

Scottish Stroke Care Audit 2019: Highlights

Neil Muir



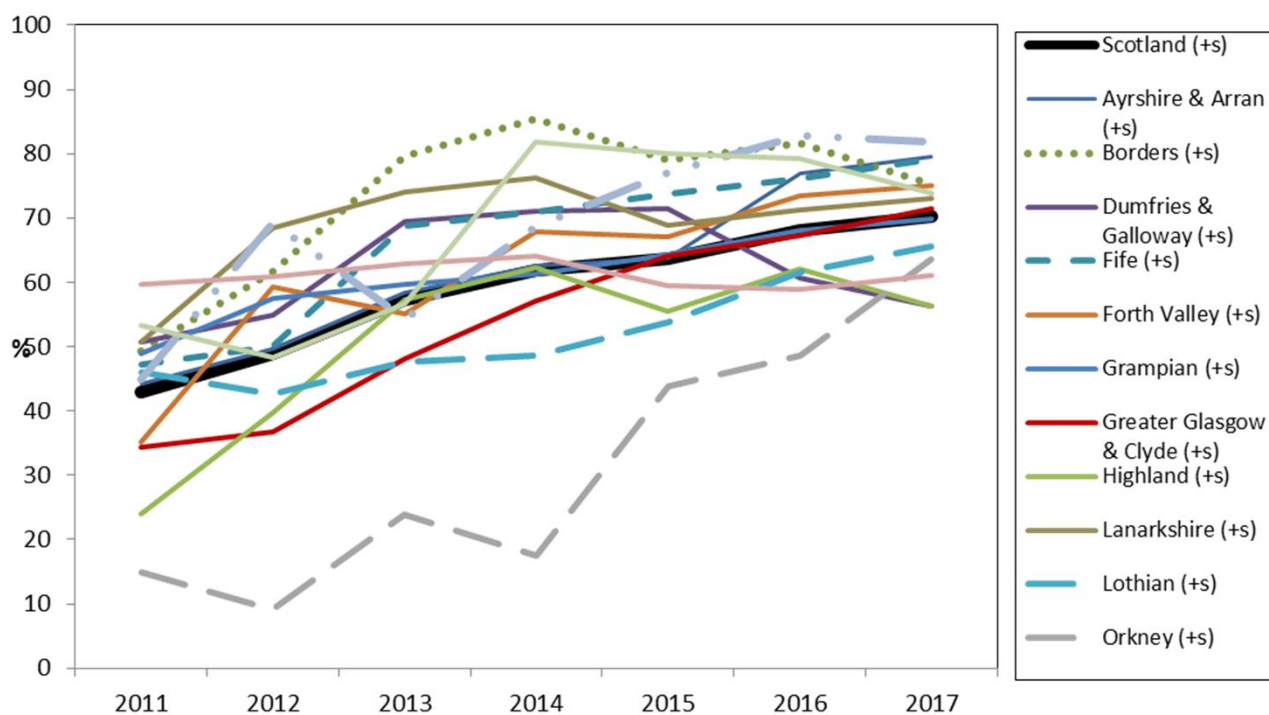
National
Services
Scotland



Scottish Stroke
Improvement
Programme



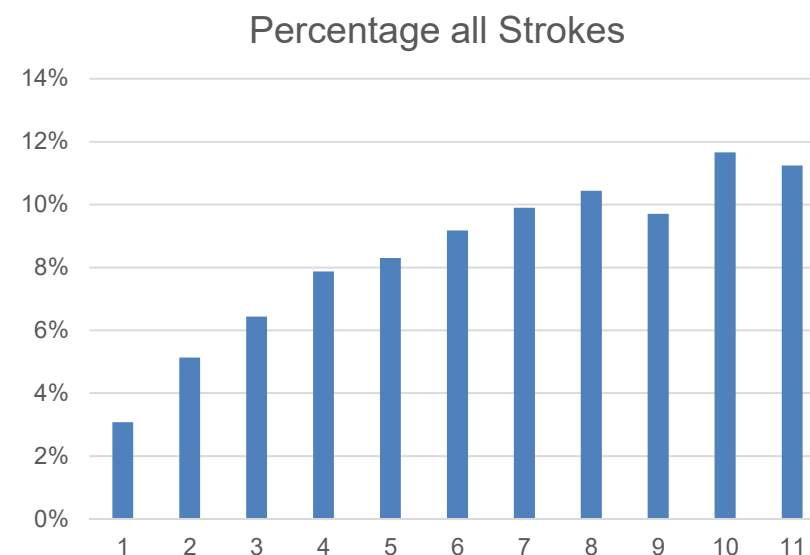
Bundles of gains.....

