## Urgent Network Specialist Services and 7 day hospital services baseline position November 2016

## Introduction

The Government's Mandate to NHS England<sup>1</sup> sets an objective that anyone who needs urgent or emergency hospital care will have access to the same level of consultant assessment and review, diagnostic tests and consultant-led interventions, whatever the day of the week.

This objective will be delivered through the implementation of four priority clinical standards, selected from 10 identified by the NHS Services, Seven Days a Week Forum in 2013<sup>2</sup>. These standards are:

- Standard 2: Time to first consultant review
- Standard 5: Access to diagnostics
- Standard 6: Consultant-directed interventions
- Standard 8: Ongoing review

Full details of these standards are available at annex A. Hospitals in England will deliver services which meet these standards this in three phases; for 25% of the population by March 2017, 50% by March 2018 and everyone by 2020.

Alongside this, as noted in the 2017-19 NHS Shared Planning Guidance<sup>3</sup>, there is an ambition for 5 urgent network specialist services to meet these standards by November 2017.

The five specialist services are:

- Major Trauma (major trauma patients with an ISS>8 treated in a Major Trauma Centre).
- Paediatric Intensive Care (level 3 Paediatric Critical Care).
- Hyper Acute Stroke (specialist care for acute stroke patients).
- STEMI Heart Attacks (patients treated for ST elevation myocardial infarction at specialist centres).

<sup>&</sup>lt;sup>1</sup> The Government's mandate to NHS England for 2016-17, Department of Health, January 2016, https://www.gov.uk/government/uploads/system/uploads/attachment\_data/file/494485/NHSE\_mandate\_16-17\_22\_Jan.pdf

<sup>&</sup>lt;sup>2</sup> NHS Services, Seven Days a Week Forum, Summary of Initial Findings, December 2013, https://www.england.nhs.uk/wp-content/uploads/2013/12/forum-summary-report.pdf

<sup>&</sup>lt;sup>3</sup> NHS Operational Planning and Contracting Guidance 2017 – 2019, NHS England and NHS Improvement, September 2016, https://www.england.nhs.uk/wp-content/uploads/2016/09/NHS-operational-planning-guidance-201617-201819.pdf

• Emergency Vascular Services (patients receiving emergency vascular surgery and interventions in specialist centres).

Responsibility for ensuring that the standards are met by these services lies with regional Urgent and Emergency Care (UEC) Networks, supported by the four regional UEC Programme Offices. To support regional delivery a baseline exercise has been undertaken based on a number of relevant data sources.

This baseline aims to provide a national and regional view of the current position of the five urgent network specialist services against the 7DS priority standards. Through assessing the current position, gaps in both performance and knowledge will be identified, enabling regional UEC teams to build robust programmes to ensure delivery.

### Sources of data

In estimating current 7 day provision for these five urgent network clinical services, we have used three main sources of information: a biannual survey of all acute trusts which measures performance against the four standards for all patients admitted with urgent care needs; data from clinical audits of the specialist services, and specifications which guide service commissioning and provision. Full details of the sources of data used in this work can be found at annex B.

#### The methodology for analysing 24/7 provision for specialist services

In very few cases are we able to provide an exact measurement of performance against each of the four 7DS priority standards for the five urgent network specialist services. Instead, we have taken the approach of judging whether these services operate on a 24/7 basis, as specified in appropriate clinical guidance, and whether this guidance aligns with the 7DS priority standards. In all cases, the clinical guidance supports or offers more stringent guidance than the 7DS priority standards, which are applicable for all hospital emergency inpatients.

To make a judgement on level of performance against the 24/7 clinical guidance which equates to the delivery of the 7DS standards, we used data derived from clinical audits and in some cases data taken directly from the 7DS self-assessment survey. Details of the data sources used for each service and each standard can be found at annex C.

In using the sources in this way, we have been able to produce an assessment that gives us a national picture for the 5 urgent network specialist services and for some services a level of understanding at individual trust/unit level. This is however not a complete or comprehensive picture and additionally the pace of reconfiguration and local service improvements is rendering some of these data out of date.

## Hyperacute Stroke Services - national performance against the 7DS standards

The recently published clinical guidance for acute stroke care<sup>4</sup> recommends that all acute stroke services should be built around 24/7 hyperacute stroke centres, which have specific staffing levels and access to relevant treatment to ensure optimal patient outcomes. Not all sites offering acute stroke services are yet based on this model, but proposals for reorganisation in line with this model are in progress across the country.

For the purposes of this baseline, the metrics we will use to judge adherence with the 7 day hospital services standards will be the guidance for acute stroke patients to be scanned immediately (within 1 hour) or within 12 hours, based on clinical need. These measures form an appropriate proxy for standards 2 and 5. The below table shows national performance against this

Fig 1: Arrival at hospital to scan times for suspected acute stroke patients (Source: Analysis of the Sentinel Stroke National Audit Programme (SSNAP) January - March 2016)

	Number	%
Scanned within 1 hr	10,153	48.40%
Scanned within 12 hrs	19,435	92.60%
Scanned within 24 hrs	20,276	96.60%
Total patients	20,991	100%

These data show that on a national basis, acute stroke services can be judged to be meeting standards 2 and 5, as around 50% of all acute strokes require immediate (within 1 hour) scanning, with the rest requiring a scan within 12 hours.

To further support overall adherence to standard 5 at a national level, unpublished data collected for the latest 7DS survey of all trusts shows that stroke specialist consultants report that CT is available on a 24/7 basis.

Fig 2: Availability of CT in acute hospitals by weekday and weekend days as reported by stroke specialist consultants (Source: Unpublished data from October 2017 7DS self-assessment survey; sample size: 165; totals may not be 100% due to rounding)

СТ	Weekday	Saturday	Sunday
Test is always available	91%	88%	87%
Usually/mostly available	9%	11%	12%
Sometimes available		1%	1%
Not usually available			
Never available			

This is supported by the latest organisation audit of stroke services produced by the Sentinel Stroke National Audit Programme (SSNAP) (due to be published

<sup>&</sup>lt;sup>4</sup> National Clinical Guideline for Stroke (Fifth Edition), Royal College of Physicians, October 2016, http://guideline.ssnap.org/2016StrokeGuideline/index.html

imminently), which shows that 100% of stroke consultants have access to CT scanning on a 24/7 basis. It is worth noting that the recently published stroke guidance recommends that all suspected acute stroke patients should be scanned within 1 hour. The access to CT scanning available on a national, 24/7 basis will support this ambition.

In terms of clinical standard 6, the key consultant directed intervention for urgent stroke patients is thrombolysis. The latest organisation audit of stroke services produced by the SSNAP shows that 87% of sites in the UK providing stroke services have access to thrombolysis on site, with a further 12% having network arrangements for access. All sites in England have access to thrombolysis either on site or through a network arrangement.

This is further evidenced by data from the 7DS survey, which shows that at a national level acute stroke services are compliant with standard 6.

Fig 3: Access to thrombolysis for stroke in acute hospitals by weekday and weekend days as reported
by all consultants (Source: Unpublished data from October 2017 7DS self-assessment survey, totals
may not be 100% due to rounding)

Thrombolysis for stroke	Weekday	Saturday	Sunday
Always available	86%	81%	81%
Usually/mostly available	9%	12%	12%
Sometimes available	1%	2%	2%
Not usually available	1%	2%	2%
Never available	3%	3%	3%

Priority standard 8 outlines a requirement for twice daily consultant-directed review for all patients with high dependency needs, with once daily consultant reviews for all inpatients. For acute stroke, an ongoing organisational review will demonstrate the number of consultant led ward rounds on each unit which will give a national view on the number of trusts who currently meet this standard. These data will be available later this year.

As a proxy measure, the data covering the period Jan-June 2016 collected information on whether the patient had received a consultant review within 14 hours. These data shows that on a national basis, 51% of patients were assessed within 14 hours, with 79% assessed in line with the current guidance of 24 hours. The latest organisational audit produced by SSNAP shows that an increasing number of units are providing twice daily consultant reviews, but further reconfiguration would be required to ensure this takes place at all sites due to a lack of stroke specialist consultants.

# Hyperacute Stroke Services – Regional Performance against the 7DS standards

Data on the performance of individual acute stroke services is available from the Sentinel Stroke National Audit Programme data<sup>5</sup>. For this baseline, we have used data taken from the period January – March 2016 covering 1, 12 and 24 hour time to scan and 14 and 24 hour time to consultant review. Full details of the performance of each acute stroke centre against these measures can be found at annex D.

### <u>North</u>

The overall picture in terms of performance which can be linked to the seven day standards is good with areas for specific improvements. In Yorkshire and Humber network area, a number of units need to improve to meet all of the 7DS standards including Barnsley, Bradford, Chesterfield, Doncaster, Harrogate, Pinderfields, Rotherham and York. In the North West, Blackpool, Blackburn and the Royal Lancaster have several areas where care will need to be substantially changed to achieve the standards by 2017.

The Cheshire and Mersey area are taking steps to deliver changes in the area to improve services in Liverpool, Southport and Warrington, which currently do not meet all the 7DS standards. In the North of England, there are issues with both sites in Cumbria, Gateshead and Hartlepool in particular.

## Midlands and East

The overall picture in terms of performance which can be linked to the seven day standards is very mixed. In the East of England network area, a large number of units provide a 24/7 service but a number of them (Peterborough, King's Lynn, Great Yarmouth, Ipswich, Bury St Edmunds) do not meet all of the standards while others do not provide a full 24/7 service (Milton Keynes and Bedford sending patients to Luton). In the East Midlands, all services are close to meeting the standards but some may need specific improvements in certain areas (for example, Nottingham in time to first scan) to be fully compliant.

In the West Midlands, once again a large number of sites are providing these services but plans are in train in a number of areas to provide more sustainable services which can support meeting the 7DS standards. As things currently stand, there are particular concerns with Hereford, Worcester, Crewe, Sandwell, Wolverhampton and Dudley in terms of their available capacity to meet the standards for time to scan and consultant review on an ongoing basis.

<sup>&</sup>lt;sup>5</sup> Sentinel Stroke National Audit Programme, https://www.strokeaudit.org/

### <u>London</u>

The overall picture in terms of performance which can be linked to the seven day standards is good. Stroke services in London were reorganised in 2010 with the aim of delivering high quality care 7 days a week. Eight hyperacute units provide care for all acute stroke patients in the city. There are still some challenges meeting standard 8 as not all units operate twice a day consultant ward rounds. Currently only about 50% of patients are seen within 14 hours. There will need to a change in operational policies to meet this standard.

### <u>South</u>

The overall picture in terms of performance which can be linked to the seven day standards is mixed. Many units are meeting the 1 hour and 12 hour scanning standards and have adequate consultant reviews, but others do not meet one or more of the standards, for a range of reasons.

Across the region, Wexham Park, Horton and Milton Keynes are not delivering the standards currently in the Thames Valley area. There are major issues in Kent, Surrey and Sussex that will not be resolved without merging some services onto single sites. This work is however underway and should support delivery for 2017. In Wessex, Newport (Isle of Wight) has insufficient stroke specialist consultants currently to deliver the standards and a single service either in Bournemouth or Dorchester may be the best model for future provision in Dorset.

In the South West, the services that stand out as needing to undertake significant work to deliver the standards are Gloucester, north Devon, Swindon, Royal Cornwall, Torbay and Bristol Royal Infirmary. There are major workforce explanations for the difficulty in delivering the 14 hour consultant review standard and geographical issues in trying to reduce the number of hyperacute centres.

# Paediatric Intensive Care (PIC) - national performance against the 7DS standards

The specialised commissioning service specification for level 3 paediatric critical care states that these services should be commissioned in line with the Paediatric Intensive Care Society (PICS) Standards (2010)<sup>6</sup>. The specification states that these paediatric critical care services must be available and fully operational 24 hours per day, 365 days per year. It also outlines recommended staffing levels per number of beds, including consultant cover.

Given this clear guidance, it would be accurate to assume that 7DS standards 2 (time to consultant review) and 8 (ongoing consultant-directed review) would be met as long as all units are meeting the PICS standard in terms of 24/7 consultant cover.

The only potential data source for staffing levels on paediatric intensive care units is the PICaNET staffing survey. Unfortunately, this resource does not capture the precise information regarding assessment within 14 hours. However, we are assured from widespread clinical feedback that it is standard practice for PIC consultants to conduct two ward rounds each day, ensuring standard 8 is met. Furthermore, consultants would also routinely attend any new admission that presented any issues that might not be within the assessment and management capabilities of the trainee medics working on the unit, thus ensuring standard 2 is met on a national level.

In relation to standard 5 (availability of diagnostics), data from the 7DS selfassessment survey as reported by paediatric intensive care consultants shows that not all diagnostic tests are always available at weekends. This is however a wider issue than for PIC alone, as relatively few trusts meet this standard overall, mainly due to lower weekend availability of echocardiography, ultrasound and MRI. PIC consultants report a higher overall access to all diagnostic tests than other consultants.

assessment survey; sample size: 76; totals may not be 100% due to rounding)				
All diagnostics	Weekday	Saturday	Sunday	
Test is always available	71%	55%	55%	
Usually/mostly available	20%	18%	18%	
Sometimes available	5%	11%	11%	
Not usually available	2%	11%	12%	
Never available	1%	4%	5%	

Fig 4: Availability of all diagnostics in acute hospitals by weekday and weekend days as reported by paediatric intensive care consultants (Source: Unpublished data from October 2017 7DS self-assessment survey: sample size: 76: totals may not be 100% due to rounding)

<sup>&</sup>lt;sup>6</sup> Standards for the Care of Critically III Children, 4<sup>th</sup> Edition, Paediatric Intensive Care Society, June 2010, http://picsociety.uk/wp-content/uploads/2015/10/PICS\_standards\_2010.pdf

In relation to standard 6 (access to consultant-directed interventions), the most frequently required interventions for PIC would be emergency general surgery, cardiac pacing and renal replacement. Based on unpublished data from the October 2017 7DS self-assessment survey, every acute trust which hosts a PIC offers these interventions on a 24/7 basis, thus ensuring that this standard is met for these trusts and therefore for their PIC units.

Further evidence to support this is provided by academic studies of PIC in relation to 7 day services, which show an absence of a weekend effect in mortality<sup>78</sup>.

### Paediatric Intensive Care – Regional Performance against the 7DS standards

The above assessment is based on a national picture alone. For individual units, there is no national data available to assess performance against the four 7DS priority standards.

