Evaluation of Stroke Programme

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Public Health Lead Stroke Programme
Project Team

- Prof. Peter Kelly Joint Clinical Lead
- Dr. Joe Harbison Joint Clinical Lead,
- Carmel Brennan Project Manager
- Kate Kennedy Workforce Planner
- Imelda Noone CNS/ ANP Stroke
- Anne Burke Physiotherapy
- Una Cunningham Speech & Language Therapy
- Dr. Breda Smyth Public Health, Atrial Fibrillation
- Dr. Emer Shelley Information, evidence
OUTLINE

• Context
• Summary of Stroke Programme and draft performance measures
• Comments re evaluation in context of seminar
Terms and Conditions Apply!

Stroke Programme content, targets and performance indicators have not been finally agreed between Clinical Leads for Stroke (Prof. Peter Kelly & Dr. Joe Harbison) and DQCC & stakeholders.

Comments re evaluation, design etc are personal.
Context of Stroke & Chronic Disease Programmes

Main drivers for focus on chronic diseases and on quality ........
Population projection Ireland 2021 aged 45 and older (thousands, M1F1 migration and fertility rates)

Cardiovascular Health Policy Group (2010).
Stroke mortality has decreased for several decades. Remains similar to EU 15.
In 1980, half of all deaths in Ireland and the UK were due to cardiovascular disease (CVD).

By 2009, 34% of all deaths in Ireland were due to CVD.

Longer life expectancy, higher prevalence of chronic diseases, co-morbidities.
Concerns also about access, quality and cost of health care in Ireland
Rehabilitation policy in preparation
Response

Service planning

Performance monitoring

Codes of practice
Restructuring of HSE
3. What are the clinical programs & initiatives?

1. Chronic disease management programs
   - Stroke
   - Acute coronary syndrome
   - Heart failure
   - Asthma/COPD
   - Diabetes
   - Epilepsy
   - Mental health

2. Outpatient management programs
   - Dermatology
   - Neurology
   - Rheumatology
   - Orthopaedics

3. Emergency function related programs
   - Acute Medicine
   - Elective surgery
   - Diagnostic Imaging
   - Care of the elderly

4. Key Quality Safety and Risk initiatives
   - Governance
   - Underperforming clinician process
   - Patient safety bundles
   - Incident reporting
   - Audit

5. Other Clinical program areas
   - Obstetrics
   - Paediatrics
   - ICU
   - HCAI
   - Primary care
   - Neurehab

6. Enabling programmes
   - Development of a resource allocation model
   - Pharma strategy
   - Implementation of Clinical Directorates
   - Defining a standard approach to delivering change
Objectives
Acute Medicine Programme

Quality: admission rates of medical patients

Access: medical patients seen by senior medical doctor within 1 hour

Cost: Medical bed day savings

Acute Floor Data Manager To support clinical audit within acute medicine and related specialities
3 domains Audit Acute Medicine: structure, process & outcome

- **Structural audit**: annual survey by questionnaire
- **Procedural audit**: carried out by lead physician
- **Outcome audit**: suite of indicators (quality, access, cost) will be collected by Casemix & Business Information Unit - annual, national & local
Conclusion re Broad Context of Stroke Programme

• A lot has happened in recent years which provides supportive environment for development of Stroke Programme

• Parallel developments in other organisations (HIQA, IHF) as well as in HSE have implications for planning and evaluation of the Stroke Programme
Context Specific to Stroke

INASC (2008): 6 separate studies provided evidence of inadequacies in service structures and in implementation of evidence-based care in hospital and community.
Includes stroke as well as cardiac services

Recommendations across the spectrum from health promotion, to health care settings and health information
National Guidelines for the Care of Patients with Stroke & Transient Ischaemic Attack

• Under auspices of Council on Stroke of Irish Heart Foundation
• Version 2, March 2010
• On IHF website
  http://www.irishheart.ie/iopen24/stroke-council-t-13_396_398.html
MANIFESTO POINT 3
WE CALL ON THE GOVERNMENT TO ENSURE THAT EVERY HOSPITAL ADMITTING PATIENTS WITH ACUTE STROKE HAS A PROPERLY STAFFED AND FULLY RESOURCED STROKE UNIT.

MANIFESTO POINT 8
WE CALL ON THE GOVERNMENT TO PROVIDE CONSULTANT-LED RAPID ACCESS TIA CLINICS ON A REGIONAL BASIS THAT ARE OPEN SEVEN DAYS A WEEK.
FACE
HAS THEIR FACE FALLEN ON ONE SIDE?
CAN THEY SMILE?

ARMS
CAN THEY RAISE BOTH ARMS AND
KEEP THEM THERE?

SPEECH
IS THEIR SPEECH SLURRED?

