



Data Reconciliation Project for UHL Stroke Service

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Introduction

- The driver for this quality improvement project (QIP) was the identification of a data mismatch between University Hospital Limerick (UHL) stroke register data and HIPE stroke data.
- Hospitals with less than 80% coverage are not included in the national stroke audit.



- 2018: UHL stroke register portal had **366** patients and HIPE had entered **211** patients on the data entry (57% coverage).
 - Inadequate representation of stroke admissions to UHL.
 - Negative reputational consequence.
 - Money follows patient.

Hospital	HIPE cases with additional		
	HIPE i61, i63, i64 cases	stroke register data	Coverage
Our Lady of Lourdes Hospital Drogheda	217	217	100
Cavan General Hospital	151	151	100
Beaumont Hospital	578	576	99.7
Bantry University Hospital	82	80	97.6
Letterkenny University Hospital	163	158	96.9
St Lukes's Hospital Kilkenny	126	121	96
University Hospital Waterford	139	132	95
Mayo University Hospital	162	153	94.4
St James's Hospital	264	240	90.9
Tallaght University Hospital	266	241	90.6
Connolly Hospital	168	152	90.5
Galway University Hospital	304	273	89.8
Cork University Hospital	527	469	89
Portiuncula University Hospital	75	64	85.3
St Vincent's University Hospital	428	358	83.6
Mercy University Hospital	95	80	84.2
Our Lady's Hospital Navan	81	66	81.5
Naas General Hospital	203	164	80.8
Wexford General Hospital	160	124	77.5
Midland Regional Hospital Mullingar	126	93	73.8
Mater Misericordiae University Hospital	382	262	68.6
★ University Hospital Limerick	366	211	57.7
South Tipperary Hospital Clonmel	112	65	58
Sligo University Hospital	143	82	57.3
Kerry University Hospital	194	87	44.8



Aims

- To develop accuracy and clarity of the stroke data collection,
- To improve the standard of stroke care in UHL and ensure the data is an accurate representation of the volume of work of the stroke services in UHL.

Objectives

- To identify gaps and anomalies in coding of stroke data for HIPE.
- Collaborate with all stakeholders i.e. HIPE coders, stroke MDT, HPO and NOCA to understand the reasons and agree actions and solutions.
- UHL stroke data to achieve 80% compliance between HIPE and stroke portal and therefore be included in national stroke audit for 2019 and onwards to enable a fair comparison with other Irish stroke sites.

Methods

Step 1: Stroke CNS helped by data analyst compared 2018 HIPE data with stroke portal data collected by the CNS.

- Identified CNS staffing gaps.
- 43% of stroke patients did not meet the Australian Coding standards criteria to be HIPE coded with a principal diagnosis of stroke.
- A significant number of patients who transferred back to UHL post thrombectomy/neurosurgery, were coded correctly as surgical follow-up care as per the existing Australian coding standards at the time, however these cases did not reflect the PDx of stroke.

- The principal diagnosis of stroke patients who sustained a fall at the time of stroke were often coded as falls as per the clinical documentation, in line with Australian coding standards.
- At the time of national review not all stroke patient charts had been coded by HIPE (3-6 month coding backlog).

Step 2: Meeting with HIPE manager to identify potential challenges and problems.

- Uncoded HIPE backlog minimum of 3-6 months at the time.
- Ambiguous documentation/ variation in language used in clinical notes regarding diagnosis which results in a primary diagnosis other than stroke being coded.

Action Plan

- Met with HIPE manager and reviewed correct HIPE coding for stroke.
- Met with data analyst prepared report comparing CNS inputted stroke portal data to HIPE data.
 - Determined the reason for not coding/inaccurate coding.
 - Reconciled HIPE data with stroke portal data.
 - Recoded HIPE strokes appropriately
- Arranged a meeting with NOCA to discuss training requirements for data entry.
 - No national training available.
 - In the absence of training, training manual provided by NOCA.
 - Self-directed training from training manual.
- Liaised with HIPE manager to arrange training for documentation and coding.
- Agreed quarterly meeting with HIPE manager and Stroke CNS for collaborative support, review and quality control.

Results

Local (UHL):

- Since 2019 UHL has been included in INAS report.
- UHL now receive the correct funding for stroke services provided.
- Patients transferred to an EVT centre/neuro surgery from UHL are reviewed and are now included in UHL stroke data.
- Quarterly quality control meetings with key stakeholders involved in the QIP continue to monitor data compliance.
- Going forward hospital will not lose additional stroke funding.



National:

- Amendments with HPO, NOCA and HIPE benefited not only UHL stroke service but also other areas in acute hospitals.
- Discrepancies were raised with the HPO who reviewed the coding standards, and the decision was taken that previous cases not coded with PDx of stroke could be recoded where relevant.
- These changes were applied to other services throughout the country.

Financial benefits to UHL stroke services :

- Stroke CNS with data analyst identified 15 stroke patients who had been coded with the unrevised Australian Coding standards.
- HIPE coders recoded these 15 cases to primary diagnosis of stroke as per revised Australian Coding standards.
- Resulted in gain of €280,426 owed to UHL stroke services from HPO.

Stroke cases with PDx Z488				
DRG		TOTAL	TOTAL €	€ per case
Z63A	Other Follow Up After Surgery or Medical Care; Major Complexity	14	€ 123,592	€ 8,828
Z63B	Other Follow Up After Surgery or Medical Care; Minor Complexity	1	€ 3,115	€ 3,115
Z488 removed - Stroke code PDx				
DRG				
B70A	Stroke with major complications	14	€ 398,356	€ 28,454
B70B	Stroke with minor complications	1	€ 8,777	€ 8,777
Complex cases financial benefit to change in coding for existing 2020 cases			€ 274,764	
Less complex cases financial benefit to change in coding for existing 2020 cases			€ 5,662	
			€ 280,426	



Sustaining Improvements

- To sustain improvements a number of strategies and actions have been implemented.
- The ongoing reconciliation of data is imbedded into practice.
- There is regular follow up and review with the HIPE manager and Stroke CNS, and quarterly meetings with the data analyst to review stroke data.
- NOCA are now providing quarterly DVR's as an additional quality assurance check to identify data gaps that are actioned by Stroke CNS in collaboration with HIPE.
- KPI: The Stroke CNS inputs 100% of data to stroke portal within two weeks of patient discharge from UHL.



Recommendations

- It is recommended that there is an annual audit of the Stroke CNS KPI target.
- The development of a Standard Operating Procedure for stroke data collection, entry and quality assurance monitoring is planned.
- To maintain high levels of compliance and data accuracy it is recommended that there is on-going collaboration between key stakeholders: Stroke services, HIPE, HPO, NOCA, data analyst, UHL Senior Management.
- It is also recommended that the process, findings and learnings from this QIP be disseminated, which will help raise the profile and reputation of the high quality UHL stroke service.



Thank you