British Society of Rehabilitation Medicine

Promoting quality through education and standards

Specialist Rehabilitation in the Trauma pathway: BSRM core standards

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This document was prepared by a Working Party of the British Society of Rehabilitation Medicine.

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BSRM Core Standards for Specialist Rehabilitation following Major Trauma:

After trauma many patients will need input from rehabilitation services including from rehabilitation consultants. Often the input may be limited to assessment, giving advice and setting expectations, and possibly organising relatively simple interventions. A significant number of patients will have more complex needs requiring more prolonged input from a multi-disciplinary team with expertise, and a smaller group will need more prolonged specialist rehabilitation (in- or out-patient).

Specialist rehabilitation is a critical component of the Trauma Care Pathway without which the Major Trauma networks will inevitably fail. This document sets out core standards to define the role of specialist rehabilitation, and in particular Consultants in Rehabilitation Medicine (RM) within the adult Trauma Care Pathway (16 years and over). The standards are limited to adults because children are outside the expertise of this group. However, many of the principles will also be applicable for patients under the age of 16 years.

Part 1: Background

In 2010, the NHS Clinical Advisory Group for Major Trauma (Trauma CAG) reported to the Department of Health (England), making recommendations for establishment of services in Major Trauma Networks to provide coordinated pathways of care[1].

- A **Trauma Network** is the collaboration between the providers commissioned to deliver trauma care services in a geographical area
- At its heart is the **Major Trauma Centre or Collaborative**, but the Trauma Network includes *all* providers of trauma care, particularly: pre-hospital services, other hospitals receiving acute trauma admissions (eg **Trauma Units**), and rehabilitation services
- Within this system, patients who suffer major trauma are treated and stabilised at a Major Trauma Centre (MTC). Patients then progress along a patient pathway according to rehabilitation need and the specification of local and regional rehabilitation services

Following this report, 26 Major Trauma Centres (MTCs) (22 of them treating adults) have been established across England, each linked with a number of supporting Trauma Units (TUs). The London Major Trauma network was launched in 2010, and networks around the rest of England went 'live' from April 2012.

To date, many areas of the country have focussed on the acute care elements of the pathway. However, rehabilitation is key, both for supporting individual patients' needs and increasing flow to remove bottle-necks in the acute patient pathway.

The Trauma CAG also emphasised the importance of early rehabilitation, including specialist rehabilitation for patients with complex needs. It recommended the appointment of a Clinical Lead for Acute Trauma Rehabilitation Services (Consultant in Rehabilitation Medicine) in every MTC. This is now included in the service specification.

What is Major Trauma?

According to NHS Choices, Major Trauma means 'multiple, serious injuries that could result in disability or death'. Within the scientific literature, Major Trauma is defined using the Injury Severity Score (ISS), which assigns a value to injuries in different parts of the body and totals

them to give a figure representing the severity of injury. An ISS greater than 15 is defined as Major Trauma. This definition, however, does not include all those who would benefit from the regionalisation of trauma care, and the CAG took a more inclusive view encompassing also patients with lower ISS scores – recommending, for example, that all patients with ISS ≥9 should have a rehabilitation prescription (see part 2 below).

By its very nature, Major trauma results in a complex range of impairments and disabilities, which typically include a mixture of physical, cognitive, emotional, social and behavioural problems. ISS scores do not necessarily provide a good indication of rehabilitation needs.

What is specialist rehabilitation?

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[2].

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 (RM)[2].

Evidence: There is now a substantial body of trial-based evidence and other research to support both the effectiveness and cost-effectiveness of specialist rehabilitation[3-8]. Despite their longer length of stay, the cost of providing early specialist rehabilitation for patients with complex needs is rapidly offset by longer-term savings in the cost of community care, making this a highly cost-efficient intervention[9, 10].

