

Provision of Specialised Commissioning Neuro Rehabilitation Services for People with Traumatic Brain Injury

Introduction

The aim of this paper is to provide the Merton Overview and Scrutiny Panel assurance on the current provision of Specialised Commissioning Neuro Rehabilitation services for people with Traumatic Brain Injury. Although this paper makes references to the whole patient pathway, its focus is on the Level 1 and 2a services commissioned by NHS England's Specialised Commissioning team, rather than the transition and post discharge settings which are commissioned by Clinical Commissioning Groups (CCGs) and Local Authorities (LAs).

This paper outlines the commissioned structure of neuro rehabilitation services in London, the scope of specialised commissioning services and the current patient pathway. It also provides detail on the current provision in South West London (SWL) and current challenges. To conclude, the paper will consider lessons from the Somerset Serious Case Review and make recommendations for the future provision of neuro rehabilitation services in South West London.

Commissioning Structure:

Specialised Commissioning

Since the reorganisation of the NHS following the Health and Social Care Act 2012, NHS England Specialised Commissioning is the responsible commissioner of tertiary specialised (**Level 1 and 2a**) rehabilitation for patients with highly complex needs (all ages) as per NHS England Service Specification D02 S/a (Appendix 1). Traumatic Brain Injury (TBI) is one of the conditions that give rise to complex disability as classified by the Long Term Conditions National Service Framework.

These services are normally provided in co-ordinated service networks planned over a regional population of 1-5 million through specialised commissioning arrangements.

These services are sub-divided into:

- Level 1a - for patients with high physical dependency
- Level 1b - mixed dependency
- Level 1c - mainly more physically able patients with cognitive/behavioural disabilities.

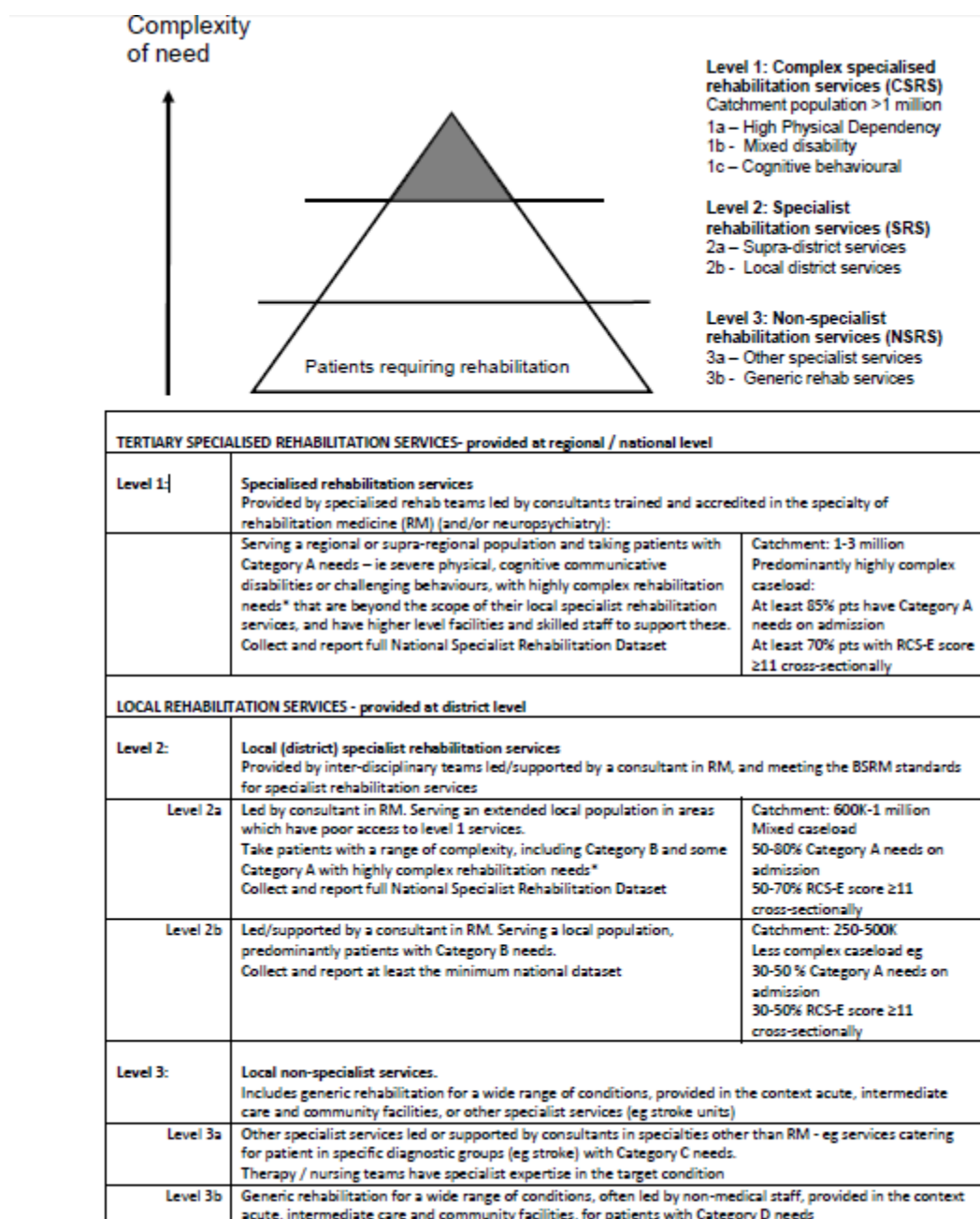
Key aims of the service are to provide rehabilitation for patients with complex needs in order to assist them to achieve their maximum potential for physical, cognitive, social and psychological function, participation in society and activities of daily living.