<sup>&</sup>lt;sup>7</sup> Does the 'weekend effect' exist in paediatric intensive care? H Kanthimathinathan, A Plunkett, G Pearson, K Morris, http://adc.bmj.com/content/101/Suppl\_1/A291

<sup>&</sup>lt;sup>8</sup> Effects of out-of-hours and winter admissions and number of patients per unit on mortality in pediatric intensive care, McShane P, Draper ES, McKinney PA, McFadzean J, Parslow RC; Paediatric Intensive Care Audit Network (PICANet), https://www.ncbi.nlm.nih.gov/pubmed/23623513

## STEMI heart attacks - national performance against the 7DS standards

The Service Specification covering STEMI heart attacks<sup>9</sup> states that in the emergency treatment of patients with STEMI, angioplasty treatment (also referred to as primary percutaneous coronary intervention or pPCI) should be performed within 90 minutes of arrival of the patient at the angioplasty site, termed door to balloon (DTB) time, and within 150 minutes of a patient's call for help, termed call to balloon (CTB) time.

Door to balloon time is sufficient to measure achievement of standards 2, 5 and 6 for STEMI heart attack centres, as this is a consultant-directed intervention based on timely access to diagnostics. The below table shows that overall this standard is being met on a national basis, but that there is a slightly lower rate of achievement on weekends.

	Total pPCI procedures	Door to balloon time under 90 mins	% meeting standard		
Mon-Fri	9318	8507	91.3		
Sat-Sun	3684	3268	88.71		
Total	13002	11775	90.56		

Fig 5: Door to balloon times, weekday and weekend comparison of 24/7 pPCI centres in England, using 2015 data (not including inter-hospital transfers) (Source: bespoke analysis of BCIS Audit Data for 2015)

The data in figure 5 is based on the 50 trusts that offer 24/7 pPCI in designated heart attack centres which receive STEMI patients directly from paramedics. This includes data from both centres operated by Sandwell and West Birmingham Hospitals NHS Trust and the shared arrangements in place in East Sussex Hospitals NHS Trust and the South and Central Manchester trusts.

A further 6 trusts in England operate pPCI centres that only operate on a 5 day basis, with patients who would have been admitted at the weekend and at night being treated by the nearest 24/7 centre. By their nature, these trusts do not offer a seven day service and therefore do not meet the 7DS standards.

In relation to standard 5 specifically, the 7DS self-assessment survey of acute trusts provides information relating to access to echocardiography. This information can be broken down by consultant speciality and trust, to give us a picture of access to echocardiography as reported by cardiologists at trusts which operate a 24/7 heart attack centre.

<sup>&</sup>lt;sup>9</sup> https://www.england.nhs.uk/wp-content/uploads/2013/06/a09-cardi-prim-percutaneous.pdf

Fig 6: Availability of echocardiography in acute hospitals who provide 24/7 STEMI heart attack services by weekday and weekend days as reported by cardiology specialist consultants (Source: Unpublished data from October 2017 7DS self-assessment survey, totals may not be 100% due to rounding)

Echocardiography	Weekday	Saturday	Sunday
Test is always available	95%	77%	77%
Usually/mostly available	5%	13%	13%
Sometimes available		5%	6%
Not usually available		4%	3%
Never available		1%	1%

These data show that cardiologists working at hospitals with STEMI heart attack centres do have access to echocardiography on a 24/7 basis, thus meeting the 7DS standard. This is in contrast to availability of echocardiography as reported by all consultants, who report poorer access overall and on weekends (78% report that the test is always or usually available on weekdays, dropping to 37% at weekends).

In terms of standard 8, the majority of patients treated in heart attack centres will remain in the unit for 48-72 hours. Given that the statistics demonstrate a consistent consultant presence on 24/7 basis, we can be assured that these patients will receive the recommended twice daily consultant review on a 24/7 basis, thus meeting the standard. The minority of patients who are moved to a local hospital following treatment will be covered by the wider requirement for all trusts to offer twice daily consultant-directed ongoing review to those patients who would benefit from this.

### STEMI heart attacks - regional performance against the 7DS standards

To assess performance for individual heart attack centres against 7DS priority clinical standards 2, 5 and 6, we looked at British Cardiovascular Intervention Society audit data for the calendar year 2015. This provided a breakdown of performance for all 24/7 heart attack centres against the 90 minute door to balloon (DTB) standard. See annex E for full details.

However, it must be noted that the two performance indicators for STEMI heart attacks (DTB and call to balloon (CTB)) are inter-related. If a catchment population is dispersed and many people live some distance from the centre then CTB times may be longer than in urban settings. However, since the hospital is alerted as soon as the ambulance has picked up a STEMI patient the longer the travel time the more time the hospital has to get things ready, and hence the DTB times may be shorter. Therefore, it cannot be automatically asserted that simply because a DTB time is longer that the hospital is performing less well.

Local areas should look at the below information based on DTB in conjunction with each site's CTB performance, as well as the local context, because this reflects performance of the pathway of care, and covers both ambulance service and hospital performance, and is most correlated with patient outcomes.

#### <u>North</u>

For the North region, seven day performance against the 90 minute door to balloon standard is generally very good. There is an area of concern with overall performance at the Cumberland Royal Infirmary, though conversely the data shows a higher level of performance against the 90 minute standard at the weekend. The only other potential area of concern is on Sheffield, where the weekend rate for meeting the standard is 14 percentage points lower than the weekday (73% versus 87%).

#### Midlands and East

In the Midlands and East region, overall performance against the door to balloon standard is very high. There is a ten percentage point difference in weekday and weekend performance at the Royal Wolverhampton trust (90% versus 80% at weekends) and overall performance at Derby Teaching Hospital trust does not meet the standard.

#### <u>London</u>

Of the 8 heart attack centres in London, there are potentially issues with Guy's & St Thomas' as the data shows that only 78% of weekend cases in 2015 had a door to

balloon time within 90 minutes, albeit with a small sample number (14 cases out of 18 being treated within 90 minutes), and with St George's, where only 80% of patients at the weekend were treated within the 90 minute standard (66 out of 82).

#### <u>South</u>

A handful of sites in the South region show around a ten per cent difference in performance between weekdays and weekends (Plymouth, Royal Cornwall and Southampton) and both sites in Devon (Royal Devon and Torbay and South Devon) do not meet the standard on either weekdays or weekends.

In addition to these, there are seven sites across the South region which offer five day a week services, with weekend patients being taken to the nearest 24/7 centres. These are: Bath, Cheltenham, Swindon (weekend patients to Bristol), Wycombe, Wexham (weekend patients to Harefield/John Radcliffe), Salisbury and Dorset (weekend patients to Bournemouth/Southampton). By their nature, these trusts do not offer a seven day service and therefore do not meet the 7DS standards.

## Major Trauma - national performance against the 7DS standards

The service standard for Major Trauma Centres (MTCs) outlines a requirement for 24/7 consultant presence on site to lead the trauma team, with 24 hour access to operating theatres and access to high dependency units following immediate treatment.

The nature of patients admitted to major trauma centres means that they are treated in line with these standards. Therefore, in terms of standard 2, major trauma patients admitted to a MTC will be seen within 5-30 mins by a consultant leading the trauma team.

For standard 5, data on the median time to CT scanning for patients with suspected serious head injuries is available from the Trauma Audit and Research Network (TARN).

Fig 7: Median time to CT scanning for suspected serious head injury patients in MTCs (Source: bespoke analysis of TARN data for period April 2015 – March 2016)

	Weekday	Weekend
Number of cases	1485	765
Median time to CT scan	24 minutes	24 minutes

This shows that patients in critical need of a CT scan receive this within the 1 hour guidance consistently over a seven day period.

In terms of standard 6, data for the median time to stabilisation for patients with open lower limb fractures could act as a proxy for consultant directed interventions. These data are also available from TARN.

Fig 8: Median time to stabilisation for patients with open lower limb fractures meeting the BOAST 4 injury criteria in MTCs (Source: bespoke analysis of TARN data for period April 2015 – March 2016)

	Weekday	Weekend
Number of cases	446	189
Median time to CT scan	15.8 hours	14.5 hours

As the target time for stabilisation is 24 hours, these data can be interpreted as demonstrating meeting clinical standard 6 at a national level, covering access to consultant directed interventions.

In terms of standard 8, major trauma patients admitted to a MTC and then managed on critical care (ITU or HDU) will have twice daily consultant led ward rounds. If they do not require critical care, they will then receive a consultant review every 24h, in line with the standard 8 recommendations for non-high dependency patients.

## Major Trauma – regional performance against the 7DS standards

In terms of judging performance at an individual MTC level, the data derived from TARN consisting of numbers of individual procedures by MTC is too small to support meaningful analysis. These data are available at annex F for information.

#### Emergency Vascular - national performance against the 7DS standards

Emergency Vascular Services cover a wide range of procedures and are commissioned centrally through specialised commissioning. The service specification outlines that the best outcomes are achieved by specialised units with dedicated vascular teams available on a 24/7 basis.

To assess the performance of these services over a seven day period, we have looked at data from the National Vascular Registry (NVR) covering the emergency admissions for surgical interventions for abdominal aortic aneurism (AAA), lower limb bypasses, major amputations, carotid endarterectomies and angioplasties. See annex G for these data.

In all instances other than AAA, there is a large difference in the number of emergency procedures undertaken on weekends compared to weekdays. However, notwithstanding case ascertainment issues for some of these procedures which may lead to reduced numbers of weekend procedures being recorded, this weekend differential is in line with clinical guidance on these procedures. Therefore, a 24/7 service is not required for these procedures other than in relatively rare critical cases.

However, a 24/7 consultant-led service is required for AAA and appears to be being delivered on a national basis.

	Number of emergency AAA		
Day	procedures		
Monday	235		
Tuesday	254		
Wednesday	226		
Thursday	239		
Friday	255		
Saturday	209		
Sunday	206		
Total	1,624		

Fig 9: Number of emergency AAA procedures in emergency vascular centres by day of the week (Source: bespoke analysis of National Vascular Registry data for calendar years 2014 and 2015)

We do not have data at either a national or local level on whether these services are aligned with the 7DS priority clinical standard for first consultant review, but given the nature of the clinical need it is a fair assumption that these patients, and other patients with emergency vascular conditions, would be reviewed by a consultant within 14 hours, providing evidence for adherence to standard 2.

For standard 5, for emergency vascular services the main diagnostic test is CT which is available 24/7 on a national basis according to vascular surgeons' responses to the most recent 7 day hospital services self-assessment survey:

			• •
СТ	Weekday	Saturday	Sunday
Test is always available	89.19	84.32	82.70
Usually/mostly available	10.81	12.97	14.59
Sometimes available		2.70	2.70
Not usually available			
Never available			

Fig 10: Availability of CT in acute hospitals by weekday and weekend days as reported by vascular surgery consultants (Source: Unpublished data from October 2017 7DS self-assessment survey)

In relation to standard 6, access to interventional radiology is potentially important in relation to endovascular AAA repairs. Data from the NVR's annual report for 2014-15 highlighted a reduced rate of endovascular aneurysm repair in emergencies compared with elective procedures. One reason for this could be reduces access to interventional radiology, although there could also be other reasons such as fewer patients with an emergency presentation being suitable for endovascular repair and lack of availability of trained vascular surgeons.

Whilst we do not have the evidence to demonstrate which of these factors is the most important, unpublished data from the October 2017 7DS self-assessment survey shows that for the 66 trusts where emergency AAA procedures were performed in 2014-15, 12 of these did not have interventional radiology available on site or by a formal arrangement with another trust on a 24/7 basis.

Finally, in terms of standard 8 (ongoing consultant-directed review), unfortunately we have no data available at a national level to demonstrate whether emergency vascular services are meeting this standard. The 7DS self-assessment survey does not provide sufficient detail for the ongoing care of vascular patients. The vascular disease service specification outlines a requirement for patients with vascular disease to have access to dedicated vascular beds staffed by appropriately trained nurses, but there is no specific requirement for consultant review.

#### **Emergency Vascular - regional performance against the 7DS standards**

In terms of judging performance at an individual emergency vascular centre level, the data derived from NVR consisting of numbers of individual procedures by trust is too small to support meaningful analysis at this level.

It is acknowledged that a high proportion of emergency vascular services are commissioned with derogations in place<sup>10</sup>. Regional specialised commissioning teams will hold information on the reasons for these derogations and whether they are directly linked to the ability of these services to operate on a 24/7 basis.

Furthermore, there has been significant reconfiguration of emergency vascular services since the period covered by the NVR data and in many other areas plans are in place to deliver improvements to these services in line with the specialised commissioning service specification.

<sup>&</sup>lt;sup>10</sup> Information taken from NHS England Quality Surveillance Programme Directory of Services https://www.qst.england.nhs.uk/

#### Conclusion and next steps

The data shows that at a national level the majority of the five urgent network specialised services deliver a 24/7 service that meets the requirements of the 7DS standards. This is in particular the case for major trauma and paediatric intensive care. STEMI heart attack and acute stroke services are also generally able to deliver services which meet the standards, with some regional variation. The area of most concern is emergency vascular services, where further investigation at a regional level is required to capture a more accurate picture.

However, there are significant data gaps in relation to almost all of these services. In some cases, such as in relation to PIC, this is of less concern, whereas for emergency vascular services the lack of data that can either demonstrate adherence with the 7DS standards directly or by proxy is of greater concern.

To support their responsibilities in ensuring that these urgent network specialist services meet the four 7DS priority standards, regional UEC Networks should use this information to focus their attention on areas where the greatest support will be needed. As part of this, they should consider establishing robust regional structures to drive this work forward, working in partnership with regional specialised commissioning leads.

In delivering this work, it will be for regional UEC teams to be assured of progress against the standards. They may wish to use elements of the measurement approach taken for this baseline. Support will be provided from the central policy teams in relation to the 7 Day Services self-assessment survey. However, given the twin challenges of a rapidly changing local picture in the light of STP proposals and service improvements already underway and the time lag for data becoming available from national clinical audits, a more regionally-focused measurement of performance may be appropriate.

### Details of the four priority clinical standards for seven day hospital services

- Standard 2: All emergency admissions must be seen and have a thorough clinical assessment by a suitable consultant as soon as possible but at the latest within 14 hours from the time of arrival at hospital.
- Standard 5: Hospital inpatients must have scheduled seven-day access to diagnostic services such as x-ray, ultrasound, computerised tomography (CT), magnetic resonance imaging (MRI), echocardiography, endoscopy, bronchoscopy and pathology. Consultant-directed diagnostic tests and completed reporting will be available seven days a week:
  - Within 1 hour for critical patients
  - Within 12 hours for urgent patients
  - Within 24 hours for non-urgent patients
- Standard 6: Hospital inpatients must have timely 24 hour access, seven days a week, to consultant-directed interventions that meet the relevant specialty guidelines, either on-site or through formally agreed networked arrangements with clear protocols, such as:
  - Critical care
  - Interventional radiology
  - Interventional endoscopy
  - Emergency general surgery
- Standard 8: All patients on the Acute Medical Unit (AMU), Acute Surgical Assessment Unit (ASU), and Intensive Therapy Unit (ITU) and other high dependency areas are seen and reviewed by a consultant TWICE DAILY (including all acutely ill patients directly transferred and others who deteriorate, unless it has been determined that this would not affect the patient's care pathway).