In the context of trauma the core activities of a **Consultant in RM** include[11]:

- Diagnosis and medical management of conditions causing complex disability. These include musculoskeletal injuries, limb loss, brain and spinal cord injury arising from trauma itself, and also any pre-existing physical, psychological or mental health conditions.
- Anticipation and prevention of physical, psychological and social complications, based on knowledge of a condition's natural history and prognosis
- Evaluation of potential to gain from rehabilitation and prognosis for recovery
- Defining rehabilitation needs and directing patients to appropriate rehabilitation services
- Coordinating care and collaborating with other medical and therapy teams
- Communicating with families to provide information, support them in distress and manage expectations.

RM Consultants therefore play a vital role in the Major Trauma Centres, and should be closely involved **both at a clinical level and in the planning and delivery** of services across all parts of the Major Trauma Networks. They are particularly involved with the planning of specialist services for patients with complex needs, but also provide a networking role to support local non-specialist services. They provide an important resource of advice and training of staff within the trauma centres/units with respect to rehabilitation needs and interventions.

Which patients need specialist rehabilitation?

The Trauma CAG advised that every patient with ISS ≥9 in either a Major Trauma Centre or a Trauma unit should have their needs for rehabilitation assessed, and that a **rehabilitation prescription** should be provided for all patients with rehabilitation needs. Injuries requiring rehabilitation will range from the very modest, to the obvious and severe, and not every patient will require specialist rehabilitation.

The majority of trauma patients will have an uncomplicated recovery and progress rapidly down the Recovery, Re-enablement and Rehabilitation (**RR&R**) pathway. Their rehabilitation needs can be met within their local general (Level 3) rehabilitation services (see Figure 1).

However, the Department of Health's Specialised Services National Definition Set (SSNDS) 2009 for complex and specialised rehabilitation [12], defined three levels of service (1-3) and four categories of patient need (A-D). Patients with more complex needs (category A or B) required specialist rehabilitation. Details of these levels and categories may be found on the BSRM website - http://www.bsrm.co.uk/ClinicalGuidance/Levels_of_specialisation_in_rehabilitation_services5.pdf

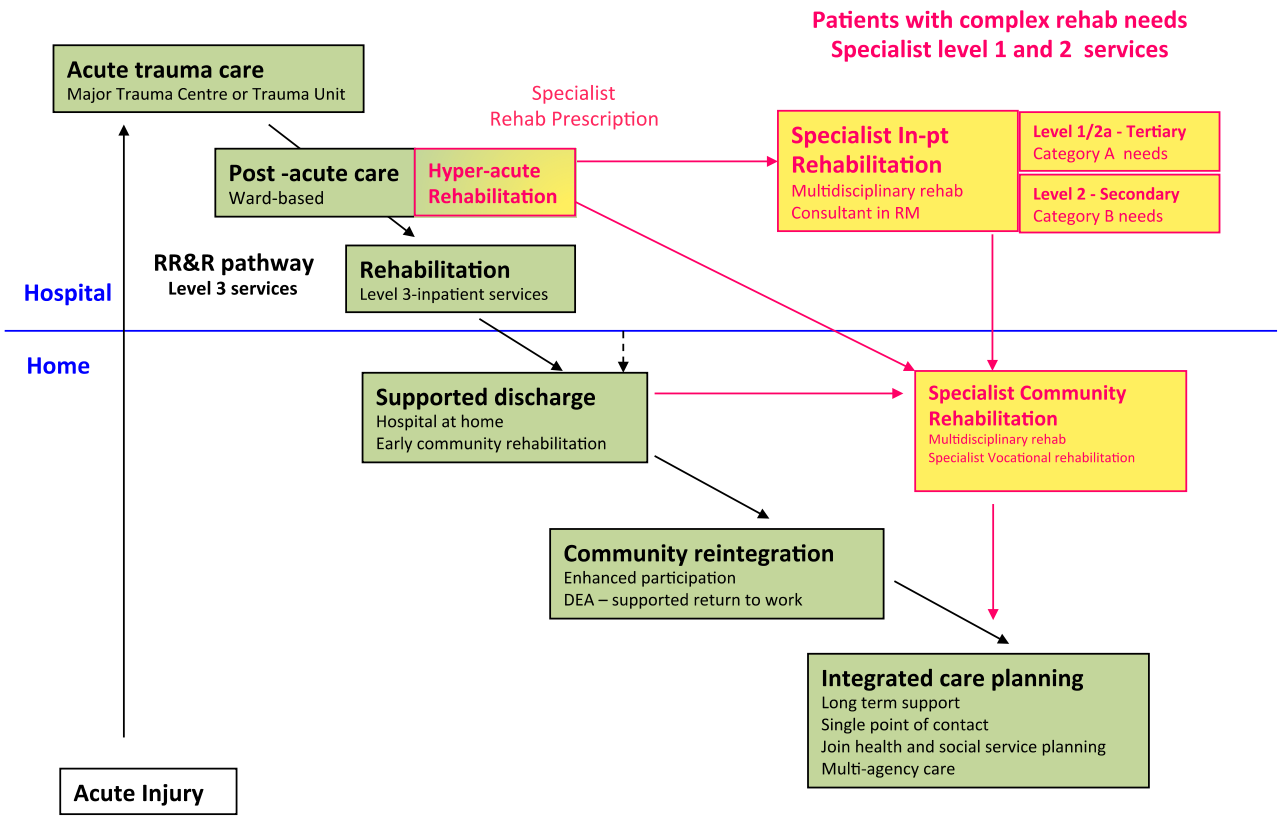
Within the Major Trauma Pathway, all patients should be assessed by a consultant in RM. If their requirement category A or B rehabilitation is confirmed, a **specialist rehabilitation prescription** should be drawn up by the Consultant or their designated deputy, who will then expedite transfer to an appropriate specialist rehabilitation setting as rapidly as possible. Level 1 and 2 rehabilitation services have different commissioning arrangements from the Level 3 services, so the specialist rehabilitation prescription will also play an important role in identifying activity and providing essential data to initiate the appropriate currency and tariff.

