

## NHS COUNTY DURHAM AND DARLINGTON JOINT BOARD

### A public consultation on proposed changes to hyperacute stroke services

#### 1. Introduction

This paper sets out the background of the recommendations to secure improvements in hyperacute stroke service provision for patients within County Durham and Darlington.

#### 2. Implications and risks

The main implications of the proposed service change are to ensure that:

- 24/7 access to specialist hyperacute stroke services is secured for the population of County Durham and Darlington for the foreseeable future,
- the quality of hyperacute stroke services across County Durham and Darlington meet National Institute for Health and Clinical Excellence (NICE) standards and sentinel audit criteria,
- the proportion of patients treated with thrombolysis treatment is increased,
- the clinical outcomes for those who have suffered a stroke are improved,
- a more efficient pathway is in place for direct admission to a specialist unit
- the level of provision of Transient Ischemic Attack (TIA) services is increased to seven days a week.

Document Management						
Version	Date	Presented to (meeting)	Commissioning Consideration	Finance Consideration	Owner's Name	Approved
1.0	1/11/11	Joint board	Ben Clark	N/A	Dr Mike Lavender	Pat Keane

### **3. Recommendations**

The joint board is asked to:

- a) note the review of hyperacute stroke services prior to consultation which includes the clinical case for change,
- b) note the independently analysed outcome of the full public consultation on the proposals regarding the future of hyperacute stroke services in County Durham and Darlington NHS Foundation Trust (CDDFT),
- c) agree that hyperacute stroke services are consolidated onto a single site within CDDFT,
- d) agree that the single site should be the University Hospital of North Durham (UHND).

### **Appendices**

1. A public consultation on proposed changes to hyperacute stroke
2. Independent assessment of the hyperacute stroke services formal public consultation
3. Comments taken from feedback of using online and hard copy questionnaires
4. Stroke Strategy Improvement Group (SSIG) membership
5. Equality impact assessments
6. Consultation supporting information

### **4. Author and sponsor director**

Author: Dr Mike Lavender  
Title: Consultant in Public Health Medicine and stroke programme lead

Director: Pat Keane  
Title : Deputy Chief Executive Officer  
Date: October 2011

<b>Purpose of Paper</b>	Information Sharing	
	Development / discussion	
	Decision / action	√
<b>This paper supports / has implications for:</b>		
<b>NHS County Durham and Darlington's Strategic Priorities</b>	Delivery: 5 year strategic plan	√
	Maintenance: business critical	
	Transition: Implementing Equity and Excellence	
<b>Performance Measures</b>	Percentage of patients given thrombolysis treatment Reduction in deaths from stroke Direct admissions to specialist hyperacute stroke unit Percentage of patients with TIA seen within 24 hours	
<b>QIPP</b>	N/A	
<b>NHS Constitution</b>	Principle seven – NHS County Durham and Darlington are accountable to the communities they serve by delivering effective communication and engagement	
<b>Equality and Diversity</b>	Equality impact assessment undertaken	
<b>Impact on / Involvement of partners</b>	County Durham and Darlington OSCs	
<b>Other policies / Issues</b>	The National Stroke Strategy NICE Clinical Guidelines for Stroke National Sentinel Audit	

## **A public consultation on proposed changes to hyperacute stroke services**

### **1.0 Introduction**

Stroke remains a major cause of death and disability across County Durham and Darlington with around 1,100 people suffering a stroke each year. As the organisation responsible for commissioning health improvement and health care services, NHS County Durham and Darlington (NHS CDD) is committed to striving to achieve the best possible health outcomes for the local population.

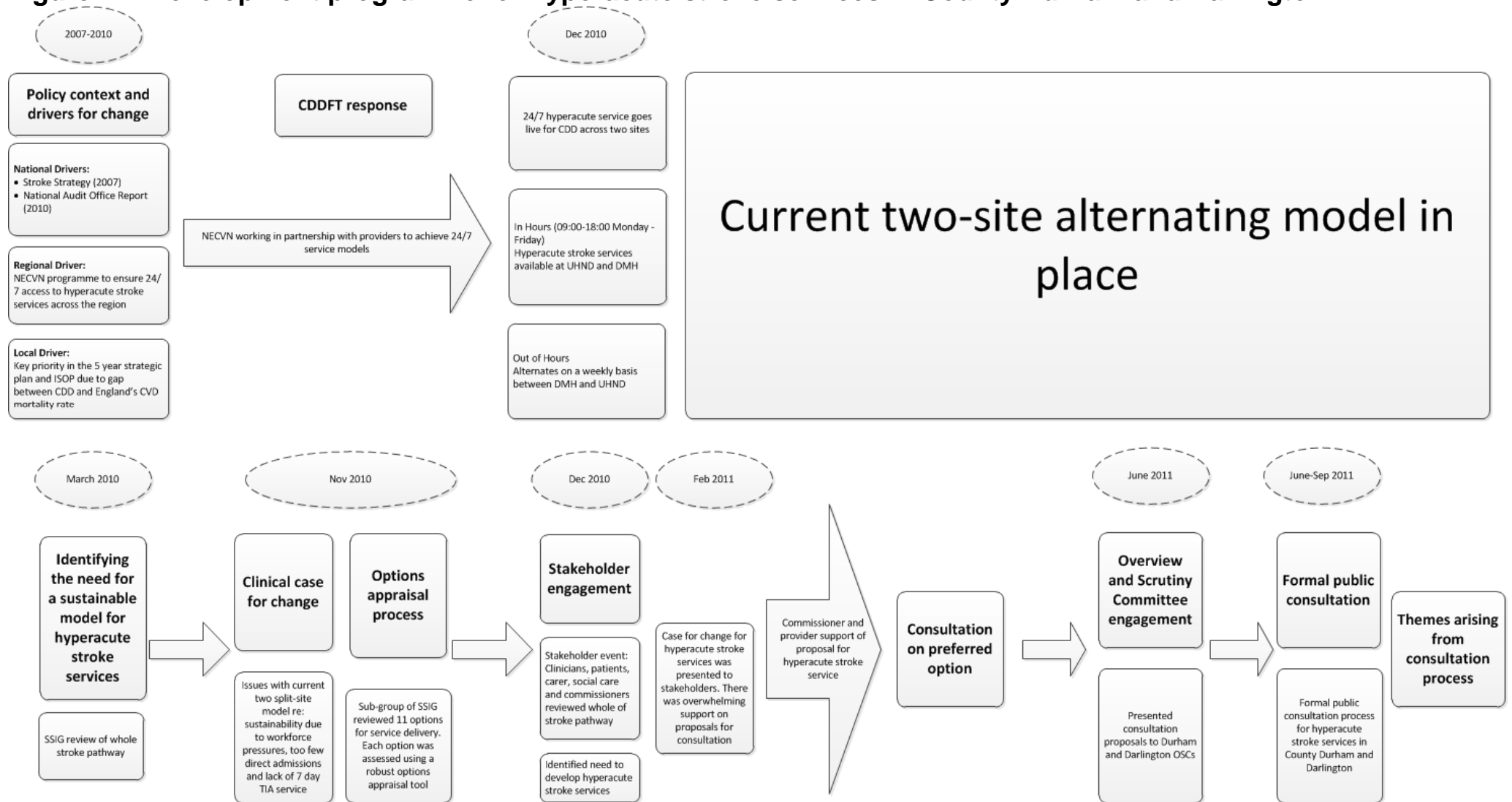
To reduce cardiovascular related disease mortality NHS CDD has made stroke services a key priority, to reduce cardiovascular related disease mortality. This is outlined in the five year strategic plan and the integrated strategic and operational plan (ISOP).

