Contents

Summary 3
National Context 4
Strategic Objectives of the Neuro Network 4

Projects within the Neuro Network
The Headache Pathway 6
The Seizure Pathway 8
Consultant Advice Line 9
Nurse Advice Line 10
Integrated Neurology Nurse Specialists 12
Satellite Development 14
Functional Neurological Disorder Clinics 15
Teleneurology 16
Maturing Spinal Networks 18
Implementing the National Back Pain Pathway 19

Where are we heading? 20
Evaluation 22
How can you be involved? 23
Further Information 23
**Summary**
The Neuro Network is a partnership of organisations led by The Walton Centre NHS Foundation Trust to improve services for patients with long-term neurology conditions and spinal problems.

We believe that communicating and engaging with patients, carers, commissioners, other providers, GPs, our workforce and other stakeholders is key to achieving our vision:

> People with neurology or spinal problems will receive the appropriate clinically effective timely care and support, to assured quality and standards, wherever they live, via local access points, and have an efficient and person-centred experience, promoting quality of life and empowerment for self-care.
National context
The Neuro Network was chosen to lead an Acute Care Collaborative Vanguard under NHS England’s New Models of Care Programme. Vanguards will find new ways of working that can close the widening gaps in the health of the population, improve the quality of care, and improve the funding of services to make sure they are cost-efficient. This is in line with the aim of the NHS Five Year Forward View.

Strategic objectives
The strategic objectives of The Neuro Network are:

• To achieve a clinically and financially sustainable integrated neurology service by enhancing community support, clinical pathways, advice and support for primary and secondary care and embedding self-care and self-management.
• To implement a whole system spinal services network, embedding the National Back Pain Pathway - new evidence based guidance for back pain treatment and referral.
• To develop a model that will be replicable by other providers and across other specialties.

There are up to 10 million patients in the UK with long term neurology conditions and only around 600 consultant neurologists*. The Walton Centre has been delivering neurological care via a ‘hub and spoke’ model for many years. This means care is delivered in local district general hospitals (DGH) and community settings (satellite clinics or ‘spokes’) as well as the main hospital The Walton Centre (the hub). This way of working means neurologists’ expertise can be spread across a wider area and allow DGHs to offer a neurology service on site.

The Network is strengthening neurology outpatient satellite services and ward consultation services currently provided across Cheshire and Merseyside through a number of projects. The NHS spends about £2 billion a year on back pain and about £300 million on spinal surgery and there is a 7% increase year on year in activity and cost with considerable variations in practice. The Network will also help tackle the high burden of back pain on the NHS and provide more equitable, standardised care for spinal patients.

Key benefits of the programme:

• Earlier diagnosis and treatment will allow more effective management of long term neurological or spinal related conditions
• Services working together as a network will ensure equal access to consistent, high quality care
• Provision of care closer to home

* Source: Local adult neurology services for the next decade; Royal College of Physicians/ Association of British Neurologists; June 2011
We have developed guidelines that GPs can use to help them in making a decision whether to refer patients with headache to specialist services at The Walton Centre or to manage them within primary care.

Outline
The referral rate for headaches is increasing year on year, with around 1,000 new referrals per year in addition to the current 5,000 referrals. This project has been undertaken by The Neuro Network Vanguard to reduce the number of unnecessary referrals to The Walton Centre specialist centre for headache/simple migraine and provide care closer to home.

The project is embedding the Headache Pathway, which is a set of guidelines for GPs, across all Cheshire and Merseyside General Practices, through local networks; supporting GPs to manage the condition, thus reducing the number of patients being referred unnecessarily to the specialist centre and attendances at A&E departments. Additionally, the pathway will assist GPs in the diagnosis, treatment and referral process for migraine.

Benefit
The project offers both long and short term benefits for patients and GPs across Cheshire and Merseyside; improving efficiencies and cost-effectiveness across primary, secondary and tertiary care, allowing more inpatients and outpatients to be treated in response to patients’ needs and growing demands.

In addition to the reduction in referrals to the specialist centre, attendances at A&E and improvement in the diagnosis, treatment and referral processes for migraine; patient and GP experience will improve as treatment and intervention will be more appropriate, timely and consistent across Cheshire and Merseyside. GPs will become more autonomous partners in the care and management of patients presenting with headaches and migraine.

Timeframe
By August 2017 the planning will be in place in Cheshire and Merseyside CCGs.
We have developed a pathway that emergency departments can use when considering the best treatment option for patients presenting with seizure, helping them to make a rapid referral to a specialist clinic.