The services also play an important role in relieving pressure on acute services and facilitating discharge to the community or on-going placement.

Interface with CCG's

The level of complexity involved in the patient's rehabilitation will determine if the responsible commissioner is NHS England (**Level 1 & 2a**) or a CCG (**Level 2b and 3**) as illustrated in Figure 1.

Figure 1: Levels of Neurorehabilitation Services



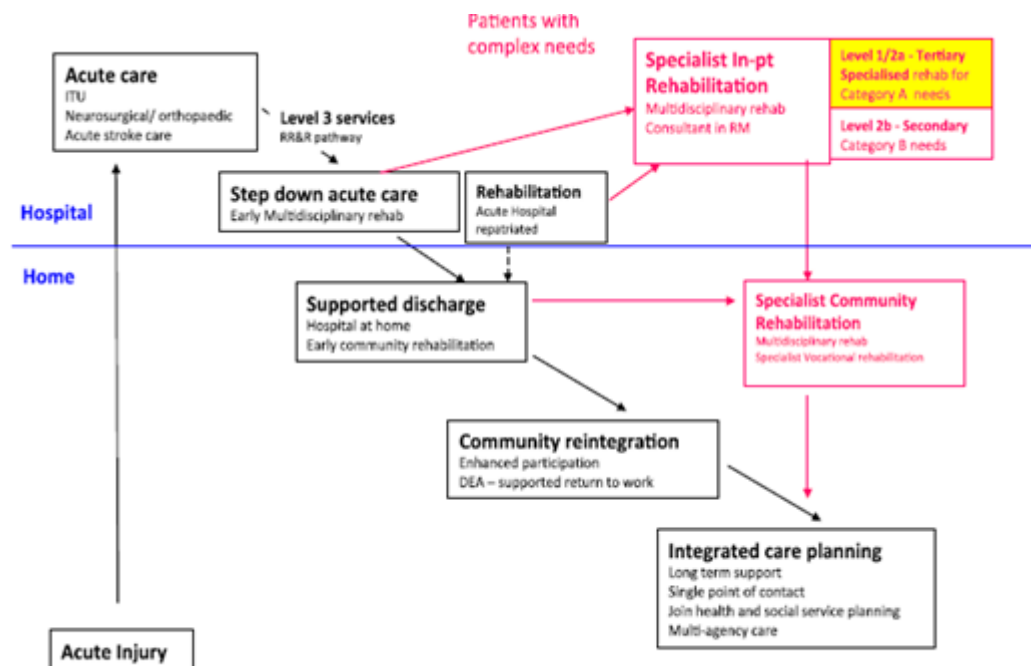
Patient Pathway

Patients' rehabilitation needs are assessed to identify the appropriate service for the patient at that time depending on the level of need that is identified via a clinical assessment. The level of need is defined using the Department of Health Specialist Services National Definition Set (SSNDS), that defines four categories of patient need (A,B,C,D)

After severe disabling illness or injury many patients have category C or D rehabilitation needs and will progress satisfactorily down the pathway to recovery with the support of the local recovery, rehabilitation and re-enablement (R R &R) Level 3 services (commissioned by CCGs and local authorities).

