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ENHANCING THE QUALITY OF STROKE CARE IN IRELAND – DEVELOPMENT OF AN ACUTE STROKE CARE DATASET FOR THE IRISH NATIONAL STROKE AUDIT

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Introduction

Impact of Stroke

- Stroke is the 3rd leading cause of death in Ireland and Western Europe, a leading cause of severe, adult-onset acquired disability, and a major contributor to cognitive decline and dementia¹
- Impact on physical, cognitive, psychological, and social outcomes for the stroke survivor
- Wider impact on families/support systems, and health system resources (accounting for 4% of the Irish Health System Executive's annual health expenditure)²
- Stroke represents a major health challenge in Ireland
 - ~ 5,800 adults admitted to hospitals with an acute stroke in 2020³
 - ~ 30,000 – 45,000 stroke survivors in the community or nursing homes⁴

Quality of Care in Stroke

- Treatment advances -> improved survival -> more people needing post-stroke care.⁵
- Variations in outcomes depend on the quality of care received which can differ between hospitals.
- Need for continual review of stroke healthcare services to evaluate whether evidence-based practice is being delivered in a high quality and equitable manner in the short and longer term after stroke.

Audit of Stroke Care

National Clinical audit: “a cyclical process that aims to improve patient care and outcomes by systematic, structured review and evaluation of clinical care against explicit clinical standards on a national basis”⁶

Value of Stroke Audits

- Provision of continuous, high-quality, representative population-based data
- Stimulus for service delivery improvement
- Identify processes associated with better outcomes.⁷
- Drive policy change
- Assess efficacy of preventative strategies
- Address gaps in care at local and national levels

Challenges of Stroke Audits

- Heterogeneity of data collected internationally
- Difficult to maintain registries alongside evolving stroke therapies & changing models of care
- Predominant focus on acute phase of care
- Lack of international systematic recording of patient-reported outcome measures (PROMS)

The Irish Context

- A national stroke register for Ireland was developed in 2010-2011. In 2019, this register was taken over by the National Office of Clinical Audit (NOCA), and developed into **Irish National Audit of Stroke (INAS)**

Aims & Objectives

To develop an internationally benchmarked core minimum dataset for audit of stroke care in Ireland:

- Incorporates structure, process, care quality, and outcomes (including PROMs) across the continuum of the full patient journey
- Developed in line with best practice standards and local priorities and created collaboratively through stakeholder engagement



Design & Methodology

Research Design

Phase 1: Core minimum dataset for acute stroke care audit
Phase 2: Audit of stroke rehabilitation, recovery, & PROMS
Phase 3: Data collection procedures and resourcing for audit

Methodology

Phase 1: Acute Stroke Care

- Scoping review of international stroke audits and guidelines to identify stroke audits/registries with national coverage and continuous data collection.
- Generate inventory of existing Irish audit items, recommended items, and internationally collected items.
- Data charting to compare Irish core clinical and thrombectomy items against international registries to identify commonalities and/or gaps in coverage.
- Two-round Delphi-consensus process with stakeholders to finalise the acute care outcomes dataset.