Outline
This project has been undertaken by the Neuro Network Vanguard to ensure all patients who present with seizures at A&E departments located across Cheshire and Merseyside district general hospitals (DGHs) are referred rapidly and effectively to the most appropriate treatment. This, in turn, will; reduce unnecessary admissions to DGHs, reduce the use of inappropriate medication and fast track patients to the right care, at the right time, in the right setting.

The project is embedding the Post Seizure Pathway (a set of guidelines) across all Cheshire and Merseyside DGH A&Es; supporting A&E colleagues to manage the condition more effectively, to treat patients promptly and accurately, reduce unwarranted intervention and improve patient experience and satisfaction, optimising the best use of resources.

Benefit
The project will offer both long and short term benefits for patients and A&E colleagues across Cheshire and Merseyside. In addition to improving the patient journey and improving cost effectiveness, it is expected that increased use of the Post Seizure Pathway in A&Es, will lead to:

- Improved uptake of A&E colleagues attending post seizure educational sessions
- Increased appropriate first seizure activity to The Walton Centre; leading to a significant reduction in post seizure admissions
- Reduction in A&E attendances for ‘post seizure’ to DGHs
- Reduction in first seizure activity within DGHs
- Increased A&E staff satisfaction of management of post seizure patients in A&E

Timeframe
By December 2017.
We have expanded The Walton Centre’s existing telephone advice line to 2 hours a day, to make it easier for GPs to access timely and specialist advice from neurology consultants at The Walton Centre.

Outline
• To provide advice and guidance to GPs on all neurology specialty areas according to requirement
• To expand the current service towards a 7 day service
• To increase the consultant workforce to accommodate this extended service
• An IT system has been established for logging calls and recording outcomes including GP evaluation of the service

Benefit
• Increased access to specialist neurological advice and support
• Reduction in neurology outpatient referrals to The Walton Centre
• Increased GP and Walton Centre neurology consultant satisfaction

Timeframe
By February 2017
The Walton Centre’s specialist nurse advice line service has been expanded to provide clinical advice, support and reassurance to patients with long-term neurological conditions, helping them manage their condition more effectively at home, reducing the need for them to make GP appointments or visit the emergency department.

Outline
This service is available to Walton Centre patients with multiple sclerosis, epilepsy, motor neurone disease (MND), movement disorder and Parkinson’s disease, neuromuscular disease and neuromyelitis optica disease (NMO).

Patients with these conditions will be able to access the nurse advice line, via an appointment and will receive access to the right level of care needed. They will also be able to access further information and be signposted to other health professionals if necessary.

Benefit:
- Increase and improve access to specialist nurses across sub-specialities
- Increase patient satisfaction in service, quality, delivery and responsiveness
- Advice and guidance available with signposting to other healthcare professionals as necessary
- Reduction in number of face to face consultations, reducing GP and emergency department visits
- Increase specialist nurses satisfaction in service, quality, delivery and responsiveness
- Structured job plans with scheduled dedicated advice line sessions for specialist nurses

Timeframe
August 2017
The geographical coverage of Integrated Neurology Nurse Specialist service has been expanded and provides clinics across the region so that more patients can access their expertise closer to home.

**Outline**
These highly trained nurses provide a link between primary, secondary and tertiary care, being the point of contact for patients in the community. The nurses are able to signpost patients to the right care in the right setting as well as giving them timely advice on medication and management of their long-term neurological condition. The Neuro Network has expanded this provision to cover the whole of Cheshire and Merseyside to make this specialist service accessible to more patients across a wider geographical area, helping to prevent hospital admissions, unnecessary GP consultations and promoting self management. This service prevents patients who cannot physically travel to clinic from losing contact with specialist services, advice and support.

**Benefit**
- Patients reviewed closer to home
- Advice and specialist support for health professionals
- Patients supported to understand and self-manage their condition
- Providing a link between primary secondary and tertiary care
- Preventing unnecessary hospital admissions, assisting with discharges from hospital and averting GP visits
- Timely access to help by providing a nurse advice line for telephone consultations.
- Prompt referral between teams
- Reviewing patients more frequently and responsively
- More dedicated time for patients to discuss their long term neurological condition

**Timeframe**
The number of clinics has been expanded across Cheshire and Merseyside. To view the clinic map visit: [www.bit.ly/inns-map](http://www.bit.ly/inns-map)

Clinics are commencing from January 2017. The INNS training package completes in September 2017. The INNS are already specialists in at least one long term neurological condition and have started to run this service. The skill mix within the team means they can offer the service to all long-term neurology patients.
We are building on The Walton Centre’s existing hub and spoke neurology service by enhancing the outpatient and ward consultation services already provided in satellite clinics in district general hospitals and the community.