A significant number of patients will have more complex (Category B) needs requiring more prolonged treatment in a specialist (Level 2) rehabilitation service (commissioned by NHSE if 2a and CCG if 2b). (Please see Appendix 2 for map of Level 1 and 2b provision in London)

Figure 2: Pathways for rehabilitation following illness or injury



Red part of the pathway: CCG commissioned rehabilitation

Yellow cell: Tertiary specialised services- NHS England commissioned

Black part of the pathway: Usually provided by non-specialist (Level 3) rehabilitation services

Admission notification and discharge planning

In general, neuro rehab providers have good communication systems in place to notify CCGs of the intended patient admissions, progress on individual patient improvements and likely intended discharge.

It is important that complex neuro-rehabilitation providers ensure efficient use of bed resources and provide good communication to relevant stakeholders throughout the inpatient episode. The relevant CCG is responsible for leading the continuing healthcare

process in collaboration with the neuro-rehab provider. The Decision Support Tool (DST) will be completed with the CCG and Adult Social Care with input from the patient and/or their representative.

Generally, a multidisciplinary team (including medical, nursing, social work and Allied Health Professionals) should anticipate a projected discharge date as early into a patient's admission as possible. This allows for early communication with patients, their families and other key stakeholders. All members of the team are responsible for ensuring that relevant onward referrals are made as appropriate to the patient's needs.

Patients who require medications for discharge must have 'To Take Away' (TTA) medications dispensed by the pharmacy department. This request must be made as soon as the discharge date is confirmed.

The keyworker and Discharge Coordinator on the team take the lead role in the discharge planning process from the point of initial assessment. They liaise with the relevant Clinical Commissioning Groups, Social Services departments and other outside involvements as appropriate in consultation with the MDT and patient and/or family. The social worker in the team supports this process and also provides a supportive counselling role to the patient and/or family during the discharge planning process. The Discharge Coordinator and keyworker are the primary contact for the coordination of the discharge plan

Due to the complexity of the patient pathway, Neuro-navigators have been introduced to facilitate more integrated working between hospitals and specialist neurological rehabilitation services. They are Allied Health Professionals/Nurses with specialist knowledge and experience in neuro-rehabilitation and have a pivotal role in working with referrers, patients and their families/carers to identify which service is most appropriate for the individual at that time. Investment in neuro-navigators has been actively developed across North West and Central London CCGs with less cover in the south of London (although provision is increasing in SEL). See Appendix 2.

Current Specialised Complex Neuro Rehab Inpatient Provision in London

Specialised Commissioning currently commission a total of 186 beds in London, 71 of which are in South West London

Table 1: Bed commissioned by Specialised Commissioning

PD: Physical Disability CB: Cognitive Behavioural

Name	Sector	Level	Bed base	Type
RRU Northwick Park	NW	1a	24	PD Hyperacute (4 beds)
RHND Putney	SW	1a	39 flex to 42	PD Slow stream
RNHU Homerton	NE	1b	24 flex to 27	Mixed PD and CB
UCLH	NC	1b	18	Mixed PD and CB
FCRU King's	SE	1b	15	Mixed PD and CB
Lishman Unit SLAM	SE	1c	7	CB
Blackheath TBIRU	SE	1c	16	CB
Blackheath HNDU	SE	2a	17	Mixed PD and CB
Wolfson	SW	2a	32	Mixed PD and CB
TOTAL			192	

Service provision in Merton

Table 2 below shows the individual referral rate per 100K population for the South West London (SWL) sector. The borough of Merton (highlighted in grey) is on the mid-range scale, with 29 annual referrals per year, of which 14 resulted in admissions.. It should be noted that not all referrals result in admission either because (a) they are duplicate referrals (b) they are not appropriate for 1 and 2a services. The introduction of Neuro-navigators should see a drop in this type of referral as they support referring hospitals to get the referral right first time

Table 2: Individual referral rate per 100K population in SWL

	Croydon	Wandsworth	Merton	Richmond	Sutton	Kingston
Referrals per annum	93	37	29	30	23	11
Population	400,679	384,971	221,096	210,369	190,700	202,786
Rate per 100,000	23	10	13	14	12	5

Source: BadgerNet and UKRoC data (average of 2015 and 2016 data)

Overall for SWL sector there have been some significant reported delayed discharge issues for the sector resulting in a business case being presented to Directors of SWL CCGs requesting additional access to level 2b step down beds for SWL patients. Approval for the RHND Putney to provide this additional level 2b bed capacity has now been agreed.