Commissioning pathways

For the majority of patients (category C or D needs) rehabilitation is provided and commissioned through the local general (Level 3) rehabilitation services along the RR&R pathway (ie the green pathway in Figure 1).

- Patients with more complex rehabilitation needs (category B) will require specialist rehabilitation (yellow pathway) from their local Level 2 services, which are further divided into Level 2a (supra-district) and 2b (local) specialist services
- A small number with very complex (category A) needs will require rehabilitation in a tertiary (Level 1) service - or in a level 2a service with enhanced capacity to support patients with highly complex needs

Figure 1: Pathway for patients with trauma



Under the commissioning arrangements starting in April 2013, mandated commissioning currencies for inpatient specialist rehabilitation (Level 1 and 2 services) are operationalized through the UK Rehabilitation Outcomes Collaborative (UKROC) database (the national database for specialist rehabilitation) as the commissioning dataset.

- Patients with category A needs in level 1 and some designated level 2a services will be directly commissioned by the NHS Commissioning Board
- The remainder of specialist rehabilitation will be commissioned by the Clinical Commissioning Groups (CCGs)

Therefore an important role of the rehabilitation prescription is to signpost patients down the appropriate pathway and to collect essential data for commissioning.
For patients requiring specialist rehabilitation following trauma, the key data items collected at discharge from the Major Trauma Centres and Trauma Units as part of the Specialist Rehabilitation Prescription must also be aligned to the UKROC dataset.

These standards lay down a process for identification of patients with complex needs for rehabilitation, their specialist rehabilitation prescription and referral to specialist rehabilitation.

Service models for specialist rehabilitation – Hyper-acute rehabilitation

Service models for specialist rehabilitation provision within the Major Trauma networks will vary according to local policy, geography and existing service provision. A number of different service models are described in other BSRM documents[2] [11].

Hyper-acute rehabilitation, however, has been less well explored to date. This refers to the very early stage of rehabilitation for patients who have been stepped down from critical care or high dependency units and still have unstable medical needs. They may no longer need to be under the direct care of orthopaedics, neurosurgery, general surgery etc, but still require these specialties to be immediately available for advice or management of complications. In the past such patients have been 'repatriated' into non-specialist, non-rehabilitation beds, often in a different hospital. This is inappropriate because neither their needs for rehabilitation or for specialist trauma care can be met.

