Aintree University Hospital, NHS Foundation Trust

Peer Support Visit Report

18th March 2013

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Background

Aintree University Hospital NHS Foundation Trust is a large, complex organisation providing acute health care to a population of 330,000 in North Merseyside and surrounding areas. The immediate catchment covers some 33 square miles which is largely urban and comprises the industrial and commercial centre of Bootle with its docklands complex. The Trust provides acute hospital services to the residents of South Sefton, North Liverpool and Kirkby. It is also a teaching hospital of the University of Liverpool and a tertiary centre providing some specialist services to a much wider population of around 1.5 million in Merseyside, Cheshire, South Lancashire and North Wales.

The population served by the Trust includes some of the most socially deprived communities in the country, with high levels of illness creating a high demand for hospital-based care, and also significant research opportunities. Merseyside has some of the worst rates for heart disease, stroke and cancer in the UK, and has also been associated with a culture among patients of low empowerment over their health status and a reliance on the availability of hospital care.

The Trust is a main teaching hospital and a large acute hospital providing Accident & Emergency services, including Regional trauma services and a wide range of acute and non-acute specialties. Services transferred from Walton when the £30 million Elective Care Centre opened at University Hospital Aintree in 2010.

The Trust is one of the largest employers locally with around 3,758 WTE staff. It has been re-accredited with the Investor in People Award in recognition of its workplace policies and practices and is held up as a national exemplar for employee engagement. It has a bed complement of 860 inpatients beds and 105 day case beds. The Trust has fixed assets of almost £142 million and an annual income of £225 million. The Trust handles over 76,500 episodes of inpatient and day case care per annum, over 280,000 outpatient attendances (around 85,000 of which are new patients). More than 85,000 patients attend the Accident & Emergency Department.
Stroke services at Aintree have a long established tradition of providing high quality, comprehensive stroke care. The Unit is recognised for sustained innovation and participation in diverse areas of research, which have helped shape the provision of stroke care. This is coupled with a strong ethos of education and training, which lead to the development of Stroke Fellowships, which can be incorporated into Geriatric Medicine Specialist Registrar training programmes.

The Aintree Stroke Centre is a 29 bedded combined unit based on ward 33. The service currently admits approximately 520 patients per year. The length of stay is in the region of 9 days, with discharges supported by proactive use of Early Supported Discharge Teams, which are able to provide support for 90% of patients. The Unit was the first centre in Cheshire and Merseyside to provide 24/7 thrombolysis treatment for acute stroke and currently has hyperacute accreditation. At present 10 – 15% of eligible patients are thrombolysed, which is comparable to other centres. A Rapid Access TIA service is provided 7 days per week, with a ‘one-stop’ clinic operating Mon-Fri. This aspect of the services receives 60 – 70 referrals per month.

The commitment to research is maintained, with the Unit currently participating in 10 multicentre trials. The Unit is a member of the North West Stroke Research Network.

The stroke service is staffed by 4 WTE consultants

Dr Anil Sharma
Dr Raj Kumar
Dr Ramesh Durairaj
Dr Claire Cullen

There is also sessional input from Dr Sekhar, who is a neurologist based at the Walton Centre

The consultants are supported by 7 stroke specialist nurses? And 2 research nurses? There is 1 Stroke Fellow at SpR level
**Introduction**

Cheshire and Merseyside Cardiac and Stroke Network have introduced a peer support visiting scheme, the purpose of which is to explore and share good practice, among all the stroke units, within the Network.

The visiting team included medical consultants from Stroke, and Radiology, Physiotherapists, Occupational Therapists, Speech and Language Therapists, representative from The Stroke Association, Stroke Specialist Nurses, Managers from a variety of specialty areas and an Advanced Paramedic. The day comprised an introductory meeting with members of the Executive Team and Stroke Clinical Lead, followed by visits to all the component parts of the stroke service.