In order to deliver this priority, NHS CDD has developed a commissioning framework for stroke services particularly in relation to the first 48/72 hours of the pathway. This framework utilises both national and local indicators which are used to monitor quality and performance, some of which have been built into quality specifications for providers for 2011/12. The commissioning of high quality stroke services is a key priority for NHS CDD to ensure the best possible outcomes for those who have suffered a stroke.

This paper highlights the key drivers for change, provides an assessment of the options for a future state and how NHS CDD has engaged with members of the public, clinicians and other stakeholders on the improvements in the stroke pathway. This has led to the development of a recommended service model for members of the joint board to consider.

The structure of the document is based on the programme outline for the development of stroke services (as outlined in figure 1). The content is structured chronologically to help explain the journey from the initial review of current services against national standards to the point of recommendation on a way forward for hyperacute stroke services.

**Figure 1 - Development programme for hyperacute stroke services in County Durham and Darlington**



## **2.0 Policy context and drivers for change**

*The Older People's National Service Framework (2001)* first identified the need for those suffering with signs and symptoms of a stroke to be promptly admitted to a stroke unit with specialist staff available to assess and treat.

This was followed in 2007 by the *National Stroke Strategy*. The aim of the strategy is to provide a quality framework to enable the NHS to improve existing services, measured against the standards identified in this framework. Many of the standards within this document are focused on the hyperacute element of the pathway and how such services should be improved. This includes the ability to provide specialist stroke services at the point of emergency 24 hours a day, seven days a week.

Other standards in the stroke strategy include the need for patients with a suspected stroke to receive structured clinical assessment from specialist clinicians, using the most effective equipment within a timely manner. As such those suffering a stroke should spend the majority of time on a stroke unit, receiving high quality care 24 hours a day, seven days a week. The strategy clearly highlights the benefits of thrombolysis and the need to maximise its use to those eligible patients.

In 2008, the National Institute for Health and Clinical Excellence (NICE) introduced clinical guidelines for the diagnosis and initial management of stroke. Two key recommendations highlighted in this guidance were enabling direct admission to a specialist stroke unit and rapid access to brain imaging to establish suitability for thrombolysis.

The National Audit Office published a report in 2010 which stated that progress had been made in relation to the National Stroke Strategy, but that there was still more to do to ensure the best possible care for patients. It highlighted the need to fully implement the National Stroke Strategy and NICE clinical guidelines for stroke management.

## **3.0 County Durham and Darlington NHS Foundation Trust (CDDFT) response**

The North of England Cardiovascular Network (NECVN) used the principles set out within the stroke strategy to form a set of standards to benchmark services across the North East in February 2010. They have developed a set of indicators to use as a framework to drive up quality across the North East region. As part of this programme of work, the network asked all providers of hyperacute stroke services within the North East to put in place a service model by December 2010 that would meet the need for 24/7 access to hyperacute stroke services.

In response CDDFT implemented a two site model for hyperacute stroke services, to ensure that round the clock access was made available within the constraints of the timescales set. The development of 24/7 hyperacute stroke provision in December 2010 was a major breakthrough for the people of County Durham and Darlington. Up until this point hyperacute stroke services were only available during working hours.

CDDFT currently provides a hyperacute stroke service at University Hospital North Durham (UHND) and Darlington Memorial Hospital (DMH) with hospital-based rehabilitation at Bishop Auckland General Hospital (BAGH).

However the plan within CDDFT to provide 24/7 hyperacute stroke services on two sites concurrently is not sustainable due to a shortage of essential staff including specialist stroke physicians. As an interim measure they had to limit the service providing cover for admissions out-of-hours and weekends between the two stroke units on alternate weeks. During the hours of 08:00-18:00 Monday to Friday, hyperacute provision is available at both UHND and DMH. Out of hours and weekend provision alternates between UHND and DMH on a weekly basis.

Between all three sites the stroke service currently provides a service five days a week for the urgent assessment of patients who have had a transient ischaemic attack (TIA) or mini-stroke.

#### **4.0 Identifying the need for a sustainable model for hyperacute stroke services**

The stroke strategy implementation group (SSIG) is a local multidisciplinary forum established by NHS CDD (a list of members can be found in appendix 4). The group was created in 2007 in response to the recommendations outlined in the National Stroke Strategy. The group includes stakeholders from patient representatives, the NECVN, local authorities, and clinicians from provider and commissioner organisations. The group provides a mechanism for continual service improvement, using national and regional best practice to drive up standards across County Durham and Darlington.

Following a formal review of stroke services by the SSIG during 2010, they supported the premise that a two site model for hyperacute stroke services was not sustainable.

#### **5.0 Clinical case for change**

Given the lack of sustainability for a two site model, a case for change emerged led by the specialist clinicians currently working in the hyperacute stroke service provided by CDDFT. The case is based on the need to ensure sustainability and development of the current service to meet the quality standards as required by NICE. The case set out the potential benefits to be gained for the local population in driving up quality standards and clinical outcomes for those suffering a stroke.

The following key issues contributed to the case for change in relation to hyperacute stroke services.

##### **5.1 Admissions via accident and emergency (A&E) compared to direct admissions**

The typical pathway for a stroke patient starts at the point of emergency; it is during this time where the greatest clinical gains can be made. The majority of patients who have suffered a stroke are taken by ambulance to the nearest admitting hospital.

During this time they are assessed for the risk of stroke by paramedics using FAST (face arm and speech test). This is a nationally recognised tool which is used as a first response method of assessment. Paramedics look for weakness in the face, arm and the individual's ability to speak clearly. The test has a sensitivity of 80% which means that out of 100 people they screen as positive, 80 will have had a stroke and 20 will not. Therefore 20% of patients are currently admitted to A&E with similar signs and symptoms but will not have actually suffered a stroke; these are known as stroke mimics. FAST is a screening tool for paramedics. Once the patient is seen in hospital and has had a brain scan then a clinician can make a more definitive diagnosis.

Currently patients are admitted for signs and symptoms of stroke via A&E. The ROSIER tool is used for diagnosing stroke in AE by general physicians. This has a sensitivity of 93% so the level of stroke mimics currently admitted to the hyperacute stroke unit (HSU) via A&E is 7%. Although clinicians in A& E departments are highly skilled in general medicine, they are not specialised in the diagnosis and treatment of stroke. Admission of suspected stroke patients to A&E creates an extra step in the pathway and creates unnecessary delays in the system. This ultimately lengthens the time that a patient waits before potentially receiving thrombolysis treatment.

Due to the level of stroke mimics in the system (as described) HSUs in County Durham and Darlington are unable to take direct admissions because of the service distribution across two sites. Therefore within the current stroke pathway the A&E step in the pathway acts as a time extending filter to limit the admissions to hyperacute stroke services to patients who are most likely to have experienced a stroke.