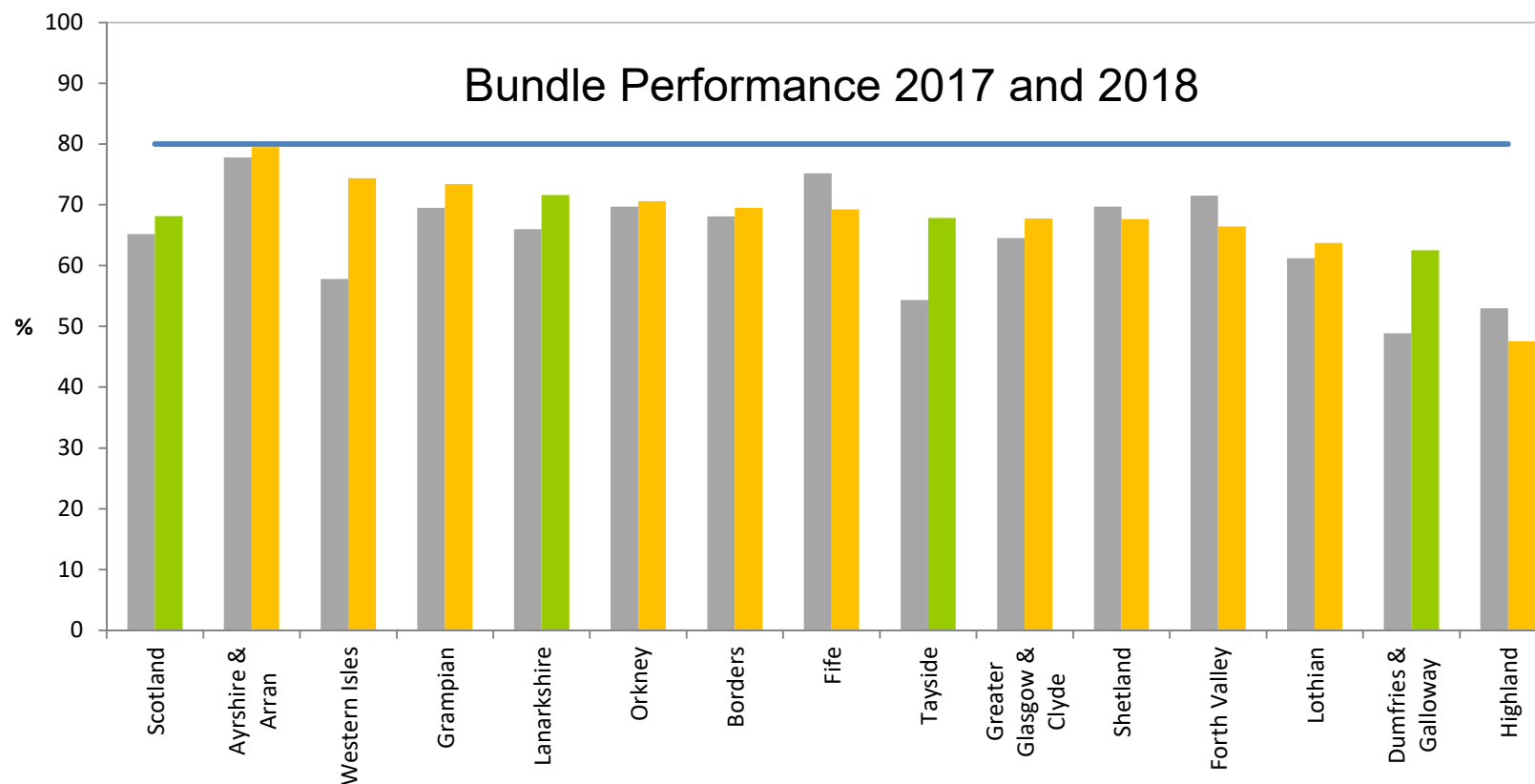
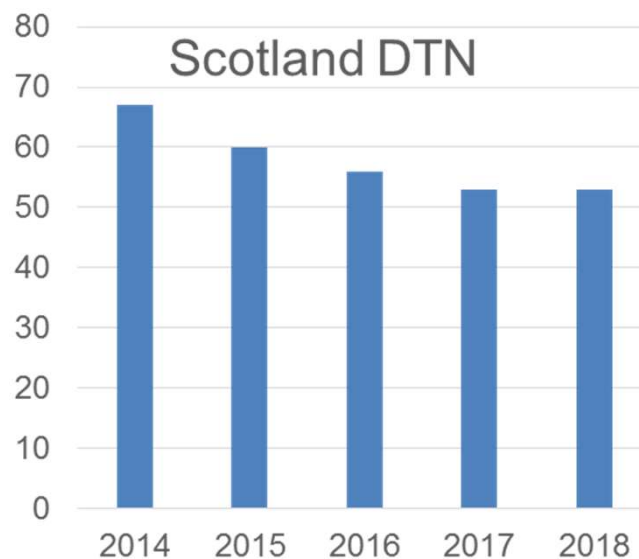
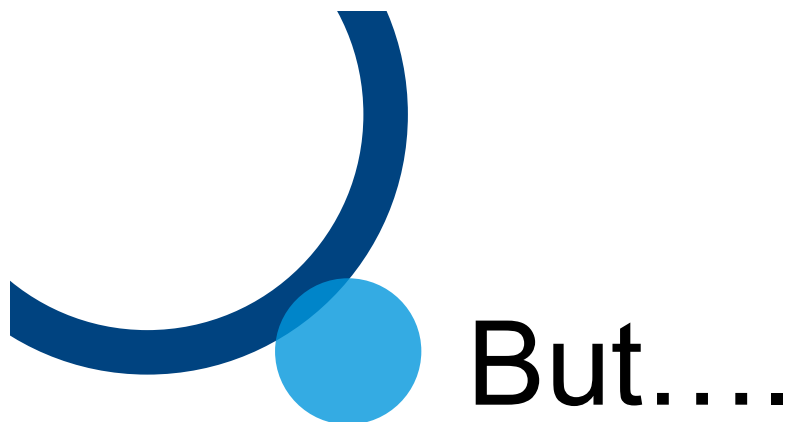




Thrombolysis Rates

Year	Number of patients thrombolysed (numerator)	Number of stroke patients (denominator)	Percentage	Number of patients per 100,000 (target is 5)	Mid-year population estimates ¹ (Scotland)
2008	260	8 439	3%	5	5 202 900
2009	411	8 012	5%	8	5 231 900
2010	543	8 439	6%	10	5 262 200
2011	648	8 233	8%	12	5 299 900
2012	669	8 063	8%	13	5 313 600
2013	803	8 755	9%	15	5 327 700
2014	869	8 782	10%	16	5 347 600
2015	951	9 112	10%	18	5 373 000
2016	915	9 429	10%	17	5 404 700
2017	1110	9 520	12%	20	5 424 800
2018	1083	9 630	11%	20	5 438 100







NHS Board	Priority Area / Action											
	6 Secondary Prevention: Anticoagulation for AF	7.1.1 Transition to Community: Access to Stroke Therapy	7.1.2 Transition to Community: Access to Stroke Rehabilitation Services	7.2 Transition to Community: Goal Setting	7.3.1 Transition to Community: Specialist Visual Assessment and Rehabilitation	7.3.2 Transition to Community: Access to Specialist Clinical Neuro- psychological Services	7.3.3 Transition to Community: Specialist Driving Assessment	8.1 Living with Stroke: Self Management support after discharge	8.2 Living with Stroke: Access to Exercise support after discharge	8.3 Living with Stroke: Access to vocational rehabilitation	8.4 Living with Stroke: Stroke Spasticity Management	
Ayrshire and Arran	AMBER	GREEN	AMBER	AMBER	BLUE	AMBER	BLUE	GREEN	BLUE	GREEN	AMBER	
Borders	AMBER	GREEN	AMBER	GREEN	BLUE	RED	BLUE	AMBER	AMBER	AMBER	GREEN	
Dumfries and Galloway	AMBER	BLUE	AMBER	AMBER	BLUE	GREEN	BLUE	GREEN	AMBER	GREEN	AMBER	
Fife	GREEN	AMBER	GREEN	GREEN	GREEN	AMBER	GREEN	GREEN	BLUE	BLUE	AMBER	
Forth Valley	AMBER	GREEN	GREEN	AMBER	BLUE	RED	BLUE	AMBER	GREEN	AMBER	GREEN	
Grampian	AMBER	AMBER	AMBER	AMBER	BLUE	AMBER	BLUE	GREEN	GREEN	AMBER	GREEN	
Greater Glasgow and Clyde	AMBER	GREEN	GREEN	GREEN	BLUE	AMBER	GREEN	GREEN	BLUE	AMBER	AMBER	
Highland	AMBER	AMBER	AMBER	GREEN	GREEN	AMBER	BLUE	BLUE	BLUE	AMBER	GREEN	
Lanarkshire	AMBER	GREEN	GREEN	AMBER	BLUE	GREEN	BLUE	BLUE	BLUE	BLUE	BLUE	
Lothian	RED	AMBER	AMBER	BLUE	AMBER	GREEN	BLUE	GREEN	GREEN	GREEN	GREEN	
Orkney	AMBER	AMBER	GREEN	BLUE	BLUE	BLUE	BLUE	AMBER	GREEN	BLUE	GREEN	
Shetland	BLUE	AMBER	AMBER	BLUE	RED	RED	AMBER	GREEN	BLUE	BLUE	GREEN	
Tayside	GREEN	AMBER	AMBER	GREEN	GREEN	GREEN	GREEN	GREEN	BLUE	AMBER	AMBER	
Western Isles	GREEN	GREEN	AMBER	GREEN	GREEN	AMBER	GREEN	AMBER	GREEN	AMBER	AMBER	

