

## Telemedicine Implementation: Issues for consideration

This list is not prescriptive but highlights some of the issues other telestroke system developers have identified as items of importance in the implementation of telemedicine for stroke.

### 1.1 Stakeholders – who needs to be involved?

	Role	Name, Telephone, E-mail
<b>Pan-organisational</b>	Regional Network Stroke Lead	
	Commissioning Lead	
	Telestroke Executive/Steering Group Lead	
	Regional Telemedicine Network Lead	
	Emergency Services	
	Regional Information Technology Lead	
<b>Trust</b>	Chief Executive	
	Finance Director	
	Telemedicine Lead	
	Stroke Specialist Lead	
	Radiology Lead	
	Stroke Nurse Practitioner/Consultant	
	Administration Lead	
	Training Lead	
	Information Technology/Technical Lead	
	Project Management	
	Research & Development	
	Business Unit	
	Marketing	
	Pharmacy Lead	
	Clinical Governance	
	Audit	
Switchboard Manager		

1.2 **Organisational Breakdown Structure** – review to ensure all stakeholders are included and strategies inclusive

1.3 **Stakeholder involvement**

<b>Role</b>	<b>History of involvement</b>	<b>Details of level of commitment, concerns, etc.</b>
Senior Management Team		
Emergency Department Consultants		
Emergency Nurses		
Stroke Physicians		
Stroke Nurses		
Neurologists		
Radiologists		
Information Technology/Technical		
Administration		
Telemedicine		
Porters		
Bed Managers		

## 2. Implementation

	YES	NO
Is there a workflow/timetable for implementation, resources, responsibilities?		

## 3. Clinical Information

	YES	NO
Is there current provision of day-time in-house service?		
Does the service meet the requirements of the stroke network?		
Does the 24/7 service have accreditation?		
Is a CT Scanner and staff available 24/7 with ability to scan in less than 30 minutes?		
Is the lab service available and able to communicate results within time limits 24/7?		
Can the patient be admitted to a hyper-acute stroke unit bed?		
Does the Trust use stroke best practice guidelines and are staff aware of documents?		
Does the ambulance service pre-alert for FAST (Face, Arm, Speech Test) positive patients?		
Is there a protocol for fast transfer to the Emergency Department?		
Is there a protocol for fast-track through the Emergency Department screening and triage?		
Is there a protocol for priority through CT scan?		
Is there a protocol/pathway for thrombolysis?		
Is there a protocol for complication management?		
Is there a protocol for tPA post-infusion care and monitoring?		

## 4. Financial Information

	YES	NO
Is funding in place for equipment purchase?		
Is funding in place for equipment installation (broadband, powerpoints, etc)?		
Is funding in place for training of all relevant personnel?		

5. Technical Information

	YES	NO
Has network infrastructure been agreed?		
Is there agreed and documented specification of standards, procedures and responsibility for organising: <ul style="list-style-type: none"> <li>• Equipment ordering/installation</li> <li>• Requirements for LAN wiring and bandwidth</li> <li>• Information Technology support for configuring and installing hardware</li> <li>• PACS scan/transmission</li> <li>• IP addresses, log-ins</li> <li>• Firewall configuration and encryption</li> <li>• Equipment certification and testing</li> <li>• Compatibility with Information Technology network infrastructure</li> <li>• Availability of adequate bandwidth for video/audio and scan, including home system using internet or phone access.</li> </ul>		
Is technical support for CT scanner available 24/7?		
Do staff have access to telemedicine system for training?		
Can videoconferencing and scan network traffic be prioritised?		
Is VPN traffic and firewall information available?		
Has an area for patient assessment and use of telecart been identified?		
Has space, clearance, floor surfaces and safety of environment been assessed?		
Is there full wireless internet access in the department?		
Is there an IT access point in case of contingency?		
Are there power supply points, fax and telephone access in case of back up need?		
Is there an agreed location for the telecart and connection points in all areas where used?		
Is there agreed responsibility for transporting telecart between departments?		

6. Staffing

	YES	NO
Are there sufficient skilled nursing staff on site to care for thrombolysed patients 24/7?		
Are sufficient physicians, radiologists, technical support staff available?		
Are staff trained in NIHSS, tPA and IV per shift?		

7. Clinical Performance Data

	YES	NO
Is current performance for time through system appraised?		
Is 6 months tPA and acute stroke code tracking data available?		