## **5.2 Recruitment of specialist staff**

Nationally there are resource pressures relating to the staffing of specialist stroke units, including specialist nurses and therapists. There is a national shortage of expert stroke physicians in the UK trained in the administration of thrombolysis (Royal College of Physicians). The stroke service provided by CDDFT has insufficient numbers of specialist stroke physicians to provide 24/7 cover across two sites. This also applies to other supporting functions such as radiology.

CDDFT propose that the minimum number of specialist stroke consultants required to run two hyperacute units is six. Currently the service is operating with two full time and two (short term) part time consultants, which often results in a need to rely on locum cover. As a consequence of the shortage of specialist staff to provide input into the current model, there are delays in assessment and treatment times.

CDDFT, supported by commissioners, is working hard to recruit specialist stroke consultants, however these posts are unlikely to be filled in the short to medium terms future due to the national shortages in this medical specialty.

## **5.3 Lack of a seven day Transient Ischemic Attack (TIA) assessment service**

For individuals who have suffered a TIA it is important to be seen urgently, ideally within 24 hours. Efficient assessment and intervention for people at this stage is imperative, as

this cohort of patients are at an increased risk of going on to have a stroke. Currently TIA services are delivered five days a week across three sites, however there is a need for seven day provision so that more patients can be seen within 24 hours. The current configuration does not allow for an increase in the number of available clinic days.

## 6.0 Options appraisal process

Given the issues contributing to the case for change to safeguard 24/7 access for the people of County Durham and Darlington, the SSIG commissioned a sub-group to undertake an options appraisal on future models. This options appraisal was conducted in November 2010.

The sub-group undertook an exercise review a range of service configuration options and their potential impact on the population of County Durham and Darlington. The sub-group was made up of CDDFT's lead stroke consultant and clinical stroke service manager together with NHS County Durham and Darlington's clinical public health lead and stroke service commissioning manager.

The group analysed a range of options which were narrowed down to 11. These included the existing two sites, regional and single site models of service. Also included was the option to use technology such as telemedicine as an option for a more formalised service configuration.

Each option was assessed against set criteria to determine the benefits of delivering each of the proposed range of service models (see figure 2). The criteria included assessment against standards relating to clinical quality, sustainability/flexibility, equity of access, efficiency, workforce, functional suitability, acceptability. These were chosen to help ensure a high quality, long term stroke hyperacute service for County Durham and Darlington remained the main goal.

Rank	Benefit	Definition of Benefits
1	Clinical Quality	Maintains or improves clinical outcomes; timely and appropriate services; minimises clinical risk
2	Sustainability / flexibility	Ability to meet current and future demands in activity; ability to respond to local, regional, national service changes
3	Equity of access	Reasonable access for urban and rural populations
4	Efficiency	Delivers patient pathways that are evidence based; supports the delivery through access to resources
5	Workforce	Provides environments which support the recruitment/retention of staff; supports clinical staffing arrangements
6	Functional suitability	Provides environments suitable for delivery of care; clinical adjacencies with other relevant services/departments e.g. imaging
7	Acceptability	Acceptable to service users, carers, relatives, other significant partners
8	Cost effectiveness	Provides value for money

Figure 2 - Ranking of potential criteria and benefits

Each criterion was weighted according to its significance, with clinical quality ranked the most important and cost effectiveness the least (figure 3).

Benefit Criteria	Rank	COMPARISON										RAW WEIGHT	%
		1-2	2-3	3-4	4-5	5-6	6-7	7-8					
Clinical quality	1	100										100	17%
Sustainability/ flexibility	2		95									95	16%
Equity of access	3			95								90	15%
Efficiency	4				95							86	14%
Workforce	5					95						81	14%
Functional suitability	6						80					65	11%
Acceptability	7								75			49	8%
Cost effectiveness	8									75		37	6%
											603	100%	

Figure 3 – the weighting for criteria as part of the options appraisal

Figure 3 shows that sustainability was ranked 2nd in importance to the appraisal, recognising the ability to meet current and future needs, to ensure adaptability in times of ever changing strategy and to maintain improvements in quality standards. The weighting applied to this benefit was 16% of the total set of results.

Each of the 11 options was awarded a score. The sub-group presented the criteria, weighting and findings of the options appraisal process to the SSIG. Based upon the outcome of the options appraisal, the SSIG proposed a reconfiguration of the service with a single site model. A regional model was the preferred alternative option.

In reaching this decision the following key issues were considered:

## 6.1 A regional model

A regional model scored highly within the options appraisal process. However clinicians agreed this model would result in the lack of continuity across the stroke pathway, as different clinical teams would be involved in managing the care of individuals. Continuity of care across one medical team was agreed to be key during the hyperacute episode and hospital based rehabilitation and community care.

It was agreed that equitable access would be enhanced if the hyperacute stroke service was retained within County Durham and Darlington. Care would be provided closer to home in other models which would be advantageous to patients but also to their family and

friends. The other key factor which was also taken into account was the lack of existing hospital infrastructure to provide capacity to deliver the service regionally.

## **6.2 A telemedicine model to support current two-site model**

The SSIG sub-group considered telemedicine during the options appraisal. It was agreed that although telemedicine could be used as a supporting function for other models of care, it should not form the basis of a clinically sound hyperacute stroke service. The group agreed that telemedicine did not offer the same level of clinical input to the selection of patients for thrombolysis; that there could be potential technical problems at critical points in the care pathway and that clinicians would be more cautious in some cases where there was diagnostic uncertainty thereby leading to fewer patients benefitting from thrombolysis.

In essence it was agreed that there is no substitute to a specialist stroke clinician seeing the patient and as a result patients will achieve better clinical outcomes through the effective use of thrombolysis. It was recognised that advanced technology will still play a key role in supporting a hyperacute single site model.

## **6.3 Why a single site as a preferred option type?**

Following the options appraisal process, the recommendation to adopt a single site model within County Durham and Darlington to provide 24/7 access to specialist hyperacute stroke services based on an assessment of models against the benefits criteria outlined in figure 2.

The proposed provision of a single hyperacute stroke unit across County Durham and Darlington will enable patients to be admitted directly onto an HSU without the need for initial assessment in A&E.

Any potential increase in travel time will be offset by direct admission into an HSU. As a result the overall time between the onset of symptoms and patients being treated with thrombolysis will be reduced by approximately 30 minutes. This model ensures that those suffering a suspected stroke are seen in the most appropriate setting, by highly specialist clinicians using the most effective technology to diagnose and treat.

Pooling the experience and expertise of the staff to one HSU, will provide a better training environment and will help in the recruitment of specialist staff.

As stated earlier in the paper direct admissions to an HSU are not possible with the current two site model. Bringing together the beds and specialist staff into a single HSU provides greater flexibility and the ability to respond to periods of high demand, demand that is the consequence of accepting stroke 'mimics' through direct admissions.

Finally consolidating the expertise of the specialist physicians on to a single site provides a service seven days a week to assess patients who have had a TIA. Currently this service is available five days a week.