There are several possible models of provision of very early specialist rehabilitation following major trauma, only two of which are recommended for consideration in MTCs or TUs:

1. **A dedicated acute rehabilitation unit, led by a Consultant in RM, and with a dedicated multi-disciplinary rehabilitation team is located in, or very close to an MTC or TU.**

   The benefits of this model are:
   a) Patients with complex major trauma and complex rehabilitation needs remain in or near to the MTC or TU where relevant trauma expertise is readily available.
   b) Their care is provided by a dedicated acute rehabilitation team of nursing, and therapy staff under the medical leadership of the consultant in RM, within a setting that provides a 24-hour rehabilitation approach, and a peer group of other patients undergoing a similar programme (ie 'a rehabilitation milieu')
   c) Robust governance systems can readily be put in place and the team can develop expertise in this complex area of care.
   d) Under the new commissioning arrangements from 2013, this service model attracts the rehabilitation (per diem) tariff (including the specialist level 1 or 2 rehabilitation tariff) if the unit meets the relevant criteria. Drawbacks are the requirement for space within the acute care setting.

2. **Dedicated rehabilitation beds within the acute major trauma ward, with rehabilitation patients being under the care of a RM consultant, sharing nurses and AHPs with acute specialities**

   This model also provides proximity to the relevant trauma expertise. Disadvantages, however, are that it may be more difficult to provide a rehabilitative milieu and to determine when the treatment spell changes from acute care to rehabilitation. If rehabilitation is not the sole purpose for admission the treatment may not attract the rehabilitation tariff.

   Other models, such as patients remaining under the care of the acute consultant with advice / treatment from mobile specialist rehabilitation or outreach services, are not recommended as they have been shown to be ineffective in other contexts (eg stroke).

Audit of Trauma care and specialist rehabilitation

Under the HQIP programme a new National Clinical Audit "*Specialist rehabilitation for patients with complex needs following major illness or injury*" begins development from 2013. This five-year programme will create data-flow between the TARN and UKROC databases. Registry status will be sought for the UKROC database to allow collection of identifiable data (the NHS number). This will enable tracking of patients from the Acute services through to specialist rehabilitation and the community in order to determine which of those patients who were referred to level1 and 2 services actually received them, and to evaluate outcome.

The scheme (shown in Appendix 1) is a framework for implementation of the specialist rehabilitation assessment/prescription pathway, which also links outcomes assessment between the TARN and UKROC datasets.

It is accepted that some elements of this are aspirational at present, due to limited capacity, but the inpatient elements of data collection are supported within the UKROC and in use in the majority of specialist (Level 1 and 2) services in England.

Competencies, specialist skills for RM consultants

In order to meet the standards laid out in this document, a pool of appropriately skilled consultants in Rehabilitation Medicine will be required. The current curriculum for specialist training in Rehabilitation Medicine does not adequately address the specific competencies required for trauma rehabilitation – especially in the hyper-acute trauma rehabilitation services. As part of the development of these standards, the development group has drawn up a list of core skills for consultants specialising in this area (see Appendix 4). Depending on their background training in general medicine/surgery, trainees may require an additional clinical fellowship year working at the interface between acute trauma and rehabilitation services to hone their skills and confidence in this exciting but demanding area of clinical practice.

Part 2: Rehabilitation Prescription after Major Trauma:

Working with the Trauma Audit and Research network (TARN), the Trauma CAG has developed guidance for completion of the Rehabilitation Prescription, as part of the requirement for the Best Practice Tariff in Major Trauma Centres. This will undoubtedly change over time, but the current guidance is as follows:

- The **Rehabilitation Prescription (RP)** is used to document the rehabilitation needs of severely injured patients (ISS score ≥9) and identify how they will be addressed.
- The RP should be initiated within 2 calendar days of admission to the trauma service.
- It also requires the completion of the TARN minimum dataset (4 items only)
- The RP may be completed by any suitably qualified member of staff, including a Band 7 Allied Health professional (AHP) or therapist.