**Outline**
- To develop the current service
- To provide education to junior doctors
- To increase the quality, ease of access and responsiveness of satellite services
- To deliver best evidence based model for diagnostics
- To ensure value for money

**Benefit**
- Improving GP and junior doctors knowledge and awareness of managing common neurological conditions, preventing inappropriate referrals into hospitals and improving waiting times and experience for the patients that do require neurological consultant review
- Increased access to Walton Centre consultant neurologists consultation closer to home
- Increased GP satisfaction with service quality, ease of access and responsiveness of satellite services
- Reduction in Walton Centre consultant satellite clinic outpatient waiting times at partner sites
- Reduction in average length of stay in partner sites
- Increased DGH consultant satisfaction for quality, ease of access and responsiveness of satellite services

**Timeframe**
Ongoing development of current service to March 2018
We have a new service for patients who present with functional neurological symptoms (physical symptoms caused by psychological trauma or other non-physical factors) – developing appropriate care pathways.

Outline
Functional neurological symptoms are physical symptoms which develop on a subconscious level as the result of underlying psychological distress, for example, childhood trauma (especially sexual abuse), stressful life events or a dysfunctional home and social environment. These symptoms can be of weakness, involuntary movement, sensory or speech disturbance, or more commonly loss or alteration of consciousness, with or without involuntary movements (non-epileptic seizures). At present, we have significant expertise in the assessment and diagnosis of patients presenting with functional neurological symptoms. The Neuro Network has strengthened the current patient pathway to create a co-ordinated and efficient service to minimise the delays, duplication and waste of resources so these complex patients get the appropriate help they need.

Benefit
- Reduced hospital admissions and investigations
- Multi-disciplinary assessment of complex cases
- Clear pathway for treatment decisions
- Reduced re-referrals to neurologists
- Clarity regarding diagnosis from Multi Disciplinary Team
- Short tailored treatment for those likely to benefit
- Greater patient satisfaction.
- Increase the likelihood of patients being able to return to work
- Reduced risk of inappropriate medical treatment
- Reduced demands on the wider NHS including emergency services
- Reduced duplication of clinical appointments and investigations
- Reduced prescribing of unnecessary and inappropriate medications

Timeframe
Joint MDT clinic commenced March 2016. Specialist Psychological therapist started October 2016. Potential for in patient diagnostic and treatment service and links with Merseycare for patients unsuitable for in-house treatment service
We are providing a service for remote, secure, video conferencing for clinical consultations, allowing hospital doctors based elsewhere, for example, in a district general hospital, to have real time tele-consultations with an expert from The Walton Centre at the patient’s bedside.

**Outline**
- To provide consultant to consultant teleneurology advice and diagnosis and treatment
- To deliver remote ward consultations to patients to bridge the gap in provision
- To pilot teleneurology at the Countess of Chester
- Roll out the service to all 12 DGHs across Cheshire and Merseyside

**Benefit**
- Reduction in length of stay at DGHs
- Fill gaps when no consultant is available
- Increased DGH consultants for feasibility and acceptability of teleneurology clinics
- Reduction in waiting time from ward referral to teleneurology consultation
- Increased patient satisfaction
- Training and education opportunity for medical trainees at DGHs

**Timeframe**
Implementation commenced February 2017
Developing relationships with district general hospitals to establish a full surgical network, meaning that patients access the same standard of care regardless of which hospital they are seen in, using the best evidence.

Outline
To develop an effective spinal network across Cheshire and Merseyside working to common standards and outcome measures and with all specialised surgery undertaken in a centre fully compliant with national specialised service standards.

Benefit
• Reduction in number of spinal injections and procedures undertaken outside The Walton Centre (the hub)
• Increased number of patients discussed at regional Multi-Disciplinary Team (MDT) meetings
• Full attendance of all partners at regional MDT meetings
• Published clinical outcomes to support commissioning of services based on outcomes
• Standardised pathways of care for complex spinal patients with measureable outcomes

Timeframe
March 2018
Working with partners to implement the National Back Pain Pathway - evidence based guidance for back pain referral and treatment. There will also be an expansion of physiotherapy-led assessment and treatment services for back pain.