For Merton specific patients, the issue of delayed discharges has not been reported as a key issue, however some recent cases have been flagged as being challenging and complicated with particular issues around patient choice for ongoing care. A recommendation was also made by Specialised Commissioning in 2016 to Wandsworth CCG to consider strengthening the role of neuro navigators across all SWL CCGs as currently there is only 1 WTE discharge co-ordinator/neuro-navigator role in SWL (focusing predominantly on Wandsworth patients). However, this recommendation was not taken forward in the report that was recently submitted to the SWL Directors of Commissioning.

Provision at the Wolfson Rehabilitation Service, St George's Hospital

Inpatient Service

Innovative pathway redesign at The Wolfson Neurorehabilitation Services has been undertaken over the past 12 months for patients with TBI. The Major Trauma Centre (MTC) is one of the only units in London where patients with TBI are cohorted to the care of one consultant who has oversight of the patients' recovery and onward pathway through to rehabilitation. This Acute TBI MDT includes all therapies and a Consultant Neurologist and Neuropsychiatrist who work in an integrated, transdisciplinary approach across the physical and mental health of patients after TBI.

Those patients with Category A needs that are referred to rehabilitation are then moved directly from the Acute TBI team to a Level 1 rehabilitation bed collocated in the MTC and led by the Consultant Neuropsychiatrist in Neurorehabilitation.

An evaluation of this pathway has identified that in comparison to a control group of patients after TBI receiving care as usual, this patient cohort receives intensive rehabilitation much earlier (48% decrease in days waiting for rehabilitation) and have a significantly decreased admission in the MTC acute bed (Length of stay in MTC decreased by 36%). Also, significantly, the care costs on discharge for the early rehabilitation pathway patients were decreased by £830 per week, per patient in comparison to those receiving rehabilitation as usual.

Following discharge from Level 1 rehabilitation, the pathway also provides a Multidisciplinary TBI Outpatient Service which includes reviews by a Consultant Neurologist, Consultant Neuropsychiatrist, Neuropsychologist and Physiotherapist with the additional benefit of a complex case multidisciplinary meeting where an integrated approach to assessment and ongoing treatment is maximised.

For those patients with ongoing cognitive rehabilitation needs which cannot be provided by the community neurorehabilitation an intensive (i.e. 5 days a week) outpatient Cognitive Rehabilitation pathway is currently being piloted and evaluated. A vocational rehabilitation pathway is well established and also compliments outpatient services.

Outpatient Service

An intensive (5 day a week) outpatient cognitive rehabilitation service is currently being piloted to reduce demand for inpatient Level 2 beds. This service reconfiguration aligns with the local CCGs and NHS England's (NHSE) strategic vision¹ for increased provision of services for category B patients².

¹ CF. Minutes from *NHSE Transforming Specialised Services in London Neurorehabilitation Review meetings (2016)*; *The National Clinical Audit of Specialist Rehabilitation following Major Injury (2016)*

² Definition of category B patients and Level 2 services can be found in NHSE's service specification for specialised rehabilitation for patients with highly complex needs

Outpatient based neurorehabilitation services are well established at SGFT, comprising of group therapy and day patient packages of specialist cognitive and functional rehabilitation. The service consists of neuropsychology, neuropsychiatry, neurology, rehabilitation medicine, physiotherapy, occupational therapy, dietetics, speech and language therapy, and social work. There is also a vocational rehabilitation programme, which provides specialist assessment, treatment, and on-the-job support to help patients learn to compensate for their cognitive disability in the workplace.

This is a unique regional service serving Greater London, and provides the intensity of comprehensive holistic interdisciplinary neuropsychological rehabilitation that cannot be provided by community teams; and has been demonstrated via randomised control trials to be more effective than multidisciplinary rehabilitation³ⁱ & ⁵ⁱⁱ (which is the delivery model employed by community teams). The service enables patients over 16 and under 65 (or older adults who are still working) with complex cognitive disability to successfully reintegrate into the community, thus reducing overall long-term costs to the health and social care economy.