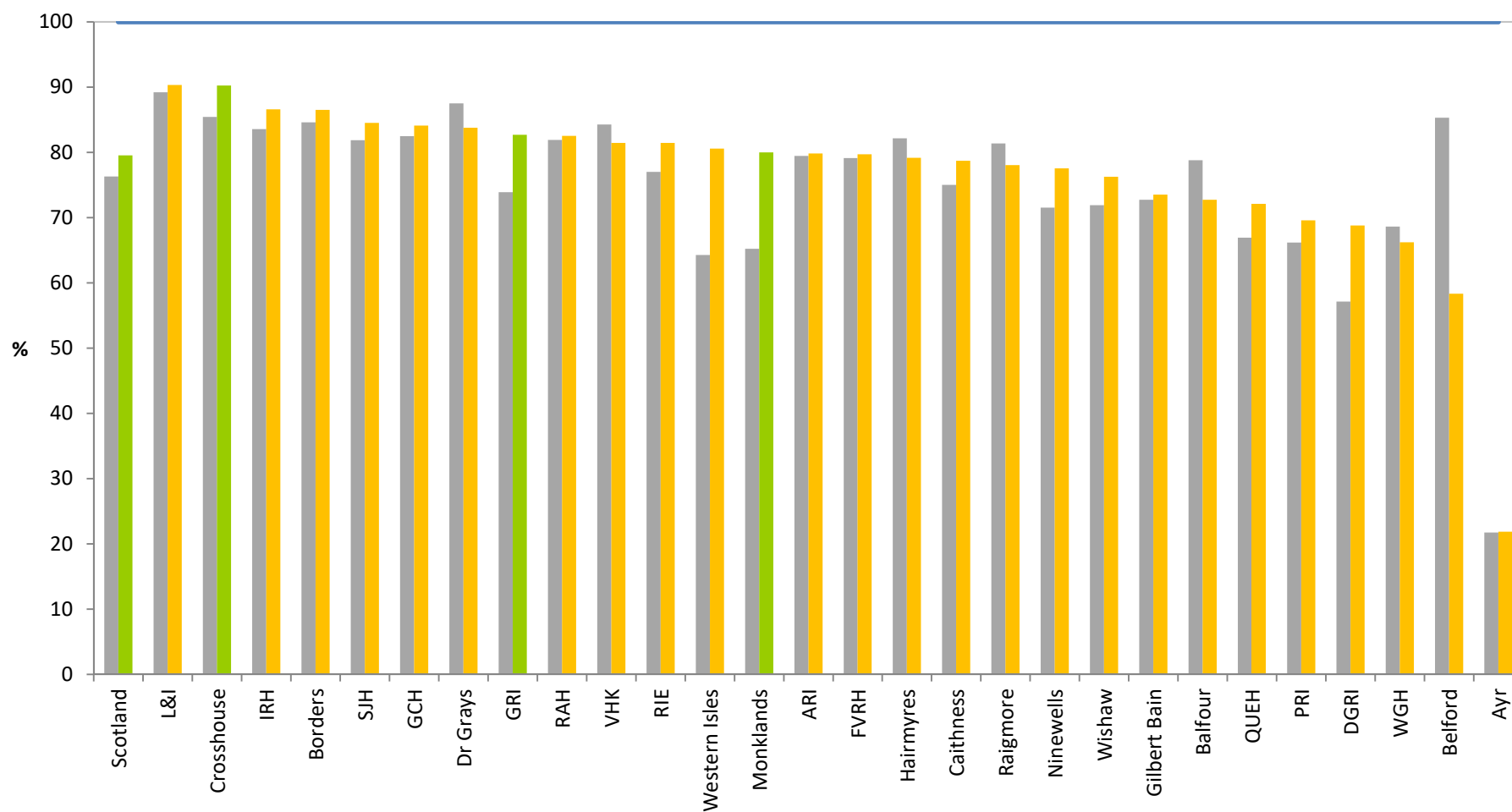


SAS

Health Board Locality/Council Ward area of incident	Number of Suspected Hyper Acute Strokes	% of Pre-hospital Stroke Bundle compliance	Median time from resource allocation to ED admission (mins)
Ayrshire and Arran	274	95.3	51
Borders	85	97.6	65
Dumfries and Galloway	113	93.8	54
Fife	362	96.7	44
Forth Valley	189	93.1	51
Grampian	383	97.4	57
Greater Glasgow & Clyde	718	95.8	47
Grampian	216	94.9	71
Lanarkshire	349	96.6	49
Lothian	630	98.1	50
Orkney	7	100.0	70
Shetland	12	100.0	40
Tayside	256	94.0	51
Western Isles	16	100.0	68