Outline
To implement a single whole system patient pathway through a network of all providers of spinal services, with common and audited service standards and outcome measures.

Benefit
- Reduction in the number of inappropriate procedures/interventions for patients with back / radicular pain
- Increased provision of community back / radicular pain clinics
- Increased number of patients attending the Combined Psychological and Physical Pain Programme to support improved management of their back / radicular pain
- Reduction in waiting times for spinal surgery at all hospitals
- Reduction in waiting times for outpatient attendances at The Walton Centre
- Reduction in total spend for inappropriate procedures/ interventions for people with back/radicular pain
- Reduction in inappropriate medication for patients with back / radicular pain
- Reduction in GP attendances for back / radicular pain

Timeframe
March 2018
Where are we heading?
The Neuro Network’s approach to working will tackle the problem of having too few neurology consultants to meet growing patient demand. The care based on The Walton Centre’s satellite clinic model will be enhanced and technology will be used allowing doctors in district general hospitals to seek expert opinion at the patient’s bedside from a consultant based at The Walton Centre.

GPs will be better supported so they feel confident about referring the right patients to acute settings. Long term neurology patients will also be better supported to take control of their own care recognising they and their families and carers are the experts in their own condition and can self-manage their care effectively with the right support.

Advice lines already in place for GPs and patients will be strengthened so they are more responsive.

At present, many back pain patients wait a long time for surgery. Surgery is not always necessary and treatment and advice varies from provider to provider. The Neuro Network will provide a better way of working that will create a better experience for patients and prevent wasteful treatments that do not work.

As a result of the work of The Neuro Network, unnecessary hospital admissions, investigations, interventions and referrals for neurology patients and those with back pain will be reduced and patient care will be enhanced. Patients will have a better experience and will be able to access care more rapidly and be seen in the most appropriate setting.

Care will be standardised so all spinal and neurology patients access appropriate management more easily, regardless of where they live, and patients will be able to access specialist spinal and neurology care closer to their homes without the need to always travel to a specialist acute centre.

Hospitals and care providers, the third sector and other stakeholders will work closely together on the Neuro Network to find solutions. At the end of this programme of work, the Neuro Network programme model will become a blueprint for other providers to follow in other parts of the country and other specialties.
**Evaluation**

The core aim of the Neuro Network Vanguard is to develop ways of working that will deliver more accessible, more responsive and more effective care to patients with long-term neurological conditions and spinal problems. Patients will benefit from fewer trips to hospitals, care closer to home and better co-ordinated services. There are also benefits to the wider health economy through greater efficiencies and less duplication with the patient seen in the most appropriate setting.

Evaluation of our services is critical to delivering the best experience for patients and the best value for money, with the intention of nationally replicable services.

Our approach to evaluation has been developed through discussions with our stakeholders including clinicians, GPs, healthcare commissioners, patients and patient voluntary groups.

As part of this, an Evaluation Programme has been developed which encompasses quantitative, qualitative and economic evaluation.

Early evaluation activity will be focused on understanding what is working well and what is working less well and why to support learning locally and throughout the NHS. The impact of our services on patients and the wider system on health and wellbeing, care and quality and efficiency is being evaluated using a set of metrics and experience surveys to support local learning and drive service improvement.
How you can be involved?
The Neuro Network wants your feedback.
Email: vanguard@thewaltoncentre.nhs.uk or call 0151 556 3343.

Further information
For further information about any of the projects within the Neuro Network programme, contact Julie Riley, Programme Director:
julie.riley@thewaltoncentre.nhs.uk

The vanguard team regularly sends out a vanguard bulletin, join the register by emailing vanguard@thewaltoncentre.nhs.uk

You can also find information on the following sites:
www.thewaltoncentre.nhs.uk
acute-care-collaboration/neuro-network/
Neuro Network Vanguard
The Walton Centre NHS Foundation Trust
Lower Lane
Fazakerley
Liverpool
L9 7LJ

For more information on the Neuro Network, contact Julie Riley, Programme Director:
0151 556 3343
vanguard@thewaltoncentre.nhs.uk

Neuro Network Vanguard
The Walton Centre NHS Foundation Trust
Lower Lane
Fazakerley
Liverpool
L9 7LJ

Stay in touch:

@WaltonCentre
/TheWaltonCentre
www.thewaltoncentre.nhs.uk