The waiting time for the Wolfson Outpatient Cognitive Rehabilitation Services (WOCRS) in November 2016 was 12 months, as it only ran 1-2 days a week prior to the 5-day pilot service. This demonstrates that outpatient demand outstripped supply. Often patients suitable for day patient treatment were referred to the Level 2 inpatient service, as it was the only way to access the intensity of cognitive rehabilitation required (i.e. therapy five days a week). Consequently, patients with low nursing needs but cognitive disabilities caused delayed discharges from the major trauma centre and acute care beds. Alternatively, patients were discharged home to supportive families while awaiting admission to a Level 2 bed. Without any guidance regarding how to care for their relative, it often led to family breakdown, loss of social roles (e.g. work), and development of secondary mental health problems (e.g. depression and anxiety).

The primary objective of this pilot study is to evaluate the effectiveness of providing neurorehabilitation activity, previously delivered via four inpatient beds, via an intensive day patient cognitive rehabilitation programme, which employs a holistic neuropsychological rehabilitation model of delivery.

The pilot service aimed to:

1. Expedite discharge from acute care, thus facilitate more timely community reintegration for patients with no specialist nursing needs. In turn, this should improve

³ⁱ Cicerone, KD., Mott, T., Azulay, J., Sharlow-Galella, MA., Ellmo, WJ, Paradise, S., & Friel, JC. (2008). A randomised controlled trial of holistic neuropsychological rehabilitation after traumatic brain injury. *Archives of Physical Medicine Rehabilitation*, Dec 89 (12), 2239-49

⁵ⁱⁱ Cicerone KD, Langenbahn DM, Braden C, Malec JF, Kalmar K, Fraas M, Felicetti T, Laatsch L, Harley JP, Bergquist T, Azulay J, Cantor J, Ashman T (2011) Evidence-based cognitive rehabilitation: updated review of the literature from 2003 through 2008. *Arch Phys Med Rehabil*. 2011 Apr;92(4):519-30.

long-term outcomes for patients with an acute presentation of cognitive, behavioural, and/or communication deficits secondary to a neurological diagnosis.

2. Improve the flow of patients into specialist neurorehabilitation earlier in the patients' rehabilitation journey. This will be achieved by redressing some of the inequity regarding patients' waiting times to access Level 2 neurorehabilitation services, especially for people who primarily have cognitive and behavioural needs, in the South West London region.

The flow of patients through community neurorehabilitation teams should also be expedited⁴ by working in partnership with community teams to allow them to focus on the core community based goals (e.g. improved independence in travel, personal, and domestic care tasks), while delivering the patients' intensive cognitive rehabilitation needs in a controlled environment (e.g. memory aid training). It is well known in clinical practice that cognitive compensatory aid training occurs quicker when training is conducted in a controlled environment versus a community setting⁵. Furthermore, research indicates that earlier community reintegration reduces long-term costs to the health economy⁶. The importance of timely access to cognitive rehabilitation is widely acknowledged within the empirical literature⁷. Patients are known to use health services more frequently at 17-years post-injury if they have unresolved cognitive and psychological difficulties, rather than physical impairments⁸. Therefore, it is reasonable to surmise that improved access to appropriate intensive day patient cognitive rehabilitation should also help reduce long-term mental health problems and dependency on health services.

3. Enable a significant cohort of current Level 1 and 2 inpatients to access outpatient services as soon as they no longer require specialist nursing care, thus facilitating graded discharges and reducing the overall length of stay for inpatient beds. In turn, this will improve the flow of patients across the regional neurorehabilitation pathway.

⁴ CF. Royal College of Physicians: British Society of Rehabilitation Medicine (2003) Rehabilitation following acquired brain injury: National clinical guidelines. RCP London.

⁵ CF. Sohlberg, M., Johansen, A., Geyer, S., & Hoornbeek, S. (1994). A manual for teaching patients to use compensatory memory systems. Association for Neuropsychological Research and Development, WA

⁶ Whyte, E., Skidmore E., Aizenstein, H, Ricker, J, & Butters, M. (2011). Cognitive impairment in acquired brain

injury: a predictor of rehabilitation outcomes and an opportunity for novel interventions. *PM & R*, Jun Vol 3 (6

suppl 1), S45-51

⁷ Cicerone, KD., Dahlberg, C., & Kalmar, K. (2000). Evidence-based cognitive rehabilitation: recommendations for clinical practice. *Archives of Physical Medical Rehabilitation*, 81, 1596-1615