#### **Urgent Network Specialist Services baseline – sources of data**

#### 7 Day Services self-assessment survey of acute trusts

All acute trusts are invited to complete a biannual self-assessment survey of their performance against the four priority 7DS clinical standards. This survey takes the form of a combination of case note reviews (covering standards 2 and 8) and pure self-assessments from consultants on the availability of key diagnostic tests (standard 5) and consultant-directed interventions (standard 6).

The case note reviews are taken from a consecutive seven day period, with the largest trusts reviewing up to 40 cases per day. These cases are taken from a selected period to reflect the trust's case mix. The diagnostics and interventions survey covers assessments of availability on weekdays, Saturdays and Sundays.

The survey provides some useful information on a national level to support this baseline. However, there are limitations in looking at site-specific data due to the small number of consultants per trust from relevant specialisms (standards 5 and 6) and the inability to identify the specialism in the cases for standards 2 and 8 and the relatively small number of cases for these specialised services.

#### Clinical audit data

Data covering each of the five specialist services is collected through the national clinical audits as follows:

- Sentinel Stroke National Audit Programme (SSNAP)
- Paediatric Intensive Care Audit Network (PICANET)
- Myocardial Ischaemia National Audit Project (MINAP)
- Trauma Audit and Research Network (TARN)
- National Vascular Registry (NVR)

None of these clinical audits are designed to collect data directly relating to delivery of the 7 day services priority clinical standards, but each of them provides some information that we can use as proxy measures for performance against these standards.

For acute stroke services, we have collected data from SSNAP relating to time to scan from arrival at hospital within 1, 12 and 24 hours, along with time to consultant review within 14 and 24 hours.

For paediatric intensive care, unfortunately the data from PICANET does not provide information that can be used as a proxy for delivery of the standards. However, MINAP data relating to 'door to balloon time' within 90 minutes on a seven day basis provides information relating to STEMI heart attack centres.

The data taken from TARN compares weekday and weekend data for median time to CT scan for head injury patients and median time for stabilisation for open lower limb injuries. Finally, data taken from the National Vascular Registry on the number of emergency vascular procedures by unit for each day of the week gives us information on seven day performance in emergency vascular services.

#### Specialised commissioning service specifications and clinical guidance

Four out of five of the specialist services (all except hyperacute stroke) are commissioned centrally by NHS England through its specialised commissioning functions. Services are based on specifications drafted by the relevant Clinical Reference Group. Stroke has a national clinical guideline which is produce by a cross-system group convened by the Royal College of Physicians.<sup>11</sup>

None of the specialised commissioning specifications for Level 3 Paediatric Critical Care<sup>12</sup>, Major Trauma<sup>13</sup>, Specialised Vascular Services<sup>14</sup> and Cardiology: Primary Percutaneous Coronary Intervention<sup>15</sup>, nor the stroke clinical guideline, make specific reference to the four seven day services priority clinical standards. However, all of these documents have the provision of a 24/7 care as a core basis for these services, with detailed guidance on the patient pathway, standards of care and in some cases appropriate levels of staffing and consultant cover specifically outlined.

As these services have clear protocols and best practice for delivery on a 24/7 basis, then any service meeting the relevant specification or guidance can be considered to be offering seven day services as defined by the priority clinical standards. In many cases, the protocols for these urgent network specialist services will specify a higher level of services than the 7DS priority standards, due to the critical nature of the care that is being delivered and in those circumstances the 7DS clinical standards should not replace existing standards.

However, we know that these services are not always delivered in line with the relevant specialised commissioning service specifications or clinical guidance this

<sup>&</sup>lt;sup>11</sup> National Clinical Guideline for Stroke (Fifth Edition), Royal College of Physicians, October 2016, http://guideline.ssnap.org/2016StrokeGuideline/index.html

<sup>&</sup>lt;sup>12</sup> https://www.england.nhs.uk/commissioning/wp-content/uploads/sites/12/2015/01/e07-sa-paed-intencare.pdf

<sup>&</sup>lt;sup>13</sup> https://www.england.nhs.uk/commissioning/wp-content/uploads/sites/12/2014/04/d15-major-trauma-0414.pdf

<sup>&</sup>lt;sup>14</sup> https://www.england.nhs.uk/wp-content/uploads/2013/06/a04-spec-vascu-adult.pdf

<sup>&</sup>lt;sup>15</sup> https://www.england.nhs.uk/wp-content/uploads/2013/06/a09-cardi-prim-percutaneous.pdf

isn't always the case. Therefore the estimates we have made of the current level of performance are based on a combination of adherence to the specifications and guidance as best can be judged from clinical audit and 7DS survey data.

Annex C: Breakdown of data used to measure urgent network specialist services against seven day services clinical standards

Service	Standard 2	Standard 5	Standard 6	Standard 8
	Time to first consultant review	Improved access to	Consultant directed	On-going consultant-directed
		diagnostics	interventions	review
Stroke	Reported from SSNAP: % of	Reported from SSNAP: % of	Reported from SSNAP	Reported from SSNAP
	patients scanned within 1 hour	patients scanned within 1 hour	Organisational Audit: access to	Organisational Audit: number of
	and 12 hours of clock start	and 12 hours of clock start	thrombolysis either on site or	stroke ward rounds per week
			through network arrangements	AND
			AND	Reported from SSNAP: % patients
			7DS survey: 24 hour access to	who were assessed by a consultant
			thrombolysis 7 days a week,	within 14 and 24 hours.
			either on site or via formal	
			network arrangements.	
PIC	No data to directly measure	7DS survey: For paediatric	7DS survey: 24 hour access to	No data to directly measure
	standard: Service specification	intensive care consultants: "%	consultant directed interventions 7	standard: Service specification
	recommends consultant	able to access diagnostic tests	days a week, either on site or via	recommends consultant review,
	assessment, presumption this is	and completed reporting, seven	formal network arrangements for	presumption this is met due to
	met due to consultant presence	days a week" for all diagnostic	trusts that host a PICU.	consultant presence on 24/7 basis and
	on 24/7 basis.	tests.		twice-daily consultant rounds.
STEMI Heart	Proxy measure reported from B	CIS audit: compare door to balloo	n time across week/weekend as this	No data to directly measure
attack	is a consultant-directed intervention	on delivered to a set timescale follow	wing appropriate diagnostic tests.	standard: Service specification
				recommends regular consultant
				review, presumption this is met due to
				level of consultant presence on 24/7
				basis.

Trauma	No data to directly measure	Reported from TARN: Time to	Reported from TARN: Compare	No data to directly measure
	standard: Service specification	CT scan for high risk NICE head	median time of arrival to ED and	standard: Service specification
	recommends regular consultant assessment, presumption this is met due to level of consultant presence on 24/7 basis.	injury patients on weekdays and weekend.	time of intervention for open lower limb fracture (Boast 4 standard) for weekdays and weekends.	recommends regular consultant review, presumption this is met due to level of consultant presence on 24/7 basis.
Emergency Vascular	<b>Derive from NVR</b> : compare number of procedures for AAA across 7 days at emergency vascular centres.	<b>7DS survey</b> : % of vascular surgery consultants able to access CT, seven days a week.	<b>7DS survey</b> : 24 hour access to interventional radiology 7 days a week, either on site or via formal network arrangements for trusts providing emergency vascular services.	No data to directly measure standard: not covered in service specification.

## Acute stroke care and the seven day standards in England June 2016 Data on stroke

The Sentinel Stroke National Audit Programme (SSNAP) collects process and outcome data on about 95% of all admissions to hospital in England with all hospitals participating. Additionally every two years there is an audit of the structure of services with the latest round of data collection being June/July 2016. The results are being put in the public domain in the last week of November.

For the seven day standards the information on time to scanning and time to being seen by a stroke specialist consultant is available for all units and patients. The audit is not able to separate out patients who need scanning within 1 hour (apart from those that have been thrombolysed) and those that should be scanned within a maximum of 12 hours. However the new guidelines for stroke from the Intercollegiate Stroke Working Party now recommend that all stroke patients should be scanned within 1 hour of arrival at the hospital so the denominator in future for the 1 hour scanning standard will be all stroke admissions. In the clinical audit, data are not collected on how frequently the patients are seen on ward rounds on the hyperacute unit however data will be available from the organisational audit on the number of consultant led ward rounds on the units conducted each week which will enable us to identify which units conduct twice daily rounds.

The data presented in this report are for the January to March 2016 quarter

#### **Thames Valley**

Thames Valley SCN			Wycombe General Hospital	Wexham Park Hospital	Milton Keynes General Hospital	Horton General Hospital	John Radcliffe Hospital	Royal Berkshire Hospital
	n	10153	105	15	14	7	66	94
hour of clock start	d	20991	142	94	37	26	124	161
	%	48.4	73.9	16.0	37.8	26.9	53.2	58.4
	n	19435	140	86	34	25	115	144
Scanned within 12 hours of clock start	d	20991	142	94	37	26	124	161
	%	92.6	98.6	91.5	91.9	96.2	92.7	89.4
	n	20276	141	89	36	25	121	152
Scanned within 24 hours of clock start	d	20991	142	94	37	26	124	161
	%	96.6	99.3	94.7	97.3	96.2	97.6	94.4
Assessed by a stroke	n	10774	118	11	12	8	75	80
physician within 14h	d	20991	142	94	37	26	124	161
of clock start	%	51.3	83.1	11.7	32.4	30.8	60.5	49.7
Assessed by a stroke specialist consultant	n	16604	140	47	23	16	112	123
of clock start	d	20991	142	94	37	26	124	161
	%	79.1	98.6	50.0	62.2	61.5	90.3	76.4

#### London

London SCN			Queens Hospital Romford HASU	Royal London Hospital HASU	Charing Cross Hospital HASU	King's College Hospital HASU	Princess Royal University Hospital HASU	Northwick Park Hospital HASU	St George's Hospital HASU	University College Hospital HASU
Scanned within	n	10153	102	131	176	122	126	195	199	139
1 hour of clock start	d	20991	190	202	244	191	194	316	300	280
	%	48.4	53.7	64.9	72.1	63.9	64.9	61.7	66.3	49.6
Scanned within	n	19435	186	194	240	190	190	311	296	265
12 hours of	d	20991	190	202	244	191	194	316	300	280
CIOCK Start	%	92.6	97.9	96.0	98.4	99.5	97.9	98.4	98.7	94.6
	n	20276	188	197	240	191	192	313	297	274
Scanned within 24 hours of	d	20991	190	202	244	191	194	316	300	280
clock start	%	96.6	98.9	97.5	98.4	100.0	99.0	99.1	99.0	97.9
Assessed by a stroke specialist	n	10774	55	56	153	67	165	171	119	126
physician within	d	20991	190	202	244	191	194	316	300	280
14h of clock start	%	51.3	28.9	27.7	62.7	35.1	85.1	54.1	39.7	45.0
Assessed by a stroke specialist consultant	n	16604	146	148	227	175	187	300	260	237
24h of clock	d	20991	190	202	244	191	194	316	300	280
start	%	79.1	76.8	73.3	93.0	91.6	96.4	94.9	86.7	84.6

#### East of England

East of England SCN (1/2)			Basildon University Hospital	Bedford Hospital	Addenbroo ke's Hospital	Colchester General Hospital	Lister Hospital	lpswich Hospital	James Paget Hospital	Luton and Dunstable Hospital
Scanned within 1	n	10153	75	11	55	82	78	55	48	86
hour of clock start	d	20991	125	53	129	143	179	115	111	157
	%	48.4	60.0	20.8	42.6	57.3	43.6	47.8	43.2	54.8
Scanned within	n	19435	121	43	120	136	175	101	94	147
12 hours of clock	d	20991	125	53	129	143	179	115	111	157
start	%	92.6	96.8	81.1	93.0	95.1	97.8	87.8	84.7	93.6
Scanned within	n	20276	123	50	124	141	177	111	104	155
24 hours of clock	d	20991	125	53	129	143	179	115	111	157
start	%	96.6	98.4	94.3	96.1	98.6	98.9	96.5	93.7	98.7
Assessed by a stroke specialist	n	10774	67	15	42	67	72	63	62	58
consultant physician within	d	20991	125	53	129	143	179	115	111	157
14h of clock start	%	51.3	53.6	28.3	32.6	46.9	40.2	54.8	55.9	36.9
Assessed by a stroke specialist consultant	n	16604	109	26	99	100	135	103	80	96
physician within 24h of clock start	d	20991	125	53	129	143	179	115	111	157
	%	79.1	87.2	49.1	76.7	69.9	75.4	89.6	72.1	61.1

East of England SCN (2/2)			Broomfield Hospital	Norfolk and Norwich University Hospital	Peterborough City Hospital	Queen Elizabeth Hospital Kings Lynn	Southend Hospital	Watford General Hospital	West Suffolk Hospital
Coopped within 1	n	10153	62	123	62	48	98	82	84
hour of clock start	d	20991	134	276	156	131	177	176	108
	%	48.4	46.3	44.6	39.7	36.6	55.4	46.6	77.8
	n	19435	131	236	150	121	161	168	105
Scanned within 12 hours of clock start	d	20991	134	276	156	131	177	176	108
	%	92.6	97.8	85.5	96.2	92.4	91.0	95.5	97.2
	n	20276	132	270	151	124	165	175	107
Scanned within 24 hours of clock start	d	20991	134	276	156	131	177	176	108
	%	96.6	98.5	97.8	96.8	94.7	93.2	99.4	99.1
Assessed by a stroke	n	10774	53	171	35	73	153	91	65
physician within 14h	d	20991	134	276	156	131	177	176	108
of clock start	%	51.3	39.6	62.0	22.4	55.7	86.4	51.7	60.2
Assessed by a stroke specialist consultant	n	16604	115	242	63	111	164	136	85
of clock start	d	20991	134	276	156	131	177	176	108
	%	79.1	85.8	87.7	40.4	84.7	92.7	77.3	78.7