All members of the visiting team felt the visit had gone very well, and enjoyed it immensely. We were very impressed with the team work and very obvious commitment of all the people we met, to develop and deliver the highest quality services for stroke patients. The following report is based on the meetings the team had with the various departments, and their subsequent feedback. The majority of findings were presented to the Trust, on the day of the visit. We hope this report helps Aintree University Hospitals to continue to develop their stroke services.

**National Sentinel Audit Results**

The National Sentinel Audit is a bi-annual event, which involves all Trusts in the country, contributing data on their stroke services. The data set allows for benchmarking against the standards set out in the Royal College of Physicians Stroke Management Guidelines, and against other Trusts, regionally and nationally.

The audit is in 2 parts; an audit of the organisation and an audit of process. The process audit is conducted by a retrospective review of the case notes of the first 60 consecutive admissions with stroke from April 2010.

Below is a summary table of the Sentinel audit results for 2010, for the Network Trusts, with the organisational scores as of 2010. The 2012 organisational audit results have been released in December 2012 and each Trust will be analysing their own results.

The organisational score for Aintree in 2012 was 82 which placed the Trust in the upper range of the national table. This position has been maintained from the 2010 upper quartile position.
### National Sentinel Audit Results

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<th>National Results</th>
<th>Number of cases in the audit</th>
<th>Screening for swallowing disorders within 24hrs after admission</th>
<th>Brain scan within 24hrs of stroke</th>
<th>Physiotherapy assessment within 72hrs of admission</th>
<th>Occupational therapy assessment within 4 days of admission</th>
<th>Patient weighed during admission</th>
<th>Patients mood assessed during admission</th>
<th>Rehabilitation goals agreed by discharge</th>
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<th>Aspirin or clopidogrel by 48hrs after stroke</th>
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Table 1B is a continuation of Table 1A. The overall position is calculated from the total process score from each site. This is an aggregated score across all domains with the top 25% of scores represented by the ✓ symbol, the middle half designated by the ◆ diamond and the bottom 25% designated with the × symbol. * a high score denotes less good patient care
The process audit can be summarised by analysing the ‘nine key performance indicators’. In the 2010, Aintree maintained its position to the upper quartile of Trusts.

We have maintained the above format for the report to allow for consistency with reports generated by previous visits, for this round of peer support visits. The central data collection has now changed to SSNAP, which utilises different data sets and is yet to produce a comparative report.

**Overview of Aintree Stroke Pathway**

All patients with stroke are admitted through the A&E Department. A Stroke Nurse Clinician is available to attend to the patient on arrival, having been alerted by forward warning from the ambulance team, or ‘fast bleep’ from A&E Triage Nurses. The Stroke Nurse Clinician starts the process of the stroke admission, with history and neurological examination, organising urgent investigations – CT scan, and assessing suitability for thrombolysis.

The aim is to admit all confirmed stroke patients to the Acute Stroke Unit, which is an integral part of the Aintree Stroke Centre, based on Ward 33, within 4 hours of admission. Patients eligible for thrombolysis have direct admission into ‘protected beds’, and are thrombolysed on the Unit, as per thrombolysis pathway.

Consultants are available to provide the thrombolysis service 24/7 on a 1 in 5 rota.

There are daily consultant ward rounds, reviewing all new admissions and daily MDT ‘board’ rounds.

Patients are monitored in the Acute Stroke Unit for 48 hours and then progress to more ‘formal’ rehabilitation, within the rest of the Centre. Extra capacity within the stroke services can be created by accessing beds on Ward 34.

An outreach early Supported Discharge Team provides support for patients from Liverpool and South Sefton catchment areas, whereas Knowsley residents are the responsibility of the Knowsley in-reach Early Supported Discharge Team. Each team aims to provide a seamless transition from hospital to home, with on-going rehabilitation for up to 12 weeks.

