

IRISH NATIONAL AUDIT OF STROKE

NATIONAL REPORT 2024 AND ORGANISATIONAL AUDIT REPORT 2025 APPENDICES



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APPENDIX 1: INAS ORGANISATIONAL AUDIT SURVEY 2025



INAS ORGANISATIONAL AUDIT SURVEY MARCH 2025

1. Hospital Details

* 1. What is the name of your hospital?

Please write full name of hospital.

* 2. Name of person completing the survey.

* 3. How many beds are in the hospital?

Please give your answer in a number.

* 4. Does the hospital run an emergency department?

Please select one answer.

☐ Yes

☐ No

* 5. Does the hospital run an intensive care unit?

Please select one answer.

☐ Yes

☐ No



2. Hospital Details

* 6. Does the hospital have a Clinical Audit Committee?

☐ Yes

☐ No

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3.

* 7. Are data from the INAS reports reviewed at the Audit Committee meeting?

E.g. quarterly dashboards/annual reports

- ☐ Yes
☐ No

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4. Stroke Governance

* 8. How is 'stroke' defined in your hospital

- ☐ WHO Definition - rapidly developing clinical signs of focal (or global) disturbance of cerebral function, lasting more than 24 hours or leading to death, with no apparent cause other than that of vascular origin
- ☐ AHA/ASA Definition - infarction based on pathological, imaging or other objective evidence of infarction. In the absence of this evidence, the persistence of symptoms of at least 24 hours or until death remained a method to define stroke

Comment

* 9. Does the hospital have a Stroke Governance Committee?

- ☐ Yes
☐ No

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5.

* 10. What is the membership of the Stroke Governance Committee?

Select all that apply.

- | | |
|--|--|
| ☐ Stroke Consultant | ☐ Senior HSCP Representative |
| ☐ Patient Representative | ☐ Quality Manager |
| ☐ Senior Accountable Hospital Manager | ☐ Stroke Registrar/Fellow |
| ☐ Senior Nursing Representative | ☐ Representation from Radiology |

Other (please specify)

* 11. How frequently does the committee meet?

Select one option.

- ☐ Monthly
- ☐ Quarterly
- ☐ Twice annually
- ☐ Annually

Other (please specify)

* 12. Do INAS reports form part of the agenda? E.g. INAS Dashboards and Annual reports.

- ☐ Yes
- ☐ No

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6. Stroke Unit Activity

* 13. Does your hospital have a stroke unit?

Please see additional information for stroke unit definition.

Please select one option.

- ☐ Yes
- ☐ No

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7.

* 14. In total, how many stroke unit beds are in the hospital?

Please answer in a number.

Please see additional information sheet for further information on stroke unit bed types.

* 15. How many patients with stroke are there in the hospital on the day of form completion?

Please answer in a number.

* 16. How many of the patients with stroke are in a stroke unit bed?

Please answer in a number.

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8. Acute Presentation

* 17. Is there a stroke team on-call?

Select one option.

☐ Yes, 24/7

☐ Yes, Monday-Friday 9am-5pm

☐ No

Other (please specify)

* 18. Do you ever use video tele-health to review patients with your ambulance crews?

Please select one answer.

☐ Yes

☐ No

* 19. Does the stroke team/hospital receive a pre-alert from the ambulance service for suspected stroke?

Select one option for each stroke patient type

	Yes	No	Sometimes
Thrombolysis candidates only	☐	☐	☐
All FAST positive cases	☐	☐	☐
All suspected stroke cases	☐	☐	☐

* 20. If the stroke team/hospital receive a pre-alert, who is the call usually made to? Please select only one.

- ☐ Direct to Emergency Department
- ☐ Stroke Nurse Specialist
- ☐ Stroke NCHD on call
- ☐ Stroke Consultant on call
- ☐ CT control room
- ☐ Call to Stroke Unit
- ☐ No pre-alert
- ☐ Other (please specify)

* 21. Who is the stroke patient normally first seen by?
Please select only one.

- | | |
|---|---|
| ☐ ED Nurse | ☐ Stroke NCHD |
| ☐ ED NCHD | ☐ Stroke Nurse Specialist |
| ☐ ED Consultant | ☐ Medical Consultant |
| ☐ Stroke Consultant | ☐ Telemedicine link |

Comment if required

* 22. Where are suspected stroke patients that arrive by ambulance taken for assessment?
Please select one option.

- | | |
|--|-----------------------------------|
| ☐ Emergency Department | ☐ HDU/CCU/ICU |
| ☐ Stroke Unit | ☐ CT Scan |
| ☐ Acute Medical Admission Ward | |

Other (please specify)

* 23. Is there access to CT imaging for patients in ED?
Please select one answer.

- ☐ Yes, 24/7
- ☐ Yes, normal working hours only
- ☐ No

* 24. Is it consistently possible to get an urgent CT scan of the brain within 60 minutes of the request?
Select one option.

- | | |
|------------------------------------|---------------------------------|
| ☐ Always | ☐ Rarely |
| ☐ Usually | ☐ Never |
| ☐ Sometimes | |

25. Is there access to multi-phase CT angiography?

Select one option.

- ☐ Yes, 24/7
- ☐ Yes, normal working hours only
- ☐ No

* 26. Is there access to CT perfusion for patients in the ED?

Please select one answer.

- ☐ Yes, 24/7
- ☐ Yes, normal working hours only
- ☐ No

27. Does your hospital use decision-assisted software?

- ☐ Yes
- ☐ No

* 28. Is there an on-call radiologist and radiographer available to perform brain imaging?

Please select one option for Radiologist and one for Radiographer.

	On site	Off site
On-call Radiologist	☐	☐
On-call Radiographer	☐	☐

* 29. Is there access to MRI for patients in ED?

Please select one answer.

- ☐ Yes, 24/7
- ☐ Yes, normal working hours only
- ☐ No

* 30. What initial acute brain imaging do you request for the following?

Select all that apply.

	CT	CTA	CTP
Clinical suspicion of stroke amenable to thrombolysis	☐	☐	☐
Clinical suspicion of stroke amenable to thrombolysis & possible thrombectomy	☐	☐	☐
Clinical suspicion of stroke but over 4.5 hours since onset of symptoms	☐	☐	☐
Clinical suspicion of posterior circulation stroke but not a thrombolysis candidate	☐	☐	☐
Clinical suspicion of alternative neurological diagnosis	☐	☐	☐

* 31. Who is responsible for initial review of brain imaging to inform decisions about thrombolysis / thrombectomy?

Select **one option for In hours** and **one option for Out of hours**.

	In-hours	Out of hours
Stroke Consultant on site	☐	☐
Stroke Consultant remotely via phone	☐	☐
Stroke NCHD	☐	☐
Neuroradiologist	☐	☐
General Radiologist	☐	☐
Reporting hub	☐	☐
ED Consultant/Registrar	☐	☐
Medical Consultant/Registrar	☐	☐
Stroke Consultant at own hospital via telemedicine link	☐	☐
Stroke Consultant in region/network via telemedicine link	☐	☐
Assisted decision making app	☐	☐

* 32. If not during initial assessment, is brain imaging subsequently reviewed by a radiologist with a specific competency in neurovascular imaging in the following patient groups?

Select only one option for each patient group.

	Yes, always	Yes, sometimes	Yes, rarely	Never
Thrombolysis patients	☐	☐	☐	☐
Large vessel occlusion	☐	☐	☐	☐
All stroke patients	☐	☐	☐	☐

* 33. Do you admit patients with subarachnoid haemorrhage to the stroke unit?

Please select one answer.

- ☐ Yes
☐ No
☐ Sometimes

* 34. Do you admit patients with subdural haematoma to your stroke unit?

Please select one answer.

- ☐ Yes
☐ No
☐ Sometimes

* 35. To which ward is a patient most likely to be admitted after ED?

Select **one option** for Non thrombolysed patients and **one option** for Thrombolysed patients

	Stroke Unit	CCU/HDU/ICU	Medical Ward	Surgical Ward
Thrombolysed patients	☐	☐	☐	☐
Non thrombolysed patients	☐	☐	☐	☐

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9. Thrombolysis

* 36. Do you provide a thrombolysis service?

Select one option.

- ☐ Yes, 24/7
- ☐ Yes, 9-5 Mon-Fri
- ☐ No
- ☐ Occasionally for patients who self-present or are already an in-patient.

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10.

37. Does your hospital have a thrombolysis decision protocol based on national guidelines including management of arising complications?

- ☐ Yes
- ☐ No

* 38. What thrombolytic agent do you typically use?

- ☐ Alteplase
- ☐ Tenecteplase
- ☐ Both Alteplase and Tenecteplase

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11. Thrombolysis

* 39. Who normally assesses the patient for thrombolysis?

Please select one option.

- | | |
|-------------------------------------|---|
| ☐ ED NCHD | ☐ Stroke Consultant |
| ☐ ED Consultant | ☐ Medical Consultant |
| ☐ Stroke NCHD | ☐ Stroke Nurse Specialist |

Other (please specify)

* 40. Who normally decides to proceed with thrombolysis?

Please select one option.

☐ ED NCHD

☐ Stroke Consultant

☐ ED Consultant

☐ Medical Consultant

☐ Stroke NCHD

☐ Stroke Nurse Specialist

Other (please specify)

* 41. Where are the majority of patients thrombolysed?

Select one option for bolus and one option for infusion

	Emergency Department	CT Scanner	Stroke Unit	CCU/HDU/ICU	Acute Medical Assessment Unit/Medical Ward	Neurology Ward
Bolus	☐	☐	☐	☐	☐	☐
Infusion	☐	☐	☐	☐	☐	☐

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12. EVT Centre Information

* 42. Are you a thrombectomy centre?

Please select one answer.

☐ Yes

☐ No

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13. EVT Centre Information

* 43. What are the hours of operation for your thrombectomy service?

Select only one option

☐ Monday - Friday 9-5pm

☐ Monday - Friday extended hours

☐ Extended hours including weekends

☐ 24/7

* 44. How many consultant level doctors from your site carry out thrombectomy?

Select one option only.

- ☐ 1
- ☐ 2
- ☐ 3
- ☐ 4
- ☐ 5
- ☐ 6
- ☐ 7
- ☐ 8

* 45. For each of the consultants who perform thrombectomy, please state the number in each specialty.

This should add up to the same number of consultants as in question 43.

	One	Two	Three	Four	Five	Six	Seven	Eight
Interventional neuroradiology	☐	☐	☐	☐	☐	☐	☐	☐
Vascular interventional radiology	0	0	0	0	0	0	0	0
Non-vascular interventional radiology								☐
Cardiologist	0	0	0	0	0	0	0	0
Neurosurgeon	0	0	0	0	0	0	0	0
Stroke Physician	0	0	0	0	0	0	0	0

Other (please specify)

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14. Thrombectomy transfer information

* 46. Do you refer appropriate patients to a thrombectomy centre?

Select one option only.

- ☐ Yes, 24/7
- ☐ Yes, In-hours only
- ☐ We refer to our own thrombectomy service - Cork University Hospital
- ☐ We refer to our own thrombectomy service - Beaumont Hospital
- ☐ No

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15.

* 47. Which centre do you usually refer patients to for thrombectomy?

Please select one answer.

