham.ac.uk

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Brochure compiled by Katie Radford (May 2016)