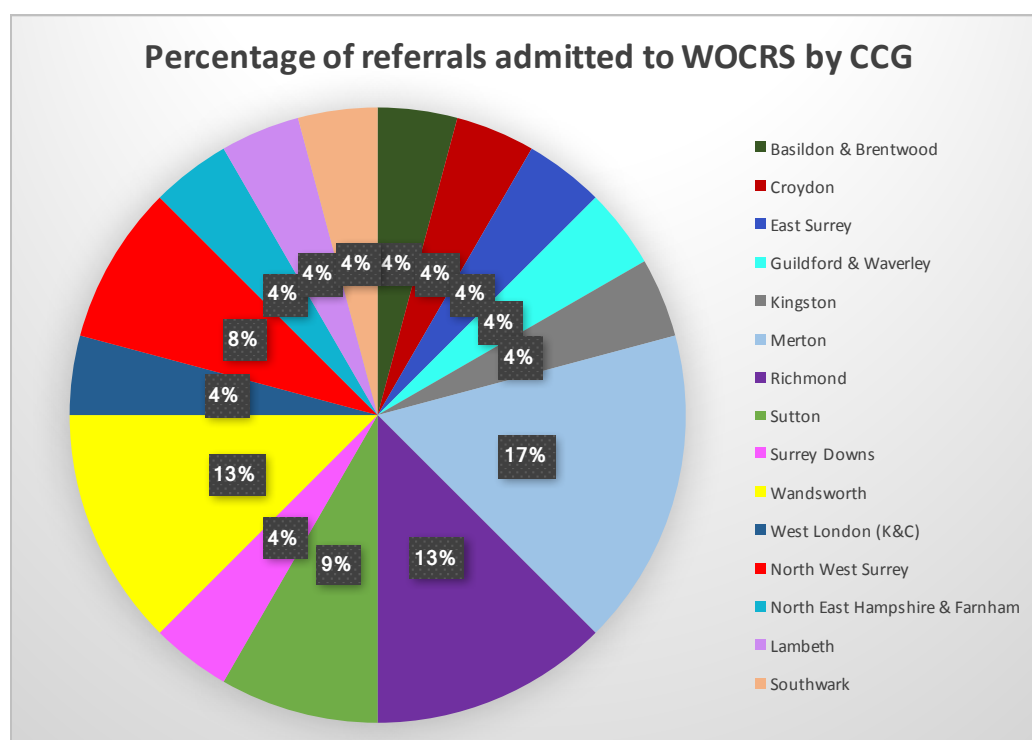
⁸ Hodgkinson, A., Veerabangsa, A., Drane, D., & McCluskey, A. (2000). Service utilization following Traumatic

Brain Injury. *Journal of Head Trauma Rehabilitation*, Vol 15 (6), 1208-1226

Referring CCGs

To date the patients treated within WOCRS have come from across the South West region. The pie chart below (Figure 3) illustrates the percentage of patients treated from each Clinical Commissioning Group (CCG). However, it is noteworthy that the largest percentage of referrals came from Merton. The higher rate of referrals from Merton reflects the lack of provision of neuropsychology services in the local community neurorehabilitation team. This is a significant gap in service for Merton patients; it results in Merton patient requiring treatment via WOCRS who would be treated in the local community neurorehabilitation team if they lived in Wandsworth. This is not a good use of a highly specialist service and means that Merton is not compliant with best practice guidelines. It also means that patients who have neuropsychological and neurobehavioural needs often go undetected until their problems escalate to a level that is unmanageable by the community neurorehabilitation team, thus warranting a referral to a specialist service such as WOCRS.

Figure 3: Percentage of referrals admitted to WOCRS day patient service by CCG (N = 24)

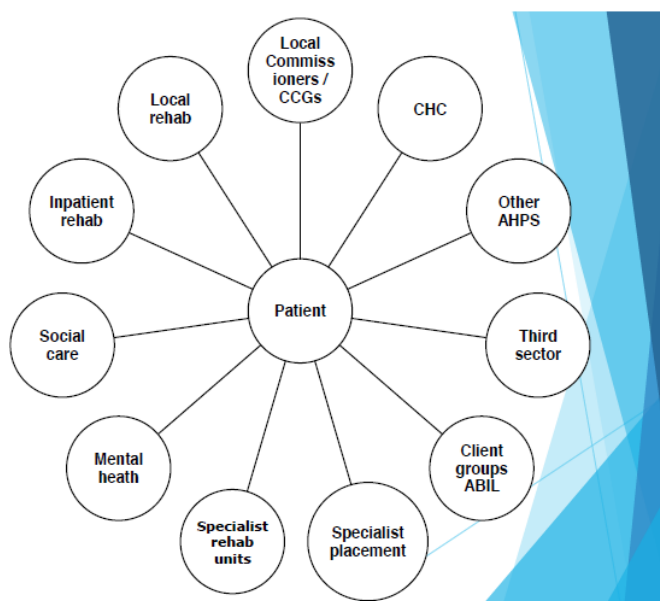


Learning from the Somerset Serious Case Review (SAR):

One of the key lessons from the Somerset SAR was a greater need for collaboration between health and social care services to avoid patients falling through gaps between different commissioning boundaries.