- ☐ Beaumont Hospital
- ☐ Cork University Hospital

* 48. What is your process for IV thrombolysis prior to transfer for thrombectomy?

Select one option only.

- ☐ Tenecteplase given before transfer
- ☐ Give Bolus and full infusion before transfer
- ☐ Give Bolus and infusion but stop infusion at point patient ready to be transferred
- ☐ Give Bolus and infusion which is continued in ambulance with support of doctor on transfer
- ☐ Give Bolus and infusion which is continued in ambulance with support of stroke nurse on transfer
- ☐ Give Bolus and infusion which is continued in ambulance with support of A&E/other nurse on transfer
- ☐ Give Bolus and infusion which is continued in ambulance with support from paramedic crew
- ☐ Process depends on ambulance service conveying patient (i.e. different protocols for different services)
- ☐ Other (please specify)

* 49. Who makes the decision to transfer a patient for thrombectomy?

Please select **only** one answer for **In-Hours** and one answer for **Out of Hours**.

	In Hours	Out of Hours
Stroke NCHD making referral to thrombectomy centre	☐	☐
Stroke Consultant	☐	☐
General Radiologist	☐	☐
Neuroradiologist at referring hospital	☐	☐
Neuroradiologist at Thrombectomy Centre (if different)	☐	☐
Stroke team at thrombectomy centre	☐	☐
Remote tele-radiology service off site	☐	☐
Emergency Department Consultant	☐	☐
Emergency Department NCHD	☐	☐

Other (please specify)

* 50. When a patient requires conveyance to thrombectomy centre at what point do you call the ambulance service?

Select only one option.

- ☐ Paramedic crew are kept on standby and not released from initial call
- ☐ At the point IV thrombolysis is complete
- ☐ When accepted by thrombectomy centre

* 51. Have you made use of Protocol 37 when transferring patients for thrombectomy?

Please select one.

- ☐ Yes
- ☐ No

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* 52. Have you experienced delays >30 minutes in awaiting a Protocol 37 ambulance on more than 1 occasion.

Please select one answer.

- ☐ Yes
☐ No

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17. Thrombectomy transfer information

* 53. Has the stroke team used helicopter transfers for thrombectomy patients?

Please select one answer.

- ☐ Yes
☐ No

Other (please specify)

* 54. What are your arrangements (governance processes) for discussion of patients post thrombectomy?

Select only one option.

- ☐ Most patients referred are reviewed with the thrombectomy centre as part of regional MDT
☐ Most patients referred are reviewed locally as part of local MDT
☐ Informal feedback
☐ No regular discussion

Other (please specify)

* 55. Do you have an MRI scanner available in your hospital?

Please select one.

- ☐ Yes
☐ No

* 56. Is MRI scanning available out of hours?

- ☐ Yes
☐ No
☐ Sometimes

* 57. If yes, how many out of hours MRIs have you performed on stroke patients in the last 12 months.

Please answer in a number.

* 58. Does the stroke service have access to NIMIS?

Please select one option for In the hospital and one answer for Remotely.

	Yes	No
In the hospital	☐	☐
Remotely	☐	☐

Other (please specify)

* 59. Do you have Transcranial Doppler Scanning available in your hospital?

Please select one.

- ☐ Yes
☐ No

* 60. Do you have PET scanning available in your hospital?

Please select one.

- ☐ Yes
☐ No

* 61. Do you perform Digital Subtraction Angiography in your hospital?

Please select one.

- ☐ Yes
☐ No

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18. Stroke Unit information

* 62. Is there a policy for direct admission to the Stroke Unit from ED?

Please select one.

- ☐ Yes
☐ No

* 63. Does the stroke unit operate an admission criteria or limitation?

Please select one.

- ☐ Yes
☐ No

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19.

* 64. If the stroke unit operates an admission criteria what is it?

Select all that apply.

	Type 1	Type 2	Type 3
Age related	☐	☐	☐
Stroke severity	☐	☐	☐
Pre-existing dementia	☐	☐	☐
Stroke type	☐	☐	☐
Maximum duration of stay	☐	☐	☐

Other (please specify for each type)

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20.

* 65. Does the stroke service have control of bed management for the stroke unit?

Please select one.

- ☐ Yes
☐ No

* 66. Are patients with other diagnoses regularly admitted to the stroke unit? Please select one.

- ☐ Yes
☐ No

* 67. Do you have written Standard Operating Procedures or Protocols for each of the following:

Please select all that apply

- | | |
|--|---|
| ☐ Stroke Diagnosis | ☐ Follow-up including community rehabilitation |
| ☐ Stroke Nursing | ☐ Critical Incident Management |
| ☐ Communication with patients and relatives | ☐ Emergency Department Management |
| ☐ Rehabilitation | ☐ Emergency Medical Services and pre hospital notification |
| ☐ Prevention | |

* 68. Does the infrastructure of your Stroke Unit allow for continuous monitoring of the following:

Please select all that apply.

- ☐ ECG
 ☐ Pulse Oximetry
- ☐ Breathing
 ☐ Blood Glucose Monitoring
- ☐ Blood Pressure
 ☐ Temperature

* 69. What type of beds make up the stroke unit?

Type 1 = Acute stroke beds.
 Type 2 =Rehabilitation stroke beds.
 Type 3 = Combined Acute and Rehabilitation stroke beds.
 See additional information for further definition.
 Please select all that apply.

	Number of beds	Number of beds with continuous physiological monitoring
Type 1 -Acute stroke beds		
Type 2 - Rehabilitation stroke beds		
Type 3 - Combined Acute and Rehabilitation stroke beds		

* 70. How many stroke consultant led ward rounds are conducted per week?
 Please answer in a number.

* 71. How often are there multidisciplinary team meetings for the interchange of information about individual patients?

Select one option per bed type.

	Type 1	Type 2	Type 3
Daily	☐	☐	☐
More than once a week	☐	☐	☐
Weekly	☐	☐	☐

* 72. Which indices of stroke severity do you routinely record on admission and discharge?
 Please select all that apply.

	Admission	Discharge	3-6 months
Modified Rankin Score	☐	☐	☐
NIHSS	☐	☐	☐
Barthel	☐	☐	☐

Other (please specify)

* 73. Do you give the patient a formal, written plan for follow up and continued rehabilitation on discharge?

Please select one.

- ☐ Yes
☐ No

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21. Specialist Investigations

* 74. What is the usual waiting time for patients to receive carotid imaging?

Please select one.

- | | |
|--|--|
| ☐ The same day (7 days a week) | ☐ The next weekday |
| ☐ The same day (6 days a week) | ☐ Within a week |
| ☐ The same day (5 days a week) | ☐ Longer than a week |
| ☐ The next day | |

Other (please specify)

* 75. Do you ever image intra-cranial vessels for your ischaemic stroke patients?

Please select one.

- ☐ Yes
☐ No

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22.

* 76. Which of the following best describes your practice for imaging intra-cranial vessels?

Please select one.

- ☐ It is a routine investigation for everyone
☐ Only for patients that would be amenable to specific treatment if abnormality detected

* 77. Which of the following methods do you use to image intra cranial vessels?

Select **one option for In hours** and **one option for Out of hours**.

	In Hours	Out of Hours
CTA	☐	☐
MRA	☐	☐
No Service	☐	☐

* 78. Do you image extra cranial vessels for your ischaemic stroke patients?

Please select one.

☐ Yes

☐ No

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23.

* 79. Which imaging modality do you use as a first line to image extra-cranial vessels?

Select **one option for In hours** and one option for **Out of hours**.

	In Hours	Out of Hours
Doppler Ultrasound	☐	☐
CTA	☐	☐
MRA	☐	☐
No Service	☐	☐

* 80. Which of the following best describes your practice for imaging **extra-cranial** vessels?

Please select one.

☐ It is a routine investigation

☐ Only for patients that would be amenable to specific treatment if abnormality detected

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24. Specialist Investigations contd.

* 81. What is your usual pathway for detecting paroxysmal atrial fibrillation?

Please, select which type is used first, second, third etc.

	First	Second	Third	Fourth	Fifth	Sixth	Seventh	Eight	Test not available
HASU telemetry monitoring	☐	☐	☐	☐	☐	☐	☐	☐	☐
Inpatient 24 hour tape	☐	☐	☐	☐	☐	☐	☐	☐	☐
Outpatient 24 hour tape	☐	☐	☐	☐	☐	☐	☐	☐	☐
Extended cardiac recording: 48 hours	☐	☐	☐	☐	☐	☐	☐	☐	☐
Extended cardiac recording: 5- 7 days	☐	☐	☐	☐	☐	☐	☐	☐	☐
Reveal/implantable loop recorder	☐	☐	☐	☐	☐	☐	☐	☐	☐
Transdermal patch (e.g. Ziopatch)	☐	☐	☐	☐	☐	☐	☐	☐	☐
R Test monitor	☐	☐	☐	☐	☐	☐	☐	☐	☐

* 82. In which stroke patients do you normally perform echocardiography?

Select all that apply.

- ☐ In the majority of patients post stroke
- ☐ Patients suggestive of cardioembolic source on brain imaging
- ☐ In patients in Atrial Fibrillation
- ☐ Young patients with suspicion of PFO
- ☐ Patients with any abnormal ECG's
- ☐ Patients with suspected valvular lesions
- ☐ Patients with new heart failure
- ☐ Patients with known heart failure
- ☐ We rarely do echocardiography
- ☐ Other (please specify)

* 83. In which patients do you request a bubble contrast echo?

Please select one answer.

- ☐ All patients post stroke
- ☐ All patients with suspected cardioembolic source on brain imaging
- ☐ In patients with suspected cardioembolic source but normal ECG and cardiac monitoring.
- ☐ Patients with suspected cardioembolic source but initial transthoracic echocardiogram (TTE) normal
- ☐ Patients with a normal echo but suspicion of PFO
- ☐ Only in patients where we would consider PFO closure.
- ☐ We have no local access to bubble contrast echo
- ☐ Young patients with potential PFO
- ☐ Other (please specify)

* 84. In which patients do you request a TOE (trans-oesophageal echo)?

Please select one.

- ☐ All patients post stroke
- ☐ All patients with suspected cardioembolic source on brain imaging
- ☐ If patient has had a positive bubble contrast echo
- ☐ We have no local access to TOE.
- ☐ Other (please specify)

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25.

* 85. Is PFO closure available locally for your stroke patients?

Please select one.

- ☐ Yes
- ☐ No

* 86. Are all patients discussed at a specialist stroke/cardiology MDT before PFO closure is offered?

Please select one.

- ☐ Yes
- ☐ No

* 87. In which stroke patients do you request thrombophilia screening?

Select one option.

- ☐ Majority of patients
- ☐ Only patients under a specific age
- ☐ Only patients with previous history of previous DVT/ PE /miscarriage
- ☐ None

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26. TIA and Neurovascular Services

* 88. Do you routinely admit patients with TIA to hospital for investigation?

Please select one.

- ☐ Yes
- ☐ No

* 89. Are there agreed TIA protocols between Hospital and Primary Care services?

Please select one.

- ☐ Yes
- ☐ No

* 90. Does your hospital run a TIA/neurovascular clinic?

Please select one.

- ☐ Yes
- ☐ No

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27.

