Book of Abstracts and Proceedings

15 November 2024

Irish Heart Foundation Stroke Study Day

Abstracts

A Communities of Practice approach to understand barriers and facilitators in implementing clinical based stroke research.

Oral

Dr. Yvonne Codd [1], ***Prof. Alison Porter-Armstrong*** [2], ***Dr. Beverley Turtle*** [3], ***Ms. Áine McNally*** [4], ***Ms. Marian McArdle*** [5], ***Dr. May Stinson*** [6], ***Ms. Patricia McIlwaine*** [7], ***Ms. Lourene Abbi*** [7], ***Ms. Fiona Morrow*** [7], ***Ms. Tina Hughes*** [8], ***Ms. Anna Maguire*** [9], ***Dr. Tadhg Stapleton*** [1]

1. *Discipline of Occupational Therapy, School of Medicine, Trinity College Dublin,* ***2.*** *School of Health and Social Care at Edinburgh Napier University & School of Health Sciences, Ulster University,* ***3.*** *School of Health Sciences, Ulster University,* ***4.*** *Our Lady of Lourdes Hospital,* ***5.*** *The Louth County Hospital,* ***6.*** *School of Health Sciences, Ulster University (retired),* ***7.*** *Whiteabbey Hospital,* ***8.*** *Daisy Hill Hospital,* ***9.*** *South West Acute Hospital*

Introduction

The REfLECTS trial was a randomised controlled trial (RCT) testing effectiveness of mirror box therapy in upper limb rehabilitation among sub-acute stroke patients. REfLECTS was conducted in five sites across four health organisations and two jurisdictions. Despite the scale, rigor, and planning of this clinical trial implementation was challenging, 803 patients were screened and only 26 recruited. This study explored the underlying factors and challenges influencing the recruitment of participants to this multisite RCT using a Communities of Practice approach.

Methods

Bi-monthly steering meetings were held for the trial duration to monitor progress and recruitment issues. A one-off focus group was conducted post-recruitment to examine factors impacting recruitment. Data from meeting minutes and the focus group were analysed using thematic analysis.

Results

The full team (n=14) participated in the steering meetings and a subgroup (n=9) participated in the focus group. Two major themes were identified (i) impact of COVID-19 on service delivery, including shorter in-patients stay affecting trial recruitment; and (ii) Clinical Trials (and Tribulations) highlighting therapist-led clinical dilemmas and factors leading to patients declining to participate. Strict adherence to inclusion criteria excluded patients based on scores on standardised screening tools. Patients declined to participate if allocated to the control group for 'fear of missing out' on potential recovery. Higher rates of attrition were noted among the control group and contamination where some participants purchased their own mirror boxes.

Conclusion

Maintaining research purity in the pragmatic 'real world' of stroke rehabilitation is challenging in therapy-based interventions where blinding is not possible. Clinicians encounter ethical dilemmas with randomisation in high-quality clinical trial methodologies and need support in addressing these challenges. Ongoing trial implementation support is crucial to ensure clinician and patient engagement, enhance recruitment, and maintain research integrity.

Ethics

Yes - Ethics Committee, Ulster University, Trinity College Dublin, participating hospitals.

Alternative scenarios for projected prevalence of stroke and post-stroke dementia to 2046 in Ireland: a model-based analysis

Poster

Dr. Eithne Sexton [1], ***Prof. Martin O'Flaherty*** [2], ***Prof. Anne Hickey*** [1], ***Prof. David J Williams*** [3], ***Prof. frances horgan*** [4], ***Mr. Chris Macey*** [5], ***Prof. Suzanne Timmons*** [6], ***Prof. Rónán Collins*** [7], ***Prof. Kathleen Bennett*** [8]

1. *Dept. of Health Psychology, RCSI University of Medicine & Health Sciences, Dublin,* ***2.*** *University of Liverpool,* ***3.*** *RCSI / Beaumont Hospital,* ***4.*** *RCSI,* ***5.*** *Irish Heart Foundation,* ***6.*** *University College Cork,* ***7.*** *Tallaght University Hospital,* ***8.*** *Data Science Centre, School of Population Health, RCSI*

Background and aims: Understanding future population need is key for informing stroke service planning. This study aims to evaluate alternative scenarios for future trends in stroke age-specific incidence and case-fatality, and estimate impact on projected stroke and post-stroke dementia prevalence in Ireland.

Methods: We used a probabilistic Markov model to project and track incidence and prevalence of stroke and post-stroke dementia in the Irish population aged 40-89 years to 2046. We defined trend scenarios based on stability, and low and high decline, broadly based on the lower and upper bounds of evidence for trends to date. We also examined non-linear trends involving decelerating decline over time and varying trends by age. We projected the incidence and prevalence of stroke (ICD codes I60-I61, I63-64), post-stroke dementia (DSM-V criteria) and post-stroke disability (modified Rankin scale 3-5).

Results: The stable scenario indicated a projected 85,834 stroke survivors in 2046 (95% uncertainty interval, UI = 82,366-89,655), an increase of 45.7% from 2022. Assuming a high incidence decline and low case-fatality decline indicated a 5.4% increase in prevalence. Intermediate scenarios based on lower rates of decline, or decline rates slowing over time, implied an increase between 25.8% and 40.3%. Results did not differ substantially when we varied trends by age.

In the stable scenario we projected 16,978 post-stroke dementia prevalent cases in 2046 (95% UI 14,958-19,157), an increase of 58.9% from 2022. In the high decline scenario, the increase would be 25.9%, with intermediate scenarios implying an increase between 41.3% and 56.3%.

Conclusions: Future stroke healthcare needs will vary substantially depending on epidemiological trends. There is an urgent need to both invest in prevention strategies and plan for likely increases in future stroke care needs. Ethical approval was granted for use of stroke audit data from RCSI Research Ethics Committee (REC202304013).

Analysis of CYP2C19 genotypes and relationship with on-treatment platelet reactivity on clopidogrel in a TIA/ischaemic stroke patient population in Ireland

Oral

Dr. Iryna Naydonova [1], ***Dr. Deirdre Smith*** [1], ***Dr. Chika Offiah*** [1], ***Dr. Laia Llucià-Carol*** [2], ***Prof. Rónán Collins*** [3], ***Dr. Dan Ryan*** [3], ***Dr. Allan McCarthy*** [4], ***Prof. Sinead Murphy*** [4], ***Ms. Bridget Egan*** [5], ***Prof. Dermot Cox*** [6], ***Prof. Gary Ford*** [7], ***Prof. Bo Norrving*** [8], ***Prof. Vincent Thijs*** [9], ***Prof. Joan Montaner*** [10], ***Dr. Israel Fernandez-Cadenas*** [11], ***Prof. Dominick McCabe*** [12]

1. *Tallaght University Hospital-AMNCH/Academic Unit of Neurology, School of Medicine, Trinity College Dublin,* ***2.*** *Stroke Pharmacogenomic and Genetics, Institut d'Investigació Biomèdica Sant Pau (IIB SANT PAU), Barcelona, Spain,* ***3.*** *Tallaght University Hospital,* ***4.*** *Department of Neurology/Stroke Service, Tallaght University Hospital-AMNCH/ Academic Unit of Neurology, School of Medicine, Trinity College Dublin,* ***5.*** *Department of Vascular Surgery, Tallaght University Hospital-AMNCH, Dublin,* ***6.*** *School of Pharmacy and Biomolecular Sciences, Royal College of Surgeons in Ireland, Dublin; Irish Centre for Vascular Biology, Dublin,* ***7.*** *University of Oxford, Oxford University Hospital NHS Foundation Trust, Oxford,* ***8.*** *Department of Clinical Sciences Lund, Neurology, Lund University, Lund,* ***9.*** *Dept. of Neurology, Austin Health and Florey Institute of Neuroscience and Mental Health, University of Melbourne, Heidelberg, Victoria, Australia / Department of Neurology, Austin Health, Heidelberg, Victoria,* ***10.*** *Neurovascular Research Lab, Vall d'Hebron Institute of Research, Barcelona; Institute de Biomedicine of Seville, Hospital Universitario Virgen del Rocío/CSIC/University of Seville; Hospital Universitario Virgen Macarena, Seville,* ***11.*** *Stroke Pharmacogenomic and Genetics, Institut d'Investigació Biomèdica Sant Pau (IIB SANT PAU), Barcelona,* ***12.*** *Department of Neurology, Vascular Neurology Research Foundation, Stroke Service, Tallaght University Hospital-AMNCH, Stroke Clinical Trials Network, Dublin/Academic Unit of Neurology, School of Medicine, Trinity College Dublin*

Introduction: Single nucleotide polymorphisms (SNPs) in the cytochrome P450 2C19 (CYP2C19) gene may influence Clopidogrel metabolism from its pro-drug to active metabolite, and hence the ability of Clopidogrel to inhibit platelet $P12Y_{12}$ ADP receptors. Patients with CYP2C19 loss-of-function (LOF) SNPs (*2 or *3) might exhibit '**H**igh on-**T**reatment **P**latelet **R**eactivity' (**HTPR**) in the laboratory and potentially be at higher risk of recurrent vascular events, whereas CYP2C19 *17 gain-of-function SNPs could theoretically increase bleeding risks. Studies simultaneously assessing the influence of **pharmacogenetic factors** on **Antiplatelet-HTPR status** and **clinical responsiveness** in ischaemic cerebrovascular disease (CVD) patients are limited/conflicting, with no prevalence data on CYP2C19 LOF SNPs specifically in CVD patients in Ireland.

Methods: 103 patients ≤4 weeks of TIA/ischaemic stroke who were on Aspirin (N=22) or Clopidogrel (N=29) monotherapy, or combination therapy with Aspirin+Clopidogrel (N=48) or Aspirin+Dipyridamole (N=4) were recruited to the multi-centre **O**ptimal **A**ntiplatelet **T**herapy in TIA and Ischaemic **S**troke-**I**nternational (**OATS-I**) study. EDTA-anticoagulated blood samples were analysed at a Centralised Pharmacogenetics Laboratory by members of International Stroke Genetics Consortium to classify patients as '**Intermediate-Poor'**, '**Normal**' or '**Rapid-Ultrarapid'** Clopidogrel Metabolisers. Patients on **Clopidogrel** were prospectively categorised into subgroups with or without Clopidogrel-HTPR on platelet reactivity assays at 'high shear stress' (PFA-100® INNOVANCE PFA P2Y), and 'low shear stress' (VerifyNow® PRUTest).

Ethics: Approved (SJH/TUH-AMNCH).

Results: **94 patients** underwent successful pharmacogenetics (GWAS) analysis **to date**. **29%** (N=27) were Intermediate-Poor, **37%** (N=35) Normal, and **34%** (N=32) Rapid-Ultrarapid Metabolisers. Despite categorisation as 'Intermediate-Poor Metabolisers' on pharmacogenetics analysis, 7/21 (33%) patients on Clopidogrel monotherapy/combination therapy did **not** have Clopidogrel-HTPR on the PFA-100 **or** VerifyNow.

Conclusions: Almost one-third of our overall CVD patient population in Ireland have CYP2C19 LOF SNPs. Pharmacogenetics data should **not be used alone** to guide treatment with Clopidogrel because 1 in 3 CVD patients

classified as Intermediate-Poor Metabolisers have adequate $P2Y_{12}$ inhibition *ex-vivo* on Clopidogrel.

AVERT – DOSE: the Irish perspective on participation in a multi-national rehab trial.

Oral

Ms. Edel Hennessy [1], ***Ms. Amy Cullinane*** [1], ***Prof. Margaret O' Connor*** [1], ***Dr. Mairead O' Donoghue*** [2], ***Ms. Claire Prendergast*** [3], ***Ms. Kristina Joksaite*** [3], ***Ms. Sorcha O' Higgins*** [3], ***Dr. Olwyn Lynch*** [3], ***Ms. Aoife Crowley*** [4], ***Ms. Anna Donohue*** [4], ***Dr. Tim Cassidy*** [4], ***Ms. Mary Weir*** [5], ***Ms. Niamh Kelly*** [5], ***Dr. Tom O' Malley*** [5], ***Ms. Claire Connolly*** [6], ***Prof. Sean Murphy*** [6], ***Prof. Peter J. Kelly*** [7], ***Prof. frances horgan*** [8], ***Ms. Fiona Ellery*** [9], ***Prof. Julie Bernhardt*** [9]

1. *University Hospital Limerick,* ***2.*** *St James' Hospital,* ***3.*** *Our Lady of Lourdes Hospital,* ***4.*** *St Vincents University Hospital,* ***5.*** *Mayo University Hospital,* ***6.*** *Mater University Hospital,* ***7.*** *Neurovascular Clinical Science Unit, University College Dublin, Dublin,* ***8.*** *RCSI,* ***9.*** *Florey Institute of Neuroscience and Mental Health*

Introduction

Mobility training is a widely accepted intervention in rehabilitation post stroke. However, the evidence base is inadequate with differences amongst international guidelines. The AVERT trial demonstrated that more is not necessarily better[1]. AVERT-DOSE aims to define optimal early mobility regimens for ischemic stroke patients.

Methodology

AVERT-Dose is a global multi-arm multi-stage covariate-adjusted response-adaptive randomized trial of mobility training commenced within 48h of ischaemic stroke in mild (NIHSS < 7) and moderate (NIHSS 8–16) stroke patient strata, with analysis of blinded outcomes at three (primary) and six months. Per strata, participants are randomised into one of four mobility training regimes. Training is delivered by AVERT-DOSE trained physiotherapists and nurses for up to 14 days or until discharge from the stroke unit[2].

Results

There have been 765 participants recruited from 43 sites worldwide. In Ireland, five sites have recruited 24 participants to date. One site is initiated and screening potential participants.

In Ireland, the ethical and legal approval processes have varied between sites. Time from ethics application to full approval has spanned from ten to 42 months. Legal and ethical approval is in place for all Irish sites. Significant staffing changes and unfilled vacancies across all sites, have negatively affected recruitment in the region.

An Irish AVERT-DOSE collaborative has been established to address the trial challenges. This peer support and collaboration has proven successful in supporting the Irish sites through these barriers.

Conclusion

This novel adaptive trial design will evaluate a wider variety of mobility regimes than a traditional two arm design. Undertaking research in busy clinical environments against a backdrop of a global pandemic and fluctuating resources is challenging and has necessitated a problem solving approach from clinicians committed to the development evidence based practice.

Barriers to recruitment and retention for a pilot randomised controlled trial of a novel cognitive rehabilitation intervention for post-stroke cognitive impairment.

Poster

Ms. Jane McGlinchey [1], ***Ms. Mairead Murray*** [1], ***Ms. Megan Oglesby*** [1], ***Dr. Catherine Nora Moran*** [2], ***Prof. Niall Pender*** [3], ***Prof. Kathleen Bennett*** [4], ***Prof. frances horgan*** [5], ***Prof. David J Williams*** [6], ***Prof. Anne Hickey*** [2]

1. *Dept. Health Psychology, RCSI University of Medicine & Health Sciences, Dublin,* ***2.*** *Dept. of Health Psychology, RCSI University of Medicine & Health Sciences, Dublin,* ***3.*** *Dept. Psychology, Beaumont Hospital,* ***4.*** *Data Science Centre, School of Population Health, RCSI,* ***5.*** *RCSI School of Physiotherapy,* ***6.*** *RCSI / Beaumont Hospital*

Introduction: Post-stroke cognitive impairment (PSCI) affects approximately 50% of patients following a stroke and is associated with increased disability, poorer quality of life, and increased risk of requiring long-term care. Despite these negative consequences, the efficacy of cognitive rehabilitation for PSCI is not well-established. A frequent hindrance to generating robust evidence for cognitive rehabilitation using a stroke population is insufficient recruitment and retention. This trial aims to collect data on recruitment and attrition rates to an intervention study in order to inform recruitment methods for a definitive trial.

Methods: The study aims to recruit 64 consecutive ischaemic stroke patients with mild-to-moderate PSCI. Patients complete bedside screening assessments and a baseline neuropsychological assessment 6 weeks after stroke, and eligible patients are randomised into control (care as usual) and intervention (five-week cognitive rehabilitation) groups. To document barriers to recruitment, anonymous data (age, sex and reason for not participating) are recorded for those deemed inappropriate for the study by the medical team, patients who chose not to consent, patients excluded after screening and assessment, and participants who drop out.