For many patients progressing rapidly down the RR&R (level 3) pathway, this initial 2 calendar day RP will also be their actual prescription for on-going rehabilitation at discharge from the MTC.

The RP encompasses several different components, including:

- A description of the injuries, relevant psycho-social background, risks and treatment to date
- An individualized (text-based) description of rehabilitation needs/recommendations in sufficient detail to inform planning and delivery of on-going rehabilitation/care.
- Essential data collection using standardised data collection tools for audit and commissioning

Just four essential data items are mandated for collection through TARN to qualify for the Best Practice Tariff. These are shown in Box 1:

Box 1: Four essential data items for reporting to TARN

For patients with severe injury (ISS score ≥9):

1. Confirmation that a **RP was completed** or not required
2. Presence of **physical disability** affecting activities or participation
3. Presence of **cognitive/mood factors** affecting activities or participation
4. Presence of **psychosocial factors** affecting activities or participation

Specialist Rehabilitation Prescription for Patients with more complex needs:

Those with more complex needs are likely to require a longer period of treatment in the MTC, and may also have more complex needs for rehabilitation, requiring referral down the specialist (level 1 or 2) rehabilitation pathway.

- Entry to this Level 1/2 pathway requires generation of a **Specialist Rehabilitation Prescription (SRP)** made by a Consultant Specialist in Rehabilitation Medicine, as noted above
- The SRP provides a process for identifying patients with complex rehabilitation needs, confirming those needs and sign-posting the patient appropriately for rehabilitation and ongoing care

- The SRP is not an entirely separate document, but simply an extension of the RP to gather the additional information required for more complex care planning and essential data collection for the Level 1/2 commissioning datasets

Key additional data includes:

- The Rehabilitation Complexity Extended Trauma version (RCS-ET)
- The full Patient Categorisation Tool to confirm category A or B needs
- The Northwick Park nursing Dependency Scale (NPDS) (which also translates to a Barthel Index)
- The Trauma Impairment Set

Copies of these tools are available electronically through the UKROC website http://www.csi.kcl.ac.uk/ukroc

The first SRP is usually finalised at the point of discharge from an MTC. However this is a living document, which will follow the patient and change over time in accordance with their changing needs.

- It should be held by the patient and regularly updated – especially at all transfers of care
- It applies not only to health but to all services
- It may be used to audit services in terms of both quality and quantity

Delayed transfer to rehabilitation is a significant problem for the Major Trauma networks. These may result from waiting lists for rehabilitation services or genuine medical/surgical instability requiring longer lengths of stay in the MTC. Some patients may fluctuate over time between instability and fitness for rehabilitation

The RCS-ET has been developed as an extension of the RCS-E to assist in monitoring of delayed transfers for audit purposes.

- The 'R point' is the point in the pathway when the patient is ready to transfer from the acute trauma setting to rehabilitation. This clinical decision is usually made by the Trauma team on the daily ward round.
- Daily recording of the RCS-ET M-scores, may be used to inform definition of the R-Point and monitor continued fitness for transfer
    - At M = 6, the patient still requires care in the specialist MTC setting
    - At M = 5, they require ongoing trauma care but this can be delivered locally in a trauma unit
    - At M = 4, they still have acute medical/surgical needs requiring out of hours care in an acute care setting, or hyper-acute rehabilitation unit

At M1-3 they are ready for transfer to a rehabilitation service with the following levels of medical care:

- M = 3 - access to 24-hour emergency cover for potentially unstable problems
- M = 2 - specialist investigations or procedures
- M = 1 - routine medical monitoring/surveillance

At M = 0 their medical/surgical trauma needs could be met at home.

When an adequate hyper-acute rehabilitation service is available, patients may be considered to have reached the R-point when the M score is consistently 4 or below, as ratified by the consultant in Rehabilitation Medicine.