* 91. Which first line brain imaging modality do you most frequently use in your TIA/neurovascular clinic for suspected TIAs?

Select one option

- ☐ CT
- ☐ MRI
- ☐ Rarely image TIAs

* 92. Which first line carotid imaging modality do you most frequently use in your TIA/neurovascular clinic for suspected TIAs?

Please select one.

- ☐ Carotid Doppler
- ☐ CTA
- ☐ MRA
- ☐ Rarely image TIAs

* 93. How frequently do you use this first line brain imaging modality in your TIA/neurovascular clinic for suspected TIAs?

Please select one.

- ☐ Frequently (>70%)
- ☐ Sometimes (30-70%)
- ☐ Rarely (<30%)

* 94. Is carotid endarterectomy surgery performed within the hospital?

Please select one.

- ☐ Yes
- ☐ No

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28. Carotid Stenosis Treatment

* 95. Which hospital do you send your patients to?

Please give full name of the hospital.

* 96. Is there a formal arrangement in place with an endovascular centre / vascular service for transfer of your patients?

Please select one.

- ☐ Yes
- ☐ No

* 97. Have patients undergone carotid stenting in the last 12 months?

Please select one.

- ☐ Yes
- ☐ No

* 98. In which hospital is the procedure performed?

Please write full name of hospital.

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29. Human Resources

* 99. Is there an Advanced Nurse Practitioner in stroke?

Please select one.

☐ Yes

☐ No

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30. Advanced Nurse Practitioners

* 100. How many Stroke ANPs are in your service?

Please select one.

☐ 1

☐ 2

☐ 3

* 101. What services are offered by the ANP Stroke?

Please select all that apply.

	Inpatient	Outpatient	Community
Direct patient care/Emergency response	☐	☐	☐
Patient education	☐	☐	☐
Staff education	☐	☐	☐
Clinics	☐	☐	☐
Service development	☐	☐	☐
Therapy planning	☐	☐	☐
Long term patient support	☐	☐	☐

Other (please specify)

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31. Human resources contd.

* 102. Is there a Clinical Nurse Specialist in Stroke?

Please select one.

- ☐ Yes
- ☐ No

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32. Clinical Nurse Specialists

* 103. How many Stroke CNSs are in your service?

Please select one.

- ☐ 1
- ☐ 2
- ☐ 3
- ☐ 4

* 104. What services are offered by the CNS(s) Stroke?

Please select all that apply.

	Inpatient	Outpatient	Community
Direct patient care/Emergency response	☐	☐	☐
Patient education	☐	☐	☐
Staff education	☐	☐	☐
Clinics	☐	☐	☐
Service development	☐	☐	☐
Therapy planning	☐	☐	☐
Long term patient support	☐	☐	☐

Other (please specify)

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33. Human Resources contd.

* 105. How many RGNs are allocated to the stroke unit per 24hrs? Monday to Friday.

Please see additional notes for further explanation.

Please select one response.

- ☐ 0.5
- ☐ 1
- ☐ 1.5
- ☐ 2
- ☐ 2.5
- ☐ 3
- ☐ 3.5
- ☐ 4
- ☐ 4.5
- ☐ 5
- ☐ 5.5
- ☐ 6

106. How many RGNs are allocated to the stroke unit per 24 hours? Weekends.

Please select the number.

- ☐ 0.5
- ☐ 1
- ☐ 1.5
- ☐ 2
- ☐ 2.5
- ☐ 3
- ☐ 3.5
- ☐ 4
- ☐ 4.5
- ☐ 5
- ☐ 5.5
- ☐ 6

* 107. How many HCAs are allocated to the stroke unit per 24hrs? Monday to Friday

Please select one.

Please see additional information.

- ☐ 0
- ☐ 0.5
- ☐ 1
- ☐ 1.5
- ☐ 2
- ☐ 2.5
- ☐ 3

108. How many HCAs are allocated to the stroke unit per 24 hours? Weekends

- ☐ 0
- ☐ 0.5
- ☐ 1
- ☐ 1.5
- ☐ 2
- ☐ 2.5
- ☐ 3

* 109. How many RGNs on the stroke unit are trained in swallow screening?

Please select one option.

* 110. How many RGNs on the stroke unit are trained in stroke assessment and management?

Please select one.

* 111. Does your unit have its own Portering staff to support nursing?

Please select one.

- ☐ Yes
- ☐ No

* 112. Medical Staffing: Is there a specialist 'Stroke Service' working independently of other clinical roles or responsibilities.

Please select one.

- ☐ Yes
- ☐ No

* 113. Is there a consultant physician with specialist knowledge of stroke who is formally recognised as having principle responsibility for stroke services?

Please select one.

- ☐ Yes
- ☐ No
- ☐ Vacant post

* 114. How many doctors make up the medical team for the stroke service?

Please select all that apply.

	Number	WTE spent on stroke
Stroke consultant providing daytime cover		
Other Consultant contributing to the service (e.g. on call)		
Specialist registrar		
Registrar		
Senior House Officer		
Intern		

Please comment if required.

* 115. Which Medical specialisms contribute Consultant Cover to the Stroke Service?

Select all that apply.

	In Hours	Out of Hours
Geriatrics	☐	☐
Neurology	☐	☐
General Medicine	☐	☐
Clinical Pharmacology	☐	☐

Other (please specify)

116. Are patients with a stroke usually transferred to the care of the stroke team/stroke consultant after admission? Please select one.

- ☐ Always
- ☐ Usually
- ☐ Sometimes
- ☐ Rarely
- ☐ Never

* 117. What is the establishment of whole time equivalents (WTEs) of the following professionals?

Please refer to additional information for more information.

	Number of whole time equivalents (WTE) designated for stroke care.	Proportion of additional WTE from other staff delivering stroke care.	Total WTE
Clinical psychologist			
Dietitian			
Medical social worker			
Occupational therapist			
Physiotherapist			
Speech and language therapist			

Other (please specify)

* 118. What is the availability of the HSCP?

Select all that apply.

	Does the professional attend weekly MDT meetings?	Is weekend cover available?	Is there a professional Clinical Specialist?
Clinical Psychologist	☐	☐	☐
Dietician	☐	☐	☐
Medical social worker	☐	☐	☐
Occupational therapist	☐	☐	☐
Physiotherapist	☐	☐	☐
Speech and language therapist	☐	☐	☐

* 119. Do patients have access to the provision of the following aspects of care?

Select all that apply.

- ☐ Mood screening
- ☐ Psychology led mood assessment and intervention
- ☐ Higher cognitive function assessment
- ☐ Mood treatment
- ☐ Higher cognitive function treatment
- ☐ Specialist spasticity management service
- ☐ Neuromuscular electrical stimulation service
- ☐ Digital therapies for people with aphasia e.g. apps/tablet based interventions
- ☐ Orthoptist service
- ☐ Stroke specific pharmacy service

* 120. What is the complement of therapy assistants for each of the following:
Please select all that apply.

	WTE
Physiotherapy Assistant	
Occupational Therapy Assistant	
Speech and Language Therapy Assistant	

Other (please specify)

* 121. Are there other members of the MDT not mentioned above?

Please select one.

- ☐ Yes
☐ No

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34.

122. If yes, what is their responsibility?

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35. Education and training

* 123. Is there an in-house programme for the continuing education in management of stroke?

Please select one.

- ☐ Yes
☐ No

124. Is there an in-house programme for the identification and management of patients who have a stroke while already an in-patient with another condition?

Please select one.

- ☐ Yes
☐ No

* 125. Is there a policy that all staff should complete the 'STARS' programme?

Please select one.

- ☐ Yes
☐ No

* 126. Is there a swallow screening training programme available?

Please select one.

- ☐ Yes, local training programme
☐ Yes, HSELand training programme
☐ Yes, other
☐ No, none available

* 127. What members of the stroke team have availed of the swallow screen training programme?

Please select all that apply.

- ☐ Stroke unit nurses
☐ Emergency department nurses
☐ Other ward nurses
☐ Doctors
☐ Speech and language therapists

* 128. Is there funding available locally for staff education or conference attendance?

Please select one.

- ☐ Yes
☐ No

* 129. Is there an educational programme for inpatients and carers?

Please select one.

- ☐ Yes
☐ No

* 130. Is there patient/ carer material easily available on the Stroke Unit/ Wards?

Please select one.

- ☐ Yes
☐ No

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* 131. Is the patient/carers information available in accessible formats e.g. aphasia friendly.
Please select one.

- ☐ Yes, most information is available in accessible formats
- ☐ Yes, some information is available in accessible formats
- ☐ No

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37. Discharge Planning

* 132. Are stroke specific patient satisfaction surveys carried out by your service?
Please select one.

- ☐ Yes
- ☐ No
- ☐ Other (please specify)

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38.

* 133. If yes, are patient satisfaction survey results discussed at the Stroke Governance Committee?
Please select one.

- ☐ Yes
- ☐ No
- ☐ No Stroke Governance Committee
- ☐ N/A

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39. Patient information

* 134. Is there information literature available for patients on the following:

Select all that apply.

- | | |
|---|---|
| ☐ Patient/carer information literature on stroke | ☐ Carers benefit/allowance |
| ☐ Patient versions of national or local guidelines or standard | ☐ Local voluntary agencies |
| ☐ Community services | ☐ How to complain |

* 135. Does the stroke service have formal links with patients' and carers' organisations for communication on the service?

Please select one.

- ☐ Yes
☐ No

* 136. Is there a stroke support group available locally for patients?

Please select one.

- ☐ Yes
☐ No

* 137. Is there a policy to give patients a named contact on transfer from hospital to community?

Please select one.

- ☐ Yes
☐ No

* 138. Have you made use of the Irish Heart Foundation online support services for stroke patients?

Please select one.

- ☐ Yes
☐ No

* 139. Have you access to an Early Supported Discharge team for Stroke?

Please select one.

- ☐ Yes
☐ No

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40.

* 140. When did your ESD service commence?

Please record the month and the year.

* 141. What is the ESD team complement?

Please record the number in both columns.

	Number of WTE resourced.	Number of WTE in post.
Physiotherapist		
Occupational therapist		
Speech and Language therapist		
Nurse		
Therapy assistant		
Medical social worker		

Other (please specify)

* 142. Does a member of the ESD team attend the stroke MDT meetings in the hospital?

Please select one.

- ☐ Yes
- ☐ No

* 143. What is the standard provision of ESD?

Please select one.

- ☐ Four to eight weeks
- ☐ Up to three months
- ☐ As long as required.

* 144. What proportion of ESD services is provided face to face?

Please select one option.

- ☐ 100%
- ☐ >75%
- ☐ 50%-75%
- ☐ 25% -50%
- ☐ <25%

145. Can you provide a next working day service to patients being discharged on ESD?

- ☐ Yes
- ☐ No

146. Can you provide ESD input for a minimum of five days per week if required by patients?

- ☐ Yes
- ☐ No

* 147. Does your ESD services have a defined geographical parameter?

Please select one.

☐ Yes

☐ No

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41. Community Rehabilitation

* 148. Have you access to other community rehabilitation services or teams that can be accessed for stroke patients?

Please select one.

☐ Yes

☐ No

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42.

* 149. Please list the community rehabilitation services or teams you can access.

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43.