Results:

Preliminary results indicate that 83% (n = 60/72) of patients are eligible following screening. Of the 40 patients who completed their baseline neuropsychological assessment, 58% (n=23/40) were found to have PSCI. Current predictions indicate that 112 baselines will need to be conducted to randomize 64 participants, and 194 patients will need to be consented overall.

Conclusion: Anonymised data provides insight into recruitment challenges, reasons for exclusion, non-participation and attrition rates. These data will inform recruitment strategies and the determination of necessary effect sizes to power a definitive trial.

Ethics: Ethical approval for this study was granted by the Beaumont Hospital Medical Research Ethics Committee, No. 23/14, on the 20th of June 2023.

Bickerstaff Encephalitis Presenting as a Rare Cause of Stroke Mimic in an Older Person

Poster

Dr. Gavin Sedgwick [1], ***Dr. Paula Hickey*** [1], ***Dr. Adi Jefferelli*** [1], ***Dr. Siobhan Kelly*** [1]

1. *Sligo University Hospital*

Introduction: Bickerstaff Brainstem Encephalitis (BBE) is a rare variant of Guillan Barre Syndrome (GBS) first described in the 1950s. It comprises a constellation of neurological signs including ophthalmoplegia, ataxia, altered sensorium and is usually preceded by infection. It shares overlap with another variant of GBS,Miller Fisher Syndrome (MFS), and can be challenging to diagnose given the variability of presentations and rarity(1). Two case reports have been published with MFS presenting as stroke mimics but none with BBE (2).

Case: Here we describe a case of BBE presenting as a stroke mimic in an 87 year old gentleman who initially presented as a subacute posterior circulation stroke after a 2 day history of double vision, altered sensation to his lip and right hand and an unsteady gait. CT brain and angiogram were clear for ischemia and he was commenced on aspirin while awaiting stroke work-up. His symptoms rapidly progressed to involve severe dysarthria and an ataxic gait. Evaluation of his history found he had a lower respiratory tract infection one week prior to developing his neurological symptoms. CSF analysis showed albuminocytological dissociation. Serum was negative for anti-GQ1b antibodies. MRI showed no features of encephalitis. We consulted Neurology who assisted in making the final diagnosis of BBE.

Treatment: He was treated with intravenous immunoglobulin and made a full recovery after rehab.

Learning: Highlights the complexity in making the diagnosis in older patients with atypical neurology, the importance of prompt recognition of evolving symptoms, accurate diagnosis and correct treatment. The complete aetiology of BBE is not fully understood.

References

1. Bickerstaff ER. Brain-stem encephalitis; further observations on a grave syndrome with benign prognosis. Br Med J. 1957;1(5032):1384-7.

2. Kamarul Bahrin MH, Abidi SMA, Ling K, Mukherjee B. Not All Facial Droops Are Stroke: Miller Fisher Syndrome Presenting as a Stroke Mimic. Cureus. 2020;12(7):e9383.

Cancer And Stroke - An Irish Centre's Experience Of Emerging Trends Of Co-Diagnosis

Poster

Dr. Patrick Doyle [1], ***Dr. Sarah Walsh*** [1], ***Ms. Rachel Walsh*** [1], ***Ms. Suzanne Greene*** [1], ***Ms. Nicola Cogan*** [1], ***Ms. Emma Murtagh*** [1], ***Dr. Dan Ryan*** [1], ***Dr. Derek Hayden*** [1], ***Dr. Sarah Coveney*** [1], ***Dr. Lynda Corrigan*** [1], ***Prof. Rónán Collins*** [1]

1. *Tallaght University Hospital*

Introduction

Cancer is an increasingly recognised independent risk factor for the development of stroke, with emerging evidence of stroke in the context of malignancy being its own pathophysiological subtype[1]. Both cancer and stroke risk are associated with increasing age, with stroke mortality in cancer patients significantly higher. Due to the increasingly ageing population in Ireland, the number of those presenting with dual diagnosis is set to increase. We sought to review numbers presenting with stroke and cancer to our stroke service.

Methods

Patients admitted with confirmed stroke diagnosis were identified through Hospital Inpatient Enquiry (HIPE) data from March 2023 to May 2024. This cohort was screened for a co-existing oncological diagnosis. The following variables were collected: recency of cancer diagnosis, subtype of stroke, anti-cancer therapy treatment to date, risk factors for developing cardiovascular disease using atherosclerosis cardiovascular disease score (ASCVD) and baseline CRP on admission.

Results

71/320 (22%) patients admitted to our service in the defined period were identified as having a co-diagnosis of stroke and cancer (new or historical). Of those 71 patients, 8(11%) had a new or recent (<1 year) cancer diagnosis at stroke presentation and 63 were found to have a historical diagnosis (> 1 year). Prostate cancer represented the largest proportion of patients, followed by lung and skin. 11(15%) were actively on cancer treatment at time of presentation of stroke. For patients actively on treatment, 5/11 had received platinum-based therapies. Average ASCVD risk factor score was 29.7%.

Conclusions

One in five patients with acute stroke had new or historical diagnosis of cancer in our cohort. A national prospective registry of patients with cancer and stroke could be useful in understanding patterns of stroke in cancer and help plan services and treatments for this specific population.

Cardiorespiratory Training Post Stroke: From Guideline to Clinical Practice. A qualitative study.

Poster

Ms. Kyla Ashmore [1], ***Ms. Ailish Malone*** [1]

1. *School of Physiotherapy, Royal College of Surgeons in Ireland*

Introduction

The National Clinical Guideline for Stroke for the United Kingdom and Ireland was published in April 2023. In this new guideline, there is an increased focus and detail regarding cardiorespiratory training.

The aim of this study was to explore physiotherapists' perspectives into the feasibility of implementation of cardiorespiratory training as per this new guideline. Objectives were to explore possible challenges and facilitating factors to implementation.

Methods

A qualitative descriptive study was conducted using semi-structured interviews. Physiotherapists interviewed were CORU registered and had experience working with stroke patients in the past two years. Stratified purposive sampling was employed to expand on geographical and healthcare settings represented. Data was analysed inductively by reflexive thematic analysis.

Results

Fifteen physiotherapists participated in interviews from a variety of healthcare settings (acute, in-patient rehabilitation, neurology out-patients, primary care and private practice) and geographical locations across Ireland. Three overarching themes emerged:

1) How cardiorespiratory training is prioritised 2) Current practices of cardiorespiratory training and the challenges faced and 3) Creative and resourceful solutions to improving cardiorespiratory implementation.

Clinicians identified challenges to implementation such as resource constraints and competing priorities. Concerns were raised about the feasibility and safety of high-intensity training with higher severity strokes.

Facilitating factors to implementation included education, promotion, one-to-one support, ensuring accessibility and inclusivity of services, and potentially developing stroke-specific rehabilitation classes, similar to cardiac rehabilitation.

Conclusion

The findings of this study help to inform on current practices and challenges to implementation of cardiorespiratory training. The results provide innovative initiatives and strategies from key stakeholders, physiotherapists, that could positively influence the delivery and implementation of cardiorespiratory training for people with stroke.

Ethics

Ethical approval was granted by the Royal College of Surgeons in Ireland (RCSI) Research Ethics Committee (REC 1712).

Children: Helped by Adults to Talk about Stroke (C.H.A.T.S.). A guide to talking to and Supporting Children and Young People when a relative has had a stroke

Poster

Ms. Wendy Moynan [1], ***Dr. Áine Connolly*** [2], ***Dr. Dan Ryan*** [3], ***Prof. Rónán Collins*** [3]

1. *Wendy Moynan Social Work Department Tallaght University Hospital,* ***2.*** *Department of Psychological Medicine St James Hospital,* ***3.*** *Department of Stroke Medicine Tallaght University Hospital*

Introduction

Research highlights the importance of effective age-appropriate communication with children and young people (CYP) about adult illness to optimise social, behavioural and emotional functioning. Presently, there is a paucity of stroke-specific appropriate resources to meet this need.

Aims: The aim of this study was to a) understand the experience of families talking to CYP about a relative's admission to hospital with a stroke and b) to develop a resource that helps adults to: • Effectively initiate conversations about stroke with CYP • Respond to the emotional needs of CYP in the acute and post-acute stages.

Methods

Interpretative phenomenological analysis (IPA) explored individuals experience of talking to CYP 'at time of onset' and 'during' the stroke hospital admission. A purposive sampling strategy and semi-structured interviews facilitated study aims.

Results

Six families participated. Key themes depicted communicating with CYP as emotionally challenging for adults and children. Themes included 1) Isolation and a sense of fear around disclosure to protect CYP from distress. 2) Uncertainty about recognising how CYP were managing 3) Unmet information and support needs with reluctance to ask professionals for help and a reliance on natural support networks

Conclusion

The need to have clear information and guidance about talking to CYP was highlighted by the families. On foot of this, a targeted resource has been developed to enable adults to give age appropriate information to and support CYP after stroke.

Ethics

Approval was given by SJH/TUH Joint Research Ethics Committee

References

Dalton, et al, (2019) Communicating with children and adolescents about the diagnosis of a life-threatening condition. The Lancet. 393(10176),1164-76.

Redolfi et al (2017) When a Parent suffers an Acquired Brian Injury. Investigation of emotional distress in children. Brain Injury. 31(8) .1050-1060.

Co-designing an easy read report of research on stroke survivor and carer priorities

Poster

Dr. Eithne Sexton [1], ***Mr. Padraic Cuffe*** [2], ***Ms. Helen Gribben*** [2], ***Ms. Helen Mancini*** [2], ***Mr. Larry Masterson*** [2]

1. *Dept. of Health Psychology, RCSI University of Medicine & Health Sciences, Dublin,* ***2.*** *Stroke survivor collaborator*

Introduction

Perspectives of stroke survivors and their carers are critical to improving stroke care. Research is not always presented in a format that is readable and accessible for stroke survivors, their family members and the general public. The aim was to develop an easy read, accessible report based on published research findings on priorities to improve services for stroke survivors and carers.

Methods

The initial research project involved interviews and a survey with stroke survivors and their family members to identify priorities for improving stroke care in Ireland. Findings were published in a peer review journal [1]. A co-design team (including the lead researcher and four stroke survivors) was convened to produce a draft easy-read report (lay summary) of the research findings. This involved several rounds of iterative feedback and revisions, by email, post and via a co-design meeting. All co-authors reviewed and approved the final version.

Results

Key outcomes of the co-design process that ensured accessibility included minimising the amount of text, including more quotes and images, and design changes such as using different fonts and colours, and the use of tabbed pages. A digital online report was produced, and a 2-page infographic for physical distribution.

Discussion

The collaborative co-design process successfully transformed academic research findings into a visually engaging, user-friendly, and accessible easy-read report. Involving stroke survivors directly in the design of dissemination materials can ensure that research findings are effectively communicated and contribute to improvements in stroke care and support services.

References

Sexton E, et al. Priorities for developing stroke care in Ireland from the perspectives of stroke survivors, family carers and professionals involved in stroke care: A mixed methods study. Plos one. 2024 Jan 19;19(1):e0297072.

Ethics: Stroke survivors participated in this project as equal-partner collaborators and ethical approval was not required.

Development of a Core Minimum Dataset for Audit of Acute Stroke Care in Ireland: A Scoping Review of International Practice and Stakeholder-Driven Approach

Oral

Dr. Catherine Nora Moran [1], ***Dr. Isabelle Jeffares*** [2], ***Ms. Joan McCormack*** [3], ***Dr. Niamh A. Merriman*** [1], ***Dr. Agnes Jonsson*** [1], ***Prof. Joseph Harbison*** [4], ***Dr. Eithne Sexton*** [1], ***Prof. David J Williams*** [5], ***Prof. Peter J. Kelly*** [6], ***Prof. frances horgan*** [7], ***Prof. Rónán Collins*** [8], ***Ms. Máirín Ní Bheacáin*** [9], ***Dr. Elaine Byrne*** [10], ***Prof. John Thornton*** [11], ***Ms. Collette Tully*** [3], ***Prof. Anne Hickey*** [1]

1. *Dept. of Health Psychology, RCSI University of Medicine & Health Sciences, Dublin,* ***2.*** *Dept. Health Psychology, RCSI University of Medicine & Health Sciences, Dublin,* ***3.*** *National Office of Clinical Audit, Dublin,* ***4.*** *School of Medicine, Trinity College Dublin, Dublin,* ***5.*** *RCSI / Beaumont Hospital,* ***6.*** *Neurovascular Clinical Science Unit, University College Dublin, Dublin,* ***7.*** *RCSI,* ***8.*** *Tallaght University Hospital,* ***9.*** *Patient Representative, Dublin,* ***10.*** *Centre for Positive Health Sciences, RCSI University of Medicine & Health Sciences, Dublin,* ***11.*** *Dept Radiology, Beaumont Hospital, Dublin*

Introduction

Population ageing, advancements in stroke treatment, evolving care models, and variability in patient outcomes across hospitals highlight the necessity of ongoing audits to ensure the provision of high-quality, equitable, and evidence-based stroke care. In Ireland, there is a clear need to align stroke care practices with international standards. This study sought to develop a core minimum dataset for acute stroke care in Ireland, designed for integration into the Irish National Audit of Stroke (INAS) and benchmarked against global best practices.

Methods

A scoping review was conducted following the PRISMA-ScR (Preferred Reporting Items for Systematic Reviews and Meta-Analysis Extension for Scoping Reviews) guidelines. Comprehensive searches were performed across Medline Ovid, Embase, CINAHL EBSCOhost, and relevant grey literature from 2010 onwards to identify national and continuous stroke audits. Eligible titles, abstracts, and full texts were screened, and documentation from relevant audits was retrieved. Stroke care data items were extracted, mapped, and compared to identify commonalities and gaps between existing Irish audit items and those frequently collected internationally. A Delphi process, involving key stakeholders, was then used to review and refine the dataset over three rounds.

Results

Twenty-one international stroke audits and registries were identified, containing approximately 4,500 audit items. Stakeholder consultation evaluated the relevance of the existing Irish dataset (n=103), frequently collected international items (n=97), and additional expert-suggested items (n=22). Consensus was reached on a final core dataset comprising 86 acute care items and 35 thrombectomy-specific items. Examples of items to be incorporated into INAS include stroke-related complications and history of risk factors.

Conclusions

This review has resulted in a core minimum dataset for acute stroke care in Ireland, developed through international benchmarking and expert consultation. The dataset establishes a “gold standard” for monitoring acute stroke care, aiming to enhance patient outcomes and support both local and national quality improvement efforts.

Development of an Integrated Interdisciplinary Spasticity Service

Poster

Mrs. Doireann Twomey [1], ***Mr. Ciaran O'Flathartaigh*** [1], ***Mrs. Libby Cunningham*** [1], ***Ms. Orla McHugh*** [1], ***Dr. Lilia Zaporojan*** [1]

1. *MMUH*

Introduction

Spasticity is a common sequela post-stroke that causes significant burden to the 40% of stroke survivors it affects. It is associated with pain, contracture and impedes ADL and mobility.

People with persistent or progressive spasticity with identified goal(s) should be offered intramuscular botulinum toxin and timely access to a specialist interdisciplinary team (IDT) to ensure spasticity is comprehensively assessed and managed within an integrated pathway.

The Mater Misericordiae University Hospital previously lacked an integrated spasticity service, consultants of varied specialties were providing botulinum toxin in silo without IDT access.

Method

The 'Plan-Do-Study-Act' problem-solving model was used to improve spasticity management. A scoping exercise identified current spasticity management practices against recommended guidelines. Training and resource need was identified, key stakeholders engaged with. The IDT team collaborated to create governance structure, service pathway covering assessment, intervention(s) and goal-setting documentation. Key performance indicators (KPIs) were agreed and form the basis for continual quality assurance of service.

Results

Funding application to The Mater Foundation and subsequent recruitment for a time-limited Spasticity Clinical Specialist Physiotherapist was successful. Spasticity management education and referral pathways into service was cascaded to staff in the integrated network. KPI targets and results to date include:

-90% patients referred seen within two weeks

-100% patients referred seen by necessary IDT

-100% of patients had follow up appointment/plan

-100% of patients requiring splinting/casting seen by Occupational Therapist

Patient feedback demonstrates the value that an IDT spasticity service has to quality of life, function and pain management.

Conclusions

The development of an IDT spasticity service requires governance of a prescribing consultant trained in spasticity management, specialist physiotherapist and occupational therapist with experience in spasticity management, and training in injection therapy and splinting/casting. Ongoing commitment of key stakeholders and investment in IDT staffing is vital for the success of an integrated specialist service.

