SERVICE MODEL - REHABILITATION

1. Introduction

This paper describes the proposed rehabilitation service model for a major trauma network to serve South Wales, South Powys and West Wales.

The rehabilitation service model is being developed by the Major Trauma Network Rehabilitation Workstream, which reports to the Major Trauma Network Project Board. It has been developed via a series of three workshops with participants in the workshops nominated through members of the Major Trauma Project Board and included representatives from a broad spectrum of professionals within each Health Board – Abertawe Bro Morgannwg, Aneurin Bevan, Cardiff & Vale, Cwm Taf, Hywel Dda and Powys, Welsh Ambulance Service Trust – Third Sector partners and Local Authorities. Invitations were also extended to Community Health Councils, Welsh Health Specialised Services Committee and patient representative groups.

The trauma service model has been developed by the Major Trauma Network Clinical Reference Group which is described in a separate document entitled, Clinical Model, May 2015, Final.

Throughout the work to develop the model, rehabilitation has consistently been highlighted as a key part of the patient pathway, commencing at admission, continuing through the inpatient phase to discharge from the major trauma centre or unit out into the community and is a true enabler to achieving the best outcomes for the patient.
## Scope

The rehabilitation model will align with the major trauma network for South Wales, South Powys and West Wales and will serve the populations of Aneurin Bevan UHB, Abertawe Bro Morgannwg UHB, Cardiff & Vale UHB, Cwm Taf UHB, Hywel Dda UHB and Powys tHB.

The service model will provide a holistic patient-focused treatment package. The service will comply with accepted best clinical practice and standards, provide improved patient outcomes and have robust governance arrangements. Consideration will be given as to how this service interfaces with other relevant developments and impacts on other clinical and support services.

## Vision

To ensure patients have appropriate, timely access to reliable, safe, high quality and sustainable trauma rehabilitation services at all points along their care pathway from the point of injury to rehabilitation, in line with best practice standard requirements.

## Planning Principles

Key underpinning principles are the:

- British Society of Rehabilitation Medicine, Specialist Rehabilitation in the Trauma pathway: core standards (version 1.4 – October 2013);
- Regional Networks for Major Trauma: NHS Clinical Advisory Group Report (September 2010) recommendations for Early/Hyper Acute Phase Rehabilitation and the Rehabilitation phase (ongoing specialised and local);
- The Initial Management of Adults with Spinal Cord Injuries, Advice for Major Trauma Networks and SCI Centres on the Development of Joint Protocols: National Spinal Cord Injury Strategy Board (May 2012);
- National Spinal Cord Injury Database; and
- NICE Guidelines on Major Trauma - no: 37, 38, 39, 40 and 41 (February 2016).
## Service Aims & Objectives

### To improve the quality of rehabilitation for patients by:

- Providing a comprehensive system of specialist and local rehabilitation for people who have suffered serious injury (major trauma) through the delivery of a regional trauma rehabilitation network;
- Improving the functionality, health and psychological well-being in those patients who survive their traumatic injuries, increasing their quality of life;
- Ensuring that services meet agreed national clinical and workforce standards;
- Always meeting fundamental standards of care/treatment;
- Valuing patient experience as much as clinical effectiveness;
- Ensuring responsibility for each patient’s care is clear and communicated;
- Providing effective and timely access to rehabilitation at all levels;
- Ensuring robust arrangements for transferring treatment are in place;
- Tailoring services to meet the needs of individual patients, including vulnerable patients;
- Supporting staff to ensure that they have the appropriate skills, experience and commitment to provide effective assessment, advice and/or treatment; and
- Ensuring the quality of the system is monitored and subject to a process of continuous quality improvement.

### To improve the sustainability of services to patients by:

- Providing robust staffing arrangements that comply with employment legislation (e.g. Working Time Directive) and meet the requirements of the Deanery/General Medical Council for clinical training and supervision where appropriate;
- Developing clinical roles to provide future workforce flexibility;
- Ensuring the population has access to major trauma services within a reasonable timeframe;
- Planning capacity to meet demand and providing appropriate resources across the network; and
- Ensuring the network is kept under continuous review and responds to changes in relevant strategies, standards and policies.
To improve access for patients by:

- Delivering a rehabilitation system based on a pathway of care from acute care, ongoing care and rehabilitation and a return to socio-economic functioning; and
- Improving information and support to patients and families to encourage them to be active participants in their rehabilitation.

