

BASP Door to needle time resources

BASP Clinical Standards Committee

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This is aimed to be a shared and growing document. Members of BASP Clinical Standards have made a start, but it is hoped that BASP members will contribute useful resources, details of centres to visit, and experience which will help improve times.

Overall Goal: treat as many patients as possible within 90 minutes of stroke onset

Stroke physician Goal: treat as many patients as possible within 30 min of hospital admission

London HASU targets:

2012: 90% of patients lysed within 45 minutes of arrival

April 2013: 50% of patients lysed within 30 minutes of arrival

UK Centres currently achieving this 50% within 30 min standard:

1. Northwick Park Hospital (SINAP Feb 2013)
2. Charing Cross Hospital (SINAP Feb 2013)

Please see attached a table of the best centres nationally and the best in each SHA for DTN from the 6th quarterly SINAP audit attached with email addresses of contacts happy to share their experience. Please note that some of the times are based on a small number of lysed patients and may vary from audit to audit.

International centres with excellent door to needle times

Helsinki / Dr Meretoja/ Kaste (ESC presentation 2012, see reference to published paper below)

Door to needle time now 20 minutes, 94% treated within 60 min.

Thrombolysis is well established and done frequently (about 1 patient per day), lysis rate 31%

Ambulance control calls neurologist on mobile, same number 24/07

- Neurologist establishes key history from ambulance team
- Admission paperwork and order forms for bloods and CT are completed by hospital team while patient is travelling in
- Ambulance takes patient directly into the CT
- Basic physical exam and bloods taken in scanner
- tPa is premixed and ready to give in the scanner

Changes made 1995 to 2011:

pre order of CT and labs saved 75 minutes

CT in emergency department saved 15 minutes

Taking the history while the patients is en route saved 30 minutes

Introduction of regular drills to maintain speed saved 20 minutes

Note: additional imaging (CTA, perfusion...) doubles the time taken

ESC 2013 presentation on reducing door to needle times

[David Hargroves presentation - DHv6_25_5_13.ppt](#)

SITS-Watch initiative <https://sitsinternational.org/sits-projects/sits-watch>

Papers on how to reduce door to needle times:

[Will delays in treatment jeopardize the population benefit from extending the time window for stroke thrombolysis?](#) Pitt M, Monks T, Agarwal P, Worthington D, Ford GA, Lees KR, Stein K, James MA. Stroke. 2012 Nov;43(11):2992-7.

[Maximizing the population benefit from thrombolysis in acute ischemic stroke: a modeling study of in-hospital delays.](#) Monks T, Pitt M, Stein K, James M. Stroke. 2012 Oct;43(10):2706-11.

[Higher Prehospital Priority Level of Stroke Improves Thrombolysis Frequency and Time to Stroke Unit: The Hyper Acute STroke Alarm \(HASTA\) Study.](#) Berglund A et al. Stroke 2012;43 2666-2670.

[Reducing in-hospital delay to 20 minutes in stroke thrombolysis.](#) Meretoja A, Strbian D, Mustanoja S, Tatlisumak T, Lindsberg PJ, Kaste M. Neurology. 2012 Jul 24;79(4):306-13.

Köhrmann M, Schellinger PD, Breuer L, Dohrn M, Kuramatsu JB, Blinzler C, Schwab S, Huttner HB. [Avoiding in hospital delays and eliminating the three-hour effect in thrombolysis for stroke.](#) Int J Stroke. 2011 Dec;6(6):493-7. doi: 10.1111/j.1747-4949.2011.00585.x. Epub 2011 Feb 17.

CENTRES OF EXCELLENCE FOR DOOR TO NEEDLE TIME FROM THE SINAP AUDIT

SHA	Hospital	No of Stroke Patients	Arrival to scan time (mins)	Arrival to first contact time (mins)	Arrival to SU bed time (mins)	% of strokes thrombolysed	% of strokes eligible	% thrombolysed when eligible	% thrombolysed within 1 hr of arrival	median time from arrival to thrombolysis	Email address of key contact
	ALL SITES ANNUAL	37005	104	88	209	9%	10%	61%	50%	59	
London	Northwick Park Hospital	252	34	0	118	29%	15%	92%	84%	30	david.cohen@nhs.net
North East	University Hospital of North Durham	104	120	15	0	13%	13%	43%	79%	35	Bernard.esisi@cddft.nhs.uk
North West	Fairfield Hospital	126	81	0	176	13%	11%	0% N/A	94%	39	Dr.namushi@pat.nhs.uk
East Midlands	King's Mill Hospital	34	83	197	232	9%	3%	0% N/A	67%	40	Martin.cooper@sfh-tr.nhs.uk
London	Royal London Hospital	208	40	0	180	18%	14%	94%	78%	41	afraim.salek-haddadi@bartshealth.nhs.uk
East Midlands	Chesterfield Royal	74	76	52	155	5%	5%	67%	75%	48	Mahmud.sajid@chesterfieldroyal.nhs.uk
East of England	Colchester General Hospital	95	24	0	181	12%	6%	100%	82%	45	Ramachandran.sivakumar@colchesterhospital.nhs.uk
West Midlands	New Cross Hospital	104	42	111	159	24%	14%	57%	58%	48	kenfotherby@nhs.net
North of England	Royal Victoria Infirmary (Newcastle upon Tyne)	116	80	47	167	7%	8%	33%	71%	46	anand.dixit@nuth.nhs.uk
Yorkshire and the Humber	Bradford Royal Infirmary	80	674	907	192	5%	6%	0%	100%	42	chris.patterson@bradfordhospitals.nhs.uk
South of England	Royal Berkshire Hospital	182	80	0	222	19%	14%	85%	83%	44	Liz.Barber@royalberkshire.nhs.uk Enrico.Flossmann@royalberkshire.nhs.uk
South East Coast	Kent and Canterbury Hospital	31	29	6	181	16%	0%	0% N/A	60%	41	iburger@nhs.net
South West	North Devon District Hospital	91	207	265	205	9%	13%	57%	63%	58	mervyn.dent@ndevon.swest.nhs.uk