## **7.0 Stakeholder engagement**

As described in section 4.0, the SSIG began to lead a review of the stroke pathway in March 2010. As a result of this they identified as a priority the need to develop hyperacute stroke services in line with national and regional drivers for change. One of the pieces of work commissioned by the group was to assess different models for hyperacute stroke services; this work was carried out in November 2010 as outlined in section 6.0.

In December 2010 the SSIG led an event with stakeholders to understand their views on areas of development within the stroke pathway. The list of stakeholders was based on those individuals or groups who had previously expressed an interest in the development of stroke services or specific local groups, assumed to be interested in this programme of work. They were presented with a picture of the current pathway for stroke patients.

The SSIG presented the high level work that they had lead on since March 2010 and shared with stakeholders the key areas that should be prioritised for development. The consensus from the event was that the greatest immediate gains for stroke outcomes could be made in the hyperacute element of the pathway. This validated the need to develop hyperacute stroke services.

In February 2011 the findings of the options appraisal process (conducted by a sub-group of the SSIG) were tested at a further stakeholder event. Participants were invited to share their views on each stage of the process for reviewing options and developing the preferred service model for hyperacute stroke services. The outcome of the event indicated support to move to a single site hyperacute stroke model, agreeing that continuing with the current two site model for hyperacute services was not an option. At the event 97% of participants agreed that consolidation onto a single site was the best option and 87% agreed with the preferred option of that site being UHND.

## **8.0 UHND as the preferred option**

The proposed model is to provide 24/7 access to specialist hyperacute stroke services on a single site based at University Hospital North Durham.

As part of the options appraisal there were two key factors to determine that UHND was the hospital of choice for the hyperacute stroke unit to be based. These factors were diagnostic facilities and the current number of patients accessing UHND in an emergency with a suspected stroke.

### **8.1 Radiology**

As part of the care pathway for those requiring emergency assessment and treatment following a stroke, it is important that specialist clinicians have access to high quality diagnostic testing equipment. Although there are facilities available at both sites, there is far greater imaging capacity to support a hyperacute service at UHND.

UHND can provide the radiology capacity required to run a hyperacute service on a single site for County Durham and Darlington without any delay. Clinicians agree that there is a risk to the current pathway if a single site for hyperacute stroke service is not implemented

on the UHND site at the earliest point in time. Clinicians have stated that any delay in setting up this service could result in the temporary loss of a 24/7 service, which would be a huge step backwards in terms of the significant improvements which have been made to date.

## 8.2 Number of patients accessing each site

During the options appraisal process, an assessment was undertaken of the number of patients accessing the current two HSUs of UHND and DMH at that point in time.

Activity covering a twelve month period highlighted 925 suspected strokes admitted to UHND and 683 suspected strokes admitted to DMH. This data covered 2010 (calendar year) prior to any service change relating to 24/7 cover. This information was supplied by the North East Ambulance Service NHS Trust (NEAS) using data showing pickup point postcode to delivery at the nearest admitting hospital.

The largest numbers of patients with a 'DL' postcode from the Sedgefield and Durham Dales conurbations of Spennymoor and Crook and Willington were taken to UHND. Comparably there were very few patients seen at DMH with a 'DH' postcode (11 for the year). The largest number of patients transported to DMH originated in the immediate range of Darlington city centre. Access and travel times are explored in more detail within sections 8.3, 11.1 and 12.1 of this report.

## 8.3 Ambulance travel times

Based on the information available at the time of going to consultation, analysis of ambulance journey times showed the following:

- The **actual** travel time data was provided by NEAS over a twelve month period (1 January 2010 – 31 December 2010), and showed that the average travel time to UHND was 16 minutes whilst average travel to DMH was 17 minutes.
- The **estimated** travel was calculated by the Development and Assessment of Services for Hyperacute stroke (DASH) research project. This analysis modeled the impact of consolidating stroke services on a single site based on six months of NEAS data. This is illustrated in figure 4. Each graph shows the distribution of the actual ambulance journey times to the current two sites (Control) and the estimated journey time if the single unit was UHND (Treatment in the graph on the left) or DMH (Treatment in the graph on the right). There are two conclusions from this analysis. Firstly the maximum estimated journey time is about 60 minutes for either DMH or UHND. Secondly, if the hyperacute unit was based at UHND then the median travel time would be 17 minutes and if it was based at DMH it would be 26 minutes.

Percentage of ambulance calls arriving at unit(s) within a particular time

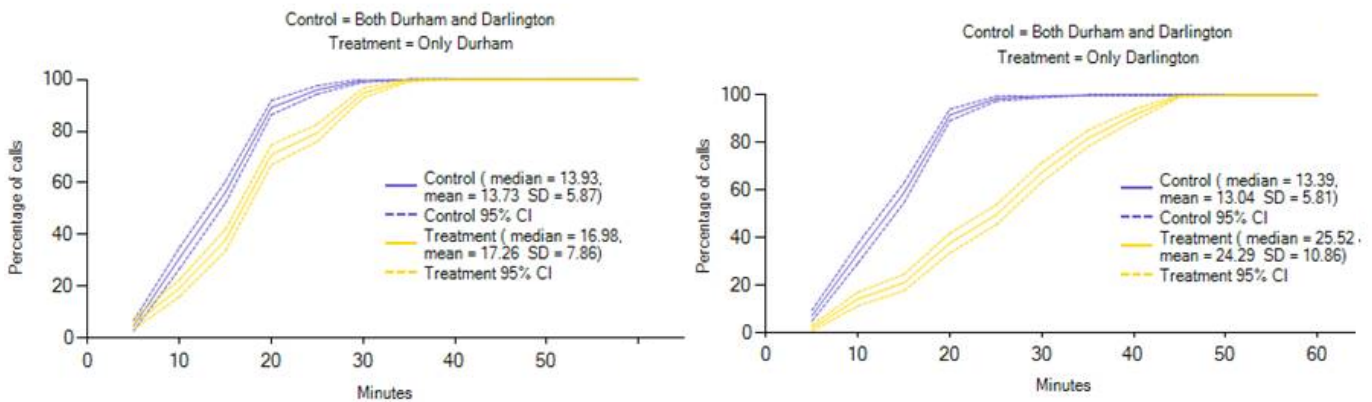


Figure 4 - Output of the DASH project work

## 8.4 Patients self presenting to Darlington Memorial Hospital

In the proposed model the majority of patients will be admitted directly into the stroke unit via a 999 response from paramedics. However there is the possibility that some patients may self-present at A&E. In such cases patients will be assessed in A&E administered thrombolysis by an acute physician who can then consult with the specialist stroke physician in the stroke unit, this will be supported by telemedicine facilities. Once the patient is stabilised they would then be transferred to the specialist stroke unit for ongoing assessment and treatment.

## 9.0 Overview and Scrutiny Committee engagement

Following the outcome of the stakeholder engagement the case for consulting on a preferred option for hyperacute stroke services was agreed by the Joint Board of NHS CDD in April 2011. This informed decision was based on best practice guidelines for consultation which state that a preferred option should form the basis for engagement.

Section 244 of the *NHS Act 2006* (which replaced Section seven of the *Health and Social Care Act 2001*) requires NHS organisations to consult relevant Overview and Scrutiny Committees (OSCs) on any proposals for significant development or substantial variation of a health service.