* 150. Has a Senior Accountable Hospital Manager seen and approved the information submitted in this survey?

Please select one.

☐ Yes

☐ No

* 151. Please name the person who has reviewed the survey.

44. Thank you for your time in completing the survey.

APPENDIX 2: INAS GOVERNANCE COMMITTEE MEMBERS AND MEETING ATTENDANCE 2024

Representative	Name	22.03.24	14.06.24	20.09.24	22.11.24
Senior Accountable Healthcare Manager	Sinead Brennan	x	x	x	x
Clinical Expert- Irish Gerontology Society	Dr Tim Cassidy	Chair	Chair	Chair	x
National Clinical Programme for Stroke: Programme Manager	Sinead Coleman	✓	✓	x	x
Clinical Expert- National Stroke Programme Clinical lead	Prof Ronan Collins	x	x	✓	x
Clinical Expert: Consultant Interventional Neuroradiologist	Dr Mathew Crockett	x	x	P	x
Healthcare Professional Expert-CNS Stroke	Elaine Crosby	✓	x	✓	✓
Healthcare Professional Expert: Hospital Group Director of Nursing	Paul Gallagher	✓	x	x	x
Healthcare Pricing Office	Marie Glynn	✓	✓	✓	✓
Clinical Lead - Irish National Audit of Stroke	Prof Joe Harbison	✓	✓	✓	Chair
Healthcare Professional Expert-CNS stroke/thrombectomy	Julie Lynch	✓	✓	✓	x
Cardiovascular Programme Audit Manager	Joan McCormack	✓	✓	✓	✓
Healthcare Professional Expert-ANP/CNS Stroke	Una Moffat	x	✓	✓	✓
Clinical Expert - Clinical Advisory Group-Stroke	Dr Margaret O'Connor	x	✓	✓	x
Healthcare Professional Expert-National Health and Social Care Professions Office	Claire Prendergast	✓	✓	✓	✓
Public and Patient Interest Representative - Irish Heart Foundation	Martin Quinn	✓	x	x	✓
NOCA Executive Director-non member	Collette Tully	✓	x	x	COD
Public and Patient Interest Representative - Headway	Edel Wilson	x	✓	✓	x

Attended = ✓

Did not attend = x

Not Applicable = n/a

Retired = R

Proxy = P

APPENDIX 3: IRISH NATIONAL AUDIT OF STROKE METHODOLOGY 2024

BACKGROUND

In 2012, the National Stroke Programme (NSP) developed the National Stroke Register (NSR) in partnership with the Health Research and Information Division of the Economic and Social Research Institute (ESRI) to measure the effect of the implementation of the Stroke Model of Care (Health Service Executive, 2012). The NSR was governed by the NSR Steering Group. In 2019, governance of the NSR was transferred to NOCA and it was renamed the Irish National Audit of Stroke (Figure 1).

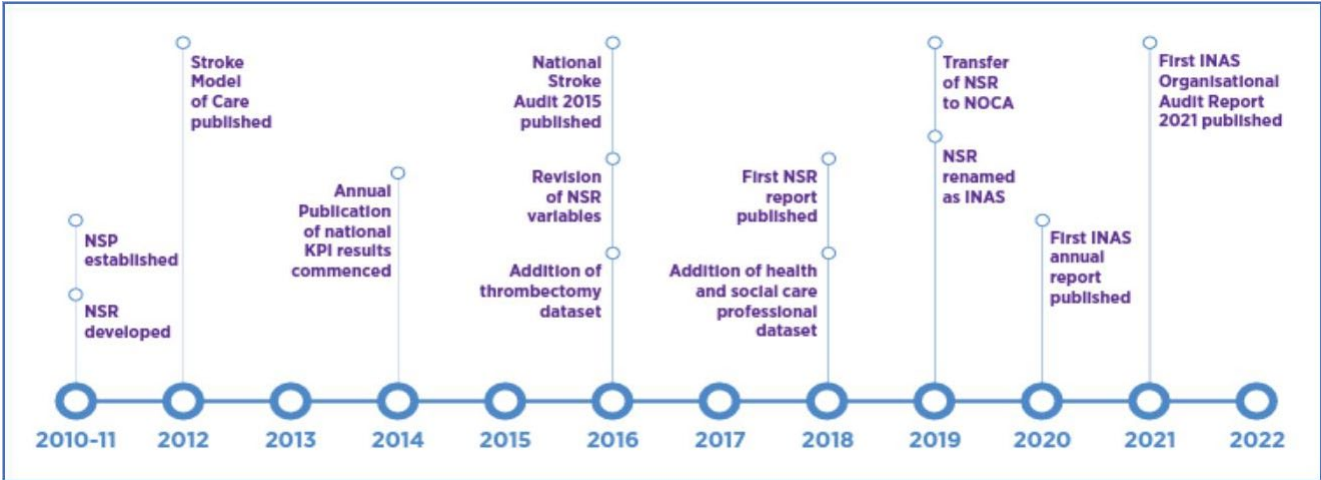


FIGURE 1: EVOLUTION OF THE IRISH NATIONAL AUDIT OF STROKE

THE IRISH NATIONAL AUDIT OF STROKE GOVERNANCE

The Irish National Audit of Stroke (INAS) is a clinically led, web-based audit that measures the care provided in hospital to patients with a stroke against the National Clinical Guideline for Stroke for the UK and Ireland (Intercollegiate Stroke Working Party, 2023). The INAS Governance Committee ([link to INAS Governance committee](#)) oversees the INAS. Its membership comprises clinical experts, public and patient interest representatives, the Healthcare Pricing Office (HPO), senior accountable healthcare management, and research and specialist bodies. The INAS Governance Committee also ensures that all relevant stakeholders are represented in order to verify that outputs of the audit findings are interpreted appropriately. The Clinical Lead, supported by the NOCA Executive Team, has operational responsibility for implementation of the INAS.

AIM AND OBJECTIVES OF THE IRISH NATIONAL AUDIT OF STROKE

Aim: To conduct audit of stroke care, including clinical care and service organisation	
Objectives	To maintain a database of all inpatients with a stroke in Ireland in order to drive continuous quality improvement and to deliver the best patient outcomes.
	To support the collection of high-quality data on all inpatient strokes in Ireland in order to permit local and national reporting of outcomes.
	To disseminate the outputs of the data in a timely manner to all relevant stakeholders.
	To benchmark stroke care and outcomes against national and international standards.
	To support/promote the use of stroke data for quality improvement initiatives at local and national level.
	To provide data to support and inform national policy for stroke and related conditions.

METHODS

All patients with ischaemic and haemorrhagic stroke who were treated in public hospitals that provide acute stroke care and that admitted more than 25 patients with a stroke are included in this audit.



DATA SOURCE

Data were sourced via the Hospital In-Patient Enquiry (HIPE) system. HIPE is the principal source of national data on discharges from acute hospitals in Ireland. It collects demographic, clinical and administrative data on discharges from, and deaths in, acute public hospitals nationally. Additional stroke-specific data ([link to INAS dataset](#)) were collected on patients with a stroke and were submitted from each hospital to the HIPE system via the stroke audit portal. The HIPE data and the INAS data were merged within HIPE to form a final dataset. The INAS dataset comprises clinical data collected on all patients with a stroke; these are known as core clinical data. These data have been collected since 2013 and have evolved, with amendments in 2016, 2020 and 2021. In 2016, additional thrombectomy data collected on patients who receive a thrombectomy in an EVT stroke centre were added to the INAS dataset. In 2018, additional discipline-specific data on health and social care professionals (HSCPs) were also added. The HSCP dataset was developed by the NSP in collaboration with the professional bodies for physiotherapy, occupational therapy, and speech and language therapy. The dataset was piloted in 2017 and the first publication of the data was in 2018 (NSP, 2019). The dataset remains in the implementation phase.



DATA COLLECTION

DATA COLLECTION: CORE CLINICAL DATASET

Each hospital has an audit coordinator and a clinical lead who lead on stroke service governance within the hospital. The audit coordinator, usually an experienced nurse specialising in stroke care, collects the core clinical data and submits them to the stroke audit portal. A list of cases eligible for inclusion can be identified by running a HIPE Discharge Report within the stroke audit portal. Additional cases may be identified manually. Most data are entered retrospectively.

DATA COLLECTION: THROMBECTOMY DATASET

The thrombectomy data are collected on all patients who receive a thrombectomy in an EVT stroke centre. Core clinical data and additional thrombectomy data are entered by the audit coordinators for each patient with a stroke who receives a thrombectomy in either of the two EVT stroke centres (Beaumont Hospital or Cork University Hospital).

DATA COLLECTION: HEALTH AND SOCIAL CARE PROFESSIONAL DATASET

Data are collected by therapists in each hospital and are presented in aggregate form. The HSCP dataset includes data from one hospital that is not eligible to participate in the core clinical dataset, as it provides rehabilitation services (not acute stroke care) to patients with a stroke.



DATA VALIDATION

In 2019, the NOCA Data Analytics and Research team developed a data validation process for the INAS, as follows:

1. The HPO issues monthly coverage reports and data extracts to NOCA.
2. The data analyst produces a Data Validation Report (DVR) quarterly of any missing information within the data and any data anomalies.
3. The DVR is sent to the audit coordinators, who amend the record.



DATA ANALYSIS

HIPE data and INAS data were merged within the HPO to form an anonymised stroke extract. NOCA received the full stroke extract for 2024 from the HPO in April 2025. The analysis was completed by the NOCA Data Analyst following data checks with the HPO. Data from the HIPE/INAS dataset were extracted by the NOCA analyst to form three separate datasets: the core clinical dataset, the thrombectomy dataset and the HSCP dataset. The inclusion and exclusion criteria for all three datasets are presented below. The analysis was conducted using Statistical Package for the Social Sciences (SPSS) V25.



COVERAGE AND COMPLETENESS ANALYSIS

Coverage was defined as the proportion of cases with a principal diagnosis of stroke that had additional clinical data submitted to the stroke audit portal. A final coverage report is collated by the HPO. Any hospital with less than 80% coverage is excluded in the report.

Completeness of variables is measured by the data analyst. All results including missing data and unknowns are included in the report



INCLUSION AND EXCLUSION CRITERIA

Core clinical dataset inclusion criteria are:

- I. patients discharged between 1 January 2024 and 31 December 2024
- II. cases reported on HIPE, using the International Classification of Diseases, Tenth Revision, Australian Modification (ICD-10-AM) codes I61, I63 or I64 as a principal diagnosis¹ (Independent Hospital Pricing Authority, 2017)
- III. patients aged 17 years and over
- IV. Excluding in-hospital stroke cases
- V. all cases with the 'admission to stroke unit' field populated with either '1=Yes' or '2=No' within the stroke audit portal.



Core clinical dataset exclusion criteria are:

- I. patients aged 16 years and under
- II. patients with a HADx stroke code of I61, I63 or I64
- III. patients where the stroke occurred while in hospital with another condition
- IV. patients who had a thrombectomy in Beaumont Hospital or Cork University Hospital and were transferred back to the referring hospital on the same day.

The thrombectomy dataset inclusion criteria are:

- I. all cases with the 'thrombectomy' field populated with '1=Yes' within the stroke audit portal
- II. patients aged 17 years and over.