Post discharge patients are reviewed at 1, 3, 6 and 12 months in the stroke review clinic.
**TIA Service**

Referrals from GP or A&E sent to single point of access, which allows the Stroke Nurse Clinicians to co-ordinate and allocate appointments according to urgency. A referral proforma is in used for standardisation, utilising the ABCD2 score for determining whether or not patients are high or low risk. High risk patients are seen within 24 hours of referral. Low risk patients are seen within 7 days of referral.

Service is available daily, with a 'one-stop' service operating Mon – Fri. Weekend referrals are seen in AED or on the Acute Stroke Unit by the on call consultant. Consultant cross cover arrangements are in place ensuring clinics are maintained and all high risk TIA patients rapidly assessed.

For eligible patients, rapid referral to vascular surgeons occurs for consideration of carotid endarterectomy.
A&E Department

The visiting team were:

Dr Valerie Gott - Stroke Associate Specialist, Wirral University Teaching Hospital NHS Foundation Trust
Lynn Naylor – Stroke Specialist Nurse Lead, St Helens & Knowsley Teaching Hospitals Trust
Paul Brennan – Advanced Paramedic, North West Ambulance Service (NWAS)

All the visitors were made to feel welcome by the A&E staff and found their interaction enjoyable and informative.

The A&E Department (AED) is the main point of access for patients presenting with acute stroke, although some GP referrals can bypass AED. A close working relationship has developed between AED and the stroke team which allows for rapid triage and assessment of stroke patients, with the aim of rapidly admitting patients to the Acute Stroke Unit (ASU), where thrombolysis can be delivered when eligible.

Stroke Nurse Clinicians (SNC) are available 24/7 and receive urgent referrals from AED triage nurses, who may have a pre-alert from NWAS for FAST positive patients. Unfortunately, the quantity and quality of information from the pre-alert is limited and this is clearly an area for improvement.

An excellent working relationship has developed, founded on mutual respect, between the SNCs and senior AED nurses, who will often commence the assessments in lieu of SNC arrival. Although confirmation of stroke is required from a medical assessment using the ROSIER score, such a review can be difficult to obtain and delays transfer to the Acute Stroke Unit, within the 4 hour target.

Thrombolysis is a time sensitive treatment with enormous effort generated to reduce ‘door to needle’ times. Some of this effort appears to be hampered by delays in registering patients onto the hospital PAS system and also the geographical locations of AED, CT and ASU. More accurate data and specific analysis of this part of the pathway is required to optimise the delivery of care.

In common with other Trusts, AED has experienced a rise in attendees, with the attendant problem of ‘surges’ in patient numbers, particularly in early and late evening. The increased competing interests of other specialties make continued high prioritisation of stroke difficult. This inadvertently leads to high volume of non-stroke referrals to stroke services. However there is a robust TIA pathway and the availability of ‘TIA medication’ within AED allows for prompt management of this group of patients.

AED priorities have also been impacted upon by the development of the Regional Trauma Unit at Aintree, which has contributed to some of the above issues.

Training and education are essential for the provision of high quality care and there has long been a quality education programme within AED, for stroke, including specific modules within the junior doctors formal training programme.

The implementation of the Trauma Unit led to a brief interruption of this programme but it’s resumption in April 2013 is an opportunity to re-energise and reprioritise stroke within the A&E
Department. There is also an opportunity to review current liaison with the wider health economy and look to ‘re-launch’ stroke services as part of this educational initiative.

Close working relationships have developed with the Walton Centre, which have been enhanced by the creation of the link bridge and the continuing consultant neurologist sessional input to stroke services.
Imaging & Vascular

The visiting team were;

Dr Manika Jayawardena – Consultant Radiologist, Warrington and Halton Hospitals NHS Foundation Trust
Karen Attwood – Stroke Nurse Specialist, St Helens and Knowsley Teaching Hospitals Trust
Roger Jones – Advanced Paramedic, North West Ambulance Service

All the visitors were made to feel welcome by the Radiology staff and found their interaction enjoyable and informative.