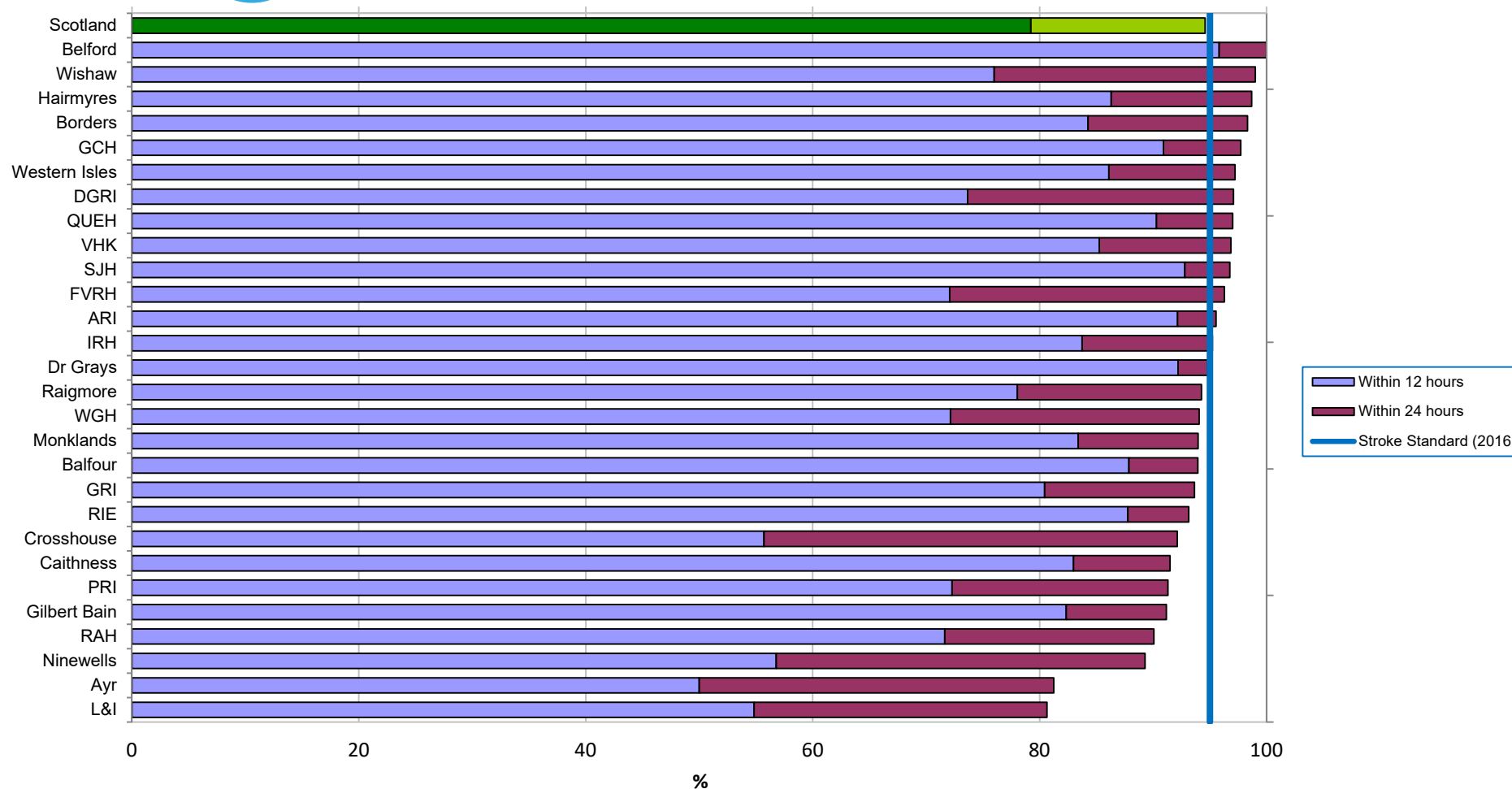


Swallow Screen



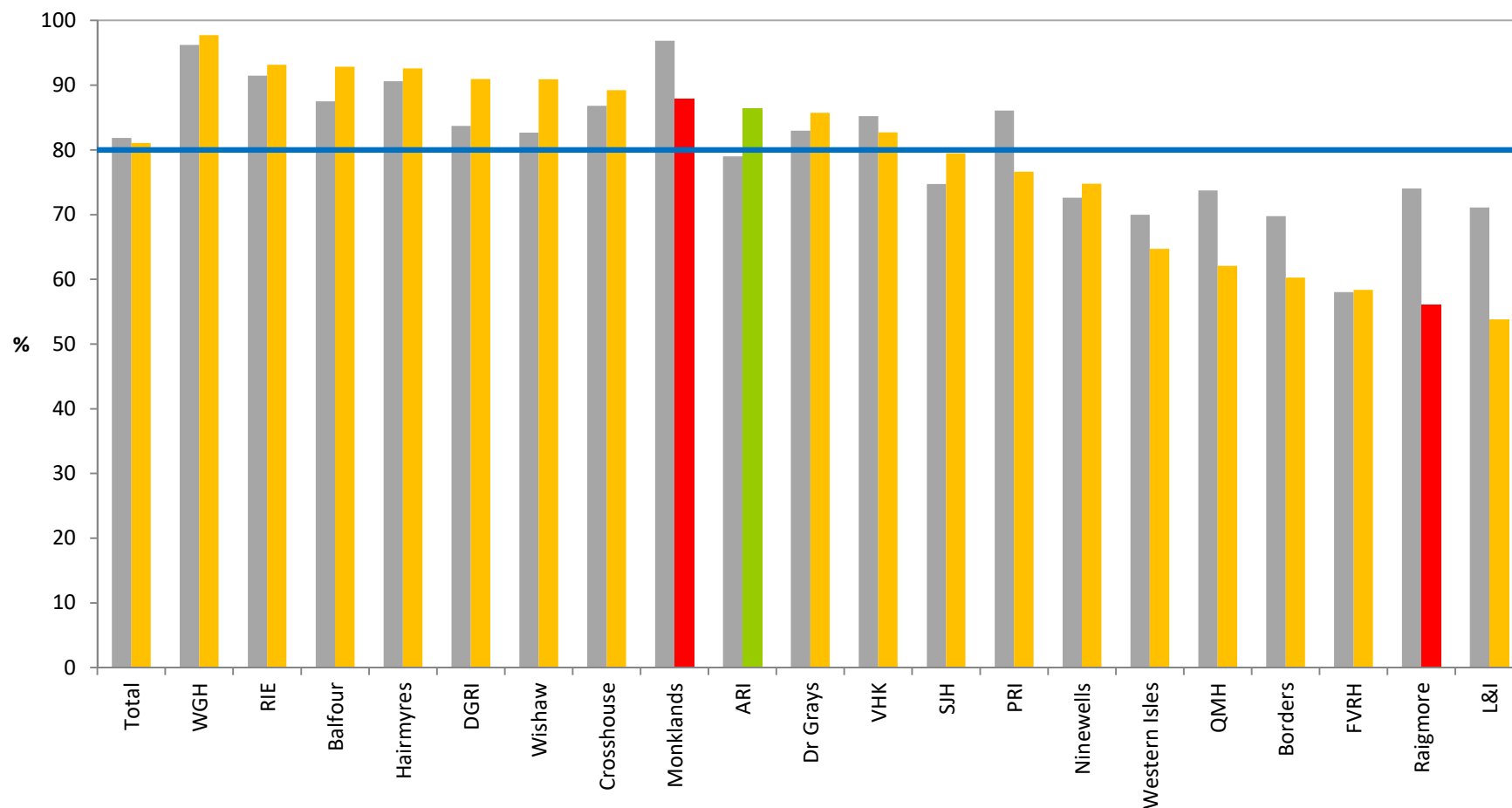


Brain Imaging



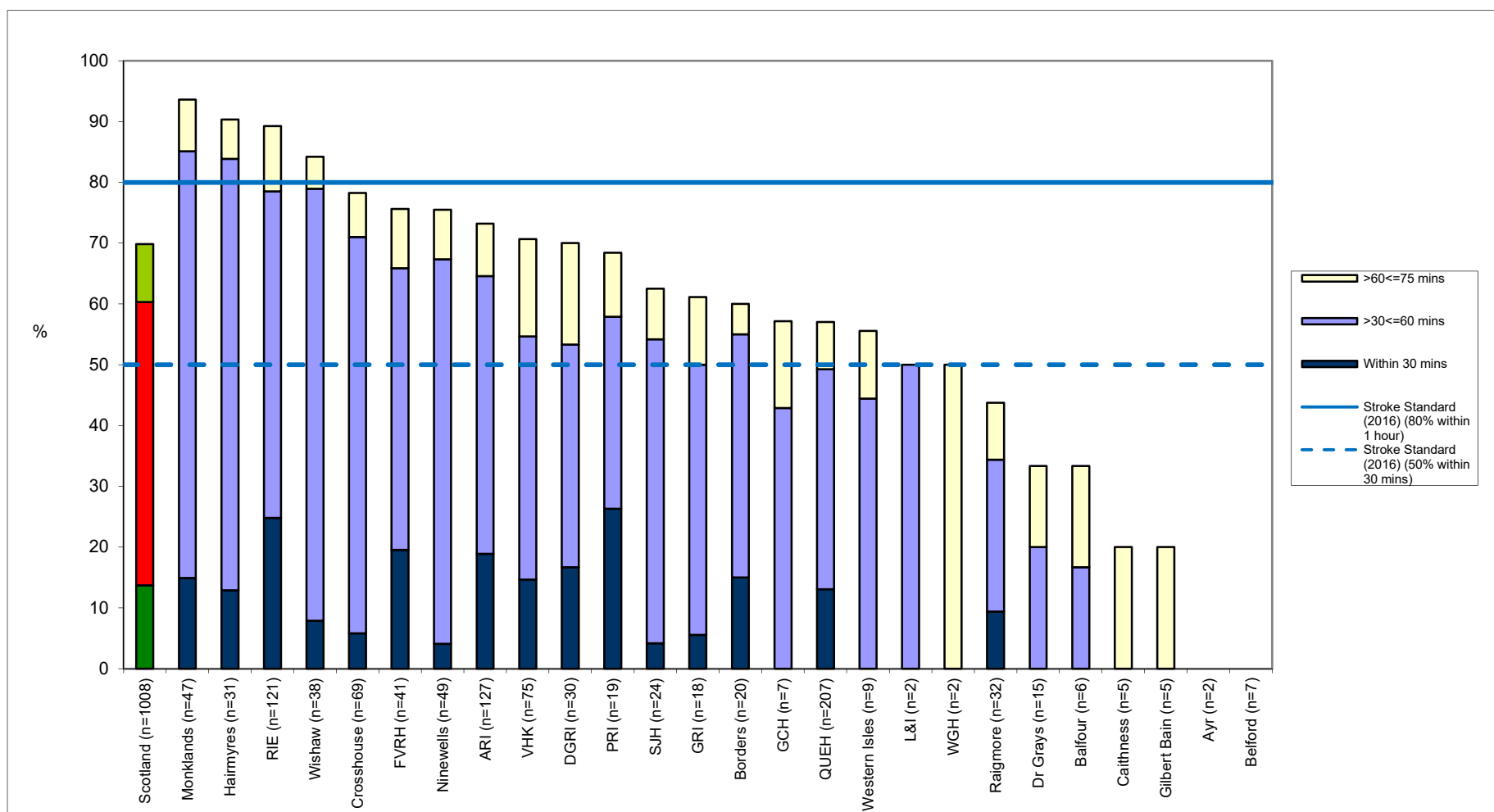


Outpatient Performance



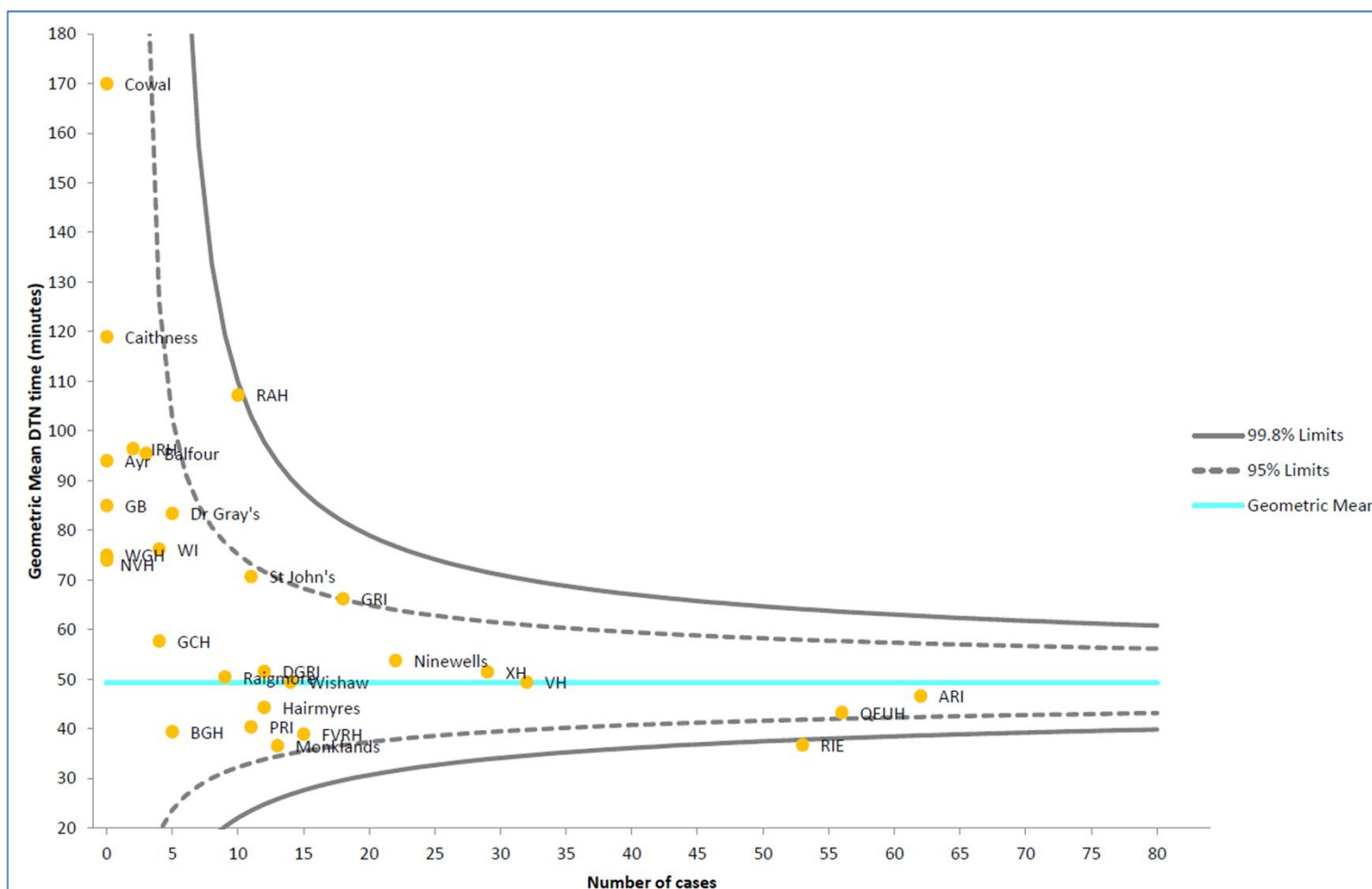
Thrombolysis

(from arrival at first hospital)



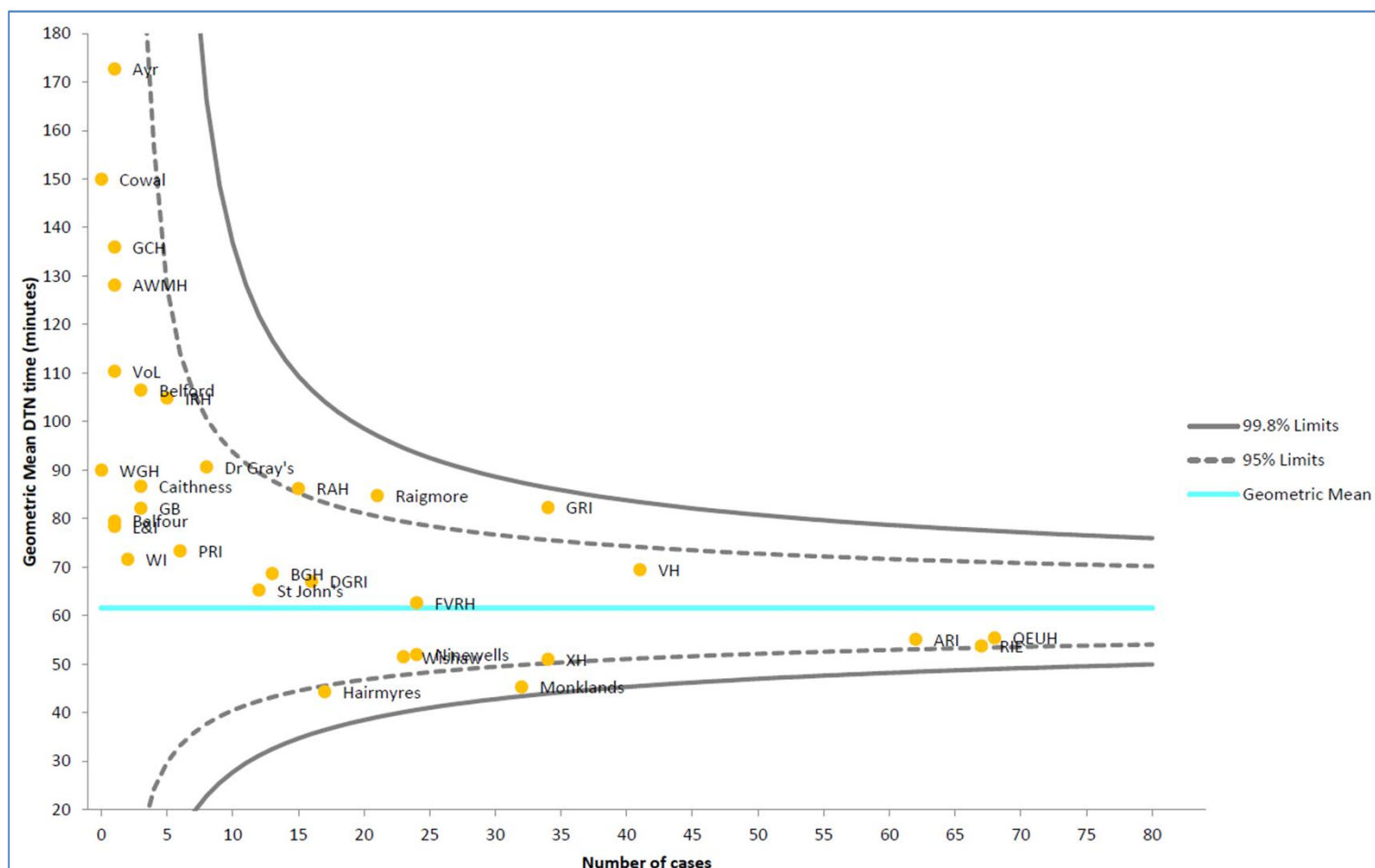


Thrombolysis – In Hours





Thrombolysis – Out of Hours



In or out of hours

Health board of first hospital	GM Mon-Fri 9am-5pm	GM Not Mon-Fri 9am-5pm	Change in GM	95% CI for change in GM
Lothian	42	56	33.7%	(12.3%, 59.1%)
Forth Valley	39	63	60.8%	(17.6%, 120.0%)
Greater Glasgow & Clyde	55	68	24.7%	(4.8%, 48.3%)
Highland	60	91	51.9%	(4.3%, 121.3%)
Borders	39	69	74.1%	(4.7%, 189.6%)
Fife	49	69	40.6%	(-1.8%, 101.3%)
Grampian	49	59	19.6%	(-2.0%, 46.0%)
Dumfries & Galloway	53	72	35.8%	(-4.5%, 93.1%)
Tayside	49	56	15.0%	(-8.3%, 44.2%)
Lanarkshire	43	47	8.6%	(-8.3%, 28.6%)
Ayrshire & Arran	52	57	8.5%	(-16.0%, 40.1%)
SCOTLAND	49	62	25.1%	(16.2%, 34.7%)