TIME TO CALL 999
IF YOU SEE ANY SINGLE
ONE OF THESE SIGNS

WHEN STROKE STRIKES, ACT F.A.S.T.
## Stroke Programme Team, Working Group and Advisory Group

<table>
<thead>
<tr>
<th>Core Project Team</th>
<th>Responsibility</th>
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<tbody>
<tr>
<td>Professor Peter Kelly</td>
<td>Joint Clinical Lead, Consultant Stroke Neurologist</td>
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<td>Dr. Joe Harbison</td>
<td>Joint Clinical Lead, Consultant Stroke Physician &amp; Geriatrician</td>
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<td>Dr. Emer Shelley</td>
<td>Public Health Lead, Specialist in Public Health Medicine</td>
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<td>Carmel Brennan</td>
<td>Project Manager, Project Specialist</td>
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<td>Kate Kennedy</td>
<td>Nurse Service Planner, NM Planning &amp; Dev Officer</td>
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<td>QCCD providing</td>
<td>Clerical Support</td>
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<td>Imelda Noone</td>
<td>CNS/ ANP Stroke, ANP Stroke St. Vincents Hospital</td>
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<td>Anne Burke (TBC)</td>
<td>Physiotherapy, Physiotherapy, Mealth Local Health Area</td>
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<td>Public Health, Lead on Atrial Fibrillation</td>
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### Working Group (including core project team)

#### Chair Working Group
Dr. Ronan Collins, Director of Stroke Service, Consultant Physician in Older Adult & Stroke Medicine, AMNCH Tallaght

#### Dublin/Mid Leinster Clinical Regional Lead
Dr. Dominic McCabe, Neurologist, AMNCH
Dr. Morgan Crowe, Geriatrician, St. Vincents Hospital/Dr. Rachel Doyle, Geriatrician, Loughlinstown Hospital

#### Dublin North East Clinical Regional Lead
Professor David Williams, Geriatrician, Beaumont
Dr. Olwyn Lynch, Geriatrician, Dundalk,

#### West Clinical Regional Lead
Dr. Peter Boers, Neurologist, Mid West Regional Hospital Limerick
Dr. Paula Hickey, Geriatrician, Sligo

#### South Clinical Regional Lead
Dr. Brian Sweeney, Neurologist, CUH Cork
Dr. Ruairí McGovern, Geriatrician, St. Lukes Hospital Kilkenny

### Working Group

- Occupational Therapy Under discussion with Emma Benton (ONSD)
- Director of Nursing ONSD to nominate (under discussion)
- ICGP representative Under discussion with Joe Clarke
- Patient Advocate Under discussion with Mary Culliton, Consumer Affairs
- Stroke Council/Irish Heart Foundation 3 representatives - Representative Neuro. Rehab/OT/Social Work/Dietician
- Vascular Surgeons Representative from Irish Society of Vascular Surgeon
- Neurosurgeon Peter Kelly to confirm

### Links with/’Go to person’

- Communications
  Carmel Cullen, Communications Manager, QCCD

- Business/Financial support
  Maeve Raeside, Business Manager, QCCD

- Reconfiguration
  Fionnula Duffy, AND, Planning & Development
  Acute Services, ISD/Reconfiguration

- IT: To be decided

- Other CV programmes:
  New project team appointee
Aims of the Stroke Programme (2010-2012)

• National rapid access to best-quality stroke services

• Prevent 1 stroke every day

• Avoid death or dependence in 1 patient every day
Components of the Stroke Programme

- Governance
- Prevention - Atrial Fibrillation
- Prevention - TIA/Carotid
- Emergency Stroke Care
- Acute Stroke Unit Care
- Stroke Care in the Community
- Stroke Register

Project Plan will describe scope and targets for each action area
Sources of data (& potential sources) re stroke and service performance

- CSO – demographics and mortality stats
- HIPE
- Survey (annual, structure and process)

Additional patient data:
- Chart insert (specific diagnosis, time to Rx)
- HIPE portal
- Retrospective audit
1. Clinical Governance

Scope:

Improvement of organisation and co-ordination of stroke care within and between hospitals and with community.

Targets:

• Development of stroke networks
• Identification of local individuals responsible for stroke care.
Performance Measures

1. Local Stroke Groups established in at least 75% (24) of acute hospitals by end 2010

2. At least 75% (24) of acute hospitals affiliated to a Stroke Network by end March 2011
2. Prevention: TIAs

Scope:
Reduce the number of patients with TIAs suffering further strokes and reduce unnecessary hospital stays for TIA patients

Targets:
• Development of mechanism for identifying, investigating and treating TIAs in all regions
Performance Measures

Primary indicators:
- Time from presentation to specialist evaluation less than 48 hours in at least 50% of patients
- Reduce average length of stay for TIA by 1 day (to 4.5 days)

Secondary indicators:
- Reduce TIA admissions by 15% (360 admissions avoided)
- Implement Care Pathways
Targets and Performance Measures also for Carotid stenosis

To be discussed with Vascular Surgeons

Suggested Primary Indicator:

For patients undergoing CEA, goal time to CEA within 2 weeks of symptom onset

Other indicators:

- Improve carotid imaging rates
- Improve time to carotid imaging
- For carotid stenosis patients with non-disabling stroke/TIA, goal time to vascular surgery unit referral within 1 week of symptom onset
4. Emergency treatment