#### Yorkshire and Humber

Yorkshire and The Humber SCN (1/2)			Barnsley Hospital	Bradford Royal Infirmary	Calderdale Royal Hospital	Chesterfield Royal	Doncaster Royal Infirmary	Harrogate District Hospital	Leeds General Infirmary
Seanned within 1	n	10153	55	37	37	54	63	22	118
hour of clock start	d	20991	162	119	117	128	149	92	259
	%	48.4	34.0	31.1	31.6	42.2	42.3	23.9	45.6
	n	19435	142	107	106	122	144	70	239
Scanned within 12 hours of clock start	d	20991	162	119	117	128	149	92	259
	%	92.6	87.7	89.9	90.6	95.3	96.6	76.1	92.3
	n	20276	150	112	108	126	145	86	252
Scanned within 24 hours of clock start	d	20991	162	119	117	128	149	92	259
	%	96.6	92.6	94.1	92.3	98.4	97.3	93.5	97.3
Assessed by a stroke	n	10774	35	29	79	25	70	37	111
physician within 14h	d	20991	162	119	117	128	149	92	259
of clock start	%	51.3	21.6	24.4	67.5	19.5	47.0	40.2	42.9
Assessed by a stroke specialist consultant	n	16604	110	101	95	82	127	75	192
of clock start	d	20991	162	119	117	128	149	92	259
	%	79.1	67.9	84.9	81.2	64.1	85.2	81.5	74.1

Yorkshire and The Humber SCN (2/2)			Pinderfields Hospital	Scunthorpe General Hospital	Rotherham Hospital	Royal Hallamshire Hospital	York Hospital	Hull Royal Infirmary
	n	10153	110	88	71	133	84	99
hour of clock start	d	20991	228	145	120	225	213	197
	%	48.4	48.2	60.7	59.2	59.1	39.4	50.3
	n	19435	206	142	116	205	174	182
Scanned within 12 hours of clock start	d	20991	228	145	120	225	213	197
	%	92.6	90.4	97.9	96.7	91.1	81.7	92.4
_	n	20276	214	145	117	210	198	186
Scanned within 24 hours of clock start	d	20991	228	145	120	225	213	197
	%	96.6	93.9	100.0	97.5	93.3	93.0	94.4
Assessed by a stroke	n	10774	85	94	22	137	102	87
physician within 14h	d	20991	228	145	120	225	213	197
of clock start	%	51.3	37.3	64.8	18.3	60.9	47.9	44.2
Assessed by a stroke specialist consultant	n	16604	172	137	66	171	186	154
of clock start	d	20991	228	145	120	225	213	197
	%	79.1	75.4	94.5	55.0	76.0	87.3	78.2

#### Greater Manchester and Lancashire and South Cumbria

Manchester, Lancashire & S.Cumbria SCN			Blackpool Victoria Hospital	Royal Blackburn Hospital	Royal Preston Hospital	Fairfield General Hospital	Salford Royal Hospital	Stepping Hill Hospital	Furness General Hospital	Royal Lancaster Infirmary
Soonpod within 1	n	10153	26	73	49	186	273	208	35	31
hour of clock start	d	20991	134	181	119	233	544	275	67	76
	%	48.4	19.4	40.3	41.2	79.8	50.2	75.6	52.2	40.8
Scanned within 12	n	19435	123	158	113	230	534	272	63	72
hours of clock	d	20991	134	181	119	233	544	275	67	76
start	%	92.6	91.8	87.3	95.0	98.7	98.2	98.9	94.0	94.7
Scanned within 24	n	20276	127	168	118	232	534	273	66	73
hours of clock start	d	20991	134	181	119	233	544	275	67	76
	%	96.6	94.8	92.8	99.2	99.6	98.2	99.3	98.5	96.1
Assessed by a stroke specialist	n	10774	31	56	57	146	526	216	48	27
consultant physician within	d	20991	134	181	119	233	544	275	67	76
14h of clock start	%	51.3	23.1	30.9	47.9	62.7	96.7	78.5	71.6	35.5
Assessed by a stroke specialist consultant	n	16604	83	129	93	206	529	274	64	46
physician within 24b of clock start	d	20991	134	181	119	233	544	275	67	76
	%	79.1	61.9	71.3	78.2	88.4	97.2	99.6	95.5	60.5

#### West Midlands

West Midlands SCN (1/2)			Queens Hospital Burton upon Trent	Russells Hall Hospital	George Eliot Hospital	Birmingham Heartlands Hospital	New Cross Hospital	Sandwell District Hospital	Warwick Hospital
Scanned within 1	n	10153	70	75	15	121	56	106	9
hour of clock start	d	20991	87	147	54	212	136	141	73
	%	48.4	80.5	51.0	27.8	57.1	41.2	75.2	12.3
	n	19435	84	126	52	203	127	138	65
Scanned within 12 hours of clock start	d	20991	87	147	54	212	136	141	73
	%	92.6	96.6	85.7	96.3	95.8	93.4	97.9	89.0
	n	20276	84	134	54	206	131	138	72
Scanned within 24 hours of clock start	d	20991	87	147	54	212	136	141	73
	%	96.6	96.6	91.2	100.0	97.2	96.3	97.9	98.6
Assessed by a stroke	n	10774	50	67	30	77	102	104	26
physician within 14h	d	20991	87	147	54	212	136	141	73
of clock start	%	51.3	57.5	45.6	55.6	36.3	75.0	73.8	35.6
Assessed by a stroke specialist consultant	n	16604	69	118	48	165	120	133	49
of clock start	d	20991	87	147	54	212	136	141	73
	%	79.1	79.3	80.3	88.9	77.8	88.2	94.3	67.1

West Midlands SCN (2/2)			Queen Elizabeth Hospital Edgbaston	University Hospital Coventry	Royal Stoke University Hospital	Manor Hospital	Worcestershire Royal Hospital	Hereford County Hospital	Princess Royal Hospital Telford
Opportunity in A	n	10153	79	104	166	43	83	43	103
hour of clock start	d	20991	150	194	280	83	190	131	255
	%	48.4	52.7	53.6	59.3	51.8	43.7	32.8	40.4
	n	19435	143	182	274	80	169	124	210
Scanned within 12 hours of clock start	d	20991	150	194	280	83	190	131	255
	%	92.6	95.3	93.8	97.9	96.4	88.9	94.7	82.4
	n	20276	146	188	276	82	184	125	242
Scanned within 24 hours of clock start	d	20991	150	194	280	83	190	131	255
	%	96.6	97.3	96.9	98.6	98.8	96.8	95.4	94.9
Assessed by a stroke	n	10774	90	58	233	39	110	31	83
physician within 14h	d	20991	150	194	280	83	190	131	255
of clock start	%	51.3	60.0	29.9	83.2	47.0	57.9	23.7	32.5
Assessed by a stroke specialist consultant	n	16604	129	108	265	61	151	81	166
of clock start	d	20991	150	194	280	83	190	131	255
	%	79.1	86.0	55.7	94.6	73.5	79.5	61.8	65.1

#### **Cheshire and Mersey**

Cheshire and Mersey SCN			University Hospital Aintree	Countess of Chester Hospital	Leighton Hospital	Royal Liverpool University Hospital	Southport and Formby District General	Whiston Hospital	Warrington Hospital	Arrowe Park Hospital
Seened within 1	n	10153	51	44	28	53	35	103	35	101
hour of clock start	d	20991	131	88	100	128	80	182	85	162
	%	48.4	38.9	50.0	28.0	41.4	43.8	56.6	41.2	62.3
Scanned within 12	n	19435	120	79	98	116	76	176	83	157
hours of clock	d	20991	131	88	100	128	80	182	85	162
start	%	92.6	91.6	89.8	98.0	90.6	95.0	96.7	97.6	96.9
0	n	20276	125	80	99	117	77	180	84	160
hours of clock	d	20991	131	88	100	128	80	182	85	162
	%	96.6	95.4	90.9	99.0	91.4	96.3	98.9	98.8	98.8
Assessed by a stroke specialist	n	10774	83	70	31	64	38	114	39	90
consultant physician within	d	20991	131	88	100	128	80	182	85	162
14h of clock start	%	51.3	63.4	79.5	31.0	50.0	47.5	62.6	45.9	55.6
Assessed by a stroke specialist consultant	n	16604	106	80	64	105	53	154	61	136
physician within 24b of clock start	d	20991	131	88	100	128	80	182	85	162
	%	79.1	80.9	90.9	64.0	82.0	66.3	84.6	71.8	84.0

#### South East Coast

South East SCN			Epsom Hospital	Frimley Park Hospital	Maidstone District General Hospital	Tunbridge Wells Hospital	Medway Maritime Hospital	Royal Surrey County Hospital	East Surrey Hospital	St Richards Hospital	Worthing Hospital
Scanned	n	10153	39	57	50	37	50	54	87	25	62
hour of	d	20991	57	101	73	75	92	88	127	82	119
CIOCK Start	%	48.4	68.4	56.4	68.5	49.3	54.3	61.4	68.5	30.5	52.1
Scanned	n	19435	52	94	70	69	89	85	127	75	115
within 12 hours of	d	20991	57	101	73	75	92	88	127	82	119
clock start	%	92.6	91.2	93.1	95.9	92.0	96.7	96.6	100.0	91.5	96.6
Scanned within 24	n	20276	53	97	71	72	89	88	127	81	117
hours of	d	20991	57	101	73	75	92	88	127	82	119
CIUCK Start	%	96.6	93.0	96.0	97.3	96.0	96.7	100.0	100.0	98.8	98.3
Assessed by a stroke	n	10774	21	62	32	25	31	46	45	39	74
specialist consultant	d	20991	57	101	73	75	92	88	127	82	119
within 14h of clock start	%	51.3	36.8	61.4	43.8	33.3	33.7	52.3	35.4	47.6	62.2
Assessed by a stroke specialist	n	16604	37	94	47	51	50	65	85	61	101
consultant physician within 24h	d	20991	57	101	73	75	92	88	127	82	119
of clock start	%	79.1	64.9	93.1	64.4	68.0	54.3	73.9	66.9	74.4	84.9

South East SCN			St Peter's Hospital	Princess Royal Hospital Haywards Heath	Royal Sussex County Hospital	Darent Valley Hospital	Kent and Canterbury Hospital	Queen Elizabeth the Queen Mother Hospital	William Harvey Hospital	Eastbourne District General Hospital
Scanned	n	10153	86	28	76	37	26	77	79	84
within 1 hour of	d	20991	128	46	123	76	55	100	121	97
clock start	%	48.4	67.2	60.9	61.8	48.7	47.3	77	65.3	86.6
Scanned	n	19435	126	43	117	73	53	96	113	97
within 12 hours of	d	20991	128	46	123	76	55	100	121	97
clock start	%	92.6	98.4	93.5	95.1	96.1	96.4	96	93.4	100
Scanned	n	20276	126	45	117	75	55	97	118	97
within 24	d	20991	128	46	123	76	55	100	121	97
clock start	%	96.6	98.4	97.8	95.1	98.7	100	97	97.5	100
Assessed by a	n	10774	88	12	90	20	44	85	80	62
stroke specialist	d	20991	128	46	123	76	55	100	121	97
consultant physician within 14h of clock start	%	51.3	68.8	26.1	73.2	26.3	80	85	66.1	63.9
Assessed by a stroke specialist	n	16604	117	24	114	39	49	94	97	86
consultant physician	d	20991	128	46	123	76	55	100	121	97
within 24h of clock start	%	79.1	91.4	52.2	92.7	51.3	89.1	94	80.2	88.7

#### Wessex

Wessex SCN			Dorset County Hospital	Royal Hampshire County Hospital	St Mary's Hospital Newport	Poole Hospital	Queen Alexandra Hospital Portsmouth	Royal Bournemouth General Hospital	Southampton General Hospital
Company within 4	n	10153	21	47	41	73	56	84	80
hour of clock start	d	20991	98	165	63	152	209	173	176
	%	48.4	21.4	28.5	65.1	48.0	26.8	48.6	45.5
	n	19435	74	157	60	128	193	157	167
hours of clock start	d	20991	98	165	63	152	209	173	176
	%	92.6	75.5	95.2	95.2	84.2	92.3	90.8	94.9
	n	20276	91	163	61	147	201	172	171
Scanned within 24 hours of clock start	d	20991	98	165	63	152	209	173	176
	%	96.6	92.9	98.8	96.8	96.7	96.2	99.4	97.2
Assessed by a stroke specialist	n	10774	58	109	17	30	102	71	121
consultant physician within 14h of clock	d	20991	98	165	63	152	209	173	176
start	%	51.3	59.2	66.1	27.0	19.7	48.8	41.0	68.8
Assessed by a stroke specialist consultant physician	n	16604	82	153	30	87	186	124	160
within 24h of clock	d	20991	98	165	63	152	209	173	176
Sidit	%	79.1	83.7	92.7	47.6	57.2	89.0	71.7	90.9

#### South West

South West SCN (1/2)			Gloucestershire Royal Hospital	Great Western Hospital Swindon	North Bristol Hospitals	North Devon District Hospital	Derriford Hospital	Royal Cornwall Hospital	Royal Devon and Exeter Hospital
Coorport within 4	n	10153	45	39	91	22	88	154	83
hour of clock start	d	20991	221	91	157	86	186	228	188
	%	48.4	20.4	42.9	58.0	25.6	47.3	67.5	44.1
	n	19435	191	82	151	67	173	219	157
Scanned within 12 hours of clock start	d	20991	221	91	157	86	186	228	188
	%	92.6	86.4	90.1	96.2	77.9	93.0	96.1	83.5
Scanned within 24	n	20276	204	86	153	73	180	221	175
hours of clock start	d	20991	221	91	157	86	186	228	188
	%	96.6	92.3	94.5	97.5	84.9	96.8	96.9	93.1
Assessed by a stroke	n	10774	72	22	64	11	153	76	108
specialist consultant	d	20991	221	91	157	86	186	228	188
of clock start	%	51.3	32.6	24.2	40.8	12.8	82.3	33.3	57.4
Assessed by a stroke specialist consultant	n	16604	163	64	108	43	167	172	164
physician within 24h	d	20991	221	91	157	86	186	228	188
OF CIUCK STATE	%	79.1	73.8	70.3	68.8	50.0	89.8	75.4	87.2

South West SCN (2/2)			Royal United Hospital Bath	Salisbury District Hospital	Musgrove Park Hospital	Torbay Hospital	Bristol Royal Infirmary	Weston General Hospital	Yeovil District Hospital
Scannad within 1	n	10153	71	39	105	54	78	23	42
hour of clock start	d	20991	167	90	169	140	108	52	74
	%	48.4	42.5	43.3	62.1	38.6	72.2	44.2	56.8
	n	19435	154	86	154	116	105	52	72
Scanned within 12 hours of clock start	d	20991	167	90	169	140	108	52	74
	%	92.6	92.2	95.6	91.1	82.9	97.2	100.0	97.3
Scanned within 24	n	20276	162	89	162	132	106	52	73
hours of clock start	d	20991	167	90	169	140	108	52	74
	%	96.6	97.0	98.9	95.9	94.3	98.1	100.0	98.6
Assessed by a stroke specialist consultant	n	10774	100	53	75	54	42	27	33
physician within 14h	d	20991	167	90	169	140	108	52	74
of clock start	%	51.3	59.9	58.9	44.4	38.6	38.9	51.9	44.6
Assessed by a stroke specialist consultant	n	16604	151	66	127	96	60	40	57
of clock start	d	20991	167	90	169	140	108	52	74
	%	79.1	90.4	73.3	75.1	68.6	55.6	76.9	77.0

