#### **IRISH NATIONAL AUDIT OF STROKE**

A critical review of national stroke data for Ireland from 2013 to 2021



### NCCA National Office of Clinical Audit

### IRISH NATIONAL AUDIT OF STROKE A critical review of national stroke data for Ireland from 2013 to 2021

'Has anything happened?'

## 31<sup>st</sup>January 2023

Tweet us at

@noca irl



## **CELEBRATING OVER 10 YEARS OF STROKE DATA**



Prof Joe Harbison

Carmel Brennan Paul Marsden Phil Dunne **Prof Emer Shelley** 











INAS Irish National Audit of Stroke



## **EVOLUTION OF STROKE DATA**





## THE IRISH NATIONAL AUDIT OF STROKE



Joan McCormack Cardiovascular Audit Manager



Olga Brych Data Analyst



Claire Prendergast HSCP Representative INAS Governance Committee



Dr Tim Cassidy Chairperson INAS Governance Committee



NCCA National Office of Clinical Audit

Prof Joe Harbison Clinical lead INAS Governance Committee



#### Public and Patients Representatives Martin Quinn Karen Kinsella





TERKENNY UNIVERSITY HOSPITAL	
NICAL LEAD: Dr Ken Mulpeter DIT COORDINATOR: Christine McLaughlin	
AYO UNIVERSITY HOSPITAL	
LINICAL LEAD: Dr Tom O'Malley	
UDIT COORDINATOR: Niamh Murtagh	and a
LIGO UNIVERSITY HOSPITAL	man and and
LINICAL LEAD: Dr Paula Hickey	05 22
UDIT COORDINATOR: Una Moffatt	Se ( )
PORTIUNCULA UNIVERSITY HOSPITAL	
LINICAL LEAD: Dr Niamh Hannon	X Cher
UDIT COORDINATOR: Mary Diskin	
UNIVERSITY HOSPITAL GALWAY	man and a star
CUNICAL LEAD: Dr Niamh Hannon	3 - 22 - 2
AUDIT COORDINATOR: Trish Galvin	San M
Sec.	
INIVERSITY HOSPITAL LIMERICK	2 1 2 2
CLINICAL LEAD: Dr Margaret O'Connor	VI VOIS
UDIT COORDINATOR: Nora Cunningham	
JDIT COORDINATOR: Ingrid O'Brien	
UDIT COORDINATOR: Shiji Paulose	NO KONI
CORK UNIVERSITY HOSPITAL	r v word
CUNICAL LEAD: Dr Simon Cronin	Ason Os H
UDIT COORDINATOR: Glen Arrigan	
JDIT COORDINATOR: Karena Hayes	
ERCY UNIVERSITY HOSPITAL	
UNICAL LEAD: Dr Catherine O'Sullivan	S S S S S S S S S S S S S S S S S S S
UDIT COORDINATOR: Inés Saramago	2 🐶 🦕 🤇
PPERARY UNIVERSITY HOSPITAL	R
LINICAL LEAD: Dr Christine Donnelly	
UDIT COORDINATOR: Bency Varghese	were la
NIVERSITY HOSPITAL KERRY	
LINICAL LEAD: Dr Barry Moynihan	
UDIT COORDINATOR: Mary Donovan	
ANTRY GENERAL HOSPITAL	
LINICAL LEAD: Dr Brian Carey	
UDIT COORDINATOR: Noreen Lynch	
UNIVERSITY HOSPITAL WATERFORD	
LINICAL LEAD: Prof. Riona Mulcahy	
LINICAL LEAD: Dr George Pope	NAAS GENERAL HOSPITAL
JDIT COORDINATOR: Breda Jones	CLINICAL LEAD: Dr Paul O'B
AUDIT COORDINATOR: Catherine Whittle	AUDIT COORDINATOR: Trish

## NOCA National Office of Clinical Audit

## 26 Clinical Leads

33 CNSs and ANPs

And all who have been and gone

Thank you for your dedication to stroke services, stroke data and most importantly stroke patients