Development of Initial Programme Level Theories for Life After Stroke Support Pathways

Poster

Dr. Olive Lennon [1]***, Dr. Mary O'Neill*** [2]***, Prof. frances horgan*** [3]

1. *University College Dublin,* ***2.*** *Royal College of Surgeons in Ireland,* ***3.*** *RCSI*

Introduction: Ever-growing numbers of individuals are surviving stroke events and living with the consequences. LIFE AFTER STROKE recognises the struggle to adapt and build a new life following a stroke and considers family and others who provide care and support for the stroke survivor. No consensus on how to best promote agency and fulfilment in life after stroke or the resources required to achieve this currently exists.

Methods: A Realist Review whose research questions ask: *What mediators or mechanisms enable interventions designed to support a personally meaningful life after stroke to result in the anticipated outcomes?* And *What contextual factors and resources help facilitate achievement of a personally meaningful life after stroke following supportive interventions?*

Results: Initial scoping of the literature identified a sample of 36 key articles. These were examined by full manuscript to generate candidate programme theories (CPTs: N=11). Consultation between the researchers provided first-level refinement of these CPTs, collapsing or separating them out where differing constructs were determined. These were further refined to initial programme theories following expert panel consultation events with stroke researchers, theorists, health care professional working in stroke care, stroke support agencies and people with lived experience of stroke (N=13). The resultant initial programme theories (IPTs) detail specific Context, Mechanism and Outcome configurations, summarised under six themes: **Supported self-management after stroke; Goals, priorities and identifying needs after stroke; Peer support; Communication; Psychological supports and Living well after stroke.**

Conclusions: These programme theories better conceptualise supports for Life after Stroke as a dynamic real world process. The literature will now be systematically reviewed to validate or further refine the programme theories developed to help explain how generative causation within the life after stroke pathway works and which mechanisms are activated or work well in specific contexts.

Ethical Approval: Uses published literature; exempt from ethical review

Effect of a National Stroke Awareness Campaign on Ambulance call-outs and Paramedic Diagnosis of Suspected Stroke

Oral

Dr. Patrick Doyle [1], ***Prof. Cathal O'Donnell*** [2], ***Prof. Rónán Collins*** [1]

1. *Stroke Service, Tallaght University Hospital, Tallaght, Dublin 24,* ***2.*** *National Ambulance Service, Dooradoyle House, Dooradoyle Road, Limerick, V94 HW6E.*

Background

In 2023, the Irish Heart Foundation and National Clinical Programme for Stroke ran the Face, Arm, Speech, Time (FAST) public awareness campaign as a two-part campaign (January and July 2023) , to raise awareness of stroke symptoms and the need for rapid response. We aim to evaluate the impact of this campaign.

Methods

Interrupted time series (January 2021 to December 2023) assessed the impact of the campaign on: calls received by ambulance control triaged as suspected stroke and provisional stroke diagnosis made by paramedics at time of leaving scene. Means were compared with t tests.

Results

Before the campaign, there were an average of 1060 calls received per month which were triaged as suspected stroke. Prior to the January 2023 portion of the campaign, there was a baseline trend for increasing ambulance calls for suspected stroke (β= 0.01, 95% CI 0.008 to 0.0121; $p < 0.001$) and paramedic provisional stroke diagnoses (β=0.0083, 95% CI 0.006 to 0.0110;$p<0.001$). The January burst of the campaign was associated with a reduction in ambulance calls (β= -0.014, 95% CI -0.022 to -0.007; $p <0.001$) whereas the July burst of the campaign showed a slight increase in calls compared to no campaign (β= 0.031, 95% CI 0.016 to 0.047; $p <0.001$). Conversely, there was a trend towards an increase in paramedic suspected stroke following the first burst of the campaign and trend towards decrease after the latter component.

Conclusion

Overall, the campaign had varying effects at different stages. The first wave reduced calls but increased diagnoses, while the second wave increased calls but reduced diagnoses. This may suggest that the campaign influenced public behaviour differently at each stage—perhaps raising awareness but with different impacts on the quality or necessity of the calls made.

Exploring allied health professionals' perceptions and practice regarding recommendations for intensity of multidisciplinary therapy for stroke patients: a qualitative study.

Poster

Ms. Gemma Foley [1], ***Prof. Rose Galvin*** [2], ***Prof. frances horgan*** [3]

1. *RCSI School of Physiotherapy,* ***2.*** *University of Limerick,* ***3.*** *RCSI*

Introduction: Stroke is a leading cause of death and disability. Rehabilitation is a key aspect of stroke care; greater amounts of therapy are associated with better recovery. National Audit data shows that stroke survivors often do not receive the recommended amount of therapy. The recently updated UK and Ireland stroke clinical guidelines now recommend larger amounts of therapy time. This qualitative study explored how allied health professionals (AHPs) feel about the recommendation, and what methods they employ in working to achieve recommended amounts of therapy.

Methods: This study used a qualitative research design employing semi-structured interviews to collect data. Participants were AHPs working in stroke care in Dublin, Ireland. Interviews were audio-recorded, transcribed, and analysed using reflexive thematic analysis. This research was approved by the Royal College of Surgeons in Ireland Research Ethics committee

Results: Two main themes emerged: 'Barriers and enablers to achieving guideline recommended therapy time' and 'methods of increasing therapeutic time'. Patient factors and clinical resources impact on the provision of therapy post-stroke. Overall, participants felt positive about the recent guideline recommendation for increased therapeutic time. Various methods are employed to augment patient therapeutic time, including technology and semi-supervised practice. Therapy assistants play an important role in achieving greater amounts of therapy.

Conclusion: AHPs see the new recommendation as challenging but are generally keen to try and achieve it, citing benefits of increased therapy time for patient outcomes. AHPs utilise a wide range of methods to optimise therapeutic time for stroke patients. The role of therapy assistants in supporting delivery of larger amounts of therapy time warrants further evaluation.

How did we do? Using past Nutrition & Hydration Audits to focus service development in Beaumont Hospital

Poster

Mrs. Emma Kennedy [1]

1. *RCSI / Beaumont Hospital*

Authors: Emma Kennedy, Clinical Specialist Stroke Dietitian, Dept of Nutrition & Dietetics, Beaumont Hospital.
Introduction The National Stroke Programme Nutrition & Hydration Policy recommends that all stroke centres complete the Nutrition & Hydration Policy Audit annually. Beaumont Hospital has completed this audit in 2022, 2023 and 2024.
Methodology Results obtained during our 2022, 2023 & 2024 Nutrition & Hydration Audits were analysed to assess our progress with compliance with the National Stroke Programme guidelines and to highlight service demands.
Results
The swallow screening has continued to see an annual improvement in compliance with the national target of 4 hours. Nutritional screening completion has continued to improve year on year. Issues with accuracy remain. An increasing amount of patients were seen by dietetics between 2023 and 2024, with an ongoing increase in those requiring enteral feeding. Patients were commenced on the out of hours regimen in a similar number of cases each year. There was a similar number of nasal bridles used this year compared with last year.
Conclusion
The audit shows an ongoing improvement in the completion of the Beaumont Hospital Swallow Screening Test within the 4 hour timeframe. This is likely due to the ongoing work of the Speech & Language Therapists, nursing staff and the stroke team on their Quality Improvement Initiative focusing on the training and implementation of swallow screening in A&E and on the Hyper Acute Stroke Unit. The accuracy of the nutritional screening requires training at ward level to improve effectiveness.
The numbers commenced on out of hours enteral feeding was similar to previous years and the stroke unit remains very effective at implementing early nutrition as per national guidelines.
References
National Stroke Programme Nutrition Group (2019) Recommendations for the Management of Nutrition and Hydration in Patients with Stroke – A Guidance Document .

Identifying the priorities to be addressed in life after stroke-by-healthcare professionals; The CLASP project

Poster

Mr. Abdullah Sharaf [1], ***Ms. Ciara Naughton*** [1], ***Dr. Sarah Murphy*** [1], ***Dr. Mary O'Neill*** [2], ***Dr. Olive Lennon*** [3], ***Prof. frances horgan*** [1]

1. *RCSI School of Physiotherapy,* ***2.*** *RCSI,* ***3.*** *University College Dublin*

Background: Stroke is an important health issue in Ireland. Over 5,500 adults were admitted to acute hospitals following stroke in 2020, 71% of whom were discharged home with a documented disability. Currently, ~80% of stroke survivors are discharged home. The Stroke Action Plan for Europe highlights the need to develop a life after stroke pathway. The aim of this survey of Irish healthcare professionals working in stroke care was to identify the priorities to be addressed in life after stroke. The survey is part of a wider project, the Co designing Life After Stroke support Pathways (CLASP).

Methods: A cross-sectional survey of community and hospital-based healthcare professionals working in stroke care was undertaken in July 2024. The survey was hosted on Survey monkey. The study received ethics approval from the university.

Results: 169 health care professionals responded. The majority of healthcare professionals worked in hospitals (43.75%) followed by a rehabilitation centre (32.81%). Physiotherapists and occupational therapists were the largest groups, 29% and 27% respectively. The results highlighted the need for a more specific approach in post-stroke management, current pathways often resemble a "geographic lottery". The respondents identified unmet needs and priority areas for life after stroke including; community support and transition to home care, key workers, patient, family, and caregiver education, access to supported self-management, peer support, vocational support and transportation.

Discussion: The findings of this CLASP healthcare professional survey highlights ongoing unmet needs in life after stroke from the perspective of healthcare professionals working in stroke services in Ireland.

The CLASP project will address the rehabilitation needs and potential unmet needs as identified by stroke patients and healthcare professionals to inform the co-design of a pathway for life after stroke in the community.

Impact of Early Supported Discharge (ESD) on Stroke Patients: A 3-Year Service Evaluation

Poster

Ms. Margaret Carney [1], ***Mrs. Lisa Conlon*** [1], ***Mrs. Emma Brady*** [1]

1. *Sligo University Hospital*

Introduction:
Early Supported Discharge (ESD) services facilitates transition of stroke patients from hospital to home, offering intensive rehabilitation within the community. These services have shown to improve patient outcomes and reduce hospital stays (1,2). This study evaluates the impact of an ESD programme over three years.

Methods:
Aim: to assess the effectiveness of the ESD service:

- Evaluating improvements in patient functional outcomes.
- Reducing hospital length of stay.
- Assessing patient satisfaction with the service.
- Analyzing cost savings associated with ESD.

Results:
The ESD service supported 184 stroke patients. The average length of hospital stay was 11.7days in 2021, a reduction of 6% in 2022. The average length of stay returned to 11.7days in 2023.
Functional outcomes as measured by the FIM/FAM and MRS showed a significant improvement each year.
In 2021 the overall percentage improvement in FIM/FAM scores was 8.1%, 2002 was 9.5% and 2023 9.96%.
The average initial MRS score for patients in the Early Supported Discharge (ESD) program was **2.7**, while the average discharge score was **1.7**. This result demonstrated a significant improvement in patient outcomes, as the MRS score dropped by 1 point on average.
Patient satisfaction steadily increased, 91.6% in 2023 from 69.7% in 2021.
The ESD service saved an estimated €1.4 million over the 3 years by decreasing acute care utilization and increasing patients flow within the hospital.
Conclusion:
This study demonstrates the significant positive impact of ESD services on patient recovery, healthcare efficiency, and cost savings. The service model highlighted the importance of multi-disciplinary care improving patient outcomes and reducing hospital dependency.
References:
1. Fisher RJ, Gaynor C, Kerr M, Langhorne P, Anderson C, Bautz-Holter E, et al. A consensus on stroke: Early supported discharge. Stroke. 2011;42(5):1392-7.
2.Langhorne P, Baylan S. Early supported discharge services for people with acute stroke. Cochrane Database Syst Rev. 2017;(7)

Impact of post-stroke cognitive impairment on returning to work in working-aged stroke survivors: a systematic review

Oral

Ms. Libby Cunningham [1], ***Prof. tadgh stapleton*** [2], ***Prof. frances horgan*** [3]

1. *School of Postgraduate Studies, Royal College of Surgeons in Ireland,* ***2.*** *Discipline of Occupational Therapy, School of Medicine, Trinity College Dublin,* ***3.*** *School of Physiotherapy, Royal College of Surgeons in Ireland*

Introduction

Stroke occurrence in younger people is rising. Despite minor deficits, return to work (RTW) rates among younger stroke survivors (YSS) is low at 53% at one year Post-stroke cognitive impairment (PSCI) is a key determinant of RTW and affects up to 60% of YSS. This systematic review aimed to examine the relationship between PSCI and RTW in YSS.

Method

MEDLINE, EMBASE, CINAHL, and APA PsycINFO databases were searched. Two reviewers screened titles and abstracts for inclusion. Data extraction and quality appraisal using the Mixed Methods Assessment Tool was completed by two reviewers. Narrative Synthesis was completed due to significant heterogeneity across studies.

Results

Thirty-seven studies met criteria and comprised observational studies (n=32), qualitative (n=4) and RCT (n=1). Stroke severity was mild across samples and RTW rates ranged from 7.5% to 100% with no emergent trends across time post-stroke or sub-type. PSCI prevalence ranged from 17.5% at 28 days to 89% at 7 years with significant heterogeneity across instruments used and time of administration (range 2 days to 7 years). Concentration, memory and processing speed deficits were most frequently reported. PSCI was the most commonly associated and predictive variable influencing RTW outcomes followed by stroke severity, mood and functional status. Demographic factors and fatigue had low association, but fatigue was highlighted as a significant problem in all qualitative studies. The invisible nature of PSCI and lack of awareness of its impact among employers and clinicians was highlighted.

Conclusion

PSCI is commonly associated with poorer RTW outcomes even in milder stroke/TIA. Despite high detection, PSCI can remain hidden. This review highlights the variation in PSCI instrumentation and lack of intervention studies. Findings highlight the need for more consistency in assessing and managing PSCI and increasing awareness of the considerable negative impact of PCSI on re-engagement in work and other roles.

Improving physiotherapy access time post stroke – from guidelines to implementation

Poster

Ms. Amy Cullinane [1], ***Ms. Edel Hennessy*** [1]

1. *University Hospital Limerick*

Introduction:
The updated BIASP Stroke guidelines which were published in 2023 state that "*Patients with difficulty moving after stroke should be assessed as soon as possible within the first 24 hours of onset*", (BIASP, 2023). Following the publication of the guidelines, the UHL neuro-physiotherapy team completed a service review. This review identified an area for quality improvement to expand the stroke physiotherapy service over the weekend period. The project aims that all stroke patients admitted to the acute stroke unit (ASU) have a physiotherapy review within 24 hours of their admission.

Methods: The three month 2023 service review of patient access to physiotherapy demonstrated for stroke patients admitted to the ASU on a weekend it was an average of 2.6 (median 3) days from ASU admission to physiotherapy review. Comparatively, it was an average of 1.3 days from ASU admission to physiotherapy review on a weekday. This reflected the findings in the Stroke NOCA 2022 Audit report which outlined a delay in physiotherapy review on weekend versus weekday (NOCA, 2022).

A quality improvement project was commenced by the neuro-physiotherapy team. The HSE quality improvement toolkit was utilised to guide the project. Stakeholders were engaged throughout and included the completion of a physiotherapy staff survey to determine staff expectations and training needs. A training programme for all physiotherapy staff was completed. Feedback and input was provided by ASU based staff. Resources including a Stroke Weekend Competency framework and a Stroke Screening Algorithm were developed.

Results: The project pilot commenced on 24th July 2024. Currently, all patients admitted to the ASU are reviewed by physiotherapy within 24 hours.

Conclusion: The BIASP guidelines have been updated to reflect the needs of stroke patients. The UHL Neuro-physiotherapy team, with the support of local stakeholders, have improved access time to physiotherapy for patients in UHL.