#### North of England

North of England SCN (1/2)			Sunderland Royal Hospital	University Hospital of North Durham	Queen Elizabeth Hospital Gateshead	Royal Victoria Infirmary	Cumberland Infirmary	West Cumberland Hospital
Scanned within 1	n	10153	56	52	37	60	45	30
hour of clock start	d	20991	136	195	96	158	108	64
	%	48.4	41.2	26.7	38.5	38.0	41.7	46.9
	n	19435	133	185	83	154	99	60
Scanned within 12 hours of clock start	d	20991	136	195	96	158	108	64
	%	92.6	97.8	94.9	86.5	97.5	91.7	93.8
Scanned within 24	n	20276	135	188	90	155	105	62
hours of clock start	d	20991	136	195	96	158	108	64
	%	96.6	99.3	96.4	93.8	98.1	97.2	96.9
Assessed by a stroke specialist	n	10774	82	122	52	105	47	37
within 14h of clock	d	20991	136	195	96	158	108	64
start	%	51.3	60.3	62.6	54.2	66.5	43.5	57.8
Assessed by a stroke specialist consultant physician	n	16604	129	180	80	145	67	49
within 24h of clock	d	20991	136	195	96	158	108	64
Start	%	79.1	94.9	92.3	83.3	91.8	62.0	76.6

North of England SCN (2/2)			James Cook University Hospital	South Tyneside District Hospital	University Hospitals of North Tees and Hartlepool	Northumbria Specialist Emergency Care Hospital HASU
Scanned within 1	n	10153	63	17	31	84
hour of clock start	d	20991	184	63	129	235
	%	48.4	34.2	27.0	24.0	35.7
	n	19435	176	53	81	226
Scanned within 12 hours of clock start	d	20991	184	63	129	235
	%	92.6	95.7	84.1	62.8	96.2
Scanned within 24	n	20276	180	59	113	234
hours of clock start	d	20991	184	63	129	235
	%	96.6	97.8	93.7	87.6	99.6
Assessed by a stroke	n	10774	138	12	75	201
physician within 14h	d	20991	184	63	129	235
of clock start	%	51.3	75.0	19.0	58.1	85.5
Assessed by a stroke specialist consultant	n	16604	168	30	111	226
of clock start	d	20991	184	63	129	235
	%	79.1	91.3	47.6	86.0	96.2

#### East Midlands

East Midlands SCN			Royal Derby Hospital	Northampton General Hospital	Nottingham City Hospital	Kings Mill Hospital	Lincoln County Hospital	Pilgrim Hospital	Leicester Royal Infirmary
Scoppod within 1	n	10153	57	155	69	40	68	59	128
hour of clock start	d	20991	131	238	239	99	119	128	302
	%	48.4	43.5	65.1	28.9	40.4	57.1	46.1	42.4
	n	19435	127	220	212	95	114	118	281
Scanned within 12 hours of clock start	d	20991	131	238	239	99	119	128	302
	%	92.6	96.9	92.4	88.7	96.0	95.8	92.2	93.0
Scanned within 24	n	20276	129	229	229	97	115	123	291
hours of clock start	d	20991	131	238	239	99	119	128	302
	%	96.6	98.5	96.2	95.8	98.0	96.6	96.1	96.4
Assessed by a stroke specialist	n	10774	82	196	117	63	84	110	153
consultant physician within 14h of clock	d	20991	131	238	239	99	119	128	302
start	%	51.3	62.6	82.4	49.0	63.6	70.6	85.9	50.7
Assessed by a stroke specialist consultant physician	n	16604	125	223	189	89	105	119	242
within 24h of clock	d	20991	131	238	239	99	119	128	302
Start	%	79.1	95.4	93.7	79.1	89.9	88.2	93.0	80.1

Annex E: STEMI heart attack centre performance against 90 minute door to balloon standard in 2015

Region	Hospital	Trust	Count weekday in 90 min	Total weekday	Percentage weekday in 90 min	Count weekend in 90 min	Total weekend	Percentage weekend in 90 min	extra % less than 90 min delay on weekend
London	BAL. Barts and the London	BARTS HEALTH NHS TRUST	236	240	98.33	92	96	95.83	2.5
		ST GEORGE'S UNIVERSITY HOSPITALS NHS FOUNDATION							
London	GEO. St George's Hospital	TRUST	174	207	84.06	66	82	80.49	3.57
London	HAM. Hammersmith Hospital	IMPERIAL COLLEGE HEALTHCARE NHS TRUST	149	162	91.98	59	64	92.19	-0.21
_		ROYAL BROMPTON & HAREFIELD NHS FOUNDATION							
London	HH. Harefield Hospital	TRUST	307	313	98.08	118	122	96.72	1.36
London	KCH. King's College Hospital	KING'S COLLEGE HOSPITAL NHS FOUNDATION TRUST	155	168	92.26	73	78	93.59	-1.33
London	RFH. Royal Free Hospital	ROYAL FREE LONDON NHS FOUNDATION TRUST	126	134	94.03	48	54	88.89	5.14
London	STH. St Thomas Hospital	GUY'S AND ST THOMAS' NHS FOUNDATION TRUST	55	63	87.3	14	18	77.78	9.52
	UCL. University College	UNIVERSITY COLLEGE LONDON HOSPITALS NHS FOUNDATION							
London	Hospital	TRUST	5	5	100	1	1	100	0
Mids &		BASILDON AND THURROCK UNIVERSITY HOSPITALS NHS							
East	BAS. Basildon Hospital	FOUNDATION TRUST	275	284	96.83	100	103	97.09	-0.26
Mids & East	CHN. Nottingham City Hospital	NOTTINGHAM UNIVERSITY HOSPITALS NHS TRUST	132	136	97.06	53	55	96.36	0.7

Mids &		DERBY TEACHING HOSPITALS							
East	DER. Royal Derby Hospital	NHS FOUNDATION TRUST	138	161	85.71	52	63	82.54	3.17
		SANDWELL AND WEST							
Mids &	DUD. Birmingham City	BIRMINGHAM HOSPITALS NHS							
East	Hospital	TRUST	68	/5	90.67	31	34	91.18	-0.51
Mids &	EBH. Birmingham Heartlands	HEART OF ENGLAND NHS							
East	Hospital	FOUNDATION TRUST	177	204	86.76	61	70	87.14	-0.38
Mids &		UNIVERSITY HOSPITALS OF							
East	GRL. Glenfield Hospital	LEICESTER NHS TRUST	201	226	88.94	77	86	89.53	-0.59
Mids &	KGH. Kettering General	KETTERING GENERAL HOSPITAL							
East	Hospital	NHS FOUNDATION TRUST	154	169	91.12	61	68	89.71	1.41
Mids &		UNITED LINCOLNSHIRE							
East	LIN. Lincoln County Hospital	HOSPITALS NHS TRUST	195	210	92.86	77	87	88.51	4.35
Mids &		EAST AND NORTH							
East	LIS. Lister Hospital	HERTFORDSHIRE NHS TRUST	179	196	91.33	72	75	96	-4.67
Mids &		THE ROYAL WOLVERHAMPTON							
East	NCR. New Cross Hospital	NHS TRUST	229	253	90.51	76	95	80	10.51
		NORFOLK AND NORWICH							
Mids &	NOR. Norfolk and Norwich	UNIVERSITY HOSPITALS NHS							
East	University Hospital	FOUNDATION TRUST	224	240	93.33	108	118	91.53	1.8
Mids &		PAPWORTH HOSPITAL NHS							
East	PAP. Papworth Hospital	FOUNDATION TRUST	233	243	95.88	90	94	95.74	0.14
		UNIVERSITY HOSPITALS							
Mids &	QEB. Queen Elizabeth	BIRMINGHAM NHS							
East	Hospital,, Edgbaston	FOUNDATION TRUST	134	145	92.41	35	39	89.74	2.67
		SANDWELL AND WEST							
Mids &	SAN. Sandwell General	BIRMINGHAM HOSPITALS NHS							
East	Hospital	TRUST	9	9	100	1	1	100	0
Mids &	STO. University Hospital of	UNIVERSITY HOSPITALS OF							
East	North Staffordshire	NORTH MIDLANDS NHS TRUST	201	231	87.01	62	74	83.78	3.23

		UNIVERSITY HOSPITALS							
Mids &	WAL. University Hospital	COVENTRY AND							
East	Coventry	WARWICKSHIRE NHS TRUST	172	185	92.97	75	83	90.36	2.61
Mids &	WRC. Worcestershire Royal	WORCESTERSHIRE ACUTE							
East	Hospital	HOSPITALS NHS TRUST	152	163	93.25	68	71	95.77	-2.52
		LIVERPOOL HEART AND CHEST							
	BHL. Liverpool Heart and	HOSPITAL NHS FOUNDATION							
North	Chest Hospital	TRUST	327	328	99.7	109	112	97.32	2.38
		HULL AND EAST YORKSHIRE							
North	CHH. Castle Hill Hospital	HOSPITALS NHS TRUST	239	242	98.76	96	99	96.97	1.79
		NORTH CUMBRIA UNIVERSITY							
North	CMI. Cumberland Infirmary	HOSPITALS NHS TRUST	75	97	77.32	29	34	85.29	-7.97
		THE NEWCASTLE UPON TYNE							
		HOSPITALS NHS FOUNDATION							
North	FRE. Freeman Hospital	TRUST	349	352	99.15	136	139	97.84	1.31
		LEEDS TEACHING HOSPITALS							
North	LGI. Leeds General Infirmary	NHS TRUST	437	507	86.19	160	198	80.81	5.38
		CENTRAL MANCHESTER							
	MRI. Manchester Royal	UNIVERSITY HOSPITALS NHS							
North	Infirmary	FOUNDATION TRUST	157	184	85.33	38	45	84.44	0.89
		SHEFFIELD TEACHING							
	NGS. Northern General	HOSPITALS NHS FOUNDATION							
North	Hospital	TRUST	223	256	87.11	79	108	73.15	13.96
	SCM. James Cook University	SOUTH TEES HOSPITALS NHS							
North	Hospital	FOUNDATION TRUST	271	287	94.43	92	106	86.79	7.64
		BLACKPOOL TEACHING							
	VIC. Blackpool Victoria	HOSPITALS NHS FOUNDATION							
North	Hospital	TRUST	326	360	90.56	136	157	86.62	3.94
		UNIVERSITY HOSPITAL OF							
		SOUTH MANCHESTER NHS							
North	WYT. Wythenshawe Hospital	FOUNDATION TRUST	168	190	88.42	88	99	88.89	-0.47

South	BHR Royal Berkshire Hospital	ROYAL BERKSHIRE NHS	30	40	97 5	17	18	94 44	3.06
Joan	Britt. Royal Berkshire Hospital		35	+0	57.5	17	10	54.44	5.00
	BOU. Roval Bournemouth	AND CHRISTCHURCH HOSPITALS							
South	General Hospital	NHS FOUNDATION TRUST	145	170	85.29	67	83	80.72	4.57
		UNIVERSITY HOSPITALS BRISTOL							
South	BRI. Bristol Royal Infirmary	NHS FOUNDATION TRUST	221	235	94.04	125	132	94.7	-0.66
		EAST SUSSEX HEALTHCARE NHS							
South	CGH. Conquest Hospital	TRUST	45	54	83.33	6	7	85.71	-2.38
		EAST SUSSEX HEALTHCARE NHS							
South	DGE. Eastbourne DGH	TRUST	38	44	86.36	11	13	84.62	1.74
		FRIMLEY HEALTH NHS							
South	FRM. Frimley Park Hospital	FOUNDATION TRUST	129	131	98.47	49	52	94.23	4.24
		TAUNTON AND SOMERSET NHS							
South	MPH. Musgrove Park Hospital	FOUNDATION TRUST	84	91	92.31	38	41	92.68	-0.37
	NHH. Basingstoke and North	HAMPSHIRE HOSPITALS NHS							
South	Hampshire Hospital	FOUNDATION TRUST	9	9	100	3	3	100	0
		PLYMOUTH HOSPITALS NHS							
South	PLY. Derriford Hospital	TRUST	101	108	93.52	35	42	83.33	10.19
	QAP. Queen Alexandra	PORTSMOUTH HOSPITALS NHS							
South	Hospital	TRUST	189	215	87.91	83	94	88.3	-0.39
		OXFORD UNIVERSITY							
		HOSPITALS NHS FOUNDATION							
South	RAD. John Radcliffe Hospital	TRUST	94	99	94.95	37	39	94.87	0.08
		ROYAL CORNWALL HOSPITALS							
South	RCH. Royal Cornwall Hospital	NHS TRUST	127	149	85.23	41	54	75.93	9.3
	RDE. Royal Devon & Exeter	ROYAL DEVON AND EXETER NHS							
South	Hospital	FOUNDATION TRUST	137	174	78.74	50	68	73.53	5.21
		BRIGHTON AND SUSSEX							
	RSC. Royal Sussex County	UNIVERSITY HOSPITALS NHS							
South	Hospital	TRUST	176	202	87.13	63	72	87.5	-0.37

		UNIVERSITY HOSPITAL							
	SGH. Southampton General	SOUTHAMPTON NHS							
South	Hospital	FOUNDATION TRUST	121	137	88.32	43	54	79.63	8.69
		TORBAY AND SOUTH DEVON							
South	TOR. Torbay Hospital	NHS FOUNDATION TRUST	68	95	71.58	20	31	64.52	7.06
		EAST KENT HOSPITALS							
	WHH. William Harvey	UNIVERSITY NHS FOUNDATION							
South	Hospital	TRUST	132	140	94.29	47	53	88.68	5.61
			8507	9318	91.3	3268	3684	88.71	2.59

Notes

Code: GREEN: Ambulances bring patients to your centre for primary PCI. This is provided 24/7/365

BLUE: Ambulances bring patients to your centre for primary PCI as a hybrid service with another centre. This is provided 24/7 when centre is 'active' but regional cover is shared with another centre(s).

Data for calendar year 2015, derived from British Cardiovascular Intervention Society data.

Analysis is for centres in England that are the destination of paramedic crews to bring patients with STEMI diagnosed in the community for treatment by primary PCI.

Only cases brought directly to the PCI centres by ambulance are included (i.e. no inter-hospital transfers).

Analysis is of total numbers, and those with a balloon time within 90 mins of arrival at PCI centre.