3 Service Model

Network Delivery

There will be a Network Clinical Lead for Rehabilitation Services to coordinate the development and delivery of rehabilitation services and long-term support in the community, and the delivery of comprehensive and effective rehabilitation to meet the needs of traumatically injured patients, irrespective of their age.

Discharge planning, continuing care and rehabilitation

Patient transfer

- There should be cross network agreements and adequate resources to ensure that once specialist trauma care has been completed, patients can be transferred to the care of a service which is able to meet their ongoing care and/or rehabilitation needs.
- There should be a formal handover back to the local therapy team (including ALAS) via an identified therapy lead at the provider unit. The responsibility should be on the local team to ‘pull’ patients back to local services. This must be achieved in a timely manner with adequate notice to plan and support transition. The local therapy team should visit the patient at the provider unit as part of transfer planning. The transfer should be followed up with a visit from the provider therapy team following transfer.
- A discharge summary must be provided to support the patient’s transfer to an alternative healthcare setting or the community.
- Ongoing access to advice from provider therapy teams as required.
Communication

- There will be effective communication between all those responsible for the patient’s care, the patient and where appropriate their family and other carers.

- Patients will be provided with a full range of condition-specific information in appropriate formats.

- A directory of services and resources should be developed relating to rehabilitation and ongoing care to facilitate referral and access to these services. Links with the local authorities and third sector are integral to the rehabilitation model.

Audit, data management, governance and quality improvement

- Representatives from services within the rehabilitation network will meet regularly to examine performance through formal governance processes.

- A central database is required to monitor and measure rehabilitation outcomes.

- Use of the Network rehabilitation prescription will be mandated.

Workforce

- A defined team to manage on-going patient care, including a key worker (also referred to as trauma and rehabilitation coordinator) to support patients through the pathway and into rehabilitation.

- Specialist nursing and allied health professional trauma roles.

- Able to facilitate practice of and independence in functional activities by the patient, and undertake activities with the patient as advised, by the rehabilitation team.

- An initial assessment by the relevant members of a specialist rehabilitation team (including nurses and therapists) to add to the medical review.
• All patients needing rehabilitation input or monitoring to be under the care of a consultant-delivered team that includes rehabilitation nurses, allied health professionals and a consultant in rehabilitation medicine or alternative consultant with skills and competencies in rehabilitation. A specialty trainee registrar at St4 or above in rehabilitation may deputise for a consultant on occasion.

• There should be rehabilitation and care coordinator posts throughout the network.

• There should be an adequately skilled and resourced multi-disciplinary rehabilitation team in all of the network’s services. Multi-disciplinary teams should include: physiotherapists, occupational therapists, orthotics, prosthetics, speech & language therapists, psychology and dieticians who are specialised in the care of poly trauma patients.

Rehabilitation is a process of assessment, treatment and management with ongoing evaluation by which the individual (and their family/carers) are supported to achieve their maximum potential for physical, cognitive, social and psychological function, participation in society and quality of living.

Specialist rehabilitation is the total active care of patients with complex disabilities by a multi-professional team who have undergone recognised specialist training in rehabilitation led/supported by a consultant trained and accredited in rehabilitation medicine (Ref BSRM standards).

The aim of the rehabilitation service is to provide rehabilitation appropriate to the level of injury in the right setting. It will start in the Major Trauma Centre and continue through specialist or local rehabilitation services. To provide a holistic pathway of care, service requirements are as follows:

**Early/Hyper Acute Phase Rehabilitation**

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<th>Requirement</th>
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<td>• A defined service for early/hyper acute trauma rehabilitation service which meets the needs of patients with ISS &gt;8.</td>
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<td>• All patients have an initial rehabilitation prescription within 2-4 calendar days of presentation. The prescription may identify no further need for rehabilitation, may recommend monitoring or may require full active engagement of the wider rehabilitation team.</td>
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<td>• Rehabilitation starts as soon as is appropriate after admission, typically in the critical care setting (and certainly within 72 hours), and continue at the intensity required, and for as long as is necessary, to enable patients to achieve their functional potential.</td>
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- The prescription for rehabilitation reflects the assessment of the physical, functional, vocational, educational, cognitive, psychological and social rehabilitation needs of a patient.

- An initial assessment by the relevant members of a specialist rehabilitation team (including nurses and therapists) to add to the medical review.