From the earliest stage NHS CDD ensured that the OSCs in County Durham and Darlington were consulted on the development of the proposals and the upcoming consultation process.

During the consultation period NHS CDD actively provided input to both OSCs prior to and during the statutory consultation period. This involved senior management input at OSC meetings and briefings to ensure that the committee members were aware of the case for change.

A proposal for consultation was developed and taken to both County Durham OSC on 18 April 2011 and Darlington OSC on 22 March 2011. Both OSCs agreed there was a need for a formal 90 day public consultation due to the significance of the proposed service change.

## **10.0 Formal public consultation for hyperacute stroke services**

The formal public consultation ran for 12 weeks from Monday 20 June to Sunday 11 September, 2011. It was carried out in line with the *HM Government Cabinet Office Code of Practice on Consultation*.

The proposal for a single site and a preferred site option was developed in a transparent manner with clinicians, patients and the public. The purpose of the consultation process was to gather more evidence, views and comments to test the conclusions that have been reached on a single site model based at UHND.

The proposals that were consulted on were:

- the current two-site model cannot continue,
- a new single site is the best model,
- specialist care is more important than care closer to home,
- the preferred option (UHND) is the best option.

The focus of the consultation was to enable engagement with the public, clinicians and other stakeholders in determining the optimal service configuration for hyperacute stroke services.

Key messages highlighted throughout the process were that the aim of the consultation was to develop hyperacute stroke services and ensure the best possible clinical outcomes for the people of County Durham and Darlington, and that no decision on the future model for hyperacute stroke services would be made before the consultation ended.

Independent advice and input into the collection and analysis of key data was provided to support the process of public consultation. The use of independent agencies to facilitate the consultation process is seen as a marker of best practice in terms of objectivity and impartiality. The consultation process was also informed by views from local health overview and scrutiny and local involvement network (LINK) members to ensure inclusivity, transparency and rigour.

A full stakeholder analysis exercise was undertaken to inform the formal consultation process and ensure that equal opportunity to participate was extended to all interested parties. This was carried out using an equality impact assessment (please see appendix 5).

## **10.1 Equality Impact Assessment**

Section 149 of the *Equality Act 2010*, requires public bodies to consider all individuals when carrying out their day to day work – in shaping policy, in delivering services and in relation to their own employees. It requires public bodies to have due regard to the need

to eliminate discrimination, advance equality of opportunity, and foster good relations between different people when carrying out their activities ([www.homeoffice.gov.uk](http://www.homeoffice.gov.uk)).

This section of the *Equality Act 2010* applies to public sector organisations to ensure that planned service changes meet the needs of the population.

A public authority must, in the exercise of its functions, have due regard to the need to—

- (a) eliminate discrimination, harassment, victimisation and any other conduct that is prohibited by or under this Act;
- (b) advance equality of opportunity between persons who share a relevant protected characteristic and persons who do not share it;
- (c) foster good relations between persons who share a relevant protected characteristic and persons who do not share it.

The relevant protected characteristics are; age, disability, gender reassignment, pregnancy and maternity, race, age, religion and belief, sex and sexual orientation.

NHS CDD carried out two sets of equality impact assessment (appendix 5) prior to going out to formal consultation. One related to the proposed service change and the other related to the actual process consultation. Each one concluded that there was a neutral impact on groups on any of the protected characteristics listed above.

## **10.2 Consultation and communication plan**

A communications and consultation plan was developed to ensure that the formal consultation process was as fair, robust and inclusive as possible in its planning, delivery and follow-up.

The communications and consultation plan was developed with input from the Joint County Durham and Darlington Local Involvement Network Stroke Working Group and both Durham County Council's and Darlington Borough Council's Health Overview and Scrutiny Committees.

This document set out a framework for formal consultation including:

- the scope of the consultation
- key topics and questions for consultation
- quality standards for the consultation process
- methods of consultation to ensure sufficient information and involvement opportunities were available to identified stakeholders.

An external company was commissioned to support the delivery of consultation process in line with the quality standards established in the plan. This ensured a consistent and objective approach in executing and documenting the process, and providing an analysis of responses (Appendix 2).

## **10.2.1 Consultation document and supporting information**

The formal consultation document and a supporting summary version were the key consultation materials. The full consultation document contained details of the options appraisal process and further supporting information. This was used to present the detailed case for change and to demonstrate how the recommended proposal was developed.

Both the detail of the option appraisal process and the supporting NEAS ambulance travel time data as outlined in section 8.3 and 11.1 included in the consultation document in the interests of transparency. This supporting data, whilst giving the same view that the clinically preferred option was for a single site at UHND, was included in order to enable as much informed engagement in the consultation process as possible.

A range of information was generated as an outcome of the consultation this can be found in appendix 6.

## **10.2.2 Consultation events and mechanisms**

A schedule of consultation opportunities and feedback mechanisms was publicised through local networks and advertised in local media. These included a number of public consultation events at a variety of locations and times which were selected to ensure equitable opportunities across County Durham and Darlington. Venues were selected based on accessibility. There were a total of 12 events held across County Durham and Darlington as well as North Yorkshire.

The content of the events included a presentation based on the consultation document, facilitated group sessions for discussion where those attending wished to participate and open forum question and answer sessions. An expert multi-disciplinary panel was present at each event representing stroke clinicians, public health, CDDFT managers and NHS CDD commissioners.

In addition, a dedicated consultation [www.haveasay.org.uk](http://www.haveasay.org.uk) website was developed where people could download relevant information, including the consultation document and complete an online survey. People without internet access were able to write to NHS CDD to have their views noted via a freepost address and could also telephone via a dedicated line.

To inform the public about the consultation the core team attended dedicated consultation sessions in addition to the 12 public meetings during the formal consultation period. These meetings were a combination of targeted groups and requested meetings from other groups. These included briefings for CDDFT governors and clinical commissioning group chairs.

To further raise the public's awareness of the proposals, summary consultation documents were printed and distributed to 500 community organisations and venues, letters and full/summary consultation documents were sent to approximately 250 targeted groups, organisations and individuals, as appropriate.

Press releases were distributed to print, broadcast and community-level media. Paid for adverts were placed in the Darlington and South Durham Herald and Post, The Northern Echo (including a Public Health supplement), Teesdale Mercury, Weardale Gazette and Darlington and Stockton Times.

Awareness raising was undertaken with all independent contractors (GPs, dentists, pharmacists and optometrists) via a dedicated e-briefing, and with approximately 400 corporate stakeholders including MPs and elected members via a stakeholder e-briefing.

Information was also sent via e-zine, publicly available online and directly emailed to Durham approximately 100 registered users and the consultation was promoted on County Durham Primary Care Trust and Darlington Primary Care Trust websites. Promotional display banners were placed in three main hospital sites.

Internal communications mechanisms were used to raise staff awareness.

NHS CDD aimed to be responsive to ongoing requests for information, presentations, and consultation sessions throughout the consultation

### **10.3 Meeting the four key tests as outlined in the NHS Operating Framework 2010/11**

The Secretary of State for health introduced as part of the *Operating Framework for 2010/11* four key tests in relation to planned service change. The four key tests require proposals for reconfiguration to demonstrate support from GP commissioners, strengthened public and patient engagement, clarity on the clinical evidence base and consistency with current and prospective patient choice.