Phase 2: Recovery and Rehabilitation

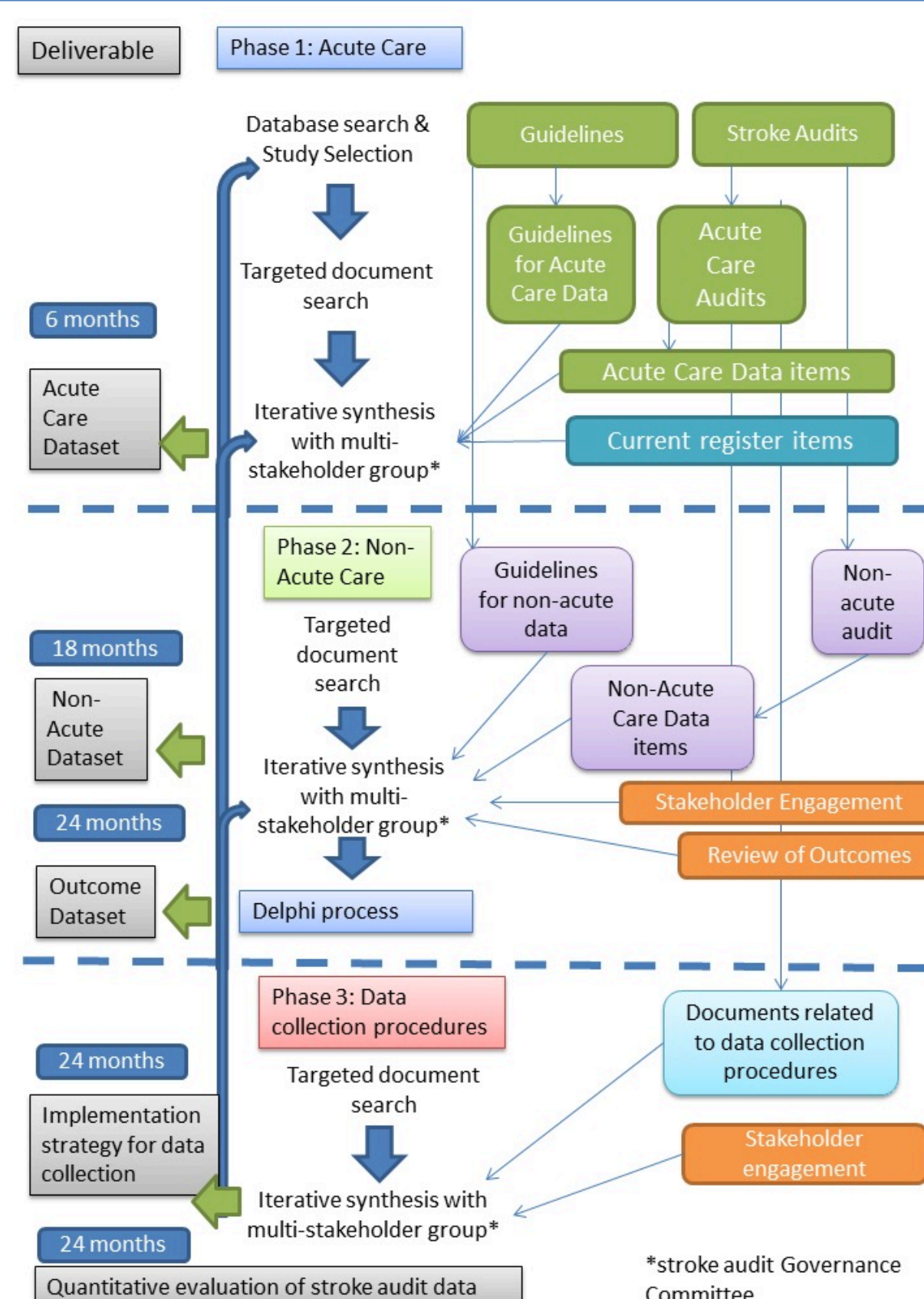
- Inventory of existing and recommended data items included in non-acute care stroke audit datasets internationally, based on scoping review and qualitative interviews with key stakeholders
- Systematic reviews of (a) PROMs in stroke and (b) reliability of proxy-reported outcome measures in stroke
- Delphi-consensus with stakeholders for non-acute dataset

Phase 3: Resourcing & Data Collection Procedures

- Scoping review of international resourcing and data collection procedures for stroke audits.
- Stakeholder engagement in Ireland to investigate the feasibility of implementing the audit based on current resources and capacity.
- Produce implementation strategy for data collection within Irish healthcare context.



Figure 1: Overview of research methodology and deliverables



Results

Phase 1: Acute Stroke Care - Progress To Date

Inventory of Acute Stroke Care Items

- Scoping review protocol published⁸
- 21 eligible international stroke audits/registries identified that collect data continuously on a national level
- Inventory of Irish acute stroke care items & international items with frequency counts detailing how many audits collect each item
 - 97 Irish acute stroke care items
 - 103/4358 international items collected by ≥ 4 international audits/registries

Delphi Consultation with Stakeholders

- Healthcare professionals, national and international collaborators, patient representatives, and knowledge users were consulted for their expert perspectives on the 200 items to determine the worthiness and appropriateness of their inclusion in INAS.
- For each item, stakeholders selected:
 - “Include in INAS”, “Exclude from INAS”, “No strong view” or “Don’t know enough to be able to say”
- Delphi Round 1 : **80% response rate**
- Delphi Round 2 : Responding stakeholders asked to review their previous item responses alongside the aggregated group results and asked to consider whether they would like to keep their original response or change response.
- 60% of stakeholders** responded to change some responses
- Results of both rounds of this Delphi process are currently being aggregated and analysed.

Next Steps (in progress)

- Report the aggregated results at the next stakeholder meeting, review each item and qualitative comments.
- Through collaborative engagement, seek final consensus on the core minimum acute stroke dataset for INAS.

Discussion

Potential Impact for Patients, Practice, & Policy

- The resulting minimum datasets will be the “gold standard” for evaluating stroke care in Ireland
- Resulting datasets may facilitate prospective data collection of high quality and rich data that can be used to:
 - Review unmet needs and improve patient outcomes
 - Assess accessibility and equity of services in urban or remote settings
 - Analysed in research trials to further understand the lived experience and PROMs of stroke survivors post-acute care - an area lacking in continuous, systematically collected data
 - Inform future policy decisions and quality improvement initiatives at local and national levels

➤ Overall, this project hopes to place health outcomes at the very heart of healthcare decision planning & operation

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