Although this is the case for most pathways requiring inter agency collaboration, the neuro rehab pathway is particularly complex, with over 10 different agencies being involved in one patients care (Figure 4).

Figure 4: Agencies involved in neuro rehab pathway



Source: ABIL Conference- Improving the pathway after brain injury

Another important lesson to draw out is the need to have a specific TBI pathway where all agencies can ensure they are following best practice in the management of these patients. This will also ensure that correct processes are in place to be responsive to patients and their families so they access the services they need when they need them.

Recommendation

There is recent evidence of joint working between neuro rehabilitation commissioners in SWL, as part of the recent neuro rehabilitation review where key recommendations were to develop a central data system for referrals and to increase the use of neuro navigators to support patients through the pathway. The central data system is now in place (London wide) supported by specialised commissioning in its commissioned tertiary centres and their referring Trusts. A proposal to expand neuro-navigator capacity is also being taken forward. However, it is clear that further formal collaboration is required across the STP to ensure a robust system is in place to support TBI patients and their families across the whole pathway. The evolving Sustainability and Transformation Partnerships (STPs) provide an opportunity to formalise these links. The SWL draft Five Year Forward Plan identifies the neuro rehabilitation service as one of their areas of local priority *“London’s neuro-rehabilitation service has experienced continued pressure across the range of its services. The patient pathway is fragmented with bottlenecks and blockages both for accessing and discharging of patient” (page 82).*

To enable change, the STP have committed to a more collaborative approach to commissioning services on an STP or multi STP footprint. This will include planning and designing services together and providing financial incentives for pathway improvement, supported by the pooling or delegation of budgets as appropriate. This collaborative

commissioning approach has already been started in the area of Adult Secure Mental Health, with a plan to replicate this approach in other pathways such as neuro surgery and neuro rehabilitation. Specialised Commissioning is fully engaged with this work and continues to work closely with the STP to ensure that neuro rehabilitation patients and their families have access to integrated and responsive services that meet their needs.

This paper has set out how specialised commissioning and commissioned specialist providers are rising to this challenge. It does not cover the full range of community services commissioned by CCGs and Local Authority colleagues which contribute to a complete pathway.

To be fully assured with respect to the Somerset SCR, the Overview and Scrutiny Committee may want to explore the full pathway in a future discussion, where the challenges highlighted in the is paper regarding community provision can be further explored.

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Appendix 1

NHS England Service Specification D02/Sa - Specialised Neuro Rehabilitation for patients with highly complex needs (All ages).