Support from the Radiology Department is essential for the management of stroke and TIA. It was apparent to the visiting team that there are strong, close, personal working relations between the stroke team and Radiology Department.

Robust standard operating procedures are in place for the use of CT / MR which allows for efficient utilisation of the scanners (currently 2 working in conjunction) and reduces the risk of delay when urgent scans are requested. The availability of a resident radiographer and the ability of the SNCs to order scans further reduces the scanning time. The scans are reported by a radiologist real time (‘hot’ reporting) which adds to the quality of the initial assessment and aids initial management decisions.

The impact of the Regional Trauma Unit in terms of workload, increased need for imaging and relocation of a CT scanner to AED, will need to be monitored to ensure there is no detrimental impact on stroke care.

A further regional re-organisation has occurred with the centralisation of vascular surgery at the Royal Liverpool and Broadgreen University Teaching Hospitals. There is concern that this will adversely impact on the current close relations and MDT working of the radiologists, vascular surgeons and stroke team.

However the current system appears in need of review. There is currently one ultrasound machine available for carotid imaging, which limits the service to Mon – Fri. Weekend carotid imaging requirements can be partially met with the use of CT angiography. The service seems dependent on two vascular technologists, one of whom is just completing their training. The high volume of activity, much of which is urgent, is maintained through the ‘goodwill’ of the individuals, but does not appear sustainable in the long term and does not have any flexibility for sickness and other absence. The funding of this service seems unclear and the proposal to move managerial responsibility for the vascular technologists to the Vascular Directorate may ensure more robust accounting and secure funding, thereby allowing for necessary strategic expansion of the service.
The visiting team were:

Jeanette Hunt – Assistant Regional Manager, Stroke Association
Alastair Houghton – Programme Lead (Stroke), Cheshire and Merseyside Clinical Networks
Karen Fletcher - Directorate Manager, Gerontology and Rheumatology, Royal Liverpool and Broadgreen University Teaching Hospital

The visitors were made to feel welcome by the ASC and research staff and found their interaction enjoyable and informative.

The Hyperacute / Acute Stroke Unit is housed on Ward 33 as part of the 29 bedded combined Aintree Stroke Centre. There is an established pathway for direct admissions into 2 protected beds (1 female, 1 male) in the hyperacute bay to facilitate the delivery of thrombolysis. However stroke unit beds are generally not ‘ring fenced’ and the variable priority placed on directly admitting stroke patients from AED leads to delays in patients reaching the preferred place of care and under performance against national targets. Conversely due to the relatively high patient throughput, it is not unusual to have non stroke patients cared for on the Unit, as these are the only available beds. It is possible that direct control and utilisation of the beds, by the stroke team will lead to more effective use of this resource. Implicit in such an arrangement, is that the stroke unit beds are ‘protected’.

The high throughput and intensity of patient care create a heavy workload, especially for nursing staff. There has been concern that staffing levels are sub-optimum particularly at weekends when numbers are decreased. This is possibly reflected in a significant degree of staff turnover, although some of this has clearly been due to career progression. Morale has been compromised and this is exacerbated by the tendency to move trained nursing staff to other wards as the need arises. This has been recognised by the ward manager, who in conjunction with the consultants, have initiated a training needs analysis and instituted a formal education and training programme for the Unit nursing staff. Active recruitment into the Unit is also underway. Trust management support has also been essential in helping to rectify the issues.

The Unit displays a strong multi-disciplinary team ethos, which promotes very early involvement of relatives, in the rehabilitation process. Although pro-active management and early involvement of Early Supported Discharge Teams help maintain patient throughput, the lack of a stroke specific social worker does hamper the efficiency of team working. The benefits of the Stroke Association are well recognised by the team, but their availability has been reduced due to changes in funding, and this too, has the potential to interfere with the overall quality and efficiency of the service.