Putting theory into practice: 10 week “FAST” Stroke Simulation Training on the Acute Stroke Unit

Poster

Ms. Lisa Donaghy [1]

1. *Stroke RANP, Connolly Hospital Blanchardstown*

Introduction:
Stroke is a medical emergency which requires trained staff to act fast to save time, promoting optimum patient outcomes. 2 million brain cells die every minute when a stroke event occurs, signifying the importance of acting fast and “Time is Brain.” Nurses and HCAs are consistent members of the healthcare team who are observing the patient over a 24 hour basis, 7 days a week. It is well researched that Simulation training bridges the gap between theory and practice, especially in emergencies (Moslehi et al., 2022).
Aim:
Improve recognition of FAST
Role and task definition
Team work
Practical learning
Method:
A 10 week Simulation training programme from June to August 2024 was introduced once per week (every Thursday 15.00-16.00). Members of Physiotherapy and Occupational Therapy attended also. Nursing colleagues covered the ward to allow protected time for training.
Topics covered:
Hypertensive Bleed, Thrombolysis, Thrombectomy, Hypoperfusion event, Capsular Warning Syndrome, TIA, FAST with no emergency intervention and Stroke Mimic.
Results:
Overall Nurses attendance = 94% (n=29/31)
Attended 3 sessions = 41% (n=12/29)

Attended 4 or more sessions = 17% (n=5/29)
HCA attendance = 73% (n=8/11)

Some of the participants first experience of seeing a FAST call. Role definition, delegation and clear communication in escalating care was evident at the end of the training. Using the word “FAST positive” to escalate medical emergency. Importance of onset time was demonstrated.

Conclusion:
Simulation Stroke Training improved communication, team work and role definition in a FAST call, promoting optimum patient outcomes. Monthly Simulation training will be implemented to maintain practice.
Reference:
Moslehi S., Masoumi G. & Barghi-Shirazi F. (2022) “Benefits of simulation□based education in hospital emergency departments: A systematic review,” Journal of Education and Health Promotion, 11(1) p40-50.
Ethics:
Not obtained - no patients involved. Pseudo names and cases used.

Swallow Screening in SUH Acute Stroke Service

Poster

Ms. Margaret Carney [1], ***Ms. Una Moffatt*** [1], ***Ms. Cliona Finnerty*** [1]

1. *Sligo University Hospital*

Introduction:
The Irish National Audit of Stroke (2021) found that 68% of patients with a stroke received a swallow screen and 43% had it completed within 4 hours of admission. These figures are below the Key Quality Indicator metric of 100% for both targets set by INAS. Recommendations from the National Clinical Programme for Stroke recommend a QI project to improve swallow screening rates.
Methods:
From HIPE (Hospital In Patient Enquiry) data, the KQI for swallow screening in all stroke patients in Sligo University Hospital (SUH) for the same period stood at 86% compliance. The KQI for swallow screening within 4 hours of arrival at hospital was at 33% compliance.
A QI project commenced in June 2023 on the acute stroke unit in SUH and was completed in Oct 2023.
The aim for the QI project was to achieve 100% compliance in KQI for all stroke patients receiving a swallow screen in SUH.
Met with leads of the National Clinical Programme for Stroke and completed process mapping and discussed our QI method to be used.
The plan, do, study, act (PDSA) process was used to implement QI.
Results:
Cycle 1 and Cycle 2 achieved 100% compliance for swallow screening; all stroke patients admitted to SUH in this period receiving swallow screen assessment.
Conclusion:
Main reasons for the success of our QI project:
Effective teamwork and communication skills within the team.
High numbers of nursing staff trained in swallow screening on the acute stroke unit.
Daily reminders at the safety pause on the acute stroke unit.
Changing the color of the page we used as our swallow screening tool
Action
References:
National Office of Clinical Audit. Irish National Audit of Stroke Organisational Audit Report 2021: Appendices. Dublin: National Office of Clinical Audit; 2022. Available from: https://www.noca.ie/publications.

The Adaptive Physical Activity Study for the Secondary Prevention of Stroke (TAPAS)

Oral

Dr. sara hayes [1], ***Dr. Padraic Rocliffe*** [1], ***Dr. Aoife Whiston*** [1], ***Ms. Siobhan O'Reilly*** [1], ***Mr. Mike Butler*** [1], ***Prof. Liam Glynn*** [1], ***Prof. Jane Walsh*** [2], ***Dr. Jim Bradley*** [1], ***Dr. Jon Salsberg*** [1], ***Dr. Andrew Hunter*** [2], ***Prof. Lorna Paul*** [3], ***Dr. Claire Fitzsimons*** [4], ***Dr. Nathan Cardy*** [1], ***Dr. Daniel Carter*** [1], ***Prof. John Forbes*** [1], ***Prof. Cathal Walsh*** [5]

1. *University of Limerick,* ***2.*** *University of Galway,* ***3.*** *Glasgow University,* ***4.*** *Univesity of Edinburgh,* ***5.*** *Trinity College Dublin*

Introduction: Participation in physical activity (PA) is a cornerstone of secondary prevention post-stroke. PA interventions that are adaptive to individual performance are recommended. This is the first study to use a Sequential Multiple-Assignment Randomized Trial (SMART) to design a personalised PA intervention post-stroke.
Methods: This SMART is in progress, with data collection ending in November 2024. A 12-week theory- and evidence-based mHealth intervention was developed to increase participation in Structured Exercise and Lifestyle PA, or a combination of both. Six weeks post-randomisation, participants were classified as responders or non-responders according to step count. Non-responders were re-randomised to an alternative intervention. Primary outcomes included feasibility (recruitment, retention, adherence rates). Secondary outcomes included daily steps over 7-days, sedentary behaviour, fatigue, quality of life, depression, anxiety, activities of daily living, stroke recurrence and adverse effects.
Results: Preliminary analysis will be presented. Fifty participants were recruited over five months, with mean age of 51.84 (15.12) years, 56% were male and stroke type was predominantly ischaemic (44%). Baseline mean weekly step count of 7064 (SD: 3797), Fatigue Severity Scale score of 38.02 (SD: 14.60), and Stroke-Specific QoL Scale scores of 155.04 (SD: 58.84). The mean Hospital Anxiety and Depression Scale score was 12.33 (SD: 6.98), while the Reintegration into Normal Living Index averaged 73.08 (SD: 29.74). EQ-5D-5L mean score was 72.50 (SD: 27.64). Sedentary behaviour weekday and weekend averages consisted of 7.51 hours (SD: 3.76) and 6.06 hours (SD: 3.05). There were six falls and four recurrent strokes during the SMART.
Conclusion: The urgent issue of recurrent stroke needs to be tackled and the findings of this novel trial will provide first-in-class empirical information on the delivery of a personalised PA intervention delivered via mHealth for people post-stroke.
Ethics: Ethical approval has been granted by the Health Service Executive Mid-Western Ethics Committee (REC Ref: 026/2022).

The benefits of Vestibular Rehabilitation for ongoing "dizziness" in Stroke

Poster

Ms. Kyla Ashmore [1]

1. *National Rehabilitation Hospital*

Introduction: Strong research exists to support the role of vestibular rehabilitation (VR) in treating conditions such as BPPV. However, the benefit of VR for central conditions, such as stroke, remains unclear due to limited research. The NRH out-patient service provides VR for peripheral and central causes of dizziness, including stroke.

Aim: To investigate if VR can provide positive outcomes for stroke patients.

Methods: A prospective audit was carried out on NRH vestibular out-patient attendees between September'23 and June'24. Statistical analysis was completed using STATA v18.

Results: Data was collated for a total of 47 patients who received treatment, six of whom received VR primarily due to their stroke (ischaemic or haemorrhagic). Stroke patients received between 5 and 8 appointments (Mean=6.5, SD=1.05).

An analysis of pre- and post-VR outcome measures was completed to assess the impact of VR for people with stroke. As data was normally distributed, paired t-tests were performed on three outcome measures: the Dizziness Handicap Inventory (DHI), the Functional Gait Assessment (FGA) and the modified Clinical Test of Sensory Interaction on Balance (mCTSIB).

A paired t-test demonstrated statistically significant improvements (from a sample of 5 stroke patients) in participants' DHI scores (Mean=27.6 points, 95% CI: 13.84, 41.36) (t(4)=5.57, p=0.0051).

The paired t-test again demonstrated a statistically significant improvement in six observations of FGA scores pre- and post- VR. The mean change was -9.67 (95% CI= -16.46, -2.88) (t(5)=-3.66, p=0.0146).

Although mCTSIB scores demonstrated a mean improvement of -17.33 (95% CI= -37.89, 3.22), this finding was not statistically significant (t(5)=-2.17; p=0.0825).

Conclusion: This audit demonstrates the potential positive impact VR can have for patients with chronic dizziness post stroke. Further high-quality research is required to determine the benefit of VR for central causes of dizziness, such as stroke.

Ethics: Ethical exemption was granted by the NRH Ethics Committee.

The Emerging Role Of a Stroke Clinical Nurse Specialist in Early Supported Discharge: A survey of Irish Stroke Clinical Nurse Specialists and Advanced Nurse Practitioners.

Poster

Ms. Sarah-Jane Byrne [1], ***Prof. David J Williams*** [1], ***Prof. Declan Patton*** [2], ***Prof. frances horgan*** [2]

1. *RCSI / Beaumont Hospital,* ***2.*** *RCSI*

Introduction: Early Supported Discharge (ESD) improves patient recovery after stroke and reduces recurrent admission. The clinical nurse specialist (CNS) in early supported discharge helps to reduce post-discharge challenges for patients and supports treatment compliance for secondary prevention, however the ESD CNS role is not well described in the literature. The aim was to assess the current role of stroke CNSs and stroke advanced nurse practitioners (ANPs) in Ireland to identify what elements are transferable to the stroke CNS in an ESD model of care.

Methods: A survey was delivered to the stroke CNS and ANP's in Ireland exploring their current practice in (i)secondary prevention at first patient contact in hospital,(ii) secondary prevention on discharge from hospital, and(iii)secondary prevention in early supported discharge.

Results: There was a 50% response rate of 17 CNSs and 3 ANPs. Ongoing community care regarding education on secondary prevention and medication compliance was reported as 'desperately needed' with 70% reporting follow up from the ESD CNS via phone-call or house visit on discharge would benefit all stroke patients. It was reported that there is a need for more emphasis on secondary stroke prevention post-discharge as the patient is not in the correct frame of mind to take on board information provided as an inpatient.

Conclusion: There is growing recognition that patients' needs post-stroke go beyond their inpatient hospital care. A CNS in a community role as part of an already established ESD team would be beneficial to inpatient colleagues and the stroke patient population for continuity of care following discharge. There is growing recognition that patients' needs post-stroke go beyond inpatient hospital care. Patients are in a better frame of mind to discuss secondary prevention behaviours such as; smoking cessation, alcohol cessation, stress, medication compliance, blood pressure management.

Ethics: RCSI Ethics Application submitted and approved. REC202303018.

The National Stroke Programme Nutrition and Hydration Policy Audit in Beaumont Hospital

Poster

Mrs. Emma Kennedy [1], ***Ms. Aoife Dooley*** [1]

1. *RCSI / Beaumont Hospital*

Objectives for Audit:
The National Stroke Programme Nutrition & Hydration Policy recommends that all stroke centres complete the Nutrition & Hydration Policy Audit annually. The data collected helps provide information on compliance with best practice recommendations in the Beaumont Hospital Stroke service. The information gathered helps focus training needs in the stroke service and helps to assess changes in practice in the past year. This is the third year this audit has been completed.

Methodology
Data was collected proforma on patients admitted to the stroke service using the audit tool in July 2024. A dietitian collected data in the medical and nursing notes. A sample size of 40 was used.

Findings
A swallow screen was completed with 4 hours of admission for 88% of the sample (n=35). Nutritional screening was completed within 24 hours in 98% of patients audited. The accuracy of this nutritional screening was 55% with an under recognition of those at risk of malnutrition. Sixty eight percent of the sample were assessed by dietetics. Those requiring a texture modified diet were the least likely to be referred but have a high rate of malnutrition. A total of 45% of the sample required enteral feeding with 77% of that sample starting within 24-48 hours. The out of hours enteral feeding policy was used in 77% of cases allowing for early nutrition. The findings from 2024 could be compared to previous results from 2023 and 2022.

Recommendations
Focused dietetic led MUST training on ward.
Ongoing work with SLT regarding swallow training.
Ongoing education to recognise and treat malnutrition early.
A separate audit of enteral feeding practices would be warranted.

Title: Identifying the priorities to be addressed in life after stroke by stroke survivors; The CLASP (Co-designing a Life after stroke Pathway) project

Poster

Dr. Sarah Murphy [1], Dr. Mary O'Neill [2], Dr. Olive Lennon [3], Prof. frances horgan [2]

1. *RCSI School of Physiotherapy,* ***2.*** *RCSI,* ***3.*** *University College Dublin*

Background: Over 5,500 adults were admitted to acute hospitals following stroke in 2020, 71% of whom were discharged home with a documented disability. Currently, ~80% of stroke survivors are discharged home. The Stroke Action Plan for Europe highlights the need to develop a life after stroke pathway.

Aim: The aim of this survey was to identify the priorities to be addressed in life after stroke from the perspective of people living with stroke. The survey is part of a wider project, the Co designing Life After Stroke support Pathways (CLASP).

Methods: A cross-sectional survey of people living with stroke was conducted between July and September 2024. The survey was hosted on REDCAP. The national stroke charity and support organisations acted as gatekeepers and shared details of the survey with members. The study received ethics approval from the university.

Results: There were 103 responses. The average age was 59 years (range 23-89), 52% of respondents were male, 65% married, and 32% lived in a rural setting. 63% reported ongoing issues with walking, balance 64%, fatigue 69%, concentration 55% and driving 51%. They identified gaps in life after stroke supports including: mental health and counselling, access to psychology, more information about what supports are available after discharge, greater access to social workers and a stroke coordinator, help with signposting and navigating, services and community supports, more information on entitlements after stroke, access to supported self-management, peer support, vocational support and transportation.

Discussion: There was a low response to the survey. The findings highlight ongoing unmet needs in life after stroke from the perspective of people living with stroke in Ireland. The CLASP project will address rehabilitation needs and unmet needs as identified by stroke patients and healthcare professionals to inform the co-design of a pathway for life after stroke in the community.

Weight supported feedback canes for improving motor function and walking ability post stroke：A systematic review and meta-analysis

Poster

Ms. Rufeina Aerken [1]***, Dr. Patrick Broderick*** [1]

1. *Neuroplasticity Research Group, School of Business and Social Sciences, Atlantic Technological University, Sligo, Ireland*

Introduction: Weight supported feedback canes (WSFC) have been investigated as an effective aid to promote early independent walking post-stroke, addressing the issue of excessive cane reliance, which can reduce weight bearing, muscle activation on the affected side, and impede symmetrical gait recovery. The aim of this systematic review and meta-analysis was to evaluate whether gait training with a WSFC is more effective than conventional canes in improving walking velocity, single limb support on the affected side, gluteus medius activation, and peak vertical force during stroke rehabilitation.

Methods： This systematic review and meta-analysis (MA) was reported according to the PRISMA 2020 statement. PubMed, Web of science and CINAHL were searched for relevant published literature. Standardised mean differences (SMD) were used to assess the effect of WSFC on stroke survivors.

Results: Three studies were included in the review. This MA showed a significant effect of WSFC in peak vertical force on the cane (P = 0.02; SMD = -0.79; 95% CI: -1.43, -0.15) and revealed non-significant effects of WSFC in walking velocity (P = 0.93; SMD = 0.02; 95% CI: -0.53, 0.58), affected side single limb support phase (P = 0.32; SMD = 0.47; 95% CI: -0.46, 1.4). and gluteus medius muscle activation (P = 0.15; SMD = 0.41, 95% CI: -0.15, 0.97).

Conclusion: The application of WSFC for gait training following a stroke has been shown to have a significant positive impact on reducing cane dependency. However, more research is required to address the current limited evidence base for WSFC in stroke rehabilitation, and results should be interpreted with caution.