The thrombectomy dataset exclusion criterion is:

- I. patients aged 16 years and under.

HSCP dataset inclusion criteria are:

- I. all cases with '1=Yes' populated for the 'seen by physiotherapist', 'seen by occupational therapist', and/or 'seen by speech and language therapist' fields within the stroke audit portal
- II. patients aged 17 years and over.

HSCP dataset exclusion criterion is:

- I. patients aged 16 years and under.

NOTES ON INCLUSION AND EXCLUSION CRITERIA

Inclusion criterion IV and exclusion criteria III and IV refer to patients who had a stroke while already an inpatient with another condition (e.g. a stroke event following surgery); this is called 'in-hospital' stroke. The INAS dataset includes the collection of data on patients with in-hospital stroke, but these cases are not included in this report. These cases can be identified if the 'in-hospital stroke' field is populated as 'yes', but only those cases for which this field was populated with 'no' are included in this report. These in-hospital stroke cases can also be identified if a hospital acquired diagnosis (HADx) flag for stroke has been attached to the 'secondary diagnosis' field. These cases are also excluded from the core clinical dataset for this report.

Exclusion criterion IV refers to patients with a stroke who are transferred to an EVT stroke centre for thrombectomy and are then immediately transferred back to the referring hospital. These cases are excluded from the final denominator in the EVT stroke centre within the core clinical dataset, as this would negatively affect the results of the key quality indicators (KQIs) in the EVT stroke centre. For example, these cases would not be included in the analysis of the percentage of cases admitted to a stroke unit because they would not be expected to be admitted to the EVT stroke centre's stroke unit, as they were transferred back to the referring hospital immediately following thrombectomy.

Inclusion criterion V refers to cases where HSCP data were submitted with no associated core clinical data. This may occur if the audit coordinator did not submit data on a case or there was no audit coordinator due to a resourcing issue. In order to exclude these missing data from the core clinical dataset, any case that had no response in the 'admission to stroke unit' field was excluded.

APPENDIX 4: IRISH NATIONAL AUDIT OF STROKE: METADATA FOR COMPOSITE VARIABLES

TABLE 4.4: ACCESS TO BRAIN IMAGING FOR PATIENTS IN THE EMERGENCY DEPARTMENT, BY HOSPITAL

KQI 3: The percentage of patients with ischaemic stroke who receive thrombolysis

Out of all the patients with ischaemic stroke what was the proportion who received thrombolysis therapy.

Analysis:

The total number of patients with ischaemic stroke who received thrombolysis divided by the total number of patients with ischaemic stroke – expressed as a percentage.

Cases were included if:

- If patient had an ischaemic stroke (codes: I630, I631, I632, I633, I634, I635, I636, I637, I638, I639, I64)

Cases were excluded if:

- If patient was transferred to Beaumont Hospital or Cork University Hospital

KQI 5: Median time between hospital arrival time and time of thrombolysis (minutes)

Out of all patients who had thrombolysis performed, what was the median time to thrombolysis therapy.

Analysis:

The difference in minutes between the date/time of hospital arrival and date/time of thrombolysis – expressed as the median.

Cases were included if:

- If patient had an ischaemic stroke (codes: I630, I631, I632, I633, I634, I635, I636, I637, I638, I639, I64)
- Patient had thrombolysis performed

Cases were excluded if:

- If patient was transferred to Beaumont Hospital or Cork University Hospital
- If the date/time of arrival to the hospital and/or thrombolysis date/time was not recorded
- If the date/time of arrival to the hospital was recorded as after the thrombolysis date/time was performed
- If the interval between hospital arrival date/time and thrombolysis date/time was more than 24h apart.

TABLE 5.1: NUMBER OF STROKE UNIT BEDS, BY HOSPITAL

KQI 1: Percentage of cases admitted to a stroke unit

Out of all the patients, what was the percentage that were admitted to stroke unit.

Analysis:

The total number of patients admitted to a stroke unit divided by the total number of patients – expressed as a percentage.

KQI 2: Percentage of time patients spent in a stroke unit

Out of the total number of bed days spend in a hospital, what was the percentage of bed days spent in a stroke unit.

Analysis:

The total stroke unit LOS (length of stay: bed days) divided by the total hospital LOS (bed days) – expressed as a percentage.

- For hospital LOS, the HIPE LOS variable was used
- For stroke unit LOS, the stroke unit admission date was subtracted from stroke unit discharge date to calculate the stroke unit LOS.

Cases are excluded if:

- Patient was not admitted to a stroke unit
- If date of admission and/or discharge to the stroke unit was not recorded
- If the year of admission and/or discharge to the stroke unit deviates from the reported year
- If stroke unit LOS is bigger than hospital LOS

FIGURE 5.4: CURRENT NURSE STAFFING PER 24 HOURS COMPARED TO THE RECOMMENDED EUROPEAN STROKE ORGANISATION NURSE STAFFING TOTAL PER 24 HOURS, BY HOSPITAL

Figure presents the current nurse staffing per 24 hours with the European Stroke Organisation (ESO) recommended nurse staffing total per 24 hours, by hospital.

The **current nurse staffing per 24 hours** was calculated by summing the number of Registered General Nurses (RGNs) (question 105) and Healthcare Assistants (HCAs) (question 107) allocated to the stroke unit over a 24-hour period, Monday to Friday.

The **ESO recommended nurse staffing total per 24 hours** was derived through the following steps:

1. **Estimate monitored beds:** Divide the number of annual stroke admissions by 100 to estimate the number of monitored beds required (ESO recommends one monitored bed per 100 admissions annually).

2. **Estimate non-monitored beds:** Subtract the number of monitored beds from the total number of stroke unit beds (question 14) to estimate the number of regular (non-monitored) stroke beds.
3. **Calculate staffing for non-monitored beds:** Multiply the number of non-monitored beds by 0.5. The ESO recommends 0.5 RGNs per non-monitored bed per 24 hours.
4. **Calculate staffing for monitored beds:** Multiply the number of monitored beds by 1.5. The ESO recommends 1.5 nurses per monitored bed per 24 hours.
5. **Total ESO-recommended staffing:** Sum the staffing requirements for monitored and non-monitored beds to obtain the total ESO-recommended nurse staffing per 24 hours.

FIGURE 5.5: TOTAL CURRENT PHYSIOTHERAPIST STAFFING COMPARED TO THE RECOMMENDED PHYSIOTHERAPIST STAFFING, BY HOSPITAL

Figure presents the current and recommended whole-time equivalent (WTE) physiotherapist staffing level by hospital.

The **current WTE** was derived from question 117, which captures the number of WTE physiotherapists designated for stroke care.

The **recommended WTE** was calculated by multiplying number of patients with a stroke present on the day of survey completion (question 15) by 0.18, in line with the national stroke strategy, which recommends 0.18 physiotherapist per stroke bed.

FIGURE 5.6: TOTAL CURRENT OCCUPATIONAL THERAPIST STAFFING COMPARED TO THE RECOMMENDED OCCUPATIONAL THERAPIST STAFFING, BY HOSPITAL

Figure presents the current and recommended whole-time equivalent (WTE) occupational therapist staffing level by hospital.

The **current WTE** was derived from question 117, which captures the number of WTE occupational therapists designated for stroke care.

The **recommended WTE** was calculated by multiplying number of patients with a stroke present on the day of survey completion (question 15) by 0.16, in line with the national stroke strategy, which recommends 0.18 occupational therapist per stroke bed.

FIGURE 5.7: TOTAL CURRENT SPEECH AND LANGUAGE THERAPIST STAFFING COMPARED TO THE RECOMMENDED SPEECH AND LANGUAGE THERAPIST STAFFING, BY HOSPITAL

Figure presents the current and recommended whole-time equivalent (WTE) speech and language therapist staffing level by hospital.

The **current WTE** was derived from question 117, which captures the number of WTE speech and language therapists designated for stroke care.

The **recommended WTE** was calculated by multiplying number of patients with a stroke present on the day of survey completion (question 15) by 0.08, in line with the national stroke strategy, which recommends 0.18 speech and language therapist per stroke bed.

FIGURE 5.8: TOTAL CURRENT DIETITIAN STAFFING COMPARED TO THE RECOMMENDED DIETITIAN STAFFING, BY HOSPITAL

Figure presents the current and recommended whole-time equivalent (WTE) dietitian staffing level by hospital.

The **current WTE** was derived from question 117, which captures the number of WTE dietitians designated for stroke care.

The **recommended WTE** was calculated by multiplying number of patients with a stroke present on the day of survey completion (question 15) by 0.07, in line with the national stroke strategy, which recommends 0.18 dietitian per stroke bed.

FIGURE 5.9: TOTAL CURRENT PSYCHOLOGIST STAFFING COMPARED TO THE RECOMMENDED PSYCHOLOGIST STAFFING, BY HOSPITAL

Figure presents the current and recommended whole-time equivalent (WTE) psychologist staffing level by hospital.

The **current WTE** was derived from question 117, which captures the number of WTE psychologists designated for stroke care.

The **recommended WTE** was calculated by multiplying number of patients with a stroke present on the day of survey completion (question 15) by 0.05, in line with the national stroke strategy, which recommends 0.18 psychologist per stroke bed.

FIGURE 5.10: TOTAL CURRENT MEDICAL SOCIAL WORKER STAFFING COMPARED TO THE RECOMMENDED MEDICAL SOCIAL WORKER STAFFING, BY HOSPITAL

Figure presents the current and recommended whole-time equivalent (WTE) medical social worker staffing level by hospital.

The **current WTE** was derived from question 117, which captures the number of WTE medical social workers designated for stroke care.

The **recommended WTE** was calculated by multiplying number of patients with a stroke present on the day of survey completion (question 15) by 0.1, in line with the national stroke strategy, which recommends 0.18 medical social worker per stroke bed.

APPENDIX 5: NURSE STAFFING IN ACUTE STROKE UNITS

Overview

Nurse staffing in acute stroke units is guided by the nationally endorsed Framework for Safe Nurse Staffing and Skill Mix in General and Specialist Medical and Surgical Care Settings in Adult Hospitals (2018). This framework, implemented across adult acute hospitals, ensures that staffing reflects real-time patient acuity and dependency. The model uses *Nursing Hours per Patient Day* (NHpPD) as a core planning metric. Importantly, this framework encompasses both Registered Nurses and Health Care Assistants (HCAs) with a recommended skill mix of 80:20 (Acute Hospitals).

Nursing Hours per Patient Day (NHpPD) is a measure of the number of nursing care hours required per patient in a 24-hour period. It reflects the complexity, acuity, and dependency of the patient group and is used to align staffing levels with actual care needs. NHpPD is central to the Safe Staffing Framework and underpins evidence-based workforce planning across acute hospital settings.

Staffing Application in Stroke Care

It is advised that stroke wards, including those with high-acuity stroke beds, be staffed in accordance with the *Framework for Safe Nurse Staffing and Skill Mix in General and Specialist Medical and Surgical Care Settings in Adult Hospitals in Ireland, 2018*. Whole-time equivalent staffing requirements shall be determined through the application of the Framework's methodology. The acuity and dependency requirements of patients are measured utilising Nursing Hours per Patient Day (NHpPD). These WTE values must be interpreted in the context of real-time patient needs. Approved WTEs based on static calculations may not fully reflect fluctuating acuity levels. This is consistent with the caution noted below regarding the limitations of static data when planning for or auditing staffing in dynamic clinical environments.