Glasgow

First Hospital	Number of cases	DTN time (minutes)				
		Geometric Mean	Pooled SD of log DTN time	Change in GM compared to first hospital of QEUHG	95% CI for change in GM	One-tailed p-value
Queen Elizabeth University Hospital	126	50	-	-	-	-
All first hospitals other than QEUHG	78	94	0.593	88.8%	(59.5%, 123.4%)	0.0%
Royal Alexandra Hospital	27	94	0.635	90.2%	(45.7%, 148.2%)	0.0%
Glasgow Royal Infirmary	36	86	0.631	72.8%	(36.5%, 118.7%)	0.0%
Inverclyde Royal Hospital	9	102	0.655	105.8%	(31.6%, 221.8%)	0.1%
Golden Jubilee National Hospital	1	267	0.672	438.8%	(41.8%, 1947.1%)	0.7%
Cowal Community Hospital	2	160	0.669	222.2%	(25.4%, 728.1%)	0.8%
Vale of Leven General Hospital	2	110	0.669	122.7%	(-13.3%, 472.3%)	4.8%
New Victoria Hospital	1	74	0.672	49.3%	(-60.7%, 467.4%)	27.7%
Campbeltown Hospital	0	0	0.675	-100.0%	-	-
Location not coded	0	0	0.675	-100.0%	-	-

IRH Catchment around 125k

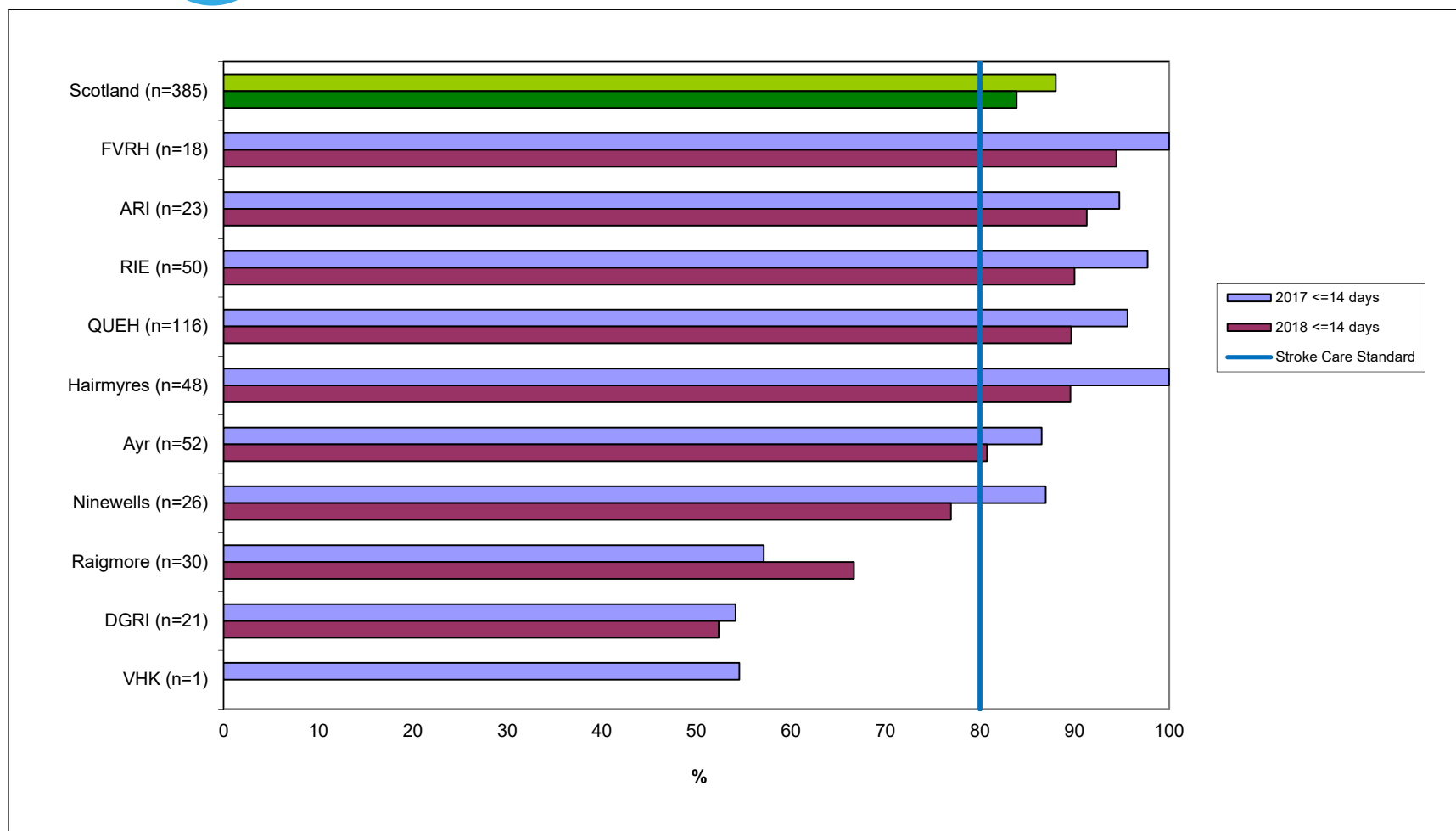
SSCA Dataset for Thrombectomy Service

- 51 Data Fields
- Door to (Thrombolysis) Needle
- DIDO
- SAS Transfer Time
- Door to Puncture
- Door to Clot Out
- Outcomes