After patients have been transferred to specialist rehabilitation, the standard outcome assessment tools in the UKROC dataset are recorded at the required intervals for specialist rehabilitation services. The FIM+FAM and associated Impairment Set are recorded at admission and discharge, and thus contribute to the longer term evaluation of outcome from trauma networks.

BSRM Core standards for Specialist Rehabilitation following Major Trauma

1. BSRM standards for specialist rehabilitation within Major Trauma networks:	
1.1	RM Consultants should be closely involved both at a clinical level and in the planning and delivery of all Major Trauma Networks to support and direct rehabilitation for patients with complex needs. • Within each Major Trauma Centre (MTC) an identified RM Consultant (or consultants) should be an integral part of the Major Trauma Centre (MTC) Team • Within each TU, an identified RM Consultant (or consultants) should be an integral part of the trauma service both for patients transferred out of MTCs and for patients who receive all of their trauma care within the TU
1.2	The above roles will normally involve a consultant in RM attending the MTC or TU at least 2-3 times per week, which should be written into their job plan.
1.3	The RM consultant should be involved from an early stage in the patient's trauma pathway (within 4 calendar days) to: • assess patients with complex rehabilitation needs • participate in the planning and execution of their interim care and rehabilitation • expedite referral and transfer for on-going rehabilitation as soon as they are fit enough
1.4	At an operational level, key roles for the consultant should include: • Overseeing the triage and identification of patients with complex rehabilitation needs, including training of MTC staff in the use of assessment tools • Multidisciplinary wards rounds and team-based planning meetings • Specific clinical interventions (eg spasticity management, assessing patients with prolonged disorders of consciousness etc) • Case conferences and negotiation with third parties, including commissioners and rehabilitation service providers • Providing information and support for patients' families
2. Specialist Rehabilitation Prescription:	
2.1	Patients who have (or are likely to have) on-going complex physical, cognitive, communicative or psychosocial disability (category A or B needs) should be assessed by an RM Consultant (or their designated deputy) prior to discharge from the MTC. (The designated deputy can be an individual who has specialist knowledge and training in rehabilitation to a consultant level, eg AHP Consultant in Rehabilitation who works within the specialist rehabilitation team and is authorised by the RM Consultant to sign off a specialist RP on their behalf). (A tool has been developed to help MTC teams identify those patients likely to have category A or B needs and so refer them appropriately for specialist review – see Appendix 2).
2.2	The RM Consultant (or their designated deputy) should complete a Specialist Rehabilitation Prescription (SRP) at discharge from the MTC.

2.3	The Specialist RP for patients with complex rehabilitation needs should provide a comprehensive record of the patient's injuries, psychosocial background, risks and treatment to date as well as a statement of their rehabilitation needs/ recommendations in sufficient detail to inform planning and delivery of on-going rehabilitation/care. (Individual MTCs will develop their own paperwork, but the SRP should include all the headings included in the proforma which is provided as an exemplar for local adaptation (see Appendix 3)).
2.4	The Specialist RP for patients with complex rehabilitation needs should include as minimum the following data which should be entered into the UKROC database: 1. The Rehabilitation Complexity Extended Trauma version (RCS-E Trauma) 2. The full Patient Categorisation Tool to confirm category A or B needs 3. The Northwick Park nursing Dependency Scale (NPDS) (also translates to a Barthel Index) 4. The Trauma Impairment Set
2.5	As for the standard rehabilitation prescription, the specialist RP should travel with the patient and should be reviewed and updated at appropriate intervals (at least every 4-6 weeks), to record actions undertaken to implement the recommendations

