Acute Stroke Imaging and Intervention Meeting

Note of the meeting held at 63 Lincoln’s Inn Fields, London, WC2A 3JW on Thursday 15 October 2015 between 2:00pm and 4:25pm

**Present:** Dr Christopher Rowland-Hill (President, British Society of Neuroradiologists (BSNR)) (Chair)

Mr Jon Barrick (Chief Executive, Stroke Association (SA))

Dr Ajay Bhalla (Chair, Quality & Standards Committee, British Association of Stroke Physicians (BASP))

Dr Andrew Clifton, (Consultant Neuroradiologist, St George’s University Hospitals, President-elect, BSNR)

Professor Erika Denton (National Clinical Director for Diagnostics and Imaging, NHS England)

Professor Duncan Ettles (President, British Society of Interventional Radiology (BSIR))

Dr Richard FitzGerald (Vice President Clinical Radiology, Royal College of Radiologists (RCR))

Dr Damian Jenkinson (President, BASP)

Dr Robert Lenthall (Chair, Training and Education Sub-committee, BSNR)

Dr Cliff Mann (President, Royal College of Emergency Medicine)

Dr Giles Maskell (President, RCR)

Dr Norman McConachie (Chairman, UK Neurointerventional Group (UKNG))

Dr Anthony Pereira, (representing the National Clinical Director for Adult Neurology, NHS England)

Professor Anthony Rudd (National Clinical Director for Stroke, NHS England)

Dr Raman Uberoi (President-elect, BSIR)

Professor Philip White (Secretary, UKNG)

Ms Alexis Wieroniey (Deputy Director Policy and Influencing, SA)

**In attendance:** Mr David Christopher (Professional Standards Manager, RCR)

**Apologies for absence:** Apologies were received from Dr David Batemen (National Clinical Director for Adult Neurology, NHS England) and Dr Caroline Rubin (Medical Director, Education and Training, Clinical Radiology, the RCR).

# Welcomes

1.1 Dr Rowland-Hill (the ‘Chair’) welcomed everyone and thanked the RCR for hosting the meeting.

1.2 The Chair explained that, at this stage, he had decided to limit attendance at the meeting to representatives of bodies currently involved in providing stroke care, imaging services and interventional treatment. He therefore took personal responsibility if anyone present thought that other bodies should have been represented.

# Conflicts of Interest

No conflicts of interest were received prior to the meeting and none were declared at the meeting.

# Aims of the meeting

3.1 The Chair explained that the purpose of the meeting was to consider issues relating to the management and delivery of a safe cerebral thrombectomy service and, in particular:

## how a such service could be developed and delivered;

## how the anticipated increased demand for diagnostic imaging could be met.

3.2 Prior to the meeting, all attendees had received a copy of the latest version of the joint BSNR, BASP and Neuroanaesthesia Society of Great Britain and Ireland *Standards for providing safe acute ischaemic stroke thrombectomy services*. The Chair understood that the standards and recommendations contained in this document were generally understood and agreed. This was not disputed by any of the attendees.

# Issues relating to the delivery of a safe cerebral thrombectomy service

4.1 It was recognised that those attending the meeting had a significant and rare opportunity to influence and lead the process for identifying the need for such a service and defining how this could be developed and delivered. To do so, it would be necessary to:

## provide a united and compelling case for such a service to politicians;

## develop a plan/blueprint for the delivery of such a service;

## avoid disputes about professional boundaries and focus on how to provide the best possible service to patients;

## provide the leadership necessary to convince all the professionals involved to make the cultural changes necessary to deliver the required service.

4.3 It was noted that the Stroke Association was willing to provide support and, if necessary, assistance, but that it was looking to the professionals to take a lead in identifying a way forward that would be in the best interests of patients.

## 4.2 A number of issues relating to the delivery of a cerebral thrombectomy service where considered and discussed, including the following points.

## The number of patients that were likely to need this service.

* Where such a service should be delivered.
* Which professionals were best placed to deliver the treatment required and what was necessary to ensure that there would be a sufficient of them.
* Caseload necessary for a trained thrombectomy team to maintain skills
* How the increased demands for diagnostic imaging could be met.
* How the impact on other professional groups, for example nurses and radiographers should be addressed.
* The resource and equipment implications of delivering such a service.
* How long it would take to be able to deliver a 24/7 cerebral thrombectomy service.

4.3 It was estimated that the number of patients requiring workup for thrombectomy each year would be approximately 8,000-10,000.

4.4 There was general agreement that it would be helpful to set out a coherent framework/plan that would provide clarity about how the service could be delivered. However, it would be imperative to recognise that there needed to be flexibility, to allow different regions and localities to develop solutions that were appropriate for their health economy and population, and important to avoid setting targets that might result in unforeseen or perverse outcomes. If centres were supported to develop this service, and supported to do so by commissioners, it should be possible to spread good practice throughout the UK.

4.5 There was discussion about where such a service could be delivered. It was accepted that different models would be appropriate for different localities. Within England, the general consensus was that the Neuroscience Centres, a large proportion of which were co-located with Trauma Centres, were likely to be the most appropriate locations for delivering this service. Ninety percent of the English population are within 45 minutes travel time to a Neurosciences centre. Regions would need to develop their own services, but in many places a ‘drip and ship’ approach was likely to be required. As services were delivered and developed, good practice could be shared.