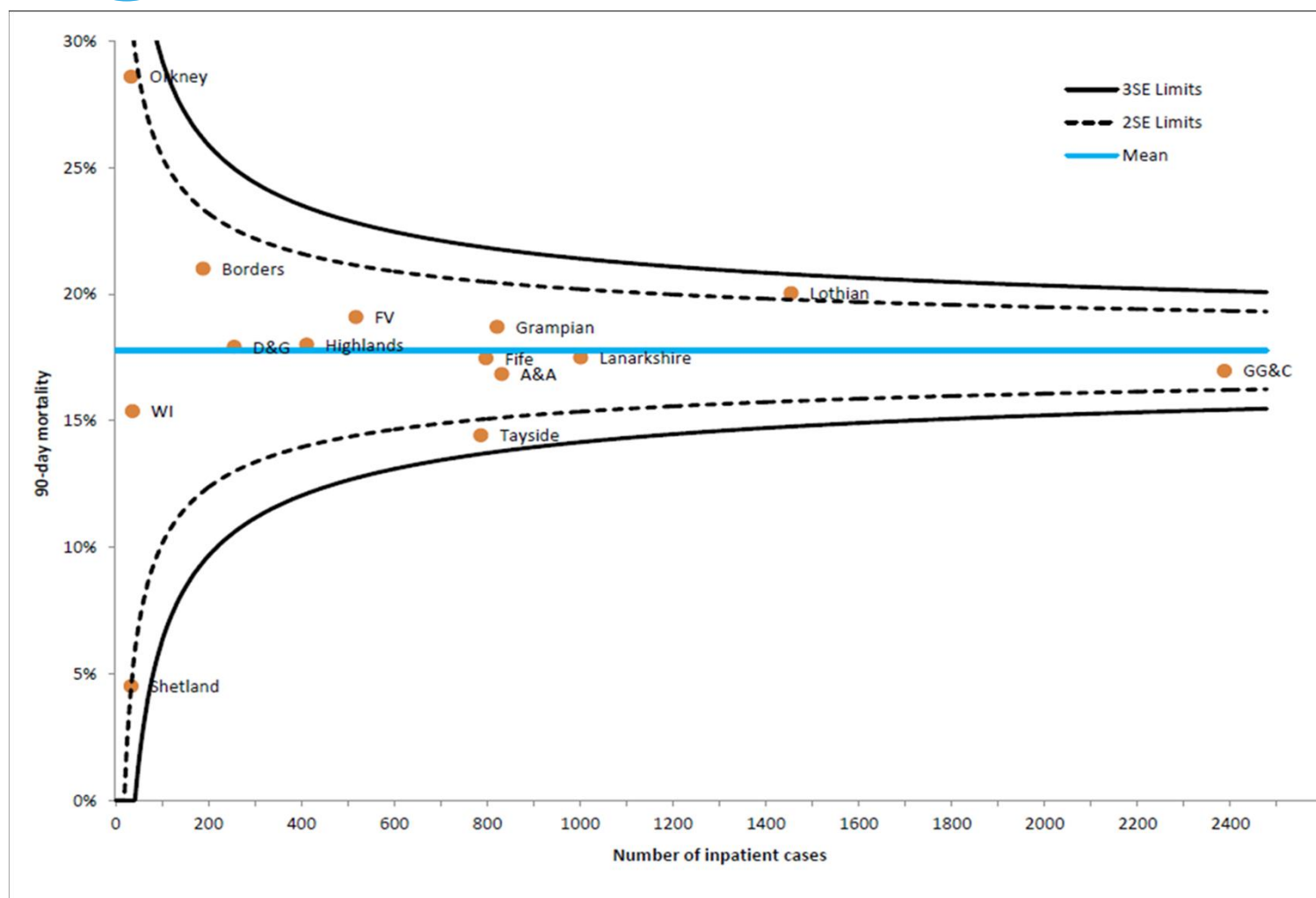




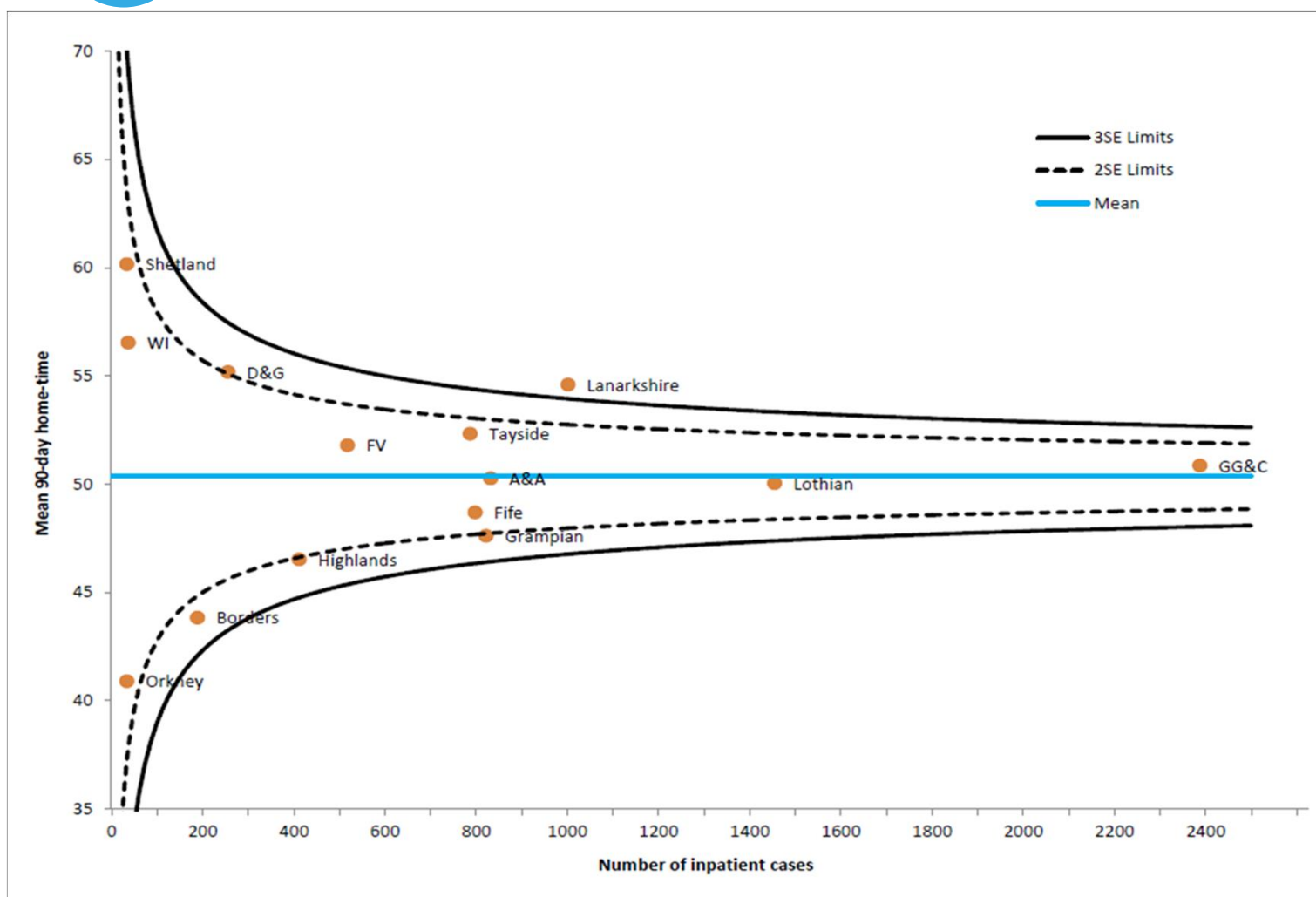
Carotids – Pathway Entry



Mortality



Home Time





Where Next

- New 12 hour CT standard
- Thrombectomy data collection
- Clinical Knowledge Publisher
- Ambulance Linkage and analysis
- Performance management