References

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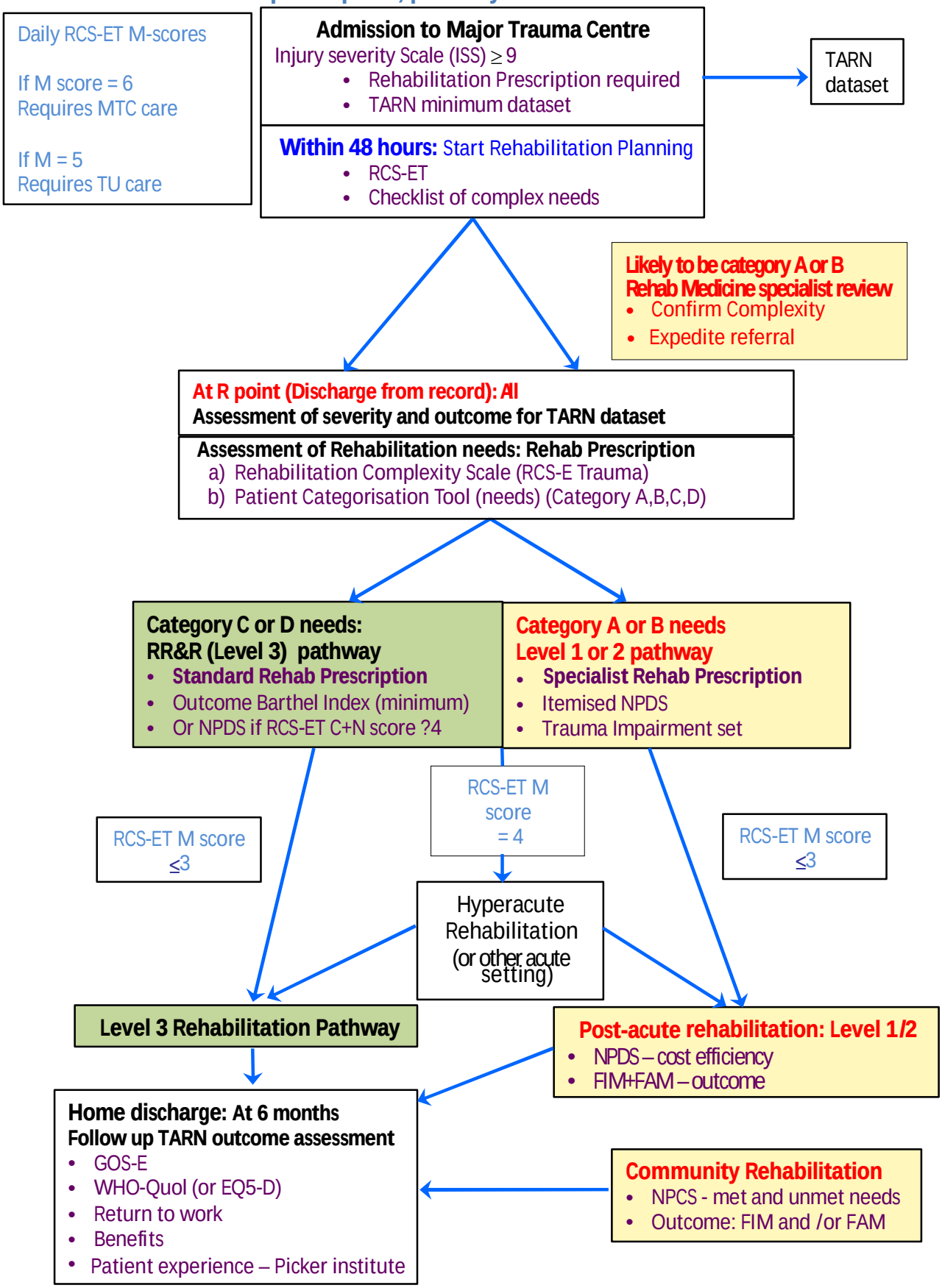
Appendix 1:

Scheme for rehabilitation prescription, pathways and outcome measurement



Appendix 2: Screening checklist for patient categorisation – all Levels (Required elements in red)

Pt Name:	NHS Number	DOB:	ISS:

TARN Minimum dataset	On-going Trauma Care requirements:	
Rehabilitation Prescription ❒ Required ❒ Not required **Presence factors affecting activities/participation** ❒ Physical ❒ Cognitive / mood ❒ Psycho-social	❒ Orthopaedic / trauma ❒ Neurology / neurosurgery ❒ Vascular ❒ Abdominal ❒ Cardiothoracic ❒ Urology	❒ Plastics ❒ Burns ❒ ENT ❒ Max-fax ❒ Other.....