Static Data Alert: Point-in-time staffing data can be misleading. Patient acuity fluctuates frequently, and a snapshot of staff allocation may not represent actual or anticipated care needs. Planning and reporting should always be grounded in dynamic NHpPD assessments, not historical or fixed establishment figures.

Stroke patients present with a range of complex and evolving care needs. NHpPD for stroke patients typically ranges from 4.47 to 8.5, with High Dependency classifications requiring up to 11.62 NHpPD. The Safe Staffing Framework ensures these requirements are appropriately reflected in the ward's staff and skill mix.

Visual Insight:

- Typical NHpPD: 4.47 – 8.5

- High Dependency NHpPD: Up to 11.62

- Recommended Skill Mix: 80% RN / 20% HCA

TrendCare, the national acuity-based workforce planning system, is the preferred tool for continuously monitoring patient dependency and aligning staffing accordingly. Where TrendCare is not yet operational, sites are using the Safe Staffing Framework with validated local data and comparators to support planning and benchmarking.

Recommendations:

- The National Clinical Programme for Stroke will continue collaborating closely with the National lead for Safe Nurse Staffing and Skill Mix within the Office of the Nursing and Midwifery Services Director (ONMSD). Ongoing collaboration between NCP Stroke, individual hospital sites and the ONMSD to deliver the Safe Staffing framework
- Stroke units/wards should continue the Framework for Safe Nurse Staffing and Skill Mix methodology to identify their workforce requirements
- A Biannual Audit will be carried out by the NCP stroke to reflect the:
 - a. NHpPD required & NHpPD available on Stroke ward/unit on sites with TrendCare in operation
 - b. Nursing WTE required & Nursing WTE available on stroke ward/unit where TrendCare is not in operation

It is acknowledged that other countries apply various models to determine nurse staffing in stroke services. Within Ireland, the nationally agreed Framework *for Safe Nurse Staffing and Skill Mix in General and Specialist Medical and Surgical Care Settings in Adult Hospitals in Ireland, 2018*. Ensures a consistent, evidence-informed approach tailored to patient complexity

Conclusion

Nurse staffing in acute stroke units/wards must be flexible, evidence-based, and responsive to patient acuity and dependency requirements. The Framework for Safe nurse Staffing and Skill Mix remains the national policy to achieving this, its consistent use is key to delivering high-quality, safe, and equitable stroke care across Ireland.

Document References

Department of Health (2018). Framework for Safe Nurse Staffing and Skill Mix in General and Specialist Medical and Surgical Care Settings in Adult Hospitals in Ireland

INAS Organisational Report (2021)

Document Name	NOCA Audit Process Data Quality Assessment
Document No	TEM 13
Version No	1
Active Date	01/11/2021

APPENDIX 6: INAS DATA QUALITY STATEMENT 2024

Audit	Irish National Audit of Stroke
Purpose	Illustrate the data quality processes which the audit/ national data collection will apply in the year ahead.
Effective from	01 /01/ 2024 - 31/12/2024
Developed by	Joan McCormack
Date	9/2/24
Approved by	QA and Operations Manager / Designee
Date	

Document Name	NOCA Audit Process Data Quality Assessment
Document No	TEM 13
Version No	1
Active Date	01/11/2021

Relevance

Relevant data meets the current and potential future needs of users.

Characteristic	Criteria	Assessment
Release and use of data	Are regular assessments carried out to determine whether all of the data that is being collected is being used?	Yes ☒ No ☐
	Has a list of key users and their use of the data been compiled, including unmet user needs?	Yes ☒ No ☐ Partially ☐
	Is this reviewed annually?	Yes ☒ No ☐ Partially ☐
Value of data	Are data users consulted to establish if the data available assists them in achieving their objectives?	Yes ☒ No ☐
	Are quality improvement plans in place to address required improvements in the data in order to ensure the data remains relevant to users?	Yes ☒ No ☐ Partially ☐
Adaptability of the data source	Are procedures in place to gather information on the potential future needs of data users?	Yes ☒ No ☐ Partially ☐
	Are data user needs prioritised as a result, of consultation undertaken with data users about how the data relates to their needs?	Yes ☒ No ☐
Additional comment INAS is participating in a research led revision of the dataset. This is due to be completed in 2024 and the governance committee will agree any changes to the current dataset based on the results.		

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Accuracy and Reliability

The accuracy of data refers to how closely the data correctly describes what it was designed to measure. Reliability refers to whether that data consistently measures, over time, the reality that it was designed to represent.

Characteristic	Criteria	Assessment
Coverage	Are details of the reference population explicitly stated in all information releases and is the coverage of the population quantified?	Yes ☒ No ☐ Partially ☐
	Are significant coverage issues that may impact analysis and interpretation of data documented and made available to users?	Yes ☒ No ☐ N/A ☐
	Are processes in place to identify and handle duplicate and potential duplicate records within the data?	Yes ☐ No ☒ Partially ☐
Data capture and collection	Are issues with the quality of data submitted that have the potential to impact significantly on analysis and interpretation of that data addressed and documented for users of the data?	Yes ☒ No ☐ N/A ☐
Data processing	Are data validation processes applied consistently and are the processes documented for data users?	Yes ☒ No ☐ Partially ☐
Completeness and validity	Are rates of valid, invalid, missing and outlier values documented and updated routinely and reported with each data release?	Yes ☒ No ☐ Partially ☐
Revisions	Are revisions or corrections made to the data regularly analysed to ensure effective statistical use of same?	Yes ☒ No ☐
Additional comment Attaching the IHI to the HIPE records is a recommendation of the 2021 report.		

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Timeliness and Punctuality

Timely data is collected within a reasonable agreed time-period after the activity that it measures. Punctuality refers to whether data are delivered or reported on the dates promised, advertised or announced.

Characteristic	Criteria	Assessment
Submission timeliness	Are procedures in place to ensure the effective and timely submission of data from providers?	Yes ☒ No ☐
	Are agreements in place with data providers, which detail planned dates for submission of data?	Yes ☒ No ☐
	Are follow-up procedures in place to ensure timely receipt of data, including procedures to address necessary improvements?	Yes ☒ No ☐
Processing timeliness	Are data processing activities regularly and systematically reviewed to improve timeliness and has an associated action plan been developed and implemented?	Yes ☒ No ☐
Release timeliness and punctuality	Has a data release policy and procedures document, which includes targets for timeliness, been developed, published and implemented? Does the policy describe revisions for key outputs that are subject to scheduled revisions?	Yes ☐ No ☐ Partially ☒
	Do planned releases occur within a specified period of time from the end of the reference period?	Yes ☒ No ☐
	In the event of delays affecting a planned release, are delays and causes documented and made available to data users?	Yes ☒ No ☐ Partially ☐
	Is an up-to-date release calendar publicly available?	Yes ☐ No ☒
Additional comment Free text for additional supporting information		

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Coherence and Comparability

Coherent and comparable data is consistent over time and across providers and can be easily combined with other sources.

Characteristic	Criteria	Assessment
Standardisation	Is data collected in line with national and international standards and classifications?	Yes ☒ No ☐ Partially ☐
	Is a data dictionary available?	Yes ☒ No ☐
	If yes, is it publicly available?"	Yes ☐ No ☒
Coherence	Is aggregated data compared with other sources of data, for example, administrative data, that provide the same or similar information on the same phenomenon?	Yes ☒ No ☐
	Are divergences identified and clearly explained to data users?	Yes ☒ No ☐
Historical comparability	Are historical changes/trends in the data documented and publicly available for data users?	Yes ☒ No ☐ N/A ☐
	Are any changes in the data/trends that can potentially have a significant impact on interpretation and analysis of data, that is, changes to key elements of the data set, documented and available for data users?	Yes ☒ No ☐ N/A ☐
Regional comparability	Is the impact of any identified differences in data across regions documented?	Yes ☒ No ☐ N/A ☐
Additional comment Data dictionary details start and end dates of all variables.		

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Accessibility and Clarity

Data are easily obtainable and clearly presented in a way that can be understood.

Characteristic	Criteria	Assessment
Accessibility	Are data available to users in a form that facilitates proper interpretation and meaningful comparisons?	Yes ☒ No ☐
	Is ICT effectively used to disseminate data and information?	Yes ☒ No ☐
Interpretability	Are supporting documents, for example, metadata, publicly available to facilitate clarity of interpretation for data users?	Yes ☒ No ☐ Partially ☐
	Does a revision policy exist which covers all data and is it available to data users?	Yes ☐ No ☒ Partially ☐
Additional comment Free text for additional supporting information		

Document Name	NOCA Audit Process Data Quality Assessment
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Data Quality

Improvement plan

Improvement plans for timeframe of this Data Quality statement

Driver	Improvement action	Lead	Due by
Rationale for improvement, Should reference data quality dimension	Should be action orientated	NOCA lead	Expected completion date

Reference

Health Information and Quality Authority (2018) Data Quality Assessment Tool for health and social care. Available from: <https://www.hiqa.ie/reports-and-publications/health-information/guidance-data-quality-framework-health-and-social-care> [Accessed on: 31st August, 2021]

APPENDIX 7: FREQUENCY TABLES

FIGURE 5.1: MEMBERSHIP OF THE STROKE GOVERNANCE COMMITTEE (n=19)

	N	%
Stroke consultant	18	94.7%
Senior nursing representative	18	94.7%
Senior HSCP representative	17	89.5%
Senior accountable hospital manager	14	73.7%
Representation from radiology	13	68.4%
Stroke registrar/fellow	11	57.9%
Quality manager	9	47.4%
Total number of hospitals	19	100.0%

FIGURE 5.2: HEALTHCARE PROFESSIONAL RESPONSIBLE FOR THE INITIAL REVIEW OF BRAIN IMAGING TO INFORM DECISIONS ABOUT THROMBOLYSIS/THROMBECTOMY

Fixed	In-hours		Out of hours	
	n	%	n	%
Stroke consultant on site	9	31.0%	0	0.0%
Stroke consultant remotely via phone	0	0.0%	5	19.2%
Stroke NCHD	2	6.9%	1	3.8%
Neuroradiologist	2	6.9%	2	7.7%
General radiologist	14	48.3%	15	57.7%
Reporting hub	1	3.4%	1	3.8%
ED consultant/registrar	0	0.0%	0	0.0%
Medical consultant/registrar	0	0.0%	2	7.7%
Stroke consultant at own hospital via telemedicine link	0	0.0%	0	0.0%
Stroke consultant in region/network via telemedicine	0	0.0%	0	0.0%
Assisted decision making app	1	3.4%	0	0.0%
Total	29	100.0%	26	100.0%

FIGURE 5.3: HEALTHCARE PROFESSIONAL WHO MAKES THE DECISION TO TRANSFER THE PATIENT FOR THROMBECTOMY

	In-hours		Out-of-hours	
	n	%	n	%
Stroke non-consultant hospital doctors	1	4.8%	1	5.0%
Stroke consultant	10	47.6%	9	45.0%
Neuroradiologist at referring hospital	3	14.3%	2	10.0%
Neuroradiologist at endovascular thrombectomy centre	6	28.6%	7	35.0%
Stroke team at thrombectomy centre	1	4.8%	1	5.0%
Total	21	100.0%	20	100.0%