The reconfiguration of vascular services is of concern, as lines of communication and appropriate referral pathways have not been fully established. This may lead to delays in accessing appropriate intervention and also the ability to repatriate patients transferred to the Royal. The situation is being closely monitored.

The visitors were impressed by the strong desire to provide high quality, patient centred, evidenced based care and this is reflected in the substantial commitment to research and the willingness to innovate in the rehabilitation process. There are 2 research nurses actively
assessing patient suitability for participation in 10 trials (with further 2 pending). Funding issues can be problematic and the recent loss of the research manager’s post will need to be monitored for the impact on the quantity and quality of research participation.
Acute & Rehab Therapies

The visiting team were:

Bindi Patel – Highly Specialised Speech & Language Therapist, Royal Liverpool & Broadgreen University Hospitals NHS Trust
Alison Swanson – Rehabilitation and Discharge Manager, Countess of Chester NHS Foundation Trust
Ruth Witham – Clinical Specialised Physiotherapist, Warrington & Halton Hospitals NHS Foundation Trust

All the visitors were made to feel welcome by the therapists and found their interaction enjoyable and informative. The therapists interviewed represented physiotherapy, occupational therapy, and speech and language therapy.

To function effectively it is essential there is close interaction within the multidisciplinary team. It was immediately clear to the visitors that the stroke unit contains an established team which displays strong, close working relationships. There is excellent communication enhanced by therapists participating in nursing handover, mutual trust and respect of all team members. The development of in-house training programmes, including integrated SSEF training and the early involvement of patients and family in goal setting objectives allow the essential focus on high quality individualised patient care to be maintained. It is to the team’s credit that this core principle is sustained in an increasingly high throughput, acute environment.

There have been notable changes in practice with an increased use of bridle naso-gastric tubes reducing the requirement for PEG insertion, and increased cognitive screening, reflecting the growing awareness of the importance of the adverse psychological consequences of stroke. This latter aspect has been augmented by the recent availability of 4 sessions of dedicated clinical psychology time. It is therefore essential that the training programmes are maintained as benefits are already apparent.

The team are aware of the need to demonstrate the effectiveness of the service and the desire to extend activity to 7 days. Despite the limited numbers, the PTs and OTs have extended their working week to provide 7 day services, but unless numbers are increased in the medium to long term, this is unlikely to be sustainable. At present there has been no deterioration in therapy response times and quality of intervention is maintained. However there are concerns that some of the data collected and recorded does not necessarily reflect the quality of service provided. Although some of this data is mandated by participation in SSNAP, it may be necessary to agree and focus on more relevant quality markers, which will aid future resource negotiations.

Effective discharge planning is essential to maintain throughput and achieve quality, sustainable, safe discharges. This process is hampered by the lack of social worker input. Due to the complex nature of stroke discharges, it is likely that significant amounts of therapy and nursing time is being used to compensate. It would therefore be beneficial to ensure regular input from social services, preferably stroke specific, with the possible introduction of a discharge co-ordinator to ensure effective, efficient discharge planning.
**Neuropsychology and Review Clinics**

**The visiting team were:**

Karen Fletcher – Directorate Manager Gerontology and Rheumatology, Royal Liverpool & Broadgreen University Teaching Hospital Trust  
Karen Attwood – Stroke Nurse Specialist, St Helens and Knowsley Teaching Hospitals Trust  
Roger Jones – Advanced Paramedic, North West Ambulance Service

The visitors were made welcome by the neuropsychology team and found their interaction informative and enjoyable.

The adverse psychological impact of stroke is an important aspect of stroke care, but is unfortunately under provided. The availability of dedicated neuropsychological input is therefore of tremendous benefit to patients, family members and the service as a whole, which is fully appreciated by all members of the stroke team.

Clinical Psychology has been embedded in the MDT ethos of the team since 2004. Inpatient needs are quickly identified by nursing / therapy staff, leading to rapid psychological assessment. Joint working with, and feedback to, other members of the MDT enhances the comprehensive approach to rehabilitation and creates a culture of continued learning and development of all members of the team.