## Major trauma centre – performance data derived from TARN

Cite		Weekday		Weekend
Site	n	Median (IQR)	n	Median (IQR)
Addenbrooke's Hospital	68	0.4 (0.3 - 0.5)	24	0.3 (0.2 - 0.5)
Alder Hey Children's Hospital	7	0.7 (0.5 - 0.9)	1	0 (0 - 0)
Birmingham Children's Hospital	9	0.7 (0.7 - 1.1)	8	0.7 (0.5 - 0.8)
Bristol Royal Hospital for Children	1	0 (0 - 0)	3	0.6 (0.6 - 0.8)
Derriford Hospital	31	0.7 (0.6 - 0.9)	12	0.8 (0.7 - 1.1)
Hull Royal Infirmary	29	0.2 (0.1 - 0.3)	5	0.2 (0.2 - 0.3)
James Cook University Hospital	44	0.5 (0.3 - 0.7)	23	0.5 (0.4 - 0.6)
John Radcliffe Hospital	47	0.3 (0.2 - 0.6)	26	0.4 (0.2 - 1.1)
King's College Hospital	104	0.5 (0.4 - 0.7)	36	0.5 (0.4 - 0.8)
Leeds General Infirmary	65	0.5 (0.3 - 0.7)	45	0.5 (0.3 - 0.8)
Manchester Royal Infirmary	6	1 (0.7 - 1.3)	2	0 (1 - 0)
Nottingham University Hospital	84	0.4 (0.2 - 0.6)	43	0.5 (0.4 - 0.7)
Queen Elizabeth Hospital Birmingham	80	0.2 (0.1 - 0.3)	49	0.2 (0.2 - 0.4)
Royal Liverpool University Hospital	6	1.7 (0.7 - 2.2)	3	0.6 (0.6 - 6.3)
Royal London Hospital	135	0.4 (0.3 - 0.6)	74	0.5 (0.3 - 0.7)
Royal Manchester Children's Hospital	7	0.5 (0.4 - 0.8)	2	0 (0.5 - 0)
Royal Preston Hospital	49	0.5 (0.4 - 0.7)	23	0.5 (0.3 - 1)
Royal Stoke University Hospital	73	0.3 (0.2 - 0.4)	32	0.3 (0.3 - 0.5)
Royal Sussex County Hospital	29	0.2 (0.2 - 0.4)	17	0.3 (0.2 - 0.4)
Royal Victoria Infirmary Newcastle	61	0.4 (0.3 - 0.6)	32	0.3 (0.2 - 0.6)
Salford Royal Hospital	72	0.4 (0.2 - 0.5)	54	0.4 (0.3 - 0.6)
Sheffield Children's Hospital	4	0.6 (0.5 - 0.8)	3	0.5 (0.5 - 0.5)
Sheffield Teaching Hospitals NHS Foundation Trust	45	0.4 (0.3 - 0.6)	20	0.5 (0.3 - 0.6)
Southampton University Hospital	62	0.4 (0.3 - 0.7)	39	0.4 (0.4 - 0.7)
Southmead Hospital	64	0.2 (0.1 - 0.3)	40	0.1 (0.1 - 0.3)
St George's Hospital	95	0.3 (0.1 - 0.6)	50	0.2 (0.2 - 0.5)
St Marys Hospital	89	0.5 (0.4 - 0.7)	35	0.5 (0.4 - 0.7)
University Hospital Aintree	52	0.3 (0.3 - 0.5)	30	0.4 (0.3 - 0.5)
University Hospital of Coventry & Warwickshire	63	0.5 (0.4 - 0.6)	33	0.4 (0.3 - 0.5)
University Hospital of South Manchester	4	1.2 (1.1 - 1.3)	1	0 (0 - 0)
All MTCs	1485	0.4 (0.3 - 0.6)	765	0.4 (0.2 - 0.6)

## Median time to CT scanning for patients that appear to be eligible for the NICE head injury criteria in NHSE MTCs, April 2015 - March 2016

Percentage meeting the target for and median time to stabilisation for patients meeting the BOAST 4 injury criteria in NHSE MTCs, April 2015 - March 2016

		Weekday		Weekend		
Site	n	Median (IQR)	% within 24h	n	Median (IQR)	% within 24h
Addenbrooke's Hospital	25	16.1 (12.1 - 38.7)	60.0	12	19.8 (12.7 - 20.2)	58.3
Alder Hey Children's Hospital	2		100.0	2		100.0
Birmingham Children's Hospital	4	30.4 (15.7 - 45.1)	50.0	1		100.0
Bristol Royal Hospital for Children	6	19.2 (8.6 - 19.3)	83.3	4	6.8 (6.8 - 19)	75.0
Derriford Hospital	12	12.6 (9.9 - 16.8)	91.7	3	12.9 (12.9 - 66.2)	66.7
Hull Royal Infirmary	8	16.3 (13 - 21)	75.0	3	19.3 (19.3 - 136.7)	66.7
James Cook University Hospital	13	8.2 (6.2 - 23)	46.2	7	26.2 (26.2 - 27.1)	28.6
John Radcliffe Hospital	18	7 (5.1 - 13.9)	88.9	6	6.5 (5.5 - 7.1)	100.0
King's College Hospital	17	6.8 (5 - 10.6)	70.6	9	7.9 (7.5 - 11.4)	77.8
Leeds General Infirmary	20	9.2 (5.8 - 15.4)	50.0	14	10.1 (5.7 - 19.1)	78.6
Manchester Royal Infirmary	4		50.0	2		50.0
Nottingham University Hospital	34	15 (7.6 - 28.3)	58.8	6	7.2 (3.8 - 10.5)	50.0
Queen Elizabeth Hospital Birmingham	16	9.7 (9.6 - 49.6)	25.0	9	96.7 (96.7 - 124.4)	11.1
Royal Liverpool University Hospital	13	20 (15.9 - 45.9)	61.5	5	17.3 (17.3 - 17.4)	60.0
Royal London Hospital	23	17.8 (17 - 28)	34.8	15	19.7 (16 - 45)	33.3
Royal Manchester Children's Hospital	1		100.0	0		
Royal Preston Hospital	6	13 (7.9 - 18)	50.0	2	0 (14.4 - 0)	100.0
Royal Stoke University Hospital	11	5.2 (4.8 - 8.7)	72.7	5	7.8 (5.3 - 10.3)	80.0
Royal Sussex County Hospital	13	15.3 (5.6 - 19)	76.9	4	8 (8 - 374.1)	50.0
Royal Victoria Infirmary Newcastle	14	6.8 (6.5 - 10.8)	64.3	9	7.4 (5.1 - 14)	77.8
Salford Royal Hospital	2		100.0	0		
Sheffield Children's Hospital	1		100.0	0		
Sheffield Teaching Hospitals NHS Foundation Trust	9	10.5 (9.3 - 17)	77.8	10	13.3 (10.1 - 14.9)	90.0
Southampton University Hospital	13	15.3 (4.9 - 22.7)	76.9	11	15.9 (12.5 - 20.4)	90.9
Southmead Hospital	61	21 (15.3 - 44.5)	54.1	20	20.2 (18.8 - 33.6)	50.0
St George's Hospital	26	22.1 (8.8 - 28.5)	50.0	7	21 (21 - 21.7)	71.4
St Marys Hospital	38	17.8 (9.2 - 22)	63.2	11	19.1 (15.2 - 32.6)	45.5
University Hospital Aintree	4	7.1 (6.8 - 7.5)	75.0	1		100.0
University Hospital of Coventry & Warwickshire	19	18.5 (11.8 - 20.5)	78.9	4	7.3 (6.5 - 8)	100.0
University Hospital of South Manchester	13	16.2 (9.4 - 138.9)	46.2	6	9.6 (9.6 - 89.9)	50.0
Walton Centre for Neurology	0			1		0.0
All MTCs	446	15.8 (6.8 - 22.9)	61.0	189	14.5 (6.8 - 21.6)	62.4

Percentage meeting the target for and median time to definitive cover for patients meeting the BOAST 4 injury criteria in NHSE MTCs, April 2015 - March 2016

		Weekday			Weekend			
Site	n	Median (IQR)	% within 72h	n	Median (IQR)	% within 72h		
Addenbrooke's Hospital	25	115.8 (40.9 - 233.3)	32.0	12	105.7 (94.2 - 128.3)	0.0		
Alder Hey Children's Hospital	2		100.0	2		50.0		
Birmingham Children's Hospital	4	14.3 (13 - 15.7)	75.0	1		0.0		
Bristol Royal Hospital for Children	6	69.2 (43.1 - 69.5)	83.3	4	43.4 (43.4 - 67.8)	75.0		
Derriford Hospital	12	65.5 (48.4 - 128.3)	58.3	3	104 (104 - 115.5)	33.3		
Hull Royal Infirmary	8	16.3 (13 - 107.8)	62.5	3	6.8 (6.8 - 10.5)	100.0		
James Cook University Hospital	13	143 (143 - 311.8)	7.7	7	98.4 (75 - 121.8)	14.3		
John Radcliffe Hospital	18	46.5 (40.3 - 73.7)	66.7	6	41.8 (41.8 - 64.5)	66.7		
King's College Hospital	17	69.8 (67.3 - 134.2)	29.4	9	55.9 (42.6 - 69.2)	33.3		
Leeds General Infirmary	20	12.5 (8.3 - 21.3)	60.0	14	10.8 (9.1 - 21)	78.6		
Manchester Royal Infirmary	4		25.0	2		0.0		
Nottingham University Hospital	34	50 (20.9 - 92.3)	47.1	6	39.4 (3.8 - 75)	33.3		
Queen Elizabeth Hospital Birmingham	16	135.6 (124.1 - 141)	6.3	9	141 (141 - 194.5)	11.1		
Royal Liverpool University Hospital	13	45.9 (20 - 70.4)	69.2	5	34.4 (17.3 - 51.6)	80.0		
Royal London Hospital	23	28 (19.3 - 49.6)	47.8	15	47.5 (45 - 113.8)	33.3		
Royal Manchester Children's Hospital	1		100.0	0		0.0		
Royal Preston Hospital	6	13 (7.9 - 18)	50.0	2		100.0		
Royal Stoke University Hospital	11	117.2 (72.4 - 153)	18.2	5	85.2 (75.2 - 95.3)	20.0		
Royal Sussex County Hospital	13	43.4 (6.7 - 66.5)	38.5	4		25.0		
Royal Victoria Infirmary Newcastle	14	71.8 (10.8 - 106.7)	35.7	9	71.2 (67.7 - 73.6)	44.4		
Salford Royal Hospital	2		50.0	0				
Sheffield Children's Hospital	1		100.0	0				
Sheffield Teaching Hospitals NHS Foundation Trust	9	10.5 (9.3 - 17)	77.8	10	20.7 (11.8 - 64.7)	90.0		
Southampton University Hospital	13	87.2 (72.2 - 102.2)	7.7	11	0 (0 - 0)	0.0		
Southmead Hospital	61	44.4 (20.8 - 68.6)	62.3	20	45.1 (20.2 - 82.2)	65.0		
St George's Hospital	26	71.5 (23.3 - 130.5)	38.5	7	21 (21 - 78.8)	42.9		
St Marys Hospital	38	18.6 (9.2 - 22.8)	71.1	11	20 (15.9 - 32.6)	90.9		
University Hospital Aintree	4	6.8 (6.8 - 7.5)	75.0	1		100.0		
University Hospital of Coventry & Warwickshire	19	33.7 (22.3 - 44.5)	73.7	4	62.9 (62 - 63.9)	100.0		
University Hospital of South Manchester	13	151.1 (111.2 - 379.5)	15.4	6	104 (104 - 109.8)	16.7		
Walton Centre for Neurology	0			1		0.0		
All MTCs	446	43.6 (17 - 92.6)	48.9	189	45 (15.1 - 86.7)	46.6		

Emergency vascular data for 2014-15 derived fron National Vascular Registry

## Emergency ruptured AAA 2014-15 for England

Trust Name	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Total
Barts Health NHS Trust	1	3	4	3	1	2	3	17
London North West Healthcare NHS Trust	4	1	4	3	3	2	1	18
South Devon Healthcare NHS Foundation								
Trust	3	1	1	4	3	0	2	14
Bradford Teaching Hospitals NHS								
Foundation Trust	2	3	4	2	4	4	1	20
Southend University Hospital NHS								
Foundation Trust	2	5	2	2	2	0	3	16
Royal Free London NHS Foundation Trust	8	2	3	5	10	2	3	33
Taunton and Somerset NHS Foundation								
Trust	3	5	1	3	4	2	3	21
Bedford Hospital NHS Trust	2	5	4	4	4	3	2	24
York Teaching Hospital NHS Foundation								
Trust	6	12	4	1	2	0	2	27
Basildon and Thurrock University Hospitals								
NHS Foundation Trust	0	0	0	0	1	0	1	2
Colchester Hospital University NHS								
Foundation Trust	6	6	7	4	2	3	4	32
Frimley Health NHS Foundation Trust	6	5	2	6	3	8	3	33
Royal Bournemouth and Christchurch								
, Hospitals NHS Foundation Trust	4	4	8	7	4	5	2	34
Royal Cornwall Hospitals NHS Trust	0	2	2	2	2	2	2	12
Barking, Havering And Redbridge								
University Hospitals NHS Trust	2	4	1	4	1	3	0	15
Cambridge University Hospitals NHS								
Foundation Trust	8	4	7	2	5	6	5	37
Royal Devon and Exeter NHS Foundation								
Trust	1	5	2	4	2	0	1	15
University Hospital Southampton NHS								
Foundation Trust	6	6	4	7	7	2	3	35
Sheffield Teaching Hospitals NHS								
Foundation Trust	2	2	7	2	6	6	1	26
Portsmouth Hospitals NHS Trust	2	3	3	1	3	0	1	13
Guy's and St Thomas' NHS Foundation								
Trust	9	5	7	16	13	6	6	62
St George's Healthcare NHS Foundation								
Trust	5	4	7	9	6	5	3	39
University Hospital of North Midlands NHS								
Trust	10	10	4	6	11	8	7	56
Countess of Chester Hospital NHS	6	4	2	4	4	2	2	24