“The five weeks just broadens your life”: Preliminary qualitative findings of a process evaluation of intervention acceptability for post-stroke cognitive impairment

Poster

Ms. Mairead Murray [1], ***Ms. Jane McGlinchey*** [1], ***Ms. Megan Oglesby*** [1], ***Dr. Catherine Nora Moran*** [2], ***Prof. Niall Pender*** [3], ***Prof. Kathleen Bennett*** [4], ***Prof. frances horgan*** [5], ***Prof. David J Williams*** [6], ***Prof. Anne Hickey*** [2]

1. *Royal College of Surgeons in Ireland,* ***2.*** *Dept. of Health Psychology, RCSI University of Medicine & Health Sciences, Dublin,* ***3.*** *Dept. Psychology, Beaumont Hospital,* ***4.*** *Data Science Centre, School of Population Health, RCSI,* ***5.*** *School of Physiotherapy, Royal College of Surgeons in Ireland,* ***6.*** *RCSI / Beaumont Hospital*

Introduction:
Post-stroke cognitive impairment (PSCI) is a common consequence of stroke that significantly affects quality of life for patients and their families. The StrokeCog-R pilot study is investigating the feasibility and acceptability of a novel cognitive rehabilitation intervention for stroke survivors with mild-moderate PSCI. Developed in accordance with the Medical Research Council (MRC) framework for developing and evaluating complex interventions, the StrokeCog-R intervention is a series of five weekly group sessions that teach participants strategies to manage changes in cognition, fatigue, and psychological wellbeing, together with personalised home activities to practice strategies, and weekly supportive calls and text messages. The research question that guided this analysis was to determine the acceptability of the StrokeCog-R intervention to stroke survivors with mild-moderate PSCI. This analysis forms part of the complex intervention process evaluation per MRC guidelines. A full analysis will occur at the end of the pilot.
Methods:
Researchers conducted semi-structured, in-person focus groups with participants who had completed the StrokeCog-R intervention (n = 6). If participants could not attend focus groups, individual semi-structured telephone interviews took place instead. Thematic analysis was used to analyse the resulting data.
Results:
Initial predominant themes that have been generated highlight reactions to the intervention, as follows: 1) learning how to manage fatigue; 2) empowerment through learning about stroke and its consequences; 3) the experience of improved symptoms from practicing cognitive strategies; and 4) the intrinsic value of the intervention’s in-person, group format.
Conclusion:
Preliminary analysis of this process evaluation suggests that stroke survivors with mild-moderate cognitive impairment find the StrokeCog-R intervention acceptable and beneficial. This study will provide evidence to potentially progress to a future definitive trial.
References: -
Ethics: This study received ethical approval No. 23/14 from the Beaumont Hospital Medical Research Ethics Committee on the 20th of June 2023.

Proceedings

A Communities of Practice approach to understand barriers and facilitators in implementing clinical based stroke research.

Introduction: The REfLECTS trial was a randomised controlled trial (RCT) testing effectiveness of mirror box therapy in upper limb rehabilitation among sub-acute stroke patients. REfLECTS was conducted in five sites across four health organisations and two jurisdictions. Despite the scale, rigor, and planning of this clinical trial implementation was challenging, 803 patients were screened and only 26 recruited. This study explored the underlying factors and challenges influencing the recruitment of participants to this multisite RCT using a Communities of Practice approach.

Methods: Bi-monthly steering meetings were held for the trial duration to monitor progress and recruitment issues. A one-off focus group was conducted post-recruitment to examine factors impacting recruitment. Data from meeting minutes and the focus group were analysed using thematic analysis.

Results: The full team (n=14) participated in the steering meetings and a subgroup (n=9) participated in the focus group. Two major themes were identified (i) impact of COVID-19 on service delivery, including shorter in-patients stay affecting trial recruitment; and (ii) Clinical Trials (and Tribulations) highlighting therapist-led clinical dilemmas and factors leading to patients declining to participate. Strict adherence to inclusion criteria excluded patients based on scores on standardised screening tools. Patients declined to participate if allocated to the control group for ‘fear of missing out’ on potential recovery. Higher rates of attrition were noted among the control group and contamination where some participants purchased their own mirror boxes.

Conclusion: Maintaining research purity in the pragmatic 'real world' of stroke rehabilitation is challenging in therapy-based interventions where blinding is not possible. Clinicians encounter ethical dilemmas with randomisation in high-quality clinical trial methodologies and need support in addressing these challenges. Ongoing trial implementation support is crucial to ensure clinician and patient engagement, enhance recruitment, and maintain research integrity.

Ethics: Yes - Ethics Committee, Ulster University, Trinity College Dublin, participating hospitals.

Alternative scenarios for projected prevalence of stroke and post-stroke dementia to 2046 in Ireland: a model-based analysis

Eithne Sexton[1], Martin O'Flaherty[2], Anne Hickey[1], David J Williams[1,3], Frances Horgan[1], Chris Macey[4], Suzanne Timmons[5], Rónán Collins[6], Kathleen Bennett[1]

[1]RCSI University of Medicine and Health Sciences, Dublin, Ireland
[2]University of Liverpool, United Kingdom
[3]Beaumont Hospital, Dublin, Ireland
[4]Irish Heart Foundation, Dublin, Ireland
[5]University College Cork, Ireland
[6]Tallaght University Hospital, Dublin, Ireland

Background and aims: Understanding future population need is key for informing stroke service planning. This study aims to evaluate alternative scenarios for future trends in stroke age-specific incidence and case-fatality, and estimate impact on projected stroke and post-stroke dementia prevalence in Ireland.

Methods: We used a probabilistic Markov model to project and track incidence and prevalence of stroke and post-stroke dementia in the Irish population aged 40-89 years to 2046. We defined trend scenarios based on stability, and low and high decline, broadly based on the lower and upper bounds of evidence for trends to date. We also examined non-linear trends involving decelerating decline over time and varying trends by age. We projected the incidence and prevalence of stroke (ICD codes I60-I61, I63-64), post-stroke dementia (DSM-V criteria) and post-stroke disability (modified Rankin scale 3-5).

Results: The stable scenario indicated a projected 85,834 stroke survivors in 2046 (95% uncertainty interval, UI = 82,366-89,655), an increase of 45.7% from 2022. Assuming a high incidence decline and low case-fatality decline indicated a 5.4% increase in prevalence. Intermediate scenarios based on lower rates of decline, or decline rates slowing over time, implied an increase between 25.8% and 40.3%. Results did not differ substantially when we varied trends by age.

In the stable scenario we projected 16,978 post-stroke dementia prevalent cases in 2046 (95% UI 14,958-19,157), an increase of 58.9% from 2022. In the high decline scenario, the increase would be 25.9%, with intermediate scenarios implying an increase between 41.3% and 56.3%.

Conclusions: Future stroke healthcare needs will vary substantially depending on epidemiological trends. There is an urgent need to both invest in prevention strategies and plan for likely increases in future stroke care needs.

Ethical approval was granted for use of stroke audit data from RCSI Research Ethics Committee (REC202304013).

251/250

Analysis of CYP2C19 genotypes and relationship with on-treatment platelet reactivity on clopidogrel in a TIA/ischaemic stroke patient population in Ireland

Naydonova I MB [1,17*], Smith DR MSc, MICGP [1,2,17*], Offiah C MRCPI [1,3,17], Llucià-Carol L PhD [6], Collins DR MD, FRCPI [3,4], Ryan DJ PhD, MRCPI [3,4], McCarthy AJ MD, MRCPI [1,3,14], Murphy SM MD, FRCPI [1,17], Egan B FRCSI [5], Cox D PhD [10,11], Ford GA FRCP [12,13], Norrving B MD, PhD[14], Thijs V MD, PhD [15], Montaner J MD, PhD [7,8,9], Fernandez-Cadenas I PhD [6], McCabe DJH PhD, FRCPI, FESO [1,2,3,11,16,17]

Department of Neurology [1], Vascular Neurology Research Foundation[2], Stroke Service [3], Age-Related Health Care Department [4], Department of Vascular Surgery [5], Tallaght University Hospital/The Adelaide and Meath Hospital, Dublin, incorporating the National Children's Hospital (AMNCH), Dublin, Ireland; Stroke Pharmacogenomic and Genetics, Institut d'Investigació Biomèdica Sant Pau (IIB SANT PAU)[6], Barcelona, Spain; Neurovascular Research Laboratory, Vall d'Hebron Institute of Research (VHIR), Barcelona, Spain[7]; Institute de Biomedicine of Seville, IBiS/Hospital Universitario Virgen del Rocío/CSIC/University of Seville[8]; Department of Neurology, Hospital Universitario Virgen Macarena, Seville [9], Spain; School of Pharmacy and Biomolecular Sciences [10], Royal College of Surgeons in Ireland, Dublin, Ireland; Irish Centre for Vascular Biology [11], Dublin, Ireland; University of Oxford [12], Oxford University Hospital NHS Foundation Trust[13], Oxford, UK; Department of Clinical Sciences Lund [14], Neurology, Lund University, Lund, Sweden; Dept. of Neurology [15], Austin Health and Florey Institute of Neuroscience and Mental Health, University of Melbourne, Heidelberg, Victoria, Australia / Department of Neurology, Austin Health, Heidelberg, Victoria, Australia; Stroke Clinical Trials Network Ireland [16], Dublin, Ireland; Academic Unit of Neurology [17], School of Medicine, Trinity College Dublin, Ireland (* denotes Co-first authorship).

Address for Correspondence: Professor Dominick J. H. McCabe (Orchid ID: 0000-0003-0493-4516), Vascular Neurology Research Foundation, c/o Department of Neurology, Tallaght University Hospital / AMNCH, Tallaght, Dublin 24, Ireland.
Telephone No.: -353-1-4144217; **e-mail:** dominick.mccabe@tuh.ie

Abstract

Introduction: Single nucleotide polymorphisms (SNPs) in the cytochrome P450 2C19 (CYP2C19) gene may influence Clopidogrel metabolism from its pro-drug to active metabolite, and hence the ability of Clopidogrel to inhibit platelet $P12Y_{12}$ ADP receptors. Patients with CYP2C19 loss-of-function (LOF) SNPs (*2 or *3) might exhibit '**H**igh on-**T**reatment **P**latelet **R**eactivity' (**HTPR**) in the laboratory and potentially be at higher risk of recurrent vascular events, whereas CYP2C19 *17 gain-of-function SNPs could theoretically increase bleeding risks. Studies simultaneously assessing the influence of **pharmacogenetic factors** on **Antiplatelet-HTPR status** and **clinical responsiveness** in ischaemic cerebrovascular disease (CVD) patients are limited/conflicting, with no prevalence data on CYP2C19 LOF SNPs specifically in CVD patients in Ireland.

Methods: 103 patients ≤4 weeks of TIA/ischaemic stroke who were on Aspirin (N=22) or Clopidogrel (N=29) monotherapy, or combination therapy with Aspirin+Clopidogrel (N=48) or Aspirin+Dipyridamole (N=4) were recruited to the multi-centre **O**ptimal **A**ntiplatelet **T**herapy in TIA and Ischaemic **S**troke-**I**nternational (**OATS-I**) study. EDTA-anticoagulated blood samples were analysed at a Centralised Pharmacogenetics Laboratory by members of International Stroke Genetics Consortium to classify patients as '**Intermediate-Poor'**, '**Normal**' or '**Rapid-Ultrarapid'** Clopidogrel Metabolisers. Patients on **Clopidogrel** were prospectively categorised into subgroups with or without Clopidogrel-HTPR on platelet reactivity assays at 'high shear stress' (PFA-100® INNOVANCE PFA P2Y), and 'low shear stress' (VerifyNow® PRUTest).

Ethics: Approved (SJH/TUH-AMNCH).

Results: **94 patients** underwent successful pharmacogenetics (GWAS) analysis **to date**. **29%** (N=27) were Intermediate-Poor, **37%** (N=35) Normal, and **34%** (N=32) Rapid-Ultrarapid Metabolisers. Despite categorisation as 'Intermediate-Poor Metabolisers' on pharmacogenetics analysis, 7/21 (33%) patients on Clopidogrel monotherapy/combination therapy did **not** have Clopidogrel-HTPR on the PFA-100 **or** VerifyNow.

Conclusions: Almost one-third of our overall CVD patient population in Ireland have CYP2C19 LOF SNPs. Pharmacogenetics data should **not be used alone** to guide treatment with Clopidogrel because 1 in 3 CVD patients classified as Intermediate-Poor Metabolisers have adequate $P2Y_{12}$ inhibition *ex-vivo* on Clopidogrel.

AVERT – DOSE: the Irish perspective on participation in a multi-national rehab trial.

Edel Hennessy[1], Amy Cullinane[1], Margaret O'Connor[1], Mairead O Donoghue[2], Claire Prendergast[3], Kristina Joksaite[3], Olywn Lynch[3], Aoife Crowley[4], Anna Donohue[4], Tim Cassidy[4], Mary Weir McDonnell[5], Niamh Kelly[5], Tom O'Malley[5], Claire Connolly[6], Sean Murphy[6], Peter Kelly[7], Frances Horgan[7,8], Fiona Ellery[9], Julie Bernhardt[9]

on behalf of the AVERT Dose Trial Collaboration

1. University Hospital Limerick,
2. St James Hospital (SJH), Dublin,
3. Our Lady of Lourdes Hospital (OLOLH), Drogheda,
4. St. Vincent's University Hospital, Dublin,
5. Mayo University Hospital, Castlebar,
6. Mater Misericordiae University Hospital (MMUH), Dublin,
7. HRB Stroke Clinical Trials Network, Dublin,
8. RCSI University of Medicine and Health Sciences, Dublin,
9. Florey Institute of Neuroscience and Mental Health, Melbourne, Australia

Introduction

Mobility training is a widely accepted intervention in rehabilitation post stroke. However, the evidence base is inadequate with differences amongst international guidelines. The AVERT trial demonstrated that more is not necessarily better[1]. AVERT-DOSE aims to define optimal early mobility regimens for ischemic stroke patients.

Methodology

AVERT-Dose is a global multi-arm multi-stage covariate-adjusted response-adaptive randomized trial of mobility training commenced within 48h of ischaemic stroke in mild (NIHSS < 7) and moderate (NIHSS 8–16) stroke patient strata, with analysis of blinded outcomes at three (primary) and six months. Per strata, participants are randomised into one of four mobility training regimes. Training is delivered by AVERT-DOSE trained physiotherapists and nurses for up to 14 days or until discharge from the stroke unit[2].

Results

There have been 765 participants recruited from 43 sites worldwide. In Ireland, five sites have recruited 24 participants to date. One site is initiated and screening potential participants.

In Ireland, the ethical and legal approval processes have varied between sites. Time from ethics application to full approval has spanned from ten to 42 months. Legal and ethical approval is in place for all Irish sites. Significant staffing changes and unfilled vacancies across all sites, have negatively affected recruitment in the region.

An Irish AVERT-DOSE collaborative has been established to address the trial challenges. This peer support and collaboration has proven successful in supporting the Irish sites through these barriers.

Conclusion

This novel adaptive trial design will evaluate a wider variety of mobility regimes than a traditional two arm design. Undertaking research in busy clinical environments against a backdrop of a global pandemic and fluctuating resources is challenging and has necessitated a problem solving approach from clinicians committed to the development evidence based practice.

References

1. Langhorne P, Wu O, Rodgers H, Ashburn A, Bernhardt J. A Very Early Rehabilitation Trial after stroke (AVERT): a Phase III, multicentre, randomised controlled trial. Health Technol Assess. 2017 Sep;21(54):1-120. doi: 10.3310/hta21540. PMID: 28967376; PMCID: PMC5641820.
2. Bernhardt J, Churilov L, Dewey H, Donnan G, Ellery F, English C, Gao L, Hayward K, Horgan F, Indredavik B, Johns H, Langhorne P, Lindley R, Martins S, Ali Katijjahbe M, Middleton S, Moodie M, Pandian J, Parsons B, Robinson T, Srikanth V, Thijs V; AVERT DOSE Trialist Collaboration. A phase III, multi-arm multi-stage covariate-adjusted response-adaptive randomized trial to determine optimal early mobility training after stroke (AVERT DOSE). Int J Stroke. 2023 Jul;18(6):745-750. doi: 10.1177/17474930221142207. Epub 2023 Jan 6. PMID: 36398582.

Title of Presentation:
Barriers to recruitment and retention for a pilot randomised controlled trial of a novel cognitive rehabilitation intervention for post-stroke cognitive impairment.

Presenter: Jane McGlinchey
Presenter Contact email: janemcglinchey@rcsi.ie

Authors/Project Team:
Jane McGlinchey (1), Mairead Murray (1), Megan Oglesby (1), Catherine N. Moran (1), Niall Pender (2), Kathleen Bennett (3), Frances Horgan (4), David Williams (5, 6), and Anne Hickey (1).

Author Affiliations:

(1) Dept. of Health Psychology, RCSI, Dublin. (2) Dept. Psychology, Beaumont Hospital, Dublin. (3) School of Population Health Sciences, RCSI, Dublin. (4) School of Physiotherapy, RCSI, Dublin. (5) Dept. of Geriatric and Stroke Medicine, Beaumont Hospital, Dublin. (6) Dept. of Geriatric and Stroke Medicine, RCSI, Dublin.