Outpatient referrals are received through a variety of channels using defined protocols. The increasing recognition of psychological problems and their long term impact leads to increasing workload and it is therefore an encouraging development that 4 sessions of qualified clinical psychology time have been secured.

The review clinics aim to see patients at 1, 3, 6, and 12 months post discharge. The clinics aim to provide a ‘one stop’ service with access to medical, therapy, psychology and Stroke Association inputs, as the needs of the patients and carers require. The unavailability of social service input to the clinic does impair the comprehensive approach to patient care.

Innovative aspects of the clinics are the development of anticoagulant monitoring for stroke and TIA patients, spasticity assessments and botox treatments, recruitment into the Aintree Patient Experience Group and the Merseyside Young Stroke Information Group.

The clinics have traditionally had strong consultant input particularly for the 1 and 3 month reviews. However there appears to be increasing time management issues due to the need to provide the thrombolysis service. It was commented however that consultant time in the clinic has been utilised more effectively with the availability of clinical psychology.

A constant theme is the burgeoning workload that now exceeds the capacity of the clinics. This particularly seems problematic for the Tuesday clinics and some re-organisation is necessary to relieve this pressure and maintain the high quality provided by the service.
Early Supported Discharge

The visiting team were:

Bindi Patel - Highly Specialised Speech & Language Therapist, Royal Liverpool & Broadgreen University Hospitals NHS Trust
Alison Swanson – Rehabilitation and Discharge Pathway Manager, Countess of Chester NHS Foundation Trust
Ruth Witham – Clinical Specialist Physiotherapist, Warrington and Halton Hospitals NHS Foundation Trust

The visitors were made welcome by the Early Supported Discharge Team and found their interaction informative and enjoyable.

The Aintree ESD team provides outreach services to patients from Liverpool and South Sefton. Patients from Knowsley are supported by an in-reach ESD team. This part of the report relates to the Aintree service.

The team is comprised of physiotherapists, occupational therapist and assistants, with sessional input from dietetics and speech and language therapy. There is no specific input from social services and the absence of dedicated nursing input is also detrimental to the comprehensiveness of service provided. The team can access psychology via direct referral. The development of the service has been hampered by lack of secure funding as both Liverpool and South Sefton commissioning groups have only committed funding for 'pilot' studies. This has led to uncertainty, reduced morale and the inability to strategically develop the service.

The team is integrated into the Aintree Stroke Team with communication enhanced by the sharing of offices, on site, with the other therapists. Currently >90% of patients receive input, with referrals being assessed within 24hrs, thereby optimising the discharge planning. The 'seamless' nature of the service is characterised by >90% of patients being treated at home within 24hrs of discharge. Unfortunately this service is only available 5 days / week, and any future expansion will be dependent on funding.

There is evidence for success of the team in terms of bed days saved and reductions in packages of care following completion of ESD intervention, but more robust data collection and analysis is required to demonstrate the global benefits of the service. This will require dedicated admin and IT support, but the demonstrable benefits will help in negotiations to secure funding and allow for strategic development of the service.

Improved data collection and analysis will also help to differentiate the distinctions between ESD and other community services. The seamless nature of the transitions of care have led to a blurring of services provided by community teams and ESD, with the effect that an already under resourced ESD team is providing extended input to compensate for a lack of community care. This clearly limits the flexibility of the ESD team in terms of extending the provision of service to 7 days, and also has significant resource implications, in terms of finance and manpower.
TIA Services

The visiting team were:

Lynn Naylor – Stroke Specialist Nurse Lead, St Helens and Knowsley Teaching Hospitals Trust
Dr Valerie Gott - Stroke Associate Specialist, Wirral University Teaching Hospital NHS Foundation Trust
Dr Manika Jayawardena – Consultant Radiologist, Warrington and Halton Hospitals NHS Foundation Trust

The visitors were made welcome by the representatives of the TIA service and found their interaction informative and enjoyable.