- All patients receive early phase rehabilitation and all other actions identified in the rehabilitation prescription; if action or input cannot be delivered, the reason is recorded and intervening action is undertaken.

- All patients needing rehabilitation input or monitoring are under the care of a consultant-delivered team that includes rehabilitation nurses, allied health professionals and a consultant in rehabilitation medicine or alternative consultant with skills and competencies in rehabilitation.

- This team meets weekly to discuss all patients within its scope. A consultant attends over 80% of meetings and continues to provide supervision and support to trainees and the team.

### Rehabilitation phase (ongoing specialised and local rehabilitation)

- Trauma patients receive routine screening of rehabilitation needs and appropriate levels of care and rehabilitation at all points along their care pathway.

- Provider therapy teams provide access to rehabilitation assessment seven days a week.

- A discharge summary describing the patient's injuries, care received and ongoing needs and plans are provided at the time of discharge or transfer. This includes the rehabilitation prescription.

- There are rehabilitation and care coordinator posts in place. Each patient has an identified key worker to be a point of contact for them, their carers or family doctor and to ensure delivery of their personal prescription for rehabilitation.

- Vocational rehabilitation is a key component of the rehabilitation service.

- There is an adequately skilled and resourced multi-disciplinary rehabilitation team. Multi-disciplinary team includes: physiotherapists, occupational
- Therapists, orthotics, prosthetics, speech & language therapists, psychology and dieticians who are specialised in the care of poly trauma patients.

- Policies for nutritional management are in place.

- Use is made of VC/telehealth technology to support the rehabilitation phase, enhancing shared care arrangements between generic providers of rehabilitation and the specialist trauma rehabilitation teams.

- The needs of families and carers in all phases of major trauma rehabilitation are considered, including the distances that may be incurred in travelling.
Central to progress along the pathway is the Consultant in Rehabilitation Medicine and Rehabilitation Coordinator to ensure communication between levels and pull from one level to the next.
**Description of Rehabilitation Levels**

### Hyper Acute rehabilitation

Rehabilitation should start as soon as is appropriate after admission, ideally in the critical care setting and in line with NICE Guidance: Rehabilitation after Critical Illness in Adults; (Reviewed February 2014). The hyper-acute service enables early rehabilitation input to patients who have intensive rehabilitation needs. Patients with poly-trauma, head injuries, spinal injuries or multiple fractures maybe co-located within a designated ward/unit area within the Major Trauma Centre site allowing enhanced co-ordination from the multi-disciplinary team involved in their care.

### Level 1 – Specialist Rehabilitation

A small number of very complex trauma patients will require the skills and facilities of a level 1 specialist rehabilitation facility. These patients will typically present with complex disabilities and a range of medical, physical, sensory, cognitive and behavioural problems. The patients will require input from a wide range of rehabilitation disciplines, including trained nurses, physiotherapy, occupational therapy, dietetics, psychology and ALAS (list not exhaustive).

Specialist rehabilitation input will be initiated early during the patient's journey. This may commence when the patient is in the intensive therapy unit (‘ITU’) and will continue beyond this phase of treatment. Rehabilitation input will commence with the initiation of a rehabilitation prescription within 72 hours. The prescription will be a standard form template in an electronic format to enable ongoing edit and revision. The prescription should be completed by a specialist in rehabilitation, including an allied health professional or therapist (band 7). Access to specialist rehabilitation will be provided by a rehabilitation consultant, through a specialist rehabilitation prescription.

The designated Major Trauma Centre will incorporate hyper acute rehabilitation provision in order to provide rehabilitation to patients who also require ongoing acute medical treatment. This will enable patients to access relevant medical specialties. The facility will accommodate patients with tracheostomies and naso-gastric tubes. This could be provided on a medical ward or a dedicated major trauma ward and the Team will follow the patient.
When the patient is ready to move from a hyper acute rehabilitation facility, they may be transferred to a level 1 facility according to their needs. The patient may not necessarily need to move through a pathway transferring to a lower level acute facility and then into the community. Where onward transfer to another facility is required, communication with the receiving unit will be proactive and clear. GPs will also receive information on the rehabilitation that the patient has received or been prescribed. Support from neuro-psychiatry will be provided as clinically required.