#### **10.3.1 GP Commissioner Support**

GP commissioners across County Durham and Darlington all support the proposals put forward to have a single site for hyperacute stroke services based at UHND, based on the clinical case for change.

#### **10.3.2. Clinical Evidence Base**

The clinical evidence base was clearly demonstrated throughout the consultation process with active engagement from key clinicians throughout. The evidence was based on a sound rationale to ensure continual improvement of hyperacute stroke services across County Durham and Darlington.

#### **10.3.3 Patient and public engagement**

As part of work to review the whole pathway of care for stroke patients across the whole pathway from prevention to end of life care, NHS CDD held a stakeholder engagement event to gather patients', carers' and representative groups' views and experiences of all aspects of stroke services, and ensured that these views informed the development of initial options for stroke services.

There was then an options appraisal of all potential sustainable models for stroke services. NHS CDD led this work with commissioning and clinical colleagues as well as other key stakeholders who evaluated these options against a range of criteria at a further event.

Sections 12 and 14 detail stakeholder and OSC engagement leading up to the formal consultation.

### **10.3.4 Patient Choice**

The hyperacute element of the stroke pathway deals with the point of emergency and the first 48-72 hours. This is classed as unscheduled care which is exempt from patient choice in terms of patients deciding at the point of need which hospital they would choose to access. The pathway for a suspected stroke will (in the main) start with a 999 call and an assessment by paramedics. Following an initial assessment using the FAST tool, paramedics will take the patient to the nearest admitting hospital for ongoing assessment and treatment within a specialist HSU.

However patient choice is still important in terms of ensuring that all patients across County Durham and Darlington have access to high quality hyperacute stroke provision. Therefore it is important to use patient and carer feedback as well as national standards and best practice to understand what constitutes a high quality service and ensure this level of service is developed for the local population.

## **11.0 Themes arising from the consultation**

As an outcome of the 12 week public consultation there were a number of issues raised which NHS CDD has responded to. These key issues highlighted the need for further information on:

- ambulance journey times,
- family and carer travel,
- poor weather conditions,
- specific issues which were raised by Hambleton and Richmondshire District Council,
- Sentinel Audit.

These issues are addressed as follows:

### **11.1 Urgent ambulance journey times**

One of the main themes that emerged from the responses received as part of the consultation process related to the potential increases in ambulance journey times that consolidation onto a single might cause.

In terms of the proposal to consolidate hyperacute stroke services on to a single site, ambulance travel time is not the key measure; any increase in journey time is off-set by direct admission onto a specialist stroke unit which will be enabled by the proposed change to the service model. Direct access for faster diagnosis and treatment, changes to the clinical pathways and sustainability are more important considerations over travel time.

In terms of deciding on which hospital should host the HSU, ambulance travel time is one of the criteria we took into account in the preferred option of UHND. Further analysis has been carried out independently by Mott Macdonald, the analytic consultancy firm using an updated data set provided again by NEAS. This data set covered the period 1 January 2010 – 31 March 2011 (the latest month of coded data available).

By creating a dataset consisting of patients transported with a suspected stroke to either UHND or DMH during this time period (1776 journeys), Mott Macdonald used sophisticated software to model journey times for all patients should there only have been a single site at UHND or if there had only been a single site at DMH.

This further analysis supported the initial findings of both the NEAS and DASH analysis that:

- the average journey time for patients would be slightly quicker if the single site were to be located at UHND rather than DMH,
- a greater proportion of patients would get to a hyperacute unit more quickly if the single site were to be located at UHND rather than DMH,
- no patient would take more than 50 minutes to get to a hyperacute site in a blue light ambulance.

The detailed outcome of this analysis is in figure 5.

<b>Measure</b>	<b>If every journey had gone to UHND in a blue light ambulance (all categories)</b>	<b>If every journey had gone to DMH in a blue light ambulance (all categories)</b>
<b>Average</b>	00:16:07	00:21:01
<b>Median</b>	00:14:43	00:22:01
<b>Minimum Value</b>	00:01:11	00:00:24
<b>Maximum Value</b>	00:45:05	00:43:09
<b>Lower quartile</b>	00:11:06	00:13:49
<b>Upper quartile</b>	00:20:54	00:29:29
<b>Variance (minutes)</b>	58	113
<b>Standard Deviation (minutes)</b>	8	11
<b>Lower Confidence Interval (5%)</b>	15.76	20.52
<b>Upper Confidence Interval (95%)</b>	16.46	21.51

Figure 5 – Further analysis of journey times

Figure 5 shows that the average mean and median modeled blue light ambulance journey time would be shorter if this cohort of patients were to be taken to UHND rather than DMH. Applying a 'Wilcoxon' ranked test (a non-parametric test) was used as the data was not normally distributed). This shows that there is a significant difference between these two sets of data.

The blue light ambulance times for stroke patients were significantly longer when travelling to DMH (Mdn = 22.01 minutes) than UHND (Mdn = 14.43 minutes),  $z = -12.017$ ,  $p < 0.001$ .