Foundation Trust								
King's College Hospital NHS Foundation								
Trust	2	0	2	1	0	0	1	6
Plymouth Hospitals NHS Trust	5	1	2	2	5	2	2	19
University Hospitals Coventry and								
Warwickshire NHS Trust	3	1	1	3	3	3	2	16
City Hospitals Sunderland NHS Foundation								
Trust	6	3	1	2	1	2	1	16
Norfolk and Norwich University Hospitals								
NHS Foundation Trust	10	10	4	7	7	9	11	58
University Hospital of South Manchester								
NHS Foundation Trust	0	1	1	1	2	0	0	5
Bolton NHS Foundation Trust	2	1	0	1	0	0	0	4
The Dudley Group NHS Foundation Trust	3	11	8	7	8	7	9	53
North Cumbria University Hospitals NHS	2		2		2	-	-	27
	2	4	2	4	3	/	5	27
Northampton General Hospital NHS Trust	/	3	3	9	4	5	0	31
Doncaster and Bassetlaw Hospitals NHS				4	2		2	20
Foundation Trust	1	4	4	1	3	4	3	20
Medway NHS Foundation Trust	2	1	4	4	1	5	2	19
Royal Liverpool and Broadgreen University		_	6	2	6	6		26
Hospitals NHS Trust	4	/	6	3	6	6	4	36
Mid Essex Hospital Services NHS Trust	0	1	1	0	2	1	0	5
Princess Alexandra Hospital NHS Trust	0	2	0	2	1	3	5	13
Heart of England NHS Foundation Trust	5	4	3	3	5	0	2	22
Leeds Teaching Hospitals NHS Trust	3	6	6	/	8	4	5	39
University Hospitals Birmingham NHS	2		-			_	2	45
Foundation Trust	3	1	2	1	2	4	2	15
Newcastle upon Tyne Hospitals NHS		_	6	-			_	20
Foundation Trust	4	5	6	5	1	1	/	29
Gloucestersnire Hospitals NHS Foundation	6	6	2	2	6	л	n	20
Nerby Teaching Hospitals NHS Foundation	0	0	Ζ	5	0	4	Ζ	29
Trust	4	4	5	4	8	4	3	32
Oxford University Hospitals NHS Trust	4	3	5	3	6	4	3	28
Ashford And St Peter's Hospitals NHS						•		
Foundation Trust	1	3	2	2	2	3	1	14
South Tees Hospitals NHS Foundation		_						
Trust	1	5	6	8	5	3	6	34
North Bristol NHS Trust	4	6	2	7	7	6	5	37
East Kent Hospitals University NHS								
Foundation Trust	2	5	4	4	3	3	2	23
Central Manchester University Hospitals								
NHS Foundation Trust	0	2	4	2	2	2	2	14
Pennine Acute Hospitals NHS Trust	6	5	4	2	4	2	4	27
Hull and East Yorkshire Hospitals NHS Trust	5	5	6	2	5	4	7	34
United Lincolnshire Hospitals NHS Trust	1	2	2	4	4	3	6	22

University Hospitals of Leicester NHS Trust	7	4	3	2	7	6	7	36
West Hertfordshire Hospitals NHS Trust	2	4	3	0	3	4	2	18
East and North Hertfordshire NHS Trust	2	1	1	3	3	2	5	17
Worcestershire Acute Hospitals NHS Trust	3	5	4	4	4	3	5	28
Calderdale and Huddersfield NHS								
Foundation Trust	3	6	1	4	3	0	3	20
Nottingham University Hospitals NHS Trust	5	3	8	3	4	4	7	34
Brighton and Sussex University Hospitals								
NHS Trust	5	7	7	4	5	8	6	42
Lancashire Teaching Hospitals NHS								
Foundation Trust	3	0	1	3	1	3	1	12
County Durham and Darlington NHS								
Foundation Trust	3	4	7	5	5	1	5	30
East Lancashire Hospitals NHS Trust	3	1	1	4	2	3	0	14
Shrewsbury and Telford Hospital NHS Trust	2	5	1	1	0	2	1	12
Imperial College Healthcare NHS Trust	3	1	1	1	1	1	1	9
	235	254	226	239	255	209	206	1,624

Carotid endarterectomies 2014-2015, emergency admissions for England										
Trust Name	Monday	Tuesday	Wednesday	Thursday	Eriday	Saturday	Sunday	Total		
	wonday	Tuesuay	weathesday	mursuay	Friday	Saturuay	Sunday	Total		
Barts Health NHS Trust	4	7	11	5	6	0	0	33		
London North West Healthcare NHS Trust	7	6	6	6	11	2	2	40		
South Devon Healthcare NHS Foundation				Ŭ						
Trust	3	0	4	7	4	1	0	19		
Bradford Teaching Hospitals NHS										
Foundation Trust	6	4	7	8	6	0	0	31		
Southend University Hospital NHS										
Foundation Trust	18	0	18	7	10	0	0	53		
Royal Free London NHS Foundation Trust	2	0	2	2	1	0	0	7		
Taunton and Somerset NHS Foundation										
Trust	3	15	17	17	3	1	0	56		
Dorset County Hospital NHS Foundation										
Trust	0	0	4	6	1	0	0	11		
Bedford Hospital NHS Trust	1	3	5	6	4	0	0	19		
York Teaching Hospital NHS Foundation										
Trust	41	16	52	62	52	13	5	241		
Basildon and Thurrock University Hospitals										
NHS Foundation Trust	8	3	16	2	2	0	0	31		
Colchester Hospital University NHS										
Foundation Trust	2	4	7	4	2	1	0	20		
Frimley Health NHS Foundation Trust	4	7	8	7	11	1	0	38		
Roval Bournemouth and Christchurch										
Hospitals NHS Foundation Trust	4	9	5	11	3	0	0	32		
Roval Cornwall Hospitals NHS Trust	2	7	4	10	1	0	1	25		
Barking Havering And Redbridge		_	-			-				
University Hospitals NHS Trust	3	6	3	2	0	0	0	14		
Cambridge University Hospitals NHS	<u> </u>	<u> </u>				Ŭ	Ŭ			
Foundation Trust	4	2	12	4	10	0	0	32		
Boyal Devon and Exeter NHS Foundation	•	-	16	•	10	Ŭ	Ŭ	52		
Trust	1	6	13	2	20	3	0	45		
University Hospital Southampton NHS		-				-	-			
Foundation Trust	4	0	5	3	7	0	0	19		
Sheffield Teaching Hospitals NHS		<u> </u>			-		<u> </u>			
Foundation Trust	7	0	3	14	12	0	0	36		
Portsmouth Hospitals NHS Trust	1	4	3	5	8	0	0	21		
Guy's and St Thomas' NHS Foundation				-	-	-	-			
Trust	3	15	20	15	10	2	2	67		
St George's Healthcare NHS Foundation										
Trust	11	11	7	18	22	3	0	72		
University Hospital of North Midlands NHS										
Trust	8	14	7	6	3	0	0	38		
Countess of Chester Hospital NHS										
Foundation Trust	0	3	4	3	2	0	1	13		
King's College Hospital NHS Foundation	5	1	5	22	15	0	0	48		

Trust								
Plymouth Hospitals NHS Trust	8	4	2	5	6	0	0	25
University Hospitals Coventry and								
Warwickshire NHS Trust	3	4	8	3	0	0	0	18
City Hospitals Sunderland NHS Foundation								
Trust	4	1	5	2	1	0	0	13
Norfolk and Norwich University Hospitals								
NHS Foundation Trust	3	41	6	35	16	1	2	104
University Hospital of South Manchester								
NHS Foundation Trust	6	6	19	11	13	12	10	77
Bolton NHS Foundation Trust	7	0	1	1	0	0	0	9
The Dudley Group NHS Foundation Trust	9	10	17	8	16	0	0	60
North Cumbria University Hospitals NHS								
Trust	2	1	2	3	5	0	0	13
Northampton General Hospital NHS Trust	6	3	1	3	20	0	0	33
Salisbury NHS Foundation Trust	1	6	2	5	2	1	0	17
Doncaster and Bassetlaw Hospitals NHS								
Foundation Trust	3	1	7	4	2	0	3	20
Medway NHS Foundation Trust	0	1	8	2	3	2	0	16
Royal Liverpool and Broadgreen University								
Hospitals NHS Trust	4	3	10	7	13	0	0	37
Mid Essex Hospital Services NHS Trust	2	0	0	0	1	0	0	3
Princess Alexandra Hospital NHS Trust	0	2	2	2	3	0	1	10
Heart of England NHS Foundation Trust	14	6	8	15	8	0	1	52
Gateshead Health NHS Foundation Trust	3	5	0	1	2	0	0	11
Leeds Teaching Hospitals NHS Trust	21	19	24	18	16	1	2	101
University Hospitals Birmingham NHS								
Foundation Trust	2	2	4	5	8	0	2	23
University College London Hospitals NHS								
Foundation Trust	11	6	10	2	0	0	0	29
Newcastle upon Tyne Hospitals NHS								
Foundation Trust	4	10	16	1	11	3	3	48
Gloucestershire Hospitals NHS Foundation								
Trust	1	5	4	9	12	0	0	31
Derby Teaching Hospitals NHS Foundation								
Trust	10	8	6	9	24	10	2	69
Oxford University Hospitals NHS Trust	1	7	8	7	15	0	1	39
Ashford And St Peter's Hospitals NHS								
Foundation Trust	5	8	12	14	11	8	5	63
South Tees Hospitals NHS Foundation								
Trust	16	3	8	6	1	0	0	34
North Bristol NHS Trust	8	14	4	12	9	3	3	53
East Kent Hospitals University NHS								
Foundation Trust	4	20	18	25	22	17	14	120
Central Manchester University Hospitals								
NHS Foundation Trust	20	5	5	11	14	6	5	66
Pennine Acute Hospitals NHS Trust	18	14	15	30	37	36	22	172
Hull and East Yorkshire Hospitals NHS	13	5	13	5	13	2	0	51

Trust								
United Lincolnshire Hospitals NHS Trust	8	5	3	8	7	2	1	34
University Hospitals of Leicester NHS Trust	7	49	10	7	62	1	0	136
West Hertfordshire Hospitals NHS Trust	1	7	2	0	25	1	0	36
East and North Hertfordshire NHS Trust	11	9	8	7	11	1	1	48
Worcestershire Acute Hospitals NHS Trust	15	4	11	14	13	1	1	59
Calderdale and Huddersfield NHS								
Foundation Trust	0	7	2	1	0	0	0	10
Nottingham University Hospitals NHS								
Trust	17	29	26	30	13	7	3	125
Brighton and Sussex University Hospitals								
NHS Trust	0	13	9	12	10	1	0	45
Lancashire Teaching Hospitals NHS								
Foundation Trust	1	0	5	4	4	0	0	14
County Durham and Darlington NHS								
Foundation Trust	1	1	4	5	4	0	0	15
Buckinghamshire Healthcare NHS Trust	1	0	4	0	1	0	0	6
East Lancashire Hospitals NHS Trust	3	7	2	4	5	1	0	22
Shrewsbury and Telford Hospital NHS								
Trust	4	2	7	11	6	0	0	30
Imperial College Healthcare NHS Trust	2	16	5	7	7	0	1	38
Total	432	512	591	625	698	144	94	3,096

Lower limb bypasses 2014-2015, emergency admissions for England										
Trust Name	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Total		
Barts Health NHS Trust	14	12	12	9	11	3	2	63		
London North West Healthcare NHS Trust	22	9	8	7	5	1	3	55		
South Devon Healthcare NHS Foundation Trust	4	4	7	11	6	0	3	35		
Bradford Teaching Hospitals NHS Foundation										
Trust	5	4	11	10	13	2	0	45		
Southend University Hospital NHS Foundation						_		. –		
	9	4	8	15	8	1	2	47		
Royal Free London NHS Foundation Trust	5	2	5	3	/	0	0	22		
Taunton and Somerset NHS Foundation Trust	3	29	19	20	8	6	3	88		
Dorset County Hospital NHS Foundation Trust	0	0	1	4	0	0	0	5		
Northern Devon Healthcare NHS Trust	3	6	4	4	3	0	0	20		
Bedford Hospital NHS Trust	5	6	4	8	4	2	3	32		
York Teaching Hospital NHS Foundation Trust	20	16	25	33	22	6	5	127		
Basildon and Thurrock University Hospitals NHS	0	0	3	2	0	0	0	5		
Collaboration Hast	0	0	5	2	0	0	0	5		
	7	2	11	2	2	1	2	30		
Frimley Health NHS Foundation Trust	, 0	13	11	17	10	 	2 1	72		
Poyal Pourpomouth and Christoburgh Hagnitals	5	15	11	17	10	0	- +	72		
NHS Foundation Trust	6	9	6	8	2	7	2	40		
Royal Cornwall Hospitals NHS Trust	3	6	5	16	3	0	0	33		
Barking, Havering And Redbridge University										
Hospitals NHS Trust	0	3	9	6	0	1	2	21		
Cambridge University Hospitals NHS										
Foundation Trust	17	8	12	14	13	3	8	75		
Royal Devon and Exeter NHS Foundation Trust	0	4	7	8	15	4	5	43		
University Hospital Southampton NHS										
Foundation Trust	6	13	2	9	7	0	0	37		
Sheffield Teaching Hospitals NHS Foundation										
Trust	23	12	5	15	9	0	1	65		
Portsmouth Hospitals NHS Trust	1	2	0	2	1	0	1	7		
Guy's and St Thomas' NHS Foundation Trust	10	29	21	20	21	3	6	110		
St George's Healthcare NHS Foundation Trust	13	9	2	12	17	11	5	69		
University Hospital of North Midlands NHS	. –				_	_				
Trust	15	19	16	15	7	2	2	76		
King's College Hospital NHS Foundation Trust	13	2	0	2	7	2	0	26		
Plymouth Hospitals NHS Trust	10	16	11	6	3	0	1	47		
University Hospitals Coventry and										
Warwickshire NHS Trust	5	9	7	7	1	2	3	34		
City Hospitals Sunderland NHS Foundation	-	-			_	-	-			
Irust	9	6	4	4	5	3	2	33		
Norfolk and Norwich University Hospitals NHS	_	_	-		_	_	_			
Foundation Trust	9	5	6	10	6	5	5	46		