Continuity of care will be prioritised throughout the patient’s journey. The patient will be allocated a key worker and will have access to a single point of contact (either a nurse or therapist) to enable them to raise queries at any point. Where patients are treated on a medical ward, the trauma team will be expected to work with the medical specialties to ensure that the provision of rehabilitation alongside medical treatment is seamless.

The patient and their family will be informed of relevant information throughout their time in rehabilitation. This will include the provision of an information booklet and an option to keep a patient or family diary. Support to families will also be prioritised and consideration should be given to providing facilities such as on-site accommodation where families travel long distances. Open visiting has also been identified as a priority, factoring in patient feedback. Early links with appropriate third sector agencies should be established.

**Level 2 – acute ongoing rehabilitation – Major Trauma Units**

For the majority of patients whose needs will be less complex and at a lower level, acute and ongoing rehabilitation will be provided within a Major Trauma Unit which will be more localised to their area of residence. They may be directly admitted to the Major Trauma Unit or via the Major Trauma Centre. The patients will require input from a wide range of rehabilitation disciplines, including trained nurses, physiotherapy, occupational therapy, dietetics, psychology and ALAS (list not exhaustive).

Rehabilitation input will commence with the initiation of a rehabilitation prescription within 72 hours and will be overseen by a Consultant in Rehabilitation Medicine. The prescription will be a standard form template in an electronic format to enable ongoing edit and revision. The prescription should be completed by a specialist in rehabilitation, including an allied health professional or therapist (band 7).

The Major Trauma Unit will enable patients to access relevant medical specialties and could be provided on a medical ward or a dedicated trauma ward.
The patient may not necessarily need to move through a pathway transferring to a lower level acute facility and then into the community. Where onward transfer to another facility is required, communication with the receiving unit/community will be proactive and clear. GPs will also receive information on the rehabilitation that the patient has received or been prescribed. The Major Trauma Unit Rehabilitation team will have the capacity and skill set to advise the community teams and local rehabilitation hospitals to outreach to local hospitals or units for patients with ongoing rehabilitation needs.

Continuity of care will be prioritised throughout the patient’s journey. The patient will be allocated a key worker and will have access to a single point of contact (either a nurse or therapist) to enable them to raise queries at any point. Where patients are treated on a medical ward, the trauma team will be expected to work with the medical specialties to ensure that the provision of rehabilitation alongside medical treatment is seamless.

The patient and their family will be informed of relevant information throughout their time in rehabilitation. This will include the provision of an information booklet and an option to keep a patient or family diary. Support to families will also be prioritised and consideration should be given to providing facilities where families travel long distances. Open visiting has also been identified as a priority, factoring in patient feedback. Early links with appropriate third sector agencies should be established.

**Level 3 – ongoing rehabilitation – Community**

As patients improve and no longer require care within an acute setting they will be transferred into a community setting to continue their rehabilitation. The model of which will be determined by the local model of care which may be different across the network area depending on rural or urban localities and will contain vocational/social participation and third sector support as necessary. The Consultant in Rehabilitation Medicine will maintain an overview and patients will be reviewed and managed within the community. There will be links with GPs, the wider Primary Care Team and third sector organisations. Specialist Community Teams such as those working in Acquired Brain Injury and Spinal Injury will support primary care teams with a seamless approach between community and Level 2/specialised care.

To enable a seamless approach Community areas (to be determined) require:

a) A Community rehabilitation co-ordinator equivalent to MTU Co-ordinator.
b) Early notification of patient injury (via coordinator?), to enable the appropriate people to be involved in planning care journey/in involve families where appropriate.

c) Regular meetings and updates on patient progress to enable informed decisions to be made early in the care journey e.g. modifications/adaptations of property requires intervention as early as possible due to long lead in.

d) Pathways should be in place such that the same standard of treatment and care is provided pan Wales.

e) Sharing of data across HBs, Social Care and Agencies.

f) Knowledge of services available within the community (Directory – Dewis Cymru website with resource directory/database).

g) Clarity around “maintenance” of patients i.e. where one service ends / starts for lifelong support.

Paediatric Rehabilitation

The paediatric rehabilitation model requires further discussion with WHSCC in light of the acute paediatric rehabilitation services model and fixed points such as the Paediatric Intensive Care Unit remaining within the Children's Hospital for Wales and Paediatric Burns Centre services provided by Bristol. It is recommended that a pan Health Board Task & Finish Group is established to develop and/or confirm pathways based on the acute paediatric rehabilitation model outlined and agreed by WHSCC.