Abstract (289/300 Words)

Introduction: Post-stroke cognitive impairment (PSCI) affects approximately 50% of patients following a stroke and is associated with increased disability, poorer quality of life, and increased risk of requiring long-term care. Despite these negative consequences, the efficacy of cognitive rehabilitation for PSCI is not well-established. A frequent hindrance to generating robust evidence for cognitive rehabilitation using a stroke population is insufficient recruitment and retention. This trial aims to collect data on recruitment and attrition rates to an intervention study in order to inform recruitment methods for a definitive trial.

Methods: The study aims to recruit 64 consecutive ischaemic stroke patients with mild-to-moderate PSCI. Patients complete bedside screening assessments and a baseline neuropsychological assessment 6 weeks after stroke, and eligible patients are randomised into control (care as usual) and intervention (five-week cognitive rehabilitation) groups. To document barriers to recruitment, anonymous data (age, sex and reason for not participating) are recorded for those deemed inappropriate for the study by the medical team, patients who chose not to consent, patients excluded after screening and assessment, and participants who drop out.

Results:
Preliminary results indicate that 83% (n = 60/72) of patients are eligible following screening. Of the 40 patients who completed their baseline neuropsychological assessment, 58% (n=23/40) were found to have PSCI. Current predictions indicate that 112 baselines will need to be conducted to randomize 64 participants, and 194 patients will need to be consented overall.

Conclusion: Anonymised data provides insight into recruitment challenges, reasons for exclusion, non-participation and attrition rates. These data will inform recruitment strategies and the determination of necessary effect sizes to power a definitive trial.

Ethics: Ethical approval for this study was granted by the Beaumont Hospital Medical Research Ethics Committee, No. 23/14, on the 20th of June 2023.

Introduction: Bickerstaff Brainstem Encephalitis (BBE) is a rare variant of Guillan Barre Syndrome (GBS) first described in the 1950s. It comprises a constellation of neurological signs including ophthalmoplegia, ataxia, altered sensorium and is usually preceded by infection. It shares overlap with another variant of GBS,Miller Fisher Syndrome (MFS), and can be challenging to diagnose given the variability of presentations and rarity(1). Two case reports have been published with MFS presenting as stroke mimics but none with BBE (2).

Case: Here we describe a case of BBE presenting as a stroke mimic in an 87 year old gentleman who initially presented as a subacute posterior circulation stroke after a 2 day history of double vision, altered sensation to his lip and right hand and an unsteady gait. CT brain and angiogram were clear for ischemia and he was commenced on aspirin while awaiting stroke work-up. His symptoms rapidly progressed to involve severe dysarthria and an ataxic gait. Evaluation of his history found he had a lower respiratory tract infection one week prior to developing his neurological symptoms. CSF analysis showed albuminocytological dissociation. Serum was negative for anti-GQ1b antibodies. MRI showed no features of encephalitis. We consulted Neurology who assisted in making the final diagnosis of BBE.

Treatment: He was treated with intravenous immunoglobulin and made a full recovery after rehab.

Learning: Highlights the complexity in making the diagnosis in older patients with atypical neurology, the importance of prompt recognition of evolving symptoms, accurate diagnosis and correct treatment. The complete aetiology of BBE is not fully understood.

References

1. Bickerstaff ER. Brain-stem encephalitis; further observations on a grave syndrome with benign prognosis. Br Med J. 1957;1(5032):1384-7.
2. Kamarul Bahrin MH, Abidi SMA, Ling K, Mukherjee B. Not All Facial Droops Are Stroke: Miller Fisher Syndrome Presenting as a Stroke Mimic. Cureus. 2020;12(7):e9383.

Ethics: Verbal consent was obtained from the patient for this presentation.

Introduction

Cancer is an increasingly recognised independent risk factor for the development of stroke, with emerging evidence of stroke in the context of malignancy being its own pathophysiological subtype[1]. Both cancer and stroke risk are associated with increasing age, with stroke mortality in cancer patients significantly higher. Due to the increasingly ageing population in Ireland, the number of those presenting with dual diagnosis is set to increase. We sought to review numbers presenting with stroke and cancer to our stroke service.

Methods

Patients admitted with confirmed stroke diagnosis were identified through Hospital Inpatient Enquiry (HIPE) data from March 2023 to May 2024. This cohort was screened for a co-existing oncological diagnosis. The following variables were collected: recency of cancer diagnosis, subtype of stroke, anti-cancer therapy treatment to date, risk factors for developing cardiovascular disease using atherosclerosis cardiovascular disease score (ASCVD) and baseline CRP on admission.

Results

71/320 (22%) patients admitted to our service in the defined period were identified as having a co-diagnosis of stroke and cancer (new or historical). Of those 71 patients, 8(11%) had a new or recent (<1 year) cancer diagnosis at stroke presentation and 63 were found to have a historical diagnosis (> 1 year). Prostate cancer represented the largest proportion of patients, followed by lung and skin. 11(15%) were actively on cancer treatment at time of presentation of stroke. For patients actively on treatment, 5/11 had received platinum-based therapies. Average ASCVD risk factor score was 29.7%.

Conclusions

One in five patients with acute stroke had new or historical diagnosis of cancer in our cohort. A national prospective registry of patients with cancer and stroke could be useful in understanding patterns of stroke in cancer and help plan services and treatments for this specific population.

Ethics

Given that this was registry data already being collected, ethical approval was not deemed necessary.

References

1. Sonbol YT, Elgenidy A, Awad AK, Elmehrath AO, Kobeissi H, Afifi AM, Ghozy S. Stroke as a cause of death in patients with cancer: a SEER-based study. Journal of Stroke and Cerebrovascular Diseases. 2023 Aug 1;32(8):107154.
2. Sanossian N, Djabiras C, Mack WJ, Ovbiagele B. Trends in cancer diagnoses among inpatients hospitalized with stroke. Journal of Stroke and Cerebrovascular Diseases. 2013 Oct 1;22(7):1146-50.

Title: Cardiorespiratory Training Post Stroke: From Guidelines to Clinical Practice. A qualitative study.

Introduction

The National Clinical Guideline for Stroke for the United Kingdom and Ireland was published in April 2023. In this new guideline, there is an increased focus and detail regarding cardiorespiratory training.

The aim of this study was to explore physiotherapists' perspectives into the feasibility of implementation of cardiorespiratory training as per this new guideline. Objectives were to explore possible challenges and facilitating factors to implementation.

Methods

A qualitative descriptive study was conducted using semi-structured interviews. Physiotherapists interviewed were CORU registered and had experience working with stroke patients in the past two years. Stratified purposive sampling was employed to expand on geographical and healthcare settings represented. Data was analysed inductively by reflexive thematic analysis.

Results

Fifteen physiotherapists participated in interviews from a variety of healthcare settings (acute, in-patient rehabilitation, neurology out-patients, primary care and private practice) and geographical locations across Ireland.

Three overarching themes emerged:

1) How cardiorespiratory training is prioritised 2) Current practices of cardiorespiratory training and the challenges faced and 3) Creative and resourceful solutions to improving cardiorespiratory implementation.

Clinicians identified challenges to implementation such as resource constraints and competing priorities. Concerns were raised about the feasibility and safety of high-intensity training with higher severity strokes.

Facilitating factors to implementation included education, promotion, one-to-one support, ensuring accessibility and inclusivity of services, and potentially developing stroke-specific rehabilitation classes, similar to cardiac rehabilitation.

Conclusion

The findings of this study help to inform on current practices and challenges to implementation of cardiorespiratory training. The results provide innovative initiatives and strategies from key stakeholders, physiotherapists, that could positively influence the delivery and implementation of cardiorespiratory training for people with stroke.

Ethics

Ethical approval was granted by the Royal College of Surgeons in Ireland (RCSI) Research Ethics Committee (REC 1712).

Introduction
Research highlights the importance of effective age-appropriate communication with children and young people (CYP) about adult illness to optimise social, behavioural and emotional functioning. Presently, there is a paucity of stroke-specific appropriate resources to meet this need.

Aims: The aim of this study was to a) understand the experience of families talking to CYP about a relative's admission to hospital with a stroke and b) to develop a resource that helps adults to: • Effectively initiate conversations about stroke with CYP • Respond to the emotional needs of CYP in the acute and post-acute stages.

Methods
Interpretative phenomenological analysis (IPA) explored individuals experience of talking to CYP 'at time of onset' and 'during' the stroke hospital admission. A purposive sampling strategy and semi-structured interviews facilitated study aims.

Results
Six families participated. Key themes depicted communicating with CYP as emotionally challenging for adults and children. Themes included 1) Isolation and a sense of fear around disclosure to protect CYP from distress. 2) Uncertainty about recognising how CYP were managing 3) Unmet information and support needs with reluctance to ask professionals for help and a reliance on natural support networks

Conclusion
The need to have clear information and guidance about talking to CYP was highlighted by the families. On foot of this, a targeted resource has been developed to enable adults to give age appropriate information to and support CYP after stroke.

Ethics
Approval was given by SJH/TUH Joint Research Ethics Committee

References

Dalton, et al, (2019) Communicating with children and adolescents about the diagnosis of a life-threatening condition. The Lancet. 393(10176),1164-76.

Redolfi et al (2017) When a Parent suffers an Acquired Brian Injury. Investigation of emotional distress in children. Brain Injury. 31(8) .1050-1060.

Co-designing an easy read report of research on stroke survivor and carer priorities

Eithne Sexton[1], Padraic Cuffe[2], Helen Gribben[2], Helen Mancini[2] and Larry Masterson[2]

[1]RCSI University of Medicine and Health Sciences, Dublin, Ireland

[2]Stroke survivor representative

Introduction

Perspectives of stroke survivors and their carers are critical to improving stroke care. Research is not always presented in a format that is readable and accessible for stroke survivors, their family members and the general public. The aim was to develop an easy read, accessible report based on published research findings on priorities to improve services for stroke survivors and carers.

Methods

The initial research project involved interviews and a survey with stroke survivors and their family members to identify priorities for improving stroke care in Ireland. Findings were published in a peer review journal [1]. A co-design team (including the lead researcher and four stroke survivors) was convened to produce a draft easy-read report (lay summary) of the research findings. This involved several rounds of iterative feedback and revisions, by email, post and via a co-design meeting. All co-authors reviewed and approved the final version.

Results

Key outcomes of the co-design process that ensured accessibility included minimising the amount of text, including more quotes and images, and design changes such as using different fonts and colours, and the use of tabbed pages. A digital online report was produced, and a 2-page infographic for physical distribution.

Discussion

The collaborative co-design process successfully transformed academic research findings into a visually engaging, user-friendly, and accessible easy-read report. Involving stroke survivors directly in the design of dissemination materials can ensure that research findings are effectively communicated and contribute to improvements in stroke care and support services.

References

Sexton E, et al. Priorities for developing stroke care in Ireland from the perspectives of stroke survivors, family carers and professionals involved in stroke care: A mixed methods study. Plos one. 2024 Jan 19;19(1):e0297072.

Ethics: Stroke survivors participated in this project as equal-partner collaborators and ethical approval was not required.

Development of a Core Minimum Dataset for Audit of Acute Stroke Care in Ireland: A Scoping Review of International Practice and Stakeholder-Driven Approach

Introduction

Population ageing, advancements in stroke treatment, evolving care models, and variability in patient outcomes across hospitals highlight the necessity of ongoing audits to ensure the provision of high-quality, equitable, and evidence-based stroke care. In Ireland, there is a clear need to align stroke care practices with international standards. This study sought to develop a core minimum dataset for acute stroke care in Ireland, designed for integration into the Irish National Audit of Stroke (INAS) and benchmarked against global best practices.

Methods

A scoping review was conducted following the PRISMA-ScR (Preferred Reporting Items for Systematic Reviews and Meta-Analysis Extension for Scoping Reviews) guidelines. Comprehensive searches were performed across Medline Ovid, Embase, CINAHL EBSCOhost, and relevant grey literature from 2010 onwards to identify national and continuous stroke audits. Eligible titles, abstracts, and full texts were screened, and documentation from relevant audits was retrieved. Stroke care data items were extracted, mapped, and compared to identify commonalities and gaps between existing Irish audit items and those frequently collected internationally. A Delphi process, involving key stakeholders, was then used to review and refine the dataset over three rounds.

Results

Twenty-one international stroke audits and registries were identified, containing approximately 4,500 audit items. Stakeholder consultation evaluated the relevance of the existing Irish dataset (n=103), frequently collected international items (n=97), and additional expert-suggested items (n=22). Consensus was reached on a final core dataset comprising 86 acute care items and 35 thrombectomy-specific items. Examples of items to be incorporated into INAS include stroke-related complications and history of risk factors.

Conclusions

This review has resulted in a core minimum dataset for acute stroke care in Ireland, developed through international benchmarking and expert consultation. The dataset establishes a "gold standard" for monitoring acute stroke care, aiming to enhance patient outcomes and support both local and national quality improvement efforts.

Ethics: Ethical approval not sought as this was a scoping review and benchmarking exercise.

Title: Development of an Integrated Interdisciplinary Spasticity Service

Authors: Mrs Doireann Twomey, Mr Ciaran O Flathartaigh, Mrs Libby Cunningham, Ms Orla McHugh, Dr Lilia Zaporojan

Topics: Service Development, Spasticity, Interdisciplinary working, Integrated pathways, botulinum toxin

Introduction

Spasticity is a common sequela post-stroke that causes significant burden to the 40% of stroke survivors it affects. It is associated with pain, contracture and impedes ADL and mobility.

People with persistent or progressive spasticity with identified goal(s) should be offered intramuscular botulinum toxin and timely access to a specialist interdisciplinary team (IDT) to ensure spasticity is comprehensively assessed and managed within an integrated pathway.

The Mater Misericordiae University Hospital previously lacked an integrated spasticity service, consultants of varied specialities were providing botulinum toxin in silo without IDT access.

Method

The 'Plan-Do-Study-Act' problem-solving model was used to improve spasticity management. A scoping exercise identified current spasticity management practices against recommended guidelines. Training and resource need was identified, key stakeholders engaged with. The IDT team collaborated to create governance structure, service pathway covering assessment, intervention(s) and goal-setting documentation. Key performance indicators (KPIs) were agreed and form the basis for continual quality assurance of service.

Results

Funding application to The Mater Foundation and subsequent recruitment for a time-limited Spasticity Clinical Specialist Physiotherapist was successful. Spasticity management education and referral pathways into service was cascaded to staff in the integrated network. KPI targets and results to date include:

-90% patients referred seen within two weeks

-100% patients referred seen by necessary IDT

-100% of patients had follow up appointment/plan

-100% of patients requiring splinting/casting seen by Occupational Therapist

Patient feedback demonstrates the value that an IDT spasticity service has to quality of life, function and pain management.

Conclusions

The development of an IDT spasticity service requires governance of a prescribing consultant trained in spasticity management, specialist physiotherapist and occupational therapist with experience in spasticity management, and training in injection therapy and splinting/casting. Ongoing commitment of key stakeholders and investment in IDT staffing is vital for the success of an integrated specialist service.

Development of Initial Programme Level Theories for Life After Stroke Support Pathways

Introduction: Ever-growing numbers of individuals are surviving stroke events and living with the consequences. LIFE AFTER STROKE recognises the struggle to adapt and build a new life following a stroke and considers family and others who provide care and support for the stroke survivor. No consensus on how to best promote agency and fulfilment in life after stroke or the resources required to achieve this currently exists.

Methods: A Realist Review whose research questions ask: *What mediators or mechanisms enable interventions designed to support a personally meaningful life after stroke to result in the anticipated outcomes?* And *What contextual factors and resources help facilitate achievement of a personally meaningful life after stroke following supportive interventions?*

Results: Initial scoping of the literature identified a sample of 36 key articles. These were examined by full manuscript to generate candidate programme theories (CPTs: N=11). Consultation between the researchers provided first-level refinement of these CPTs, collapsing or separating them out where differing constructs were determined. These were further refined to initial programme theories following expert panel consultation events with stroke researchers, theorists, health care professional working in stroke care, stroke support agencies and people with lived experience of stroke (N=13). The resultant initial programme theories (IPTs) detail specific Context, Mechanism and Outcome configurations, summarised under six themes: Supported self-management after stroke; Goals, priorities and identifying needs after stroke; Peer support; Communication; Psychological supports and Living well after stroke.

Conclusions: These programme theories better conceptualise supports for Life after Stroke as a dynamic real world process. The literature will now be systematically reviewed to validate or further refine the programme theories developed to help explain how generative causation within the life after stroke pathway works and which mechanisms are activated or work well in specific contexts.