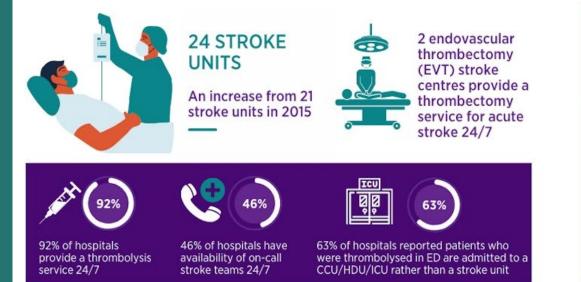
INAS Irish National Audit of Stroke

### **HAVE THINGS CHANGED?**

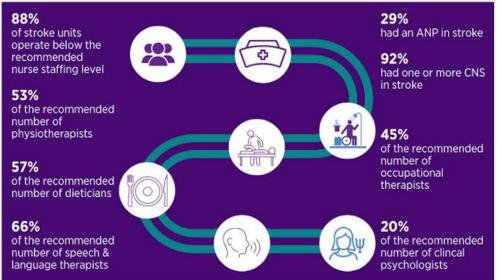


#### **IRISH NATIONAL AUDIT OF STROKE ORGANISATIONAL AUDIT 2021**

#### **ORGANISATION OF EMERGENCY STROKE SERVICES**



#### ORGANISATION OF HUMAN RESOURCES



#### ORGANISATION OF EARLY SUPPORTED DISCHARGE SERVICES



**ORGANISATION OF STROKE UNITS** 

A 59% increase from 150 in 2015. However, on the day of survey completion, 16/24 (67%) hospitals had more patients with a stroke in the hospital than designated stroke unit beds



83% of hospitals reported they have an in-house programme for continuing education in stroke management

#### 100%

All hospitals have weekly multidisciplinary team (MDT) stroke meetings. However, a psychologist is represented at these meetings in only four (17%) hospitals





In 2021, no hospital had a fully resourced ESD team



Eight (80%) ESD teams reported that a member of the ESD team attends the stroke MDT meetings in the hospital



## Massive amount of data collected since 2013

- 172 page report
- 268 page appendices.
- 34,630 inpatient episodes for stroke.
- 3,244 people thrombolysed
- 1,840 transferred to a thrombectomy centre
- Changes in management practices esp anticoagulation.
- Some changes in demographics, ?related



National Office of





## KEY FINDINGS 2013-2021



2nd leading cause of death in Ireland

34,630 cases recorded between 2013 & 2021 56% MALE Median age 72 years 44% FEMALE Median age 78 years



INAS Irish National Audit of Stroke

## We seem to be missing some strokes?

- Our number of Hospitalised stroke patients ≈6,000/year
- Extrapolating UK & NI data we potentially should have ≈7,800-8,200 hospitalised strokes / year.
- Our Audit number verified on Portal and HIPE.
- >95% of admissions into Audited Hospitals.
- Some explanation from Subarachnoid Haemorrhage.
- ?Private / Non-INAS hospitals
- ? Non presentation.
- ??Non-identification.





### TIME IS BRAIN

#### STROKE IS A MEDICAL EMERGENCY WHICH REQUIRES URGENT TREATMENT.

The sooner a person arrives to hospital, is assessed by a doctor and receives a brain scan, the less damage is likely to happen. This results in better outcomes and less disability.



The proportion of patients who arrived at hospital within 3 hours of onset of stroke symptoms decreased



In 2021: ≈750-800 less people presenting in an ideal window for treatment.





## **EMERGENCY CARE TRENDS**

202

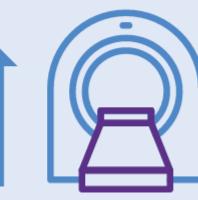
48%

2016

23%



The proportion of patients who saw a doctor within 10 minutes **increased** from 23% in 2016\* to 48% in 2021



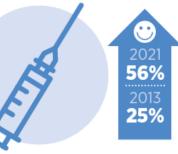
The proportion of patients who had a brain scan within 1 hour increased from 20% in 2013 to 48% in 2021



### **EMERGENCY TREATMENTS**



IV thrombolysis rate -11% in 2013 **decreased** to 10% in 2021 - Target 12%



The proportion of patients who received thrombolysis within 1 hour **increased** from 25% in 2013 to 56% in 2021



Thrombectomy rate -4.8% in 2016\* **increased** to 9.5% in 2021

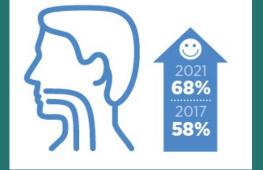


## **STROKE UNIT CARE**



There was an increase in the proportion of patients with a stroke admitted to a stroke unit from 65% in 2013 to 70% in 2021 -Target 90%

For patients with a stroke who were admitted to a stroke unit there was an increase in the proportion of their total hospital stay spent in a stroke unit from 57% in 2013 to 68% in 2021 -Target 90%

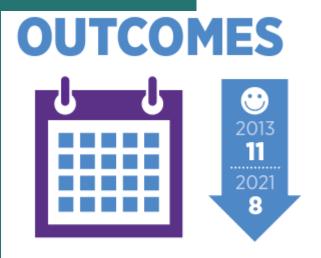


The proportion of patients with a stroke who received swallow screening increased from 58% in 2017\*\* to 68% in 2021



National Office of





The median<sup>\*\*\*</sup> hospital length of stay has **reduced** from 11 days in 2013, to 8 days in 2021 \_\_\_\_\_\_\_ (€) \_\_\_\_\_\_\_\_\_ 2013 10% 2021 7%

Mortality for ischaemic stroke has **reduced** from 10.1% in 2013 to 7.2% in 2021 = 29% reduction.