Scope:

Improvement in care of patients from stroke onset to admission to hospital stroke unit

Targets:

• National 24/7 access to safe stroke thrombolysis
• Increase thrombolysis from <1% to 7.5% of ischaemic strokes
• Delivery of standard care pathways for emergency management
Performance measures

Primary indicators
• In-hospital mortality
• Post-thrombolysis intracerebral haemorrhage

Secondary indicators
• Door to needle time
• Non-stroke thrombolysed
• Care pathways
• Thrombolysis available in all hospitals admitting acute stroke patients
5. Acute & Rehabilitation

Scope:
Improvement in care of patients from admission to discharge

Targets:
• Development of ASUs in all hospitals admitting acute strokes
• Availability Acute Stroke Unit care for all patients admitted with stroke
• Increase ASU admission from 3% at baseline
• Delivery of standard care pathways for management
• Identification of specific Rehab facilities for stroke patients
Performance measures

Primary indicators:
• Stroke unit in all hospitals admitting patients with acute stroke
• 50% of acute stroke patients to spend at least 50% of hospital stay in stroke unit

Secondary indicators
• Care pathways
• Stroke unit Q score
National Performance Indicator Set: Acute Stroke Unit Care

• **Definition** Care of patients with acute stroke in an acute, combined (acute and rehabilitation) or rehabilitation stroke unit with sufficient beds to admit all cases requiring acute care or rehabilitation, a designated clinical lead and a multidisciplinary team, providing integrated care.

• **Calculation:** Bi-annual survey of Stroke Networks and Hospitals Number of Model 4, 3 and 2 hospitals providing care in an acute, combined or rehabilitation stroke unit / Total number of Model 4, 3 and 2 hospitals providing the service
National Performance Indicator Set:
Implementation of protocols for the care of patients with stroke and TIA

• Implementation of clinical protocols for the care of patients with acute stroke: emergency services, acute care including thrombolysis, multidisciplinary assessment and rehabilitation.

• Implementation of protocol for rapid access assessment and treatment of patients with TIA
Hospital Emergency Stroke Services (HESS) Survey

June 2010
Hospitals that thrombolyse and also have an acute or combined acute and rehabilitation stroke unit (n=15)
Profession Specific Stroke Audit for Workforce Planning

Medical
Nursing
Physio
OT
SLT
Nutrition & dietetics Social Work Psychology

- Staffing levels dedicated to stroke
- Vacant posts
- Stroke in-service training
- Early Supported Discharge scheme
- Information on prevention of stroke recurrence to patients and carers.
Context of Evaluation of Stroke Programme

- HSE Corporate Plan
- HSE Service Plan
- “Routine” data sources and information systems, e.g. Vital Statistics, HIPE
- HSE reporting systems – KPIs, Healthstat
• Programme Evaluation
• Address topic from perspective of seminar
• For Stroke Programme, can’t separate evaluation from planning and monitoring

Classic Planning Cycle
Planning: Implications of Demographic and Epidemiologic Transitions

• For projections of N of cases (and required resources), important to model scenarios
• Include in model the impact of other Programmes, e.g.
  Acute Coronary Syndromes, Heart Failure
  Diabetes
Evaluation of Health Promotion, Health Education, and Disease Prevention Programs

Second Edition

Richard Windsor
Tom Baranowski
Noreen Clark
Gary Cutter
Programme Evaluation

• **Formative** – informs planning (including at baseline) and provides base for evaluation

• **Structure** – how systems and resources change

• **Process** – Changes from baseline onwards, how services delivered

• **Impact** – What was different at end of programme
Evaluation, Planning, Monitoring

Formative (includes baseline structure and process)

Structure, Process

Plan

Implement

Feedback

Monitor

Summative (interim) and Programme evaluation
Formative Evaluation of Stroke Programme

- Irish National Audit of Stroke Care (2007)
- North Dublin Population Stroke Survey
- Cardiovascular Policy
- IHF Guidelines

- Analysis of HIPE data
- Hospital Emergency Services Survey
- Workforce Planning Survey
Structure and Process

- Now identifying primary and secondary indicators for Phase 1 of Stroke Programme
- Defining those indicators and planning how they will be collected
- Consulting with stakeholders
General Comments re Evaluation

• Priority is to agree purpose of the evaluation

• Incorporate evaluation from the outset

• Resources allocated to evaluation should be in proportion to services being assessed
Stroke Programme Evaluation

- Overall, the aim of evaluation is to compare services and patient outcomes between 2010 and 2012 in first instance
- Ditto 2010 to 2019
- Current focus to describe baseline scenario re services (structures and processes)
- Where possible to collect patient level data to verify processes of care and get some measures of outcome
Re Seminar Discussion

A lot happening besides the Programme, so
should be able to
1. accurately describe changes in
structures and institutional processes
2. estimate changes in patient care and
outcomes, but
3. won’t be able to attribute changes to the
Programme
• There will be plenty of scope for research,
which can feed into planning and
implementation