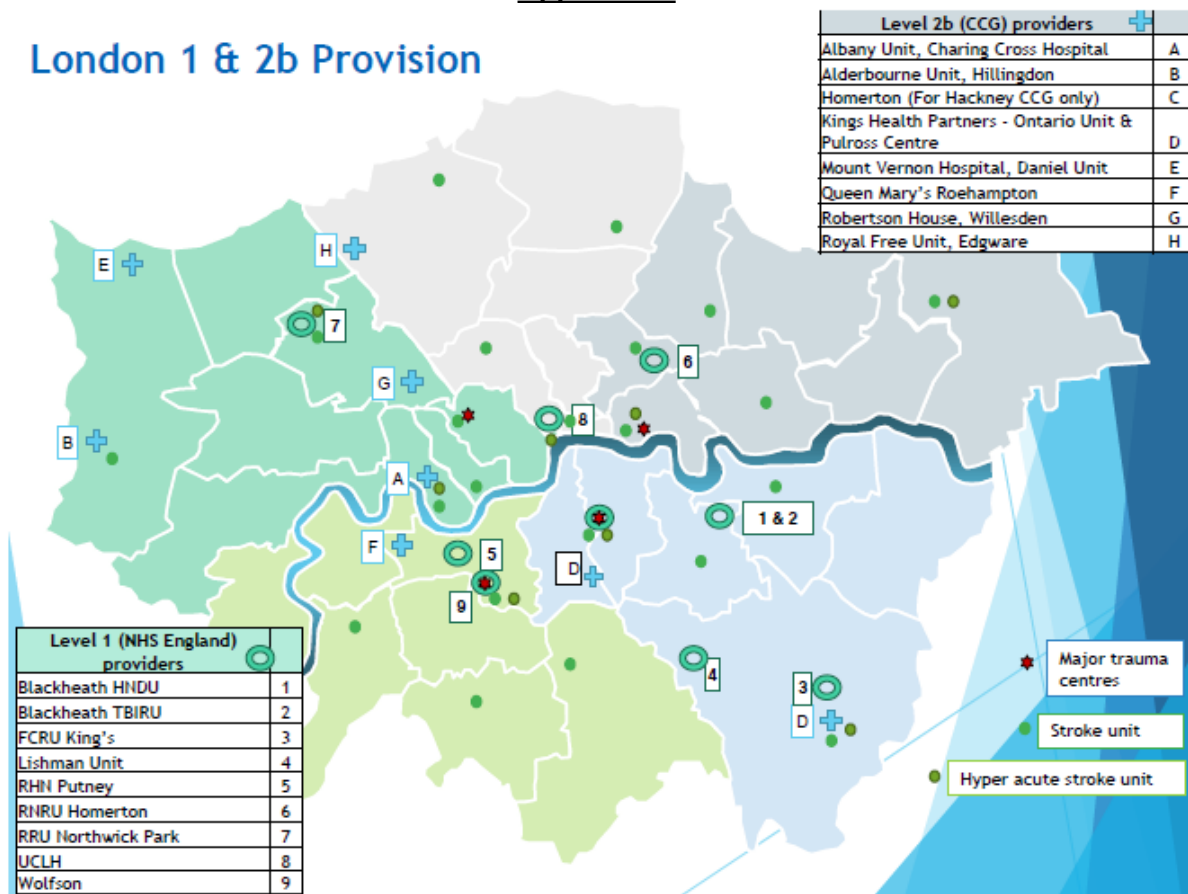


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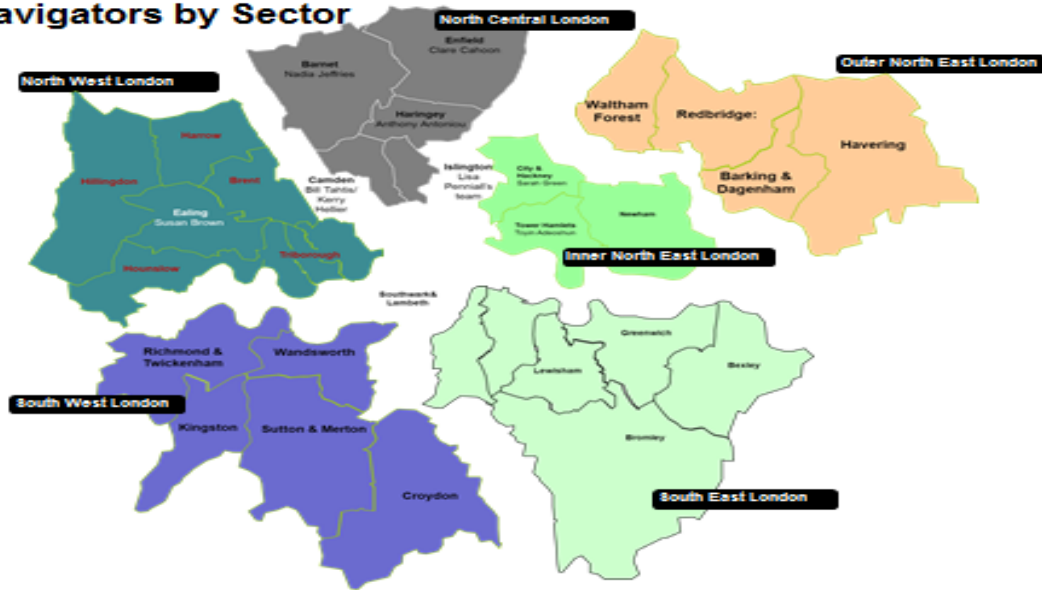
Also available at <https://www.england.nhs.uk/commissioning/spec-services/npc-crg/group-d/d01/>

Appendix 2

London 1 & 2b Provision



Navigators by Sector



1 WTE in post for SEL and SWL and 1 WTE recently appointed for Waltham Forest CCG.

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