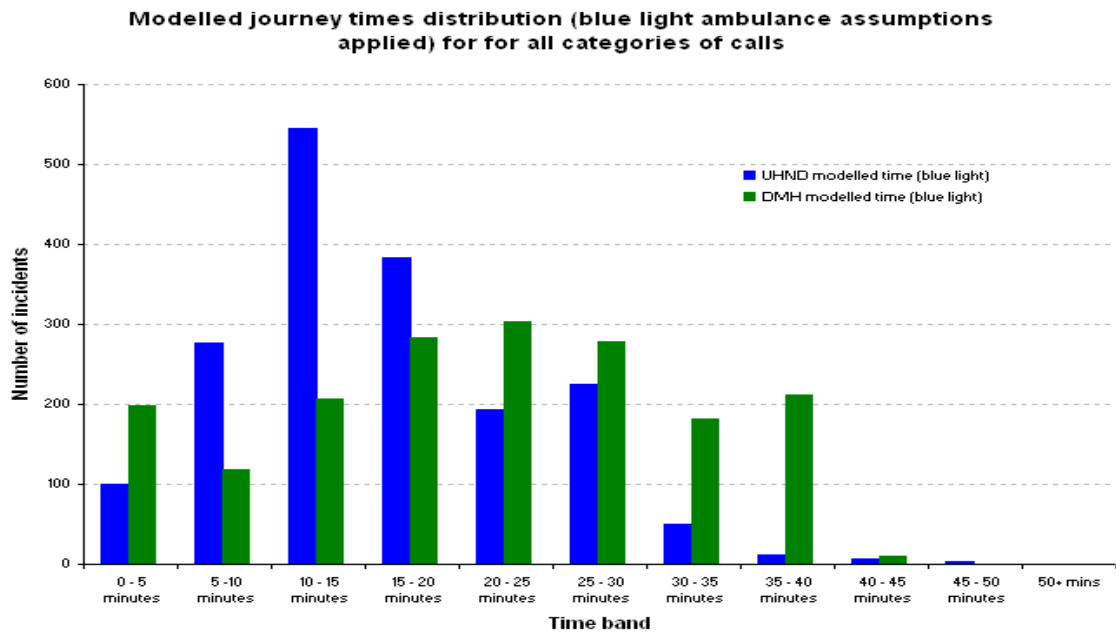


Figure 6

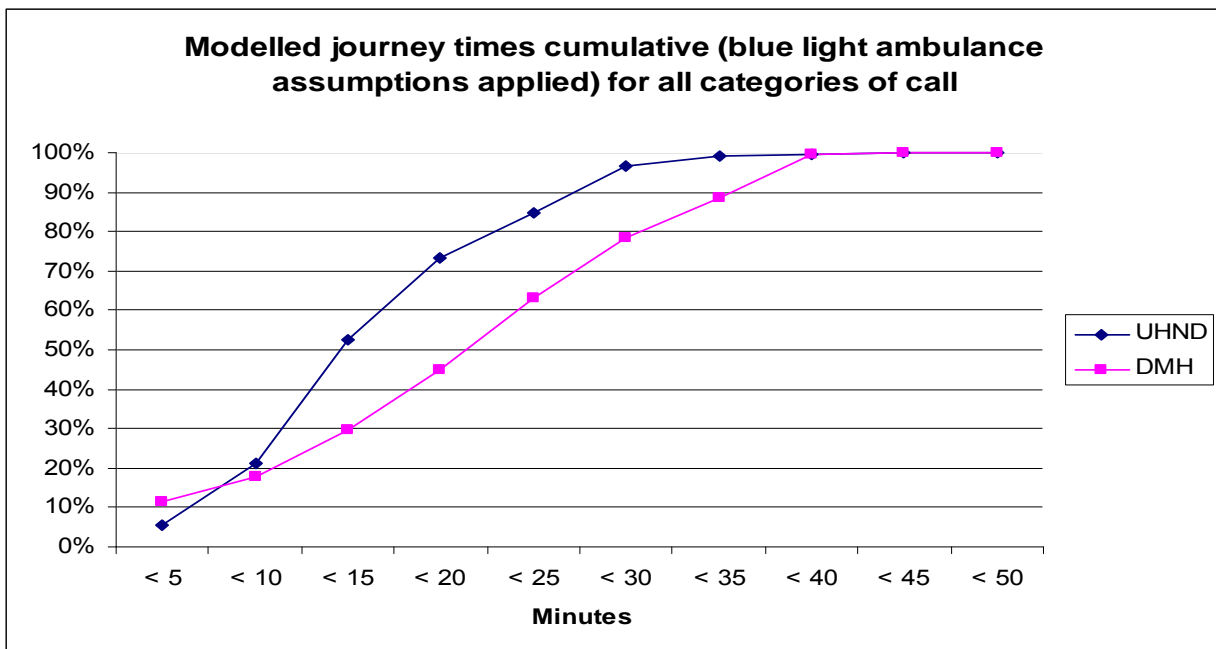


Figure 7

Figure 6 and 7 illustrates the information in figure 5. It shows the estimated ambulance travel time for all stroke admissions, assuming they are 'blue light' journeys not restricted to the speed limits, comparing the distribution of the journey time if the single unit was at DMH or UHND. It shows that all journey times will be less than 50 minutes, and apart from the shortest ambulance journeys, more patients will reach UHND in a quicker time than to DMH.

It is again important to note that any extension to journey time will be offset by faster processing within the acute facility by direct admission to the hyperacute stroke unit (as opposed to the current pathway that includes an additional step in A&E).

## **11.2 Family and carer travel**

As part of the proposed service change to a single site we understand that there will be implications for some families and carers who may need to travel further to visit as a relative. In the preferred option this relates to people in the Darlington area visiting relatives and friends in UHND. This does cause inconvenience and this is not underestimated, however the main aim is to ensure delivery of high quality stroke services for the people of County Durham and Darlington. It is important to remember that the proposed changes will affect the first 48 to 72 hours. The clinical gains that will be made through the centralisation of hyperacute stroke services onto one site at UHND will outweigh any short term inconvenience of increased travel time for visitors.

For those who prefer not to use their own transport arrangements, there is a shuttle bus service run by CDDFT, which is outlined in the consultation document and throughout the consultation event presentations. This service currently runs between DMH and UHND and also between BAGH and both Darlington and Durham hospitals. Each journey costs £2.50 with concessionary bus pass holders able to travel free after 9.30am with a small charge of between 50p and £1.50 before 9.30am.

## **11.3 Poor weather conditions**

Circumstances outside of our control will occur regardless of where the HSU is sited. Bad weather affects both County Durham and Darlington residents. Emergency services will continue as always to make informed decisions on the best way to proceed with suspected stroke patients. They will use information available to them at the time e.g. weather and travel reports as well as their knowledge of the local area to assess and respond to difficult travel conditions. Their key aim is to stabilise and safely transfer patients to the admitting hospital with the shortest possible journey time. There is also access to telemedicine equipment at DMH if required which can be used as a safety net during severe weather conditions.

## **11.4 Bishop Auckland General Hospital (BAGH)**

During the consultation the option to use BAGH as a potential site for hyperacute stroke services was raised. It was explained that as part of 'Seizing the Future' in 2009 BAGH was designated as a centre of excellence for rehabilitation. It was also explained that BAGH does not have the necessary critical care services, which are essential to support the delivery of hyperacute stroke services. Therefore as part of the options appraisal process this was assessed lower than the regional model options and was discounted on

the grounds of a lack of clinically safe and effective hyperacute stroke services in the emergency phase of the treatment.

As part of the proposed model of care, BAGH will remain as part of the pathway following the hyperacute episode as the site to provide high quality hospital based rehabilitation.

## **11.5 Issues raised by residents of Richmondshire and Hambleton**

As part of the service reconfiguration across the North East, there have been changes to current hyperacute stroke services to secure 24/7 access. The majority of the North Yorkshire and York population access hyperacute stroke services at James Cook University Hospital (JCUH), however there are a number who currently access DMH.

By analysing current trends there are potentially around 280 patients suffering a stroke who would be admitted to JCUH, UHND or DMH. Approximately 40 of these patients would be admitted to CDDFT. A patient's final destination will be dependent on the point of pickup and the protocols put in place with the ambulance service to ensure the most accessible admitting hospital is utilised.

If data regarding numbers of patients currently accessing CDDFT included the estimated 40 people going to DMH from North Yorkshire, there would still be a comparatively higher number going to UHND.

Although this proposed service model outlines the hyperacute stage of the pathway, the rehabilitation element also needs to be considered for all patients including those from North Yorkshire. North Yorkshire and York PCT has worked with commissioners from NHS CDD to ensure that patients have a seamless transition from hyperacute services into (if required) hospital rehabilitation and then community rehabilitation services. If UHND becomes the site for hyperacute stroke services under the proposals outlined, patients would be given the choice to transfer to BAGH or to the Friarage Hospital in Northallerton for their ongoing hospital based rehabilitation. Following discharge from hospital patients would access local community services for their continuing rehabilitation needs.

The proposed model of services was discussed with relevant stakeholders of Hambleton and Richmondshire locality to understand their points of question and any concerns. A consultation event was conducted within this locality as part of the consultation process.