Bolton NHS Foundation Trust	3	0	0	1	0	0	0	4
The Dudley Group NHS Foundation Trust	24	43	41	25	35	4	7	179
North Cumbria University Hospitals NHS Trust	5	7	8	8	10	4	2	44
Northampton General Hospital NHS Trust	10	12	7	5	14	5	2	55
Salisbury NHS Foundation Trust	2	5	0	0	0	0	0	7
Doncaster and Bassetlaw Hospitals NHS								
Foundation Trust	5	4	3	3	0	0	0	15
Medway NHS Foundation Trust	9	11	5	4	6	2	0	37
Royal Liverpool and Broadgreen University								
Hospitals NHS Trust	19	35	24	14	22	1	1	116
Mid Essex Hospital Services NHS Trust	6	6	2	1	1	0	0	16
Princess Alexandra Hospital NHS Trust	0	2	3	2	1	0	3	11
Heart of England NHS Foundation Trust	13	8	9	15	9	1	3	58
Leeds Teaching Hospitals NHS Trust	13	8	17	6	14	3	3	64
University Hospitals Birmingham NHS								
Foundation Trust	8	11	21	13	18	6	3	80
University College London Hospitals NHS								
Foundation Trust	2	1	0	1	0	0	0	4
Newcastle upon Tyne Hospitals NHS								
Foundation Trust	4	12	8	3	4	3	3	37
Gloucestershire Hospitals NHS Foundation								
Trust	3	21	8	12	13	0	3	60
Derby Teaching Hospitals NHS Foundation Trust	9	15	18	15	24	6	11	98
Oxford University Hospitals NHS Trust	4	1	2	6	3	1	0	17
Ashford And St Peter's Hospitals NHS								
Foundation Trust	6	6	7	13	12	7	5	56
South Tees Hospitals NHS Foundation Trust	14	17	15	14	4	1	2	67
North Bristol NHS Trust	22	27	14	30	16	8	8	125
East Kent Hospitals University NHS Foundation								
Trust	1	3	11	7	3	5	4	34
Central Manchester University Hospitals NHS								
Foundation Trust	6	13	3	16	14	2	3	57
Pennine Acute Hospitals NHS Trust	13	6	17	12	22	6	7	83
Hull and East Yorkshire Hospitals NHS Trust	4	13	11	4	8	5	1	46
United Lincolnshire Hospitals NHS Trust	14	6	13	7	15	3	1	59
University Hospitals of Leicester NHS Trust	9	19	14	18	15	2	1	78
West Hertfordshire Hospitals NHS Trust	0	8	1	0	5	0	0	14
East and North Hertfordshire NHS Trust	2	5	0	1	3	1	1	13
Worcestershire Acute Hospitals NHS Trust	8	3	13	10	5	1	0	40
Calderdale and Huddersfield NHS Foundation								
Trust	13	13	10	7	4	0	3	50
Nottingham University Hospitals NHS Trust	15	8	12	18	7	5	6	71
Brighton and Sussex University Hospitals NHS								
Trust	5	30	29	32	13	8	1	118
Lancashire Teaching Hospitals NHS Foundation								
Trust	1	1	3	0	1	0	0	6

County Durham and Darlington NHS								
Foundation Trust	0	0	4	1	6	0	0	11
Buckinghamshire Healthcare NHS Trust	1	1	3	2	3	0	0	10
East Lancashire Hospitals NHS Trust	2	1	1	4	7	1	1	17
Shrewsbury and Telford Hospital NHS Trust	7	7	10	12	7	5	4	52
Imperial College Healthcare NHS Trust	0	0	1	2	0	0	0	3
Total	528	649	610	644	561	169	159	3,320

Major amputations 2014-15, emergency admissions for England									
Trust Name	Monday	Tuosday	Wodposday	Thursday	Eridov	Saturday	Sunday	Total	
	wonday	Tuesuay	weunesuay	mursuay	rnuay	Saturuay	Sunday	Total	
Barts Health NHS Trust	9	24	21	10	17	6	6	93	
London North West Healthcare NHS Trust	4	1	8	6	12	2	2	35	
South Devon Healthcare NHS Foundation									
Trust	1	0	3	4	2	0	1	11	
Bradford Teaching Hospitals NHS									
Foundation Trust	9	11	16	9	11	1	2	59	
Southend University Hospital NHS									
Foundation Trust	0	1	0	6	4	1	0	12	
Royal Free London NHS Foundation Trust	3	4	6	5	7	1	1	27	
Taunton and Somerset NHS Foundation									
Trust	2	7	8	4	2	3	1	27	
Dorset County Hospital NHS Foundation									
Trust	0	3	2	5	2	0	0	12	
Northern Devon Healthcare NHS Trust	2	6	8	5	3	2	2	28	
Bedford Hospital NHS Trust	7	6	5	7	6	5	2	38	
York Teaching Hospital NHS Foundation									
Trust	9	6	13	11	11	5	5	60	
Colchester Hospital University NHS									
Foundation Trust	0	2	2	0	1	0	0	5	
Frimley Health NHS Foundation Trust	7	9	17	15	15	4	3	70	
Royal Bournemouth and Christchurch									
Hospitals NHS Foundation Trust	7	7	4	3	3	3	0	27	
Royal Cornwall Hospitals NHS Trust	2	8	3	15	8	4	4	44	
Barking, Havering And Redbridge University									
Hospitals NHS Trust	5	11	6	12	6	2	5	47	
Cambridge University Hospitals NHS									
Foundation Trust	5	1	6	5	8	4	6	35	
Royal Devon and Exeter NHS Foundation									
Trust	1	13	9	3	13	4	2	45	
University Hospital Southampton NHS			_						
Foundation Trust	11	21	5	13	11	1	1	63	
Sheffield Teaching Hospitals NHS	20		0	0	4.0	_	2	70	
Foundation Trust	29	8	8	9	18	5	2	/9	
Portsmouth Hospitals NHS Trust	0	2	0	0	1	0	0	3	
Guy's and St Thomas' NHS Foundation Trust	10	19	27	15	19	10	9	109	
St George's Healthcare NHS Foundation				_	_		_		
Trust	6	6	4	2	8	3	5	34	
University Hospital of North Midlands NHS	26	47	47	40	22		2	164	
Irust	26	47	1/	40	22	9	3	164	
Countess of Chester Hospital NHS	-	20	2	7	4	1	2		
Foundation Irust	/	20	3	/	4		2	44	
Truct	1	0	0	0	r	0	0	2	
Divergent Hospitals NUC Trust	1 2		7	0	10	1	0	3	
	3	5	/	9	12	4	0	40	
University Hospitals Coventry and	8	8	12	11	4	4	3	50	

Warwickshire NHS Trust								
City Hospitals Sunderland NHS Foundation								
Trust	1	3	6	2	8	3	0	23
Norfolk and Norwich University Hospitals								
NHS Foundation Trust	15	17	18	18	19	15	10	112
Bolton NHS Foundation Trust	9	3	11	3	7	1	0	34
The Dudley Group NHS Foundation Trust	24	31	49	40	36	27	16	223
North Cumbria University Hospitals NHS								
Trust	5	8	3	10	12	6	2	46
Northampton General Hospital NHS Trust	9	14	9	15	15	6	4	72
Salisbury NHS Foundation Trust	0	1	0	0	2	0	0	3
Doncaster and Bassetlaw Hospitals NHS								
Foundation Trust	3	9	6	1	2	2	1	24
Medway NHS Foundation Trust	8	8	7	17	4	3	0	47
Royal Liverpool and Broadgreen University								
Hospitals NHS Trust	21	20	15	13	16	10	6	101
Mid Essex Hospital Services NHS Trust	3	3	5	6	1	2	2	22
Princess Alexandra Hospital NHS Trust	1	4	5	7	4	1	0	22
Heart of England NHS Foundation Trust	6	11	3	14	20	8	5	67
Leeds Teaching Hospitals NHS Trust	11	13	13	10	17	6	3	73
University Hospitals Birmingham NHS								
Foundation Trust	10	8	11	9	18	9	3	68
Newcastle upon Tyne Hospitals NHS								
Foundation Trust	4	5	6	6	4	4	7	36
Gloucestershire Hospitals NHS Foundation			_	_				
Trust	6	7	7	5	11	4	2	42
Derby Teaching Hospitals NHS Foundation	_	10	40	10	_	2	2	50
	5	10	13	10	/	3	2	50
Oxford University Hospitals NHS Trust	2	2	8	4	4	2	0	22
Ashford And St Peter's Hospitals NHS	7	10	15	7	10	0	c	76
Foundation Trust		15	15	7	19	9	0	124
North Drietel NUC Trust	0	24	20	20	32	8	14	124
North Bristol NHS Trust	8	18	ð	30	15	10	10	99
East Kent Hospitals University NHS	4	6	71	10	1.4	10	0	65
Central Manchester University Hospitals	4	0	21	10	14	10	0	05
NHS Foundation Trust	1	3	2	0	4	1	1	12
Pennine Acute Hospitals NHS Trust	7	0	9	8	11	7	7	49
Hull and East Vorkshire Hospitals NHS Trust	7	9	9	7	13	,	, Л	53
United Lincolnshire Hospitals NHS Trust	, 9	6	10	12	9	5	6	57
University Hospitals of Leicester NHS Trust	5	2	2	2	5	1	1	20
East and North Hortfordshire NHS Trust	2		2	2	7	1 2	0	14
Moreostarshira Acuta Haspitals NHS Trust	2	0	11	2	10	2	2	14 E0
Calderdale and Huddersfield NHS	5	0	11	9	10	0	5	50
Foundation Trust	2	л	Л	2	n	2	1	15
Nottingham University Hospitals NHS Truct	16	25	2/	21	10	20	16	1/1
Brighton and Sussey University Hospitals	10	25	24	<u> </u>	13	20	10	141
NHS Trust	3	13	14	7	10	7	2	56
Lancashire Teaching Hospitals NHS	1	1	1	0	1	, 0	0	4
0		-			-			·

Foundation Trust								
County Durham and Darlington NHS								
Foundation Trust	0	0	0	1	0	1	0	2
Buckinghamshire Healthcare NHS Trust	4	6	3	3	2	1	2	21
East Lancashire Hospitals NHS Trust	2	2	1	7	14	4	1	31
Shrewsbury and Telford Hospital NHS Trust	12	9	6	8	14	5	4	58
Imperial College Healthcare NHS Trust	0	0	0	0	1	0	0	1
Total	416	584	575	577	640	299	208	3,299

Angioplasties 2014-15, emergency admissions for England									
Trust Name	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Total	
Barts Health NHS Trust	0	0	1	1	0	0	0	2	
London North West Healthcare NHS Trust	2	2	11	4	4	2	0	25	
South Devon Healthcare NHS Foundation		_			-		_		
Trust	1	0	0	0	0	0	0	1	
Southend University Hospital NHS		_	4.0	10					
Foundation Trust	15	5	18	19	8	1	0	66	
Royal Free London NHS Foundation Trust	1	0	11	2	3	0	1	18	
Truct	6	0	1/	11	12	0	1	52	
St Holons & Knowslav Tooshing Hosnitals	0	9	14	11	12	0	1	- 22	
St Helens & Knowsley Teaching Hospitals	1	0	0	0	0	0	0	1	
Bedford Hospital NHS Trust	2	2	1	2	5	2	0	1/	
York Teaching Hospital NHS Foundation	2	2	1	2	5	2	0	14	
Trust	35	37	30	47	60	1	1	211	
Basildon and Thurrock University									
Hospitals NHS Foundation Trust	0	1	0	0	0	0	0	1	
Frimley Health NHS Foundation Trust	0	3	1	2	3	0	0	9	
Royal Cornwall Hospitals NHS Trust	0	0	0	1	0	0	0	1	
Aintree University Hospital NHS									
Foundation Trust	0	1	1	0	0	0	0	2	
West Suffolk NHS Foundation Trust	0	0	1	0	0	0	0	1	
Cambridge University Hospitals NHS									
Foundation Trust	1	0	1	0	2	1	0	5	
Royal Devon and Exeter NHS Foundation									
Trust	7	9	5	12	6	1	0	40	
Sheffield Teaching Hospitals NHS									
Foundation Trust	3	0	2	2	2	0	1	10	
Guy's and St Thomas' NHS Foundation									
Trust	9	6	22	6	10	6	1	60	
St George's Healthcare NHS Foundation			4.0		10				
Irust	14	22	18	22	10	4	1	91	
University Hospital of North Midlands		47	40	10	10			70	
NHS Irust	14	1/	19	19	10	0	0	79	
University Hospitals Coventry and	-	27	10	1.4	2	0	0	75	
Warwicksnire NHS Trust	5	37	16	14	3	0	0	75	
	6	Л	5	2	8	0	0	25	
City Hospitals Sunderland NHS	0	4	5	2	0	0	0	25	
Foundation Trust	0	0	0	0	1	0	0	1	
Liniversity Hespital of South Manchester		0	0	0	1	0	0		
NHS Foundation Trust	21	20	22	25	26	1	0	116	
Bolton NHS Foundation Trust	21	20	 Q	23	12	1	0	30	
The Dudley Group NHS Foundation Trust	27	<u>_</u> ۲۵	52	67	13	 	1	250	
North Cumbria University Hospitals NHS	<u>Γ</u> Λ	0	9	л	-+J 11	1	 1	203	
	-	0	,	-			-	50	

Trust								
Doncaster and Bassetlaw Hospitals NHS								
Foundation Trust	0	0	1	0	1	0	0	2
Medway NHS Foundation Trust	2	1	9	7	2	1	0	22
Royal Liverpool and Broadgreen								
University Hospitals NHS Trust	1	0	0	0	0	0	0	1
Mid Essex Hospital Services NHS Trust	3	1	8	7	3	0	0	22
Heart of England NHS Foundation Trust	0	0	0	1	0	0	0	1
Gateshead Health NHS Foundation Trust	1	4	2	7	9	0	0	23
Leeds Teaching Hospitals NHS Trust	1	0	0	0	2	0	0	3
University Hospitals Birmingham NHS								
Foundation Trust	1	7	2	1	0	0	0	11
University College London Hospitals NHS								
Foundation Trust	0	0	0	1	0	0	0	1
Derby Teaching Hospitals NHS Foundation								
Trust	37	21	37	35	57	4	1	192
Oxford University Hospitals NHS Trust	0	0	1	0	0	0	0	1
Ashford And St Peter's Hospitals NHS								
Foundation Trust	2	4	6	8	3	2	3	28
South Tees Hospitals NHS Foundation								
Trust	0	0	0	2	0	0	0	2
North Bristol NHS Trust	0	2	1	1	1	0	0	5
East Kent Hospitals University NHS								
Foundation Trust	3	4	16	8	9	2	1	43
Central Manchester University Hospitals								
NHS Foundation Trust	6	9	6	12	11	1	2	47
Pennine Acute Hospitals NHS Trust	1	4	3	1	4	0	0	13
University Hospitals of Leicester NHS								
Trust	0	1	0	0	0	0	0	1
West Hertfordshire Hospitals NHS Trust	0	1	2	2	2	0	1	8
East and North Hertfordshire NHS Trust	0	1	0	0	3	0	0	4
Worcestershire Acute Hospitals NHS Trust	0	1	0	0	2	0	0	3
Nottingham University Hospitals NHS								
Trust	0	0	0	1	1	0	0	2
Lancashire Teaching Hospitals NHS								
Foundation Trust	0	0	3	1	2	0	0	6
East Lancashire Hospitals NHS Trust	1	1	0	1	2	0	0	5
Imperial College Healthcare NHS Trust	1	2	2	0	1	0	0	6
Total	242	299	375	360	355	31	16	1,678