Ethical Approval: Uses published literature; exempt from ethical review

Background

In 2023, the Irish Heart Foundation and National Clinical Programme for Stroke ran the Face, Arm, Speech, Time (FAST) public awareness campaign as a two-part campaign (January and July 2023), to raise awareness of stroke symptoms and the need for rapid response. We aim to evaluate the impact of this campaign.

Methods

Interrupted time series (January 2021 to December 2023) assessed the impact of the campaign on: calls received by ambulance control triaged as suspected stroke and provisional stroke diagnosis made by paramedics at time of leaving scene. Means were compared with t tests.

Results

Before the campaign, there were an average of 1060 calls received per month which were triaged as suspected stroke. Prior to the January 2023 portion of the campaign, there was a baseline trend for increasing ambulance calls for suspected stroke (β= 0.01, 95% CI 0.008 to 0.0121; p < 0.001) and paramedic provisional stroke diagnoses (β=0.0083, 95% CI 0.006 to 0.0110;p<0.001). The January burst of the campaign was associated with a reduction in ambulance calls (β= -0.014, 95% CI -0.022 to -0.007; p <0.001) whereas the July burst of the campaign showed a slight increase in calls compared to no campaign (β= 0.031, 95% CI 0.016 to 0.047; p <0.001). Conversely, there was a trend towards an increase in paramedic suspected stroke following the first burst of the campaign and trend towards decrease after the latter component.

Conclusion

Overall, the campaign had varying effects at different stages. The first wave reduced calls but increased diagnoses, while the second wave increased calls but reduced diagnoses. This may suggest that the campaign influenced public behaviour differently at each stage—perhaps raising awareness but with different impacts on the quality or necessity of the calls made.

Ethics

Ethical approval received from SJH/TUH ethics committee.

Exploring allied health professionals' perceptions and practice regarding recommendations for intensity of multidisciplinary therapy for stroke patients: a qualitative study.

Introduction: Stroke is a leading cause of death and disability. Rehabilitation is a key aspect of stroke care; greater amounts of therapy are associated with better recovery. National Audit data shows that stroke survivors often do not receive the recommended amount of therapy. The recently updated UK and Ireland stroke clinical guidelines now recommend larger amounts of therapy time. This qualitative study explored how allied health professionals (AHPs) feel about the recommendation, and what methods they employ in working to achieve recommended amounts of therapy.

Methods: This study used a qualitative research design employing semi-structured interviews to collect data. Participants were AHPs working in stroke care in Dublin, Ireland. Interviews were audio-recorded, transcribed, and analysed using reflexive thematic analysis.

Results: Two main themes emerged: 'Barriers and enablers to achieving guideline recommended therapy time' and 'methods of increasing therapeutic time'. Patient factors and clinical resources impact on the provision of therapy post-stroke. Overall, participants felt positive about the recent guideline recommendation for increased therapeutic time. Various methods are employed to augment patient therapeutic time, including technology and semi-supervised practice. Therapy assistants play an important role in achieving greater amounts of therapy.

Conclusion: AHPs see the new recommendation as challenging but are generally keen to try and achieve it, citing benefits of increased therapy time for patient outcomes. AHPs utilise a wide range of methods to optimise therapeutic time for stroke patients. The role of therapy assistants in supporting delivery of larger amounts of therapy time warrants further evaluation.

Ethics: This research was approved by the Royal College of Surgeons in Ireland Research Ethics committee.

Title: How did we do? Using past Nutrition & Hydration Audits to focus service development in Beaumont Hospital

Authors: Emma Kennedy, Clinical Specialist Stroke Dietitian, Dept of Nutrition & Dietetics, Beaumont Hospital.

Introduction The National Stroke Programme Nutrition & Hydration Policy recommends that all stroke centres complete the Nutrition & Hydration Policy Audit annually. Beaumont Hospital has completed this audit in 2022, 2023 and 2024.

Methodology Results obtained during our 2022, 2023 & 2024 Nutrition & Hydration Audits were analysed to assess our progress with compliance with the National Stroke Programme guidelines and to highlight service demands.

Results

The swallow screening has continued to see an annual improvement in compliance with the national target of 4 hours. Nutritional screening completion has continued to improve year on year. Issues with accuracy remain. An increasing amount of patients were seen by dietetics between 2023 and 2024, with an ongoing increase in those requiring enteral feeding. Patients were commenced on the out of hours regimen in a similar number of cases each year. There was a similar number of nasal bridles used this year compared with last year.

Conclusion

The audit shows an ongoing improvement in the completion of the Beaumont Hospital Swallow Screening Test within the 4 hour timeframe. This is likely due to the ongoing work of the Speech & Language Therapists, nursing staff and the stroke team on their Quality Improvement Initiative focusing on the training and implementation of swallow screening in A&E and on the Hyper Acute Stroke Unit. The accuracy of the nutritional screening requires training at ward level to improve effectiveness.

The numbers commenced on out of hours enteral feeding was similar to previous years and the stroke unit remains very effective at implementing early nutrition as per national guidelines.

References

National Stroke Programme Nutrition Group (2019) Recommendations for the Management of Nutrition and Hydration in Patients with Stroke – A Guidance Document .

Identifying the priorities to be addressed in life after stroke-by-healthcare professionals; The CLASP project

Background: Stroke is an important health issue in Ireland. Over 5,500 adults were admitted to acute hospitals following stroke in 2020, 71% of whom were discharged home with a documented disability. Currently, ~80% of stroke survivors are discharged home. The Stroke Action Plan for Europe highlights the need to develop a life after stroke pathway. The aim of this survey of Irish healthcare professionals working in stroke care was to identify the priorities to be addressed in life after stroke. The survey is part of a wider project, the Co designing Life After Stroke support Pathways (CLASP).

Methods: A cross-sectional survey of community and hospital-based healthcare professionals working in stroke care was undertaken in July 2024. The survey was hosted on Survey monkey. The study received ethics approval from the university.

Results: 169 health care professionals responded. The majority of healthcare professionals worked in hospitals (43.75%) followed by a rehabilitation centre (32.81%). Physiotherapists and occupational therapists were the largest groups, 29% and 27% respectively. The results highlighted the need for a more specific approach in post-stroke management, current pathways often resemble a "geographic lottery". The respondents identified unmet needs and priority areas for life after stroke including; community support and transition to home care, key workers, patient, family, and caregiver education, access to supported self-management, peer support, vocational support and transportation.

Discussion: The findings of this CLASP healthcare professional survey highlights ongoing unmet needs in life after stroke from the perspective of healthcare professionals working in stroke services in Ireland.

Conclusion: The CLASP project will address the rehabilitation needs and potential unmet needs as identified by stroke patients and healthcare professionals to inform the co-design of a pathway for life after stroke in the community.

Impact of Early Supported Discharge (ESD) on Stroke Patients: A 3-Year Service Evaluation

Early Supported Discharge (ESD) services facilitates the transition of stroke patients from hospital to home, offering intensive rehabilitation within the community. These services have been shown to improve patient outcomes and reduce hospital stays (1,2). This study evaluates the impact of an ESD programme over three years, focusing on key metrics such as patient outcomes, service efficiency and healthcare resource utilisation.

Aim: to assess the effectiveness of the ESD service for stroke patients over three years (2021–2023).

Objectives:

- Evaluating improvements in patient functional outcomes.
- Reducing hospital length of stay.
- Assessing patient satisfaction with the service.
- Analysing cost savings associated with ESD.

We conducted a retrospective review of data from stroke patients enrolled in the ESD service between 2021 and 2023.
A total of 184 patients were enrolled in the service between January 2021 and December 2023.
Key performance indicators included length of hospital stay for ESD patients, patient's satisfaction surveys, functional recovery (Functional Assessment Measure (FIM/FAM) and Modified Rankin Scale (MRS) scores). Annual data was compared to assess changes in performance and service delivery over a 3 year period.

Over the 3 year period, the ESD service supported 184 stroke patients. The average length of hospital stay was 11.7days in 2021 with a reduction of 6% in 2022. The average length of stay returned to 11.7days in 2023.

Functional outcomes as measured by the FIM/FAM and MRS showed a significant improvement each year. In 2021 the overall percentage improvement in FIM/FAM scores was 8.1%, 2002 was 9.5% and 2023 9.96%.

Over the three-year period, the average initial MRS score for patients in the Early Supported Discharge (ESD) program was **2.7**, while the average discharge score was **1.7**. This result demonstrated a significant improvement in patient outcomes, as the MRS score dropped by 1 point on average.

Patient satisfaction steadily increased, with 91.6% of patients rating the overall ESD experience as excellent in 2023 compared to 69.7% in 2021.

The ESD service saved an estimated €1.4 million over the 3 years by decreasing acute care utilisation and increasing patients flow within the hospital.

Key challenges faced during the implementation of the ESD service included limited staffing capacity and resource allocation, which affected the frequency of therapy sessions in certain periods. Additionally, follow-up data on long-term patient outcomes is unavailable as it not collected due to limited resources, reducing the ability to assess sustained benefits post-discharge.

This study demonstrates the significant positive impact of ESD services on patient recovery, healthcare efficiency, and cost savings. The service model highlighted the importance of multi-

disciplinary care in improving patient outcomes and reducing hospital dependency. These findings provide evidence to support the continued development and scaling of ESD services in stroke rehabilitation.

Over three years, the ESD service demonstrated substantial improvements in stroke patient outcomes, reducing hospital stays, and healthcare costs while maintaining high patient satisfaction. Future improvements will focus on addressing workforce limitations. The continued evaluation of ESD services is essential to adapt to evolving patient needs and healthcare demands.

1. Fisher RJ, Gaynor C, Kerr M, Langhorne P, Anderson C, Bautz-Holter E, et al. A consensus on stroke: Early supported discharge. Stroke. 2011;42(5):1392-7.
2.Langhorne P, Baylan S. Early supported discharge services for people with acute stroke. Cochrane Database Syst Rev. 2017;(7)

Impact of post-stroke cognitive impairment on returning to work in working-aged stroke survivors: a systematic review

Introduction

Stroke occurrence in younger people is rising. Despite minor deficits, return to work (RTW) rates among younger stroke survivors (YSS) is low at 53% at one year. Post-stroke cognitive impairment (PSCI) is a key determinant of RTW and affects up to 60% of YSS. This systematic review examined the relationship between PSCI and RTW in YSS.

Method

MEDLINE, EMBASE, CINAHL, and APA PsycINFO databases were searched. Two reviewers screened titles and abstracts for inclusion. Data extraction and quality appraisal using the Mixed Methods Assessment Tool was completed by two reviewers. Narrative Synthesis was completed due to significant heterogeneity across studies.

Results

Thirty-seven studies met inclusion criteria (observational studies (n=32), qualitative (n=4) and RCT (n=1)). Stroke severity was mild across samples and RTW rates ranged from 7.5% to 100% with no emergent trends across time post-stroke or sub-type. PSCI prevalence ranged from 17.5% at 28 days to 89% at 7 years with considerable variance in instruments used and time of administration (range 2 days to 7 years). Concentration, memory and processing speed deficits were most frequently reported. PSCI was the most commonly associated and predictive variable influencing RTW outcomes followed by stroke severity, mood and functional status. Demographic factors and fatigue had low association, but fatigue was highlighted as a significant problem in all qualitative studies. The invisible nature of PSCI and lack of awareness of its impact among employers and clinicians was highlighted.

Conclusion

PSCI is commonly associated with poorer RTW outcomes even in milder stroke/TIA. Despite high detection, PSCI can remain hidden. This review highlights the variation in PSCI instrumentation and lack of intervention studies. Findings highlight the need for more consistency in assessing and managing PSCI and increased awareness of the considerable negative impact of PCSI on re-engagement in work and other roles.

Title: Improving physiotherapy access time post stroke – from guidelines to implementation

Authors: Amy Cullinane, Edel Hennessy

Introduction:

The updated BIASP Stroke guidelines which were published in 2023 state that "*Patients with difficulty moving after stroke should be assessed as soon as possible within the first 24 hours of onset*", (BIASP, 2023). Following the publication of the guidelines, the UHL neuro-physiotherapy team completed a service review. This review identified an area for quality improvement to expand the stroke physiotherapy service over the weekend period. The project aims that all stroke patients admitted to the acute stroke unit (ASU) have a physiotherapy review within 24 hours of their admission.

Methods: The three month 2023 service review of patient access to physiotherapy demonstrated for stroke patients admitted to the ASU on a weekend it was an average of 2.6 (median 3) days from ASU admission to physiotherapy review. Comparatively, it was an average of 1.3 days from ASU admission to physiotherapy review on a weekday. This reflected the findings in the Stroke NOCA 2022 Audit report which outlined a delay in physiotherapy review on weekend versus weekday (NOCA, 2022).

A quality improvement project was commenced by the neuro-physiotherapy team. The HSE quality improvement toolkit was utilised to guide the project. Stakeholders were engaged throughout and included the completion of a physiotherapy staff survey to determine staff expectations and training needs. A training programme for all physiotherapy staff was completed. Feedback and input was provided by ASU based staff. Resources including a Stroke Weekend Competency framework and a Stroke Screening Algorithm were developed.

Results: The project pilot commenced on 24th July 2024. Currently, all patients admitted to the ASU are reviewed by physiotherapy within 24 hours.

Conclusion: The BIASP guidelines have been updated to reflect the needs of stroke patients. The UHL Neuro-physiotherapy team, with the support of local stakeholders, have improved access time to physiotherapy for patients in UHL.

References:

National Clinical Guideline for Stroke for the UK and Ireland. London: Intercollegiate Stroke Working Party; 2023 May 4. Available at: www.strokeguideline.org.

National office of Clinical Audit. "Irish National Audit of Stroke National report 2022" Available at https://www.noca.ie/documents/irish-national-audit-of-stroke-national-report-2022/

The British Association of Stroke Physicians Stroke Service Standards 2019 https://biasp.org/wp-content/uploads/2022/07/OD10815.-BASP-StrokeStandards_Jan-2019.pdf

Ethics: Nil

"Putting theory into practice:
10 week "FAST" Stroke Simulation Training on the Acute Stroke Unit

Introduction:

Stroke is a medical emergency which requires trained staff to act fast to save time, promoting optimum patient outcomes. 2 million brain cells die every minute when a stroke event occurs, signifying the importance of acting fast and "Time is Brain." Nurses and HCAs are consistent members of the healthcare team who are observing the patient over a 24 hour basis, 7 days a week. It is well researched that Simulation training bridges the gap between theory and practice, especially in emergencies (Moslehi et al., 2022).

Aim:

Improve recognition of FAST

Role and task definition

Team work

Practical learning

Method:

A 10 week Simulation training programme from June to August 2024 was introduced once per week (every Thursday 15.00-16.00). Members of Physiotherapy and Occupational Therapy attended also. Nursing colleagues covered the ward to allow protected time for training.

Topics covered:

Hypertensive Bleed, Thrombolysis, Thrombectomy, Hypoperfusion event, Capsular Warning Syndrome, TIA, FAST with no emergency intervention and Stroke Mimic.

Results:

Overall Nurses attendance = 94% (n=29/31)

Attended 3 sessions = 41% (n=12/29)

Attended 4 or more sessions = 17% (n=5/29)

HCA attendance = 73% (n=8/11)

Some of the participant's first experience of seeing a FAST call. Role definition, delegation and clear communication in escalating care was evident at the end of the training. Using the word "FAST positive" to escalate medical emergency. Importance of onset time was demonstrated.

Conclusion:

Simulation Stroke Training improved communication, team work and role definition in a FAST call, promoting optimum patient outcomes. Monthly Simulation training will be implemented to maintain practice.

Reference:

Moslehi S., Masoumi G. & Barghi-Shirazi F. (2022) "Benefits of simulation-based education in hospital emergency departments: A systematic review," Journal of Education and Health Promotion, 11(1) p40-50.

Swallow Screening in SUH Acute Stroke Service

Introduction:

The Irish National Audit of Stroke (2021) found that 68% of patients with a stroke received a swallow screen and 43% had it completed within 4 hours of admission. These figures are below the Key Quality Indicator metric of 100% for both targets set by INAS. Recommendations from the National Clinical Programme for Stroke recommend a QI project to improve swallow screening rates.

Methods:

From HIPE (Hospital In Patient Enquiry) data, the KQI for swallow screening in all stroke patients in Sligo University Hospital (SUH) for the same period stood at 86% compliance. The KQI for swallow screening within 4 hours of arrival at hospital was at 33% compliance.
A QI project commenced in June 2023 on the acute stroke unit in SUH and was completed in Oct 2023.