There was an **increase** in the proportion of patients discharged home with Early Supported Discharge (ESD) from 2% in 2017\*\* to 10% in 2021





#### THE HEALTH AND SOCIAL CARE PROFESSIONAL (HSCP) DATASET 2021

#### PHYSIOTHERAPISTS **Physlotherapists** reported that only 51% 51% of patients with a stroke received sufficient therapy. **OCCUPATIONAL THERAPISTS** Occupational therapists reported 38% that only 38% of patients with a stroke received sufficient therapy. SPEECH AND LANGUAGE THERAPISTS Speech and language therapists reported 46% that only 46% of patients with a stroke received sufficient therapy.

### 2021 Data

19 Hospitals participating

11 Stroke teams providing data from all three disciplines

- ✓ 2013 Physiotherapy cases
- ✓ 1344 Occupational therapy cases
- ✓ 1239 Speech and language therapy cases





#### **KEY RECOMMENDATIONS**

#### **RECOMMENDATION 1**

The number of stroke unit beds should be increased so that at least 90% of patients with a stroke are cared for in a stroke unit.



#### **RECOMMENDATION 2**

Increase the thrombolysis rates in all hospitals providing acute stroke care.

#### **RECOMMENDATION 3**

All hospitals providing acute stroke care should have an active stroke governance committee.



#### **RECOMMENDATION 4**

Increase the number of Early Supported Discharge teams.

#### **RECOMMENDATION 5**

Expand the use of the individual health identifier in order to increase follow-up for patients on discharge or transfer to another hospital.

#### **RECOMMENDATION 6**

Develop a Best Practice Tariff for acute stroke care.





Services held up well during the Pandemic.

## What happened over COVID? 2018/19 vs 2020/21

Admitted <3hours decreased (50.4% to 47.6%.)

Reviewed <10minutes from admission increased (40.1% to 48.9%) Imaged <1 hour from admission increased (39.0% to 47.5%) Proportion admitted to stroke unit reduced slightly (72.1% to 70.2%) Admitted from nursing homes dropped (3.7% to 3.2%.) Thrombolysed after arriving <4 hours from onset dropped (29.1% to 24.8%) Thrombectomy Increased by 31.5% (610-802)



# Updates on previous recommendations

- Spotlight audit on Atrial Fibrillation
- Increase in HSCP participation
- Stroke awareness campaign
- \* Large vessel occlusion bypass Dublin/Cork
- Swallow screening QI project

Increased access to psychology as part of MDT





National Office of Clinical Audit

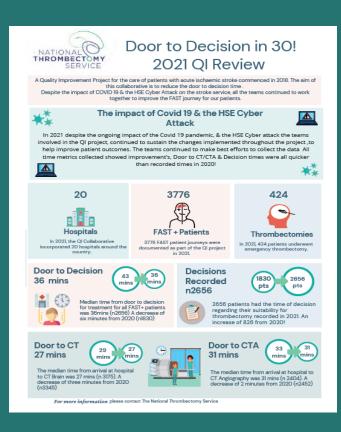


## Update on QI Initiatives



#### INAS DASHBOARD IMPLEMENTED

#### QUARTERLY REPORTS TO CLINICAL TEAMS AND HOSPITAL MANAGEMENT



NATIONAL QI INITIATIVE THROUGH THE NATIONAL THROMBECTOMY SERVICE ON ALL F.A.S.T. PATIENTS

INAS Irish National Audit of Stroke

## **Audit Developments**



ACCESS TO A VALIDATED DATASET 2013-2021FOR RESEARCH

#### HRB APA DEVELOPING A STROKE DATASET

- ➢ ACUTE DATASET
- ➢ REHABILITATION DATASET
- ➢ RESOURCING NEEDS
- PATIENT REPORTED OUTCOME MEAUSRES

#### SPOTLIGHT ON THROMBOLYSIS



NOCA National Office of Clinical Audit





# THANKYOU



## Minutes can save lives

Learn the signs, Say it's a Stroke Save #Precioustime