TIA services provide an outpatient facility for the rapid assessment and management of patients with suspected TIA or minor stroke. This is a 7 day service, with a ‘one stop’ approach in operation Mon – Fri. There is excellent imaging support to enable this ‘one stop’ approach, but this is limited to 5 days. The weekend service is dependent on the on call consultant seeing patients in AED or on the acute stroke unit. Carotid dopplers are unavailable at weekends, in which event CT angiography is employed, where indicated.

Referrals are accepted from GP or AED using a standardised proforma. The referrals are coordinated by a clinical nurse specialist and risk assessed using the ABCD2 score. In keeping with the experience of other rapid access clinics, large numbers of non-cerebrovascular events are seen in the clinic and this emphasises the need for continuing educational programmes and review of service provision.

To facilitate this, the current pathway needs to be updated and a review of the data set and accuracy of the information needs to be undertaken to ensure the quality and effectiveness of this service is fully realised and promoted.

The impact of the vascular service reconfiguration is being monitored with respect to carotid endarterectomy. Previously excellent lines of communication and rapidly responsive vascular surgical input are now threatened and newer pathways will need to be developed.
Patient & Carers Group & Stroke Association

The visiting team were:

Jeanette Lunt – Assistant Regional Manager, Stroke Association
Alastair Houghton – Programme Lead (Stroke), Cheshire and Merseyside Clinical Networks
Paul Brennan – Advanced Paramedic, North West Ambulance Service

The visitors were made welcome by the representatives of the patient and carer group and found their interaction informative and enjoyable.

Aintree stroke services have a Patient and Carer Experience Group which was established in 2010. This group provides a valuable insight and feedback into the scope and quality of service provision. This group has witnessed continuing, sustained improvements in all aspects of stroke care, over the past decade. The group highlighted the range and quality of information provided, particularly regarding benefits and the responsive after stroke support. The group has benefitted tremendously from regular consultant input.

The power and influence of the ‘consumer’ opinion has been recognised by the Trust Executive. As a result the group has representation on the Trust Board where important issues such as transport arrangements, disabled access and extended psychological support can be addressed.

Concerns have been raised over the reduction in Stroke Association funding, with the attendant reduction in their presence at MDT meetings and stroke review clinics and the consequent negative impact on their advisory and support services.

Good community networks have been developed and schemes such as ‘Zest for Life’ have been particularly beneficial. However 30% of referrals to the Stroke Association are younger strokes of working age and it is apparent that services and facilities are under provisioned for this group of people. This is an area in need of improvement by the health economy as a whole.
Recommendations

1. Education / ‘Re-launch’ Stroke Services

   - refocus stroke as emergency priority
   - continuing education and training in AED, Primary Care and NWAS
   - full engagement of Commissioners and Social Services

2. Review Admission Process

   - information from NWAS / use of FAST
   - registration on to Trust PAS system. Liverpool Heart and Chest Hospital systems cited as good practice.
   - review thrombolysis pathway. Although the Network does not specifically promote pharmaceutical companies, Boehringer Ingelheim are offering to facilitate this type of review, which has been utilised by St Helens and Knowsley

3. Explore Capacity Management

   - developing 7 day service, imaging, therapy, ESD
   - review staffing levels and skill mix – stroke specific dependency audit
     - vascular technician
     - social worker
   - utilisation of stroke beds - ?ring fencing
   - TIA clinic capacity and structure

4. Data

   - review current data collection and ensure maximal utilisation of results to inform future service requirements and development particularly regarding TIA services and ESD
   - improve IT and admin support
   - monitor impact of vascular reconfiguration

5. Financial

   - review of funding for ESD. Needs long term security allowing for strategic service development.
   - review funding of vascular technologist
   - review funding for Stroke Association
Summary

The visit to the stroke services at Aintree University Hospitals, NHS Foundation Trust was undertaken as part of a series of peer support visits conducted by the Cheshire and Merseyside Clinical Network (Stroke Network).