FIGURE 6.3: MEDICAL SPECIALTIES CONTRIBUTING TO PROVIDING STROKE SERVICE COVER (N=24)

	In-hours		Out-of-hours		Total
Geriatric medicine	20	83%	16	67%	24
Neurology	6	25%	6	25%	24
General medicine	8	33%	11	46%	24
Clinical pharmacology	2	8%	2	8%	24

FIGURE 6.1: NUMBER OF STROKE UNIT BEDS (N=244) IN COMPARISON TO NUMBER OF PATIENTS WITH A STROKE BY HOSPITAL

	Number of stroke unit beds available	Number of patients with a stroke in the hospital on the day of survey completion
Bantry General Hospital	4	5
Beaumont Hospital	26	34
Cavan General Hospital	8	6
Connolly Hospital	10	23
Cork University Hospital	31	42
Letterkenny University Hospital	8	10
Mater Misericordiae University Hospital	18	18
Mayo University Hospital	12	9
Mercy University Hospital	6	7
Naas General Hospital	10	14
Our Lady of Lourdes Hospital Drogheda	10	26
Portiuncula University Hospital	4	3
Regional Hospital Mullingar	4	10
Sligo University Hospital	10	10
St James's Hospital	6	26
St Luke's General Hospital, Carlow/Kilkenny	6	6
St Vincent's University Hospital	10	22
Tallaght University Hospital	9	25
Tipperary University Hospital	12	14
University Hospital Galway	10	19
University Hospital Kerry	4	19
University Hospital Limerick	15	28
University Hospital Waterford	7	17
Wexford General Hospital	4	13
Total	244	406

FIGURE 6.2: NUMBER OF STROKE UNIT BEDS (N=244) COMPARED WITH THE NUMBER OF STROKE UNIT BEDS OCCUPIED BY PATIENTS WITH A STROKE (n=219), BY HOSPITAL

	Number of stroke unit beds available	Number of patients with a stroke in a stroke unit bed
--	--------------------------------------	---

Bantry General Hospital	4	4
Beaumont Hospital	26	26
Cavan General Hospital	8	6
Connolly Hospital	10	8
Cork University Hospital	31	28
Letterkenny University Hospital	8	8
Mater Misericordiae University Hospital	18	14
Mayo University Hospital	12	9
Mercy University Hospital	6	5
Naas General Hospital	10	10
Our Lady of Lourdes Hospital Drogheda	10	10
Portiuncula University Hospital	4	1
Regional Hospital Mullingar	4	2
Sligo University Hospital	10	10
St James's Hospital	6	6
St Luke's General Hospital, Carlow/Kilkenny	6	5
St Vincent's University Hospital	10	8
Tallaght University Hospital	9	8
Tipperary University Hospital	12	12
University Hospital Galway	10	10
University Hospital Kerry	4	4
University Hospital Limerick	15	15
University Hospital Waterford	7	6
Wexford General Hospital	4	4
Total	244	219

FIGURE 6.3: MEDICAL SPECIALTIES CONTRIBUTING TO PROVIDING STROKE SERVICE COVER (N=24)

	Normal working hours		Out-of-hours		Total
Geriatric medicine	20	83%	16	67%	24
Neurology	6	25%	6	25%	24
General medicine	8	33%	11	46%	24
Clinical pharmacology	2	8%	2	8%	24

FIGURE 6.4: CURRENT NURSE STAFFING PER 24 HOURS COMPARED TO THE RECOMMENDED EUROPEAN STROKE ORGANISATION NURSE STAFFING TOTAL PER 24 HOURS, BY HOSPITAL

	Current nurse staffing per 24 hours	ESO recommended nurse staffing total per 24 hours
Bantry General Hospital	2.5	2.7
Beaumont Hospital	15	19.0
Cavan General Hospital	2	5.6
Connolly Hospital	3.5	8.0
Cork University Hospital	9	22.9
Letterkenny University Hospital	6	6.0
Mater Misericordiae University Hospital	14	12.9
Mayo University Hospital	4.5	8.4

Mercy University Hospital	3.5	3.9
Naas General Hospital	5	6.9
Our Lady of Lourdes Hospital Drogheda	5.5	8.1
Portiuncula University Hospital	3	2.7
Regional Hospital Mullingar	2	3.8
Sligo University Hospital	4.5	7.7
St James's Hospital	5.5	6.1
St. Luke's General Hospital Kilkenny	2.5	4.9
St. Vincent's University Hospital	5	9.4
Tallaght University Hospital	5	8.6
Tipperary University Hospital	5.5	7.6
University Hospital Galway	5	8.7
University Hospital Kerry	3	4.6
University Hospital Limerick	13	12.8
University Hospital Waterford	3.5	5.6
Wexford General Hospital	4	3.8
Total	132	191

FIGURE 6.5: TOTAL CURRENT PHYSIOTHERAPIST STAFFING COMPARED WITH THE PHYSIOTHERAPIST STAFFING RECOMMENDED BY THE *NATIONAL STROKE STRATEGY 2022-2027*, BY HOSPITAL

	Current WTE physiotherapists	Recommended WTE physiotherapists
Bantry General Hospital	1	0.9
Beaumont Hospital	3	6.12
Cavan General Hospital	1	1.08
Connolly Hospital	1	4.14
Cork University Hospital	4	7.56
Letterkenny University Hospital	1	1.8
Mater Misericordiae University Hospital	3	3.24
Mayo University Hospital	1.2	1.62
Mercy University Hospital	0.3	1.26
Naas General Hospital	1.5	2.52
Our Lady of Lourdes Hospital Drogheda	2	4.68
Portiuncula University Hospital	0	0.54
Regional Hospital Mullingar	0.7	1.8
Sligo University Hospital	1.5	1.8
St James's Hospital	2	4.68
St. Luke's General Hospital Kilkenny	0.8	1.08
St. Vincent's University Hospital	2.3	3.96
Tallaght University Hospital	4.5	4.5
Tipperary University Hospital	0.2	2.52
University Hospital Galway	1.4	3.42
University Hospital Kerry	1.5	3.42
University Hospital Limerick	3	5.04
University Hospital Waterford	0.5	3.06
Wexford General Hospital	0.6	2.34
Total	38.0	73.08

FIGURE 6.6: TOTAL CURRENT OCCUPATIONAL THERAPIST STAFFING COMPARED WITH THE OCCUPATIONAL THERAPIST STAFFING RECOMMENDED BY *THE NATIONAL STROKE STRATEGY 2022-2027*, BY HOSPITAL

	Current WTE occupational therapists	Recommended WTE occupational therapists
Bantry General Hospital	1	0.8
Beaumont Hospital	2	5.44
Cavan General Hospital	0	0.96
Connolly Hospital	0.5	3.68
Cork University Hospital	4	6.72
Letterkenny University Hospital	1	1.6
Mater Misericordiae University Hospital	3	2.88
Mayo University Hospital	0.6	1.44
Mercy University Hospital	0.2	1.12
Naas General Hospital	1	2.24
Our Lady of Lourdes Hospital Drogheda	1.5	4.16
Portiuncula University Hospital	0	0.48
Regional Hospital Mullingar	1	1.6
Sligo University Hospital	1	1.6
St James's Hospital	1.5	4.16
St. Luke's General Hospital Kilkenny	0.8	0.96
St. Vincent's University Hospital	3.5	3.52
Tallaght University Hospital	2	4
Tipperary University Hospital	1	2.24
University Hospital Galway	1.5	3.04
University Hospital Kerry	1.5	3.04
University Hospital Limerick	0.3	4.48
University Hospital Waterford	0.5	2.72
Wexford General Hospital	0.5	2.08
Total	29.9	65.0

FIGURE 6.7: TOTAL CURRENT SPEECH AND LANGUAGE THERAPIST STAFFING COMPARED WITH THE SPEECH AND LANGUAGE THERAPIST STAFFING RECOMMENDED BY THE *NATIONAL STROKE STRATEGY 2022-2027*, BY HOSPITAL

	Current WTE speech and language therapists	Recommended WTE speech and language therapists
Bantry General Hospital	0.5	0.4
Beaumont Hospital	1	2.72
Cavan General Hospital	0.5	0.48
Connolly Hospital	0.4	1.84
Cork University Hospital	3	3.36
Letterkenny University Hospital	0.2	0.8
Mater Misericordiae University Hospital	2	1.44
Mayo University Hospital	2	0.72
Mercy University Hospital	0.2	0.56
Naas General Hospital	0.5	1.12
Our Lady of Lourdes Hospital Drogheda	0.5	2.08
Portiuncula University Hospital	0	0.24

Regional Hospital Mullingar	0.5	0.8
Sligo University Hospital	1	0.8
St James`s Hospital	1	2.08
St. Luke`s General Hospital Kilkenny	0.8	0.48
St. Vincent`s University Hospital	2	1.76
Tallaght University Hospital	2.5	2
Tipperary University Hospital	1.2	1.12
University Hospital Galway	1	1.52
University Hospital Kerry	1.2	1.52
University Hospital Limerick	2	2.24
University Hospital Waterford	0.2	1.36
Wexford General Hospital	0.8	1.04
Total	25.0	32.48

FIGURE 6.8: TOTAL CURRENT DIETITIAN STAFFING COMPARED WITH THE DIETITIAN STAFFING RECOMMENDED BY THE *NATIONAL STROKE STRATEGY 2022-2027*, BY HOSPITAL

	Current WTE dietitians	Recommended WTE dietitian
Bantry General Hospital	0.5	0.37
Beaumont Hospital	1	2.516
Cavan General Hospital	0.5	0.444
Connolly Hospital	0.4	1.702
Cork University Hospital	1	3.108
Letterkenny University Hospital	0.1	0.74
Mater Misericordiae University Hospital	1	1.332
Mayo University Hospital	0.2	0.666
Mercy University Hospital	0.1	0.518
Naas General Hospital	0.5	1.036
Our Lady of Lourdes Hospital Drogheda	0.8	1.924
Portiuncula University Hospital	0	0.222
Regional Hospital Mullingar	0.2	0.74
Sligo University Hospital	0.2	0.74
St James`s Hospital	0.2	1.924
St. Luke`s General Hospital Kilkenny	0.1	0.444
St. Vincent`s University Hospital	0.5	1.628
Tallaght University Hospital	1	1.85
Tipperary University Hospital	0.2	1.036
University Hospital Galway	0.5	1.406
University Hospital Kerry	0.8	1.406
University Hospital Limerick	0.5	2.072
University Hospital Waterford	0.3	1.258
Wexford General Hospital	0	0.962
Total	10.6	30.044

FIGURE 6.9: TOTAL CURRENT PSYCHOLOGIST STAFFING COMPARED WITH THE PSYCHOLOGIST STAFFING RECOMMENDED BY THE *NATIONAL STROKE STRATEGY 2022-2027*, BY HOSPITAL