The aim for the QI project was to achieve 100% compliance in KQI for all stroke patients receiving a swallow screen in SUH.

Met with leads of the National Clinical Programme for Stroke and completed process mapping and discussed our QI method to be used.
The plan, do, study, act (PDSA) process was used to implement QI.

Results:

Cycle 1 and Cycle 2 achieved 100% compliance for swallow screening; all stroke patients admitted to SUH in this period receiving swallow screen assessment.

Conclusion:

Main reasons for the success of our QI project:

Effective teamwork and communication skills within the team.

High numbers of nursing staff trained in swallow screening on the acute stroke unit.

Daily reminders at the safety pause on the acute stroke unit.

Changing the colour of the page we used as our swallow screening tool
Action

References:

National Office of Clinical Audit. Irish National Audit of Stroke Organisational Audit Report 2021: Appendices. Dublin: National Office of Clinical Audit; 2022. Available from: https://www.noca.ie/publications

The Adaptive Physical Activity Study for the Secondary Prevention of Stroke (TAPAS)

Introduction: Participation in physical activity (PA) is a cornerstone of secondary prevention post-stroke. PA interventions that are adaptive to individual performance are recommended. This is the first study to use a Sequential Multiple-Assignment Randomized Trial (SMART) to design a personalised PA intervention post-stroke.

Methods: This SMART is in progress, with data collection ending in November 2024. A 12-week theory- and evidence-based mHealth intervention was developed to increase participation in Structured Exercise and Lifestyle PA, or a combination of both. Six weeks post-randomisation, participants were classified as responders or non-responders according to step count. Non-responders were re-randomised to an alternative intervention. Primary outcomes included feasibility (recruitment, retention, adherence rates). Secondary outcomes included daily steps over 7-days, sedentary behaviour, fatigue, quality of life, depression, anxiety, activities of daily living, stroke recurrence and adverse effects.

Results: Preliminary analysis will be presented. Fifty participants were recruited over five months, with mean age of 51.84 (15.12) years, 56% were male and stroke type was predominantly ischaemic (44%). Baseline mean weekly step count of 7064 (SD: 3797), Fatigue Severity Scale score of 38.02 (SD: 14.60), and Stroke-Specific QoL Scale scores of 155.04 (SD: 58.84). The mean Hospital Anxiety and Depression Scale score was 12.33 (SD: 6.98), while the Reintegration into Normal Living Index averaged 73.08 (SD: 29.74). EQ-5D-5L mean score was 72.50 (SD: 27.64). Sedentary behaviour weekday and weekend averages consisted of 7.51 hours (SD: 3.76) and 6.06 hours (SD: 3.05). There were six falls and four recurrent strokes during the SMART.

Conclusion: The urgent issue of recurrent stroke needs to be tackled and the findings of this novel trial will provide first-in-class empirical information on the delivery of a personalised PA intervention delivered via mHealth for people post-stroke.

Ethics: Ethical approval has been granted by the Health Service Executive Mid-Western Ethics Committee (REC Ref: 026/2022).

Introduction: Strong research exists to support the role of vestibular rehabilitation (VR) in treating conditions such as BPPV. However, the benefit of VR for central conditions, such as stroke, remains unclear due to limited research. The NRH out-patient service provides VR for peripheral and central causes of dizziness, including stroke.

Aim: To investigate if VR can provide positive outcomes for stroke patients.

Methods: A prospective audit was carried out on NRH vestibular out-patient attendees between September'23 and June'24. Statistical analysis was completed using STATA v18.

Results: Data was collated for a total of 47 patients who received treatment, six of whom received VR primarily due to their stroke (ischaemic or haemorrhagic). Stroke patients received between 5 and 8 appointments (Mean=6.5, SD=1.05).

An analysis of pre- and post-VR outcome measures was completed to assess the impact of VR for people with stroke. As data was normally distributed, paired t-tests were performed on three outcome measures: the Dizziness Handicap Inventory (DHI), the Functional Gait Assessment (FGA) and the modified Clinical Test of Sensory Interaction on Balance (mCTSIB).

A paired t-test demonstrated statistically significant improvements (from a sample of 5 stroke patients) in participants' DHI scores (Mean=27.6 points, 95% CI: 13.84, 41.36) ($t(4)=5.57$, $p=0.0051$).

The paired t-test again demonstrated a statistically significant improvement in six observations of FGA scores pre- and post- VR. The mean change was -9.67 (95% CI= -16.46, -2.88) ($t(5)=-3.66$, $p=0.0146$).

Although mCTSIB scores demonstrated a mean improvement of -17.33 (95% CI= -37.89, 3.22), this finding was not statistically significant ($t(5)=-2.17$; $p=0.0825$).

Conclusion: This audit demonstrates the potential positive impact VR can have for patients with chronic dizziness post stroke. Further high-quality research is required to determine the benefit of VR for central causes of dizziness, such as stroke.

Ethics: Ethical exemption was granted by the NRH Ethics Committee.

Title:

THE EMERGING ROLE OF A STROKE CLINICAL NURSE SPECIALIST IN EARLY SUPPORTED DISCHARGE: A SURVEY OF IRISH STROKE CLINICAL NURSE SPECIALISTS AND ADVANCED NURSE PRACTITIONERS.

Authors:

Sarah-Jane Byrne[1], David J Williams[1,2], Declan Patton[3], Frances Horgan[5].

[1] Department of Geriatric and Stroke Medicine, Beaumont Hospital, Dublin 9.

[2] Department of Geriatric and Stroke Medicine, RCSI University of Medicine and Health Sciences

[3] RCSI, School of Nursing and Midwifery, RCSI University of Medicine and Health Sciences, Dublin, Ireland

[4]RCSI School of Physiotherapy, RCSI University of Medicine and Health Sciences, Dublin 2, DO2 YN77, Ireland

Abstract

Introduction:

Early Supported Discharge (ESD) improves patient recovery after stroke and reduces recurrent admission. The clinical nurse specialist (CNS) in early supported discharge helps to reduce post-discharge challenges for patients and supports treatment compliance for secondary prevention, however the ESD CNS role is not well described in the literature. The aim was to describe the current role of stroke CNSs and stroke advanced nurse practitioners (ANPs) in Ireland to identify what elements of their role are transferable to the stroke CNS in an ESD model of care.

Methods:

A survey was delivered to the current stroke CNS and ANP's in Ireland exploring their current practice in three areas of stroke care, (i) secondary prevention at first patient contact in hospital, (ii) secondary prevention on discharge from hospital, and (iii) secondary prevention in early supported discharge.

Results:

There was a 50% response rate of 17 CNSs and 3 ANPs. Ongoing community care regarding education on secondary prevention and medication compliance was reported as ‘desperately needed’ with 70% reporting follow up from the ESD CNS via phone-call or house visit on discharge would benefit all stroke patients. It was reported that there is a need for more emphasis on secondary stroke prevention post-discharge as sometimes the patient is not in the correct frame of mind to take on board information provided as an inpatient.

Conclusion:

A CNS in a community role as part of an already established ESD team would be beneficial to both inpatient colleagues and the stroke patient population for continuity of care following discharge from hospital. There is growing recognition that patients’ needs post-stroke go beyond their brief inpatient hospital care. Patients are in a better frame of mind to discuss secondary prevention behaviours such as; smoking cessation, alcohol cessation, stress, nutrition, medication compliance, blood pressure management.

Ethics:

RCSI Ethics Application submitted and approved. REC202303018.

Title: National Stroke Programme Nutrition and Hydration Policy Audit 2024

Authors: Emma Kennedy, Clinical Specialist Stroke Dietitian, Aoife Dooley, Dietitian, Dept of Nutrition & Dietetics, Beaumont Hospital

Objectives The National Stroke Programme Nutrition & Hydration Policy recommends that all stroke centres complete the Nutrition & Hydration Policy Audit annually. The data collected helps provide information on compliance with best practice recommendations in relation to nutrition in the Beaumont Hospital Stroke service. The information gathered helps focus dietetic training needs in the stroke service and helps to assess changes in practice in the past year. This is the third year this audit has been completed.

Methodology Data was collected commencing on 20th July on patients admitted under the stroke teams in Beaumont Hospital. Data was collected proforma using healthcare records. A dietitian gathered data available in the medical and nursing notes in order to complete the audit. The National Stroke Programme Nutrition and Hydration Policy audit tool (2019) comprises of 11 questions (See Appendix 1). The proposed sample size was 30-50. An audit size of 40 was obtained. This data was analysed to compare our service with national guidelines and to compare our data with our previous years' results.

Findings

A swallow screen was completed with 4 hours of admission for 88% of the sample (n=35). Nutritional screening was completed within 24 hours in 98% of patients audited. The accuracy of this nutritional screening was 55% with an under recognition of those at moderate to high risk of malnutrition. Sixty eight percent of the sample were assessed by dietetics. Those requiring a texture modified diet were the least likely to be referred but have a higher risk of malnutrition. A total of 45% of the sample required enteral feeding with 77% of that sample starting within 24-48 hours. The out of hours enteral feeding policy was used in 77% of cases allowing for early nutrition. A nasal bridle was used in 17% of cases (n=3). The findings from 2024 were compared to previous results from 2023 and 2022.

Recommendations

- A dietitian led MUST training focusing on accurate weight and height measurements as well as accurate MUST scores to focus dietetic intervention going forward.
- Ongoing liaison with the SLT department regarding the improved outcomes of the audit pertaining to the swallow screening implementation rate.

- Ongoing education to encourage referral to dietetics for the management of nutritional status and to prevent malnutrition.
- Development of audit focusing on enteral feeding practices on the stroke unit to improve patient care.
- This audit will be completed annually.

References

National Stroke Programme Nutrition Group (2019) Recommendations for the Management of Nutrition and Hydration in Patients with Stroke – A Guidance Document .

Title: Identifying the priorities to be addressed in life after stroke by stroke survivors; The CLASP (Co-designing a Life after stroke Pathway) project

Background: Over 5,500 adults were admitted to acute hospitals following stroke in 2020, 71% of whom were discharged home with a documented disability. Currently, ~80% of stroke survivors are discharged home. The Stroke Action Plan for Europe highlights the need to develop a life after stroke pathway.

Aim: The aim of this survey was to identify the priorities to be addressed in life after stroke from the perspective of people living with stroke. The survey is part of a wider project, the Co designing Life After Stroke support Pathways (CLASP).

Methods: A cross-sectional survey of people living with stroke was conducted between July and September 2024. The survey was hosted on REDCAP. The national stroke charity and support organisations acted as gatekeepers and shared details of the survey with members. The study received ethics approval from the university.

Results: There were 103 responses. The average age was 59 years (range 23-89), 52% of respondents were male, 65% married, and 32% lived in a rural setting. 63% reported ongoing issues with walking, balance 64%, fatigue 69%, concentration 55% and driving 51%. They identified gaps in life after stroke supports including: mental health and counselling, access to psychology, more information about what supports are available after discharge, greater access to social workers and a stroke coordinator, help with signposting and navigating, services and community supports, more information on entitlements after stroke, access to supported self-management, peer support, vocational support and transportation.

Discussion: There was a low response to the survey. The findings highlight ongoing unmet needs in life after stroke from the perspective of people living with stroke in Ireland. The CLASP project will address rehabilitation needs and unmet needs as identified by stroke patients and healthcare professionals to inform the co-design of a pathway for life after stroke in the community.

Weight supported feedback canes for improving motor function and walking ability post stroke：A systematic review and meta-analysis

Rufeina Aerken[1], Patrick Broderick[1]

[1]Neuroplasticity Research Group, School of Business and Social Sciences, Atlantic Technological University, Sligo, Ireland

Abstract

Introduction: Weight supported feedback canes (WSFC) have been investigated as an effective aid to promote early independent walking post-stroke, addressing the issue of excessive cane reliance, which can reduce weight bearing, muscle activation on the affected side and impede symmetrical gait recovery.[1-2] The aim of this systematic review and meta-analysis was to evaluate whether gait training with a WSFC is more effective than conventional canes in improving walking velocity, single limb support on the affected side, gluteus medius activation, and peak vertical force during stroke rehabilitation.

Methods： This systematic review and meta-analysis (MA) was reported according to the PRISMA 2020 statement. PubMed, Web of science and CINAHL were searched for relevant published literature. Standardised mean differences (SMD) were used to assess the effect of WSFC on stroke survivors.

Results: Three studies were included in the review. This MA showed a significant effect of WSFC in peak vertical force on the cane (P = 0.02; SMD = -0.79; 95% CI: -1.43, -0.15) and revealed non-significant effects of WSFC in walking velocity (P = 0.93; SMD = 0.02; 95% CI: -0.53, 0.58), affected side single limb support phase (P = 0.32; SMD = 0.47; 95% CI: -0.46, 1.4). and gluteus medius muscle activation (P = 0.15; SMD = 0.41, 95% CI: -0.15, 0.97).

Conclusion: The application of WSFC for gait training following a stroke has been shown to have a significant positive impact on reducing cane dependency. However, more research is required to address the current limited evidence base for WSFC in stroke rehabilitation and results should be interpreted with caution.

References

1. Kang YS, Oh GB, Cho KH. Walking Training with a Weight Support Feedback Cane Improves Lower Limb Muscle Activity and Gait Ability in Patients with Chronic Stroke: A Randomized Controlled Trial. Med Sci Monit. 2021 May 30;27:e931565.

2. Boonsinsukh R, Panichareon L, Saengsirisuwan V, Phansuwan-Pujito P. Clinical identification for the use of light touch cues with a cane in gait rehabilitation poststroke. Top Stroke Rehabil. 2011 Oct;18 Suppl 1:633–42.

Title of Presentation: "The five weeks just broadens your life": Preliminary qualitative findings of a process evaluation of intervention acceptability for post-stroke cognitive impairment

Presenter: Mairéad Murray

Presenter contact email: murraymairead@rcsi.ie

Authors/Project Team: Mairéad Murray[1], Jane McGlinchey[1], Megan Oglesby[1], Catherine N. Moran[1], Niall Pender[2], Kathleen Bennett[3], Frances Horgan[4], David Williams[5,6], and Anne Hickey[1]

Authors Affiliations:

1. Dept. of Health Psychology, RCSI, Dublin.
2. Dept. Psychology, Beaumont Hospital, Dublin.
3. School of Population Health Sciences, RCSI, Dublin.
4. School of Physiotherapy, RCSI, Dublin.
5. Dept. of Geriatric and Stroke Medicine, Beaumont Hospital, Dublin.
6. Dept. of Geriatric and Stroke Medicine, RCSI, Dublin.

Structured Abstract (300 Words)

Introduction: Post-stroke cognitive impairment (PSCI) is a common consequence of stroke that significantly affects quality of life for patients and their families. The StrokeCog-R pilot study is investigating the feasibility and acceptability of a novel cognitive rehabilitation intervention for stroke survivors with mild-moderate PSCI. Developed in accordance with the Medical Research Council (MRC) framework for developing and evaluating complex interventions, the StrokeCog-R intervention is a series of five weekly group sessions that teach participants strategies to manage changes in cognition, fatigue, and psychological wellbeing, together with personalised home activities to practice strategies, and weekly supportive calls and text messages. The research question that guided this analysis was to determine the acceptability of the StrokeCog-R intervention to stroke survivors with mild-moderate PSCI. This analysis forms part of the complex intervention process evaluation per MRC guidelines. A full analysis will occur at the end of the pilot.

Methods: Researchers conducted semi-structured, in-person focus groups with participants who had completed the StrokeCog-R intervention (*n*= 6). If participants could not attend focus groups, individual semi-structured telephone interviews took place instead. Thematic analysis was used to analyse the resulting data.

Results: Initial predominant themes that have been generated highlight reactions to the intervention, as follows: 1) learning how to manage fatigue; 2) empowerment through learning about stroke and its consequences; 3) the experience of improved symptoms from practicing cognitive strategies; and 4) the intrinsic value of the intervention's in-person, group format.

Conclusion: Preliminary analysis of this process evaluation suggests that stroke survivors with mild-moderate cognitive impairment find the StrokeCog-R intervention acceptable and beneficial. This study will provide evidence to potentially progress to a future definitive trial.

References: -

Ethics: This study received ethical approval No. 23/14 from the Beaumont Hospital Medical Research Ethics Committee on the 20th of June 2023.

Authors Index