## **11.6 Sentinel Audit**

In their response to the consultation on hyperacute stroke services, Darlington OSC refer to the national Sentinel Audit conducted by the Royal College of Physicians. The latest audit reviewed the quality of care for consecutive patients with a primary diagnosis of stroke admitted to hospitals between 1 April and 30 June 2010. Participating hospitals sites submitted data on a maximum of 60 cases. The data is analysed for the UHND and DMH (combined with Bishop Auckland) stroke units separately.

The Darlington OSC highlight differences in the scores between the two units on some of the indicators and in particular those for which DMH scores higher. The conclusion from the information is that there is no significant difference between the two units and that both

are in the lower quartile compared to the national dataset and that this ranking has not changed since the previous audit in 2008.

The NECVN report on the Sentinel Audit highlights CDDFT as one of the two trusts in the region that are a concern as the majority of units score above the national average for the Bundle of Care indicators. The main purpose of the redesign of hyperacute services in CDDFT is to address these concerns and to expect an improvement in the quality of care as a result of the proposed changes.

The Darlington OSC response did not mention the other part of the Sentinel Audit that looks at the organisation of care (Organisational Audit). The findings in the Organisational Audit highlight the need for improvement and need for change; neither unit can admit patients directly to hyperacute stroke beds; they do not provide 24/7 thrombolysis on each site; the service does not provide same/next day (seven days a week) assessment, investigation and treatment for TIA patients.

## **12.0 Feedback from the formal consultation**

Feedback from the formal consultation is provided in appendix 2.

A series of comments taken from feedback using online and hard copy questionnaires are included to indicate the range of views and concerns expressed, (see appendix 3).

## **13.0 Summary**

The public consultation on proposed changes to hyperacute stroke services has been a carefully planned exercise in moving towards a significant service improvement. Prior to and during the formal consultation NHS CDD has sought expert independent legal advice to ensure adherence to a comprehensive process.

There are four requirements for lawful consultation which are that:

- consultation should be at a formative stage in the decision-making process, that is the consulting body(ies) must have an open mind on outcome even if they have a preferred option,
- those being consulted must be given sufficient reasons for the proposals put forward and any requests for further information need to be carefully considered. If additional information is provided then consideration should be given to extending the period of consultation for proper responses based on the new information to be provided,
- the length of the consultation process must provide adequate time, usually 12 weeks for public consultation, so that those being consulted have a proper opportunity to consider the information and provide a response. It is important that public bodies do not delay consultation until the situation is urgent and action needs to be taken without the opportunity for proper consultation,
- in then making a decision after the consultation has closed, the decision-making public body(ies) must give “conscientious consideration” to all responses received during the consultation process.

In summary NHS CDD can demonstrate that:

- the four key tests have been met and there is evidence to prove this,
- the consultation was run in accordance with the relevant legislative framework,
- the *Equality Act 2010* has been followed accordingly.

### 13.1 Factors used in decision making

The Department of Health outlined in its *Real Involvement Guidance, 2008* that three key factors should be taken into consideration when reaching a decision. Figure 8 makes it clear why a consultation is not a referendum as commissioners have to consider a number of factors.

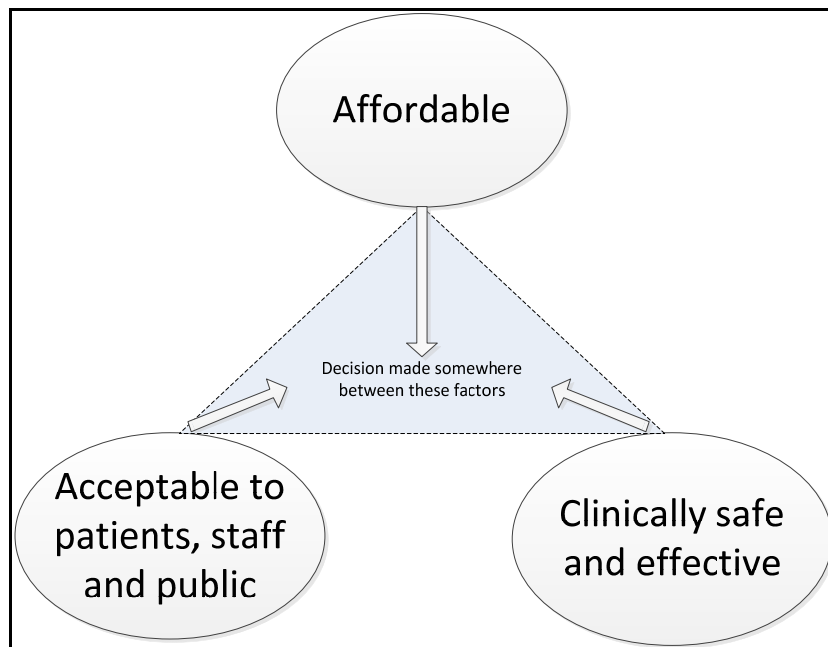


Figure 8 - Decision Making Formula – Real Involvement Guidance 2008

Based on the three key areas for decision making we can make the following conclusions:

In terms of **affordability** the key drivers for change associated with the development of hyperacute stroke service did not include a cost saving element. Nationally hyperacute stroke services are tariff based meaning that the cost for a package of care remains the same regardless of which site the provision is delivered from. The affordability argument has not been part of the decision making process in this case.

**Clinically** the case for change was outlined at the very start of this development programme. There are many national, regional and local drivers for change all of which focus on the need to meet quality standards in order to improve the outcomes for those who have suffered a stroke. The key driver for change is to ensure that 24/7 access to hyperacute stroke services is sustained for people of County Durham and Darlington,

ensuring that individuals can be admitted directly into a specialist stroke unit to receive high quality assessment and treatment in the right environment by the most appropriately skilled staff. Therefore reducing health inequalities and improving quality of life.

The consultation process has highlighted that the evidence base for a single site model has been accepted by a majority of the public who agree that doing nothing is not an option.

NHS CDD acknowledges that in terms of **acceptability** there is concern from members of the public as to where that site will be located, particularly in relation to travel times. In response this issues has been explored and analysed extensively. This has been fed back as part of the consultation process.

## 14.0 Conclusions

In seeking a balance across the three factors (outlined above), which take into account the clinical case for change and formal public consultation, it is proposed that to optimise outcomes for people suffering a stroke within County Durham and Darlington the following actions are required:

- **hyperacute stroke services to consolidated onto a single site within CDDFT,**
- **the location of this single site to be UHND.**

As the local commissioner of health services leading this consultation, NHS CDD has welcomed the opportunity to discuss these proposals with local people and organisations across County Durham and Darlington and the surrounding areas in order to gather as wide a range of views as possible.

NHS CDD had followed best practice in aiming to ensure that the consultation process has been transparent and open in presenting the clinical evidence and views which support both the proposal for a single site for hyperacute stroke services, and the preferred option for that site to be located at UHND.

## 15.0 Recommendations

The joint board is asked to:

- a) note the review of hyperacute stroke services prior to consultation which includes the clinical case for change,
- b) note the independently analysed outcome of the full public consultation on the proposals regarding the future of hyperacute stroke services in CDDFT,
- c) agree that hyperacute stroke services are consolidated onto a single site within CDDFT,
- d) agree that the single site should be UHND.