4.6 In terms of identifying the workforce to deliver cerebral thrombectomies, it was agreed that the focus should be on identifying those professionals best placed to deliver the treatment, the competencies that they would need and the associated training required.

4.6.1 It was accepted that Interventional Neuroradiologists were the most appropriate professionals to deliver this treatment, but there are insufficient numbers of them. Increasing training numbers and recruiting more Interventional Neuroradiolgists would, however, take a significant number of years.

4.6.2 Interventional Radiologists (IRs) were identified as the next group of professionals with relevant knowledge and an appropriate skill set that could be trained to deliver this treatment. It was noted that there were concerns about the size of IR workforce and its capacity to meet this challenge. Nevertheless, it was considered that there would be value in setting out the competencies required, together with the associated training, and then surveying IRs to see whether this approach was likely to provide a practicable solution. It was noted that Interventional Neuroradiology is already included in the IR curriculum. Going forward, training in the performance of cerebral thrombectomies could be delivered to IR trainees, thus helping to increase the number of professionals trained to deliver this treatment.

4.6.3 Cardiologists were identified as another group of professionals with endovascular experience, albeit in a different system, that might be trained to deliver this treatment. Given concerns about the ability of INR and IR to meet the demands, this group should be given further consideration. All the INRs present however, expressed reservations, particularly about training time required compared with e.g. consultant IRs or additional INR trainees.

4.6.4 There was some discussion about whether it would be possible to train non-medics to provide this treatment. It was concluded that morbidity/mortality rates associated with the treatment were likely to make this implausible. It was agreed that there were other areas where such individuals could be more appropriately trained and recruited to support delivery of the proposed service.

4.7 It was noted that the service would, inevitably, lead to increased demands on diagnostic services to deliver and interpret computed tomography (CT) and computed tomography angiogram (CTA) scans. There were concerns that the clinical radiologist workforce would be unable to meet the increased demand to interpret images. Possible solutions include interpretation to be undertaken by i) teleradiology services, utilising a network of radiologists proficient in the interpretation of the relevant neuroimaging and ii). stroke physicians. It was noted that image acquisition of CT scans had been included in the core curriculum for radiographers for some time and it would be worth exploring the possibility of including CTAs in addition, which would help to increase the workforce available to support the proposed service.

4.8 Delivery of the service would also have an impact on other professional groups, for example radiographers and nurses. In due course, consideration would need to be given to the impact delivering such a service would have on these professions and the steps that should be undertaken to support them to meet the challenges that they would face.

4.9 Although Neuroscience Centres had much of the equipment required to deliver this service, there would inevitably be increased demand and use of digital angiography equipment and in particular ready availability on an emergency basis. It was noted that cardiac angiography equipment would require costly modification to be made suitable for intracranial thrombectomy procedures. Consideration would therefore need to be given to the additional levels of investment required to ensure sufficient capacity to meet existing demand while delivering the new service.

4.10 It was accepted that models for delivering this service would vary throughout the UK and that there was likely to be variation in the timescales involved. However, it was generally accepted that, for England, if the Neuroscience and possibly Trauma Centres were used to deliver the service, it would be realistic to look to delivering a 24/7 service within five years..Stroke Thrombectomy service development has considerable human and financial resource implications. Issues along the entire stroke patient pathway need to be resolved through service transformation.

# Next steps

5.1 Further work is required to define protocols for patient selection, investigation and management including transfer and repatriation. **ACTION: PW/AR**

5.2 Professor White would give further thought to the impact such a service would have on diagnostic radiology and how this could be met. The RCR and SCoR would be involved in this work.. **ACTION: PW**

5.3 Professor Denton undertook to add a request for additional funding to support Interventional Neuroradiology in her submission for the next spending round.  **ACTION: ED**

5.4 Professor Denton would raise the issue of providing this service with colleagues in the Specialist Commissioning Team, so that this issue could be raised with commissioners.**ACTION: ED**

5.5 Professor Rudd would continue to encourage NICE to conduct a Technical Appraisal based on new trials in this area and to develop some sound health economics that would help to identify the longer term cost savings the proposed service could deliver.

 **ACTION: AR**

5.6 On behalf of BSNR, Dr Lenthall would lead work to set out the competency framework to be met by those who would perform cerebral thrombectomies, so that this could be submitted to the RCR for consideration and agreement in January 2016. He would also consider the length and format of training required to deliver this framework. Dr FitzGerald would discuss this matter with the RCR’s Clinical Radiology Officers and provide advice and feedback about this process. **ACTION: RL, RF**

5.7 Once the competency framework and associated training had been agreed, the BSIR would survey its members to see the level of interest among IRs, so that it would be possible to determine if, and to what extent, IRs could help to deliver the proposed service. **ACTION: RU**

5.8 Mr Barrick indicated that the Stroke Association would be willing to provide a room and secretariat to support future meetings, if that would be of assistance. This offer was gratefully accepted by the Chair. **ACTION: JB, AW**

# Date of next meeting

A date for a future meeting in January 2016 would be canvassed. **ACTION: CRH, DC**

CRH/DC/261115