	Current WTE psychologists	Recommended WTE psychologists
Bantry General Hospital	0	0.25
Beaumont Hospital	0	1.7
Cavan General Hospital	0	0.3
Connolly Hospital	0	1.15
Cork University Hospital	1	2.1
Letterkenny University Hospital	0	0.5
Mater Misericordiae University Hospital	1	0.9
Mayo University Hospital	0	0.45
Mercy University Hospital	0	0.35
Naas General Hospital	1.5	0.7
Our Lady of Lourdes Hospital Drogheda	0	1.3
Portiuncula University Hospital	0	0.15
Regional Hospital Mullingar	0.1	0.5
Sligo University Hospital	0	0.5
St James's Hospital	0	1.3
St. Luke's General Hospital Kilkenny	0	0.3
St. Vincent's University Hospital	0	1.1
Tallaght University Hospital	1	1.25
Tipperary University Hospital	0	0.7
University Hospital Galway	0.1	0.95
University Hospital Kerry	0	0.95
University Hospital Limerick	0.5	1.4
University Hospital Waterford	0	0.85
Wexford General Hospital	0	0.65
Total	5.2	20.3

FIGURE 6.10: TOTAL CURRENT MEDICAL SOCIAL WORKER STAFFING COMPARED WITH THE MEDICAL SOCIAL WORKER STAFFING RECOMMENDED BY THE NATIONAL STROKE STRATEGY 2022-2027, BY HOSPITAL

	Current WTE MSW	Recommended WTE MSW
Bantry General Hospital	0	0.5
Beaumont Hospital	1	3.4
Cavan General Hospital	0	0.6
Connolly Hospital	0.5	2.3
Cork University Hospital	1	4.2
Letterkenny University Hospital	0.1	1
Mater Misericordiae University Hospital	0.9	1.8
Mayo University Hospital	0.2	0.9
Mercy University Hospital	0.2	0.7
Naas General Hospital	0.5	1.4
Our Lady of Lourdes Hospital Drogheda	0.5	2.6
Portiuncula University Hospital	0	0.3
Regional Hospital Mullingar	0.1	1
Sligo University Hospital	0.1	1
St James's Hospital	0.1	2.6
St. Luke's General Hospital Kilkenny	1	0.6
St. Vincent's University Hospital	1	2.2

Tallaght University Hospital	1	2.5
Tipperary University Hospital	0.1	1.4
University Hospital Galway	1.3	1.9
University Hospital Kerry	0	1.9
University Hospital Limerick	0	2.8
University Hospital Waterford	0.1	1.7
Wexford General Hospital	0.1	1.3
Total	9.8	40.6

FIGURE 6.11: RESOURCES AVAILABLE FOR PATIENTS ON DISCHARGE FROM HOSPITAL

	Yes		No		Total	
	N	%	N	%	N	%
Made use of the Irish Heart Foundation online support services	23	96%	1	4%	24	100%
Formal, written plan for follow up and continued rehabilitation on discharge	12	50%	12	50%	24	100%
Formal links with patients'/carers' organisations for communication	15	63%	9	38%	24	100%
Stroke support group	17	71%	7	29%	24	100%
Policy to give patients a named contact on transfer from hospital to community	7	29%	17	71%	24	100%

FIGURE 7.1: USUAL WAITING TIME FOR PATIENTS TO RECEIVE CAROTID IMAGING

	N	%
The next day	1	4%
The next weekday	7	29%
The same day (5 days a week)	6	25%
The same day (7 days a week)	4	17%
Within a week	6	25%
Total	24	100%

FIGURE 7.2: METHODS USED BOTH IN-HOURS AND OUT OF HOURS FOR IMAGING EXTRA-CRANIAL VESSELS

	Yes		Total	
	N	%	N	%
Doppler Ultrasound in-hours	14	58%	24	100%
Doppler out-of-hours	0	0%	24	100%
CTA in-hours	15	63%	24	100%
CTA out-of-hours	22	92%	24	100%
MRA in-hours	3	13%	24	100%
MRA out-of-hours	1	4%	24	100%
No service in-hours	0	0%	24	100%
No service out-of-hours	1	4%	24	100%

FIGURE 7.3: STROKE PATIENT SELECTION FOR ECHOCARDIOGRAPHY

		N	%
Majority of patients post stroke	Yes	21	88%

	Total	24	100%
Patients suggestive of cardioembolic source on brain imaging	Yes	9	38%
	Total	24	100%
In patients in Atrial Fibrillation	Yes	9	38%
	Total	24	100%
Young patients with suspicion of PFO	Yes	11	46%
	Total	24	100%
Patients with any abnormal ECG	Yes	8	33%
	Total	24	100%
Patients with suspected valvular lesions	Yes	10	42%
	Total	24	100%
Patients with new heart failure	Yes	9	38%
	Total	24	100%
Patients with known heart failure	Yes	6	25%
	Total	24	100%

FIGURE 8.1: TOTAL CURRENT PHYSIOTHERAPIST STAFFING ON EARLY SUPPORTED DISCHARGE TEAMS COMPARED WITH RECOMMENDED PHYSIOTHERAPIST STAFFING ON EARLY SUPPORTED DISCHARGE TEAMS, AS PER THE *NATIONAL STROKE STRATEGY 2022-2027*, BY HOSPITAL

	Current WTE in post	Resourced, but not in post	Recommended WTE
Beaumont Hospital	1	1	1
Cavan General Hospital	2	2	1
Connolly Hospital	1	1	1
Cork ESD Team (CUH and MUH)	1	1	1
Mater Misericordiae University Hospital	1	1	1
Our Lady of Lourdes Hospital Drogheda	1	1	1
Sligo University Hospital	0	1	1
St James's Hospital	0.5	1	1
St. Vincent's University Hospital	1	1	1
Tallaght University Hospital	1	1	1
University Hospital Galway	1.1	1.1	1
University Hospital Kerry	0.5	0.5	1
University Hospital Limerick	1	1	1
Total	12.1	13.6	13

FIGURE 8.2: TOTAL OCCUPATIONAL THERAPIST STAFFING ON EARLY SUPPORTED DISCHARGE TEAM COMPARED WITH RECOMMENDED OCCUPATIONAL THERAPIST STAFFING ON EARLY SUPPORTED DISCHARGE TEAM, AS PER THE *NATIONAL STROKE STRATEGY 2022-2027*, BY HOSPITAL

	Current WTE in post	Resourced, but not in post	Recommended WTE
Beaumont Hospital	1	1	1
Cavan General Hospital	2	2	1
Connolly Hospital	1	1	1
Cork ESD Team (CUH and MUH)	1.5	1.5	1
Mater Misericordiae University Hospital	1.4	1.5	1
Our Lady of Lourdes Hospital Drogheda	1	1	1

Sligo University Hospital	1	1	1
St James's Hospital	1	1	1
St. Vincent's University Hospital	1	1	1
Tallaght University Hospital	1	1	1
University Hospital Galway	1.5	1.5	1
University Hospital Kerry	1	1	1
University Hospital Limerick	1	1	1
Total	15.4	15.5	13

FIGURE 8.3: TOTAL SPEECH AND LANGUAGE THERAPIST STAFFING ON EARLY SUPPORTED DISCHARGE TEAM COMPARED WITH RECOMMENDED SPEECH AND LANGUAGE THERAPIST STAFFING ON EARLY SUPPORTED DISCHARGE TEAM, AS PER THE *NATIONAL STROKE STRATEGY 2022-2027*, BY HOSPITAL

	Current WTE in post	Resourced, but not in post	Recommended WTE
Beaumont Hospital	1	1	1
Cavan General Hospital	0	0	1
Connolly Hospital	1	1	1
Cork ESD Team (CUH and MUH)	1	1	1
Mater Misericordiae University Hospital	1	1	1
Our Lady of Lourdes Hospital Drogheda	0	1	1
Sligo University Hospital	1	1	1
St James's Hospital	1	1	1
St. Vincent's University Hospital	0	1	1
Tallaght University Hospital	1	1	1
University Hospital Galway	0	1	1
University Hospital Kerry	0.5	0.5	1
University Hospital Limerick	0	1	1
Total	7.5	11.5	13

FIGURE 8.4: TOTAL CLINICAL NURSE SPECIALIST STAFFING ON EARLY SUPPORTED DISCHARGE TEAM COMPARED WITH RECOMMENDED CLINICAL NURSE SPECIALIST STAFFING ON EARLY SUPPORTED DISCHARGE TEAM, AS PER THE *NATIONAL STROKE STRATEGY 2022-2027*, BY HOSPITAL

	Current WTE in post	Resourced, but not in post	Recommended WTE
Beaumont Hospital	1	1	0.5
Cavan General Hospital	0	0	0.5
Connolly Hospital	0	0	0.5
Cork ESD Team (CUH and MUH)	0	0	0.5
Mater Misericordiae University Hospital			0.5
Our Lady of Lourdes Hospital Drogheda	1	1	0.5
Sligo University Hospital	0.5	0.5	0.5
St James's Hospital	0	0	0.5
St. Vincent's University Hospital	1	1	0.5
Tallaght University Hospital	0	0	0.5
University Hospital Galway	0	0	0.5
University Hospital Kerry	1	1	0.5
University Hospital Limerick	0.5	0.5	0.5
Total	5.00	5.00	6.5

FIGURE 8.5: TOTAL MEDICAL SOCIAL WORKER STAFFING ON EARLY SUPPORTED DISCHARGE TEAM COMPARED WITH RECOMMENDED MEDICAL SOCIAL WORKER STAFFING ON EARLY SUPPORTED DISCHARGE TEAM, AS PER THE NATIONAL STROKE STRATEGY 2022-2027, BY HOSPITAL

	Current WTE in post	Resourced, but not in post	Recommended WTE
Beaumont Hospital	0.5	1	0.5
Cavan General Hospital	0	0	0.5
Connolly Hospital	0	0	0.5
Cork ESD Team (CUH and MUH)	0	0	0.5
Mater Misericordiae University Hospital	0.2	0.5	0.5
Our Lady of Lourdes Hospital Drogheda	1	1	0.5
Sligo University Hospital	0	0	0.5
St James's Hospital	0.1	0.5	0.5
St. Vincent's University Hospital	0	0.5	0.5
Tallaght University Hospital	0	0	0.5
University Hospital Galway	0.2	0	0.5
University Hospital Kerry	0	0	0.5
University Hospital Limerick	0	0	0.5
Total	2	3.5	6.5

FIGURE 8.6: TOTAL THERAPY ASSISTANT STAFFING ON EARLY SUPPORTED DISCHARGE TEAM COMPARED WITH RECOMMENDED THERAPY ASSISTANT STAFFING ON EARLY SUPPORTED DISCHARGE TEAM, AS PER THE NATIONAL STROKE STRATEGY 2022-2027, BY HOSPITAL

	Current WTE in post	Resourced, but not in post	Recommended WTE
Beaumont Hospital	1	1	1
Cavan General Hospital	0.2	0.2	1
Connolly Hospital	0	0	1
Cork ESD Team (CUH and MUH)	0	0	1
Mater Misericordiae University Hospital	1	1	1
Our Lady of Lourdes Hospital Drogheda	1	1	1
Sligo University Hospital	1	1	1
St James's Hospital	0.5	0.5	1
St. Vincent's University Hospital	0	0	1
Tallaght University Hospital	1	1	1
University Hospital Galway	1	1	1
University Hospital Kerry	1.5	1.5	1
University Hospital Limerick	0	0	1
Total	8.2	8.2	13

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