The Stroke Team is clearly well-motivated and enthusiastic, with a strong desire to develop, improve and extend the range of services provided. This strong commitment and ambition needs to be harnessed by the Trust, to aid the strategic, integrated development of stroke services, in partnership with Clinical Commissioning Groups.

Aintree Stroke Services have a rich tradition and strong foundations upon which to build such partnerships, as reflected by the consistent upper quartile organizational scores, in the Sentinel Audits. However, it is apparent that the immense pressures being created by increasing demand, service reconfiguration and financial austerity, are causing strains in the service, which may affect quality and efficiency if not proactively managed.

The visiting team was very impressed with the dedication, enthusiasm and commitment of the stroke team and would like to thank all those who participated and were willing to share good practice.

We hope you find this report of benefit in the continuing development of Aintree stroke services.
## Appendix 1

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<th>Peer Support Visiting Team</th>
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<td><strong>Stroke Associate Specialist</strong></td>
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<td><strong>Stroke Nurse Specialist</strong></td>
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<td><strong>Clinical Specialist Physio</strong></td>
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<td><strong>Stroke Specialist Nurse Lead</strong></td>
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<td><strong>Directorate Manager Gerontology &amp; Rheumatology</strong></td>
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<td><strong>Rehabilitation and Discharge Pathway Manager</strong></td>
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<td><strong>Assistant Regional Manager</strong></td>
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<td><strong>Directorate Manager Respiratory &amp; COPD</strong></td>
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<td><strong>Consultant General Radiologist</strong></td>
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<td><strong>Highly Specialised SLT</strong></td>
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<td><strong>Programme Lead for Stroke</strong></td>
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<td><strong>Advanced Paramedic</strong></td>
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## Peer Support Hosting Departments

### A&E
- Dr Raj Kumar, Consultant Stroke Physician
- Heather Holyland, Stroke Nurse Clinician
- Karl Hough, Paramedic
- Chris Stevenson, Consultant in AED
- Angie Slade, Matron, AED

### Imaging & Vascular
- Dr Jolanta Webb, Consultant Radiologist
- Karen Irwin, Cross Sectional Imaging Manager
- Natalie Watson, Vascular Scientist

### Stroke Centre and Stroke Research
- Helen Isik, Ward Manager, Aintree Stroke Unit
- Debbie Martin, Deputy Ward Manager, Aintree Stroke Unit
- Zoe Mellor, Stroke Research Nurse
- Sarah McCann, Physiotherapist
- Debbie Montgomery, Occupational Therapist
- Dr. Ramesh Durairaj, Consultant Stroke Physician
- Dr Claire Cullen, Consultant Stroke Physician

### Therapies (Acute and Rehab)
- Geralyn Lennon, Clinical Specialist, Occupational Therapy
- Helen Evans, Physiotherapy Manager
- Sarah McCann, Physiotherapist
- Debbie Montgomery, Occupational Therapist
- Lucy Leadbetter, Dietician
- Rachael Mitchell, Speech Therapist

### Post Stroke Services – Neuropsychology / Stroke Review Clinic
- Joan McGuiirk, Consultant Clinical Psychologist
- Jackie O’Hare, Acute Rehabilitation Day Unit Manager
- Sharon Smyth, Clinical Nurse Specialist (Stroke)
- Dr Raj Kumar, Consultant Stroke Physician

### Early Supported Discharge Team
- Jane Hogan, Occupational Therapist
- Rebecca Bateman, Speech and Language Therapist
- Simon Curran, Senior Physiotherapist
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<tr>
<td>Kate Charles, Stroke Association Information/Advice Support Co-ordinator</td>
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<tr>
<td>Jeanette Swift, Stroke Association Information/Advice Support Co-ordinator</td>
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<tr>
<td>Patient representation and family members</td>
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