Does the patient have COMPLEX clinical needs?

Complex Physical eg	**Complex Cognitive / Mood** eg	**Complex Psychosocial** eg
❒ Complex musculoskeletal management ❒ Complex neuro-rehabilitation ❒ Complex amputee rehabilitation needs ❒ Re-conditioning / cardiopulmonary rehab ❒ Complex pain rehabilitation ❒ Profound disability / neuropalliative rehabilitation	❒ Complex communication support ❒ Cognitive assessment/management ❒ Complex mood evaluation / support ❒ Challenging Behaviour management ❒ Evaluation of Low Awareness state	❒ Complex discharge planning eg o Housing / placement issues o Major financial issues o Uncertain immigration status ❒ Major family distress / support ❒ Emotional load on staff

Checklist of needs that are likely to require specialist rehabilitation (tick any that apply) **(Examples)**		**Specialist needs?**
Specialist rehab medical (RM) or neuropsychiatric needs	❒ On-going specialist investigation/ intervention ❒ Complex / unstable medical/surgical condition ❒ Complex psychiatric needs ❒ Risk management or Treatment under section of the MHA	❒ Yes ❒ No
Specialist rehabilitation environment	❒ Co-ordinated inter-disciplinary input ❒ Structured 24 hour rehabilitation environment ❒ Highly specialist therapy /rehab nursing skills	❒ Yes ❒ No
High intensity	❒ 1:1 supervision ❒ ≥4 therapy disciplines required ❒ High intensive programme (>20 hours per week) ❒ Length of of rehabilitation ≥ 3 months	❒ Yes ❒ No
Specialist Vocational Rehab	❒ Specialist vocational assessment ❒ Multi-agency vocational support (for return to work /re-training /work withdrawal) ❒ Complex support for other roles (eg single parenting)	❒ Yes ❒ No
Medico-legal issues	❒ Complex mental capacity / consent issues ❒ Complex Best interests decisions ❒ DoLs / PoVA applications ❒ Litigation issues	❒ Yes ❒ No
Specialist facilities / equipment needs	❒ Customised / bespoke personal equipment needs (eg Electronic assistance technology, communication aid, customised seating, bespoke prosthetics/orthotics) ❒ Specialist rehabilitation facilities (eg treadmill training, computers, FES, Hydrotherapy etc)	❒ Yes ❒ No

Provisional Categorisation of Rehabilitation Needs	
❒ **Category A** (requiring Level 1 or 2a Rehabilitation) ❒ **Category B** (requiring Level 2 Rehabilitation) ❒ **Category C or D** (requiring RR&R pathway)	**If probable category A or B needs,** refer for specialist rehabilitation review: **Referred** Yes / No Date...../...../..... **Reviewed** Yes / No Date...../...../.....

Rehabilitation Complexity Score (RCS-E Trauma)						
Care / Risk	**Nursing**	**Medical**	**Therapy-Disciplines**	**Therapy-Intensity**	**Equipment**	**Total Score (0-25)**
0 1 2 3 4 / 0 1 2 3 4	0 1 2 3 4	0 1 2 3 4 5 6	0 1 2 3 4	0 1 2 3 4	0 1 2 3	**...../25**

Assessor (Print Name)	Signed:	Date:

Appendix 3: Specialist Rehabilitation Prescription Proforma (example).

For patients with complex rehabilitation needs requiring Specialist (Level 1 or 2) Rehab services.
The specialist rehabilitation Prescription should be complete/ signed off by a Consultant in Rehabilitation Medicine or their deputy at discharge from the Major Trauma Centre / Trauma Unit.
This proforma is provided as an exemplar for local adaptation. (Required elements are in red)

NHS no:	**Date of Injury:**	
Insert label or:	**Type(s) of injury:**	
Surname: First name Date of birth: Address: GP:	Neurological: ❒ Brain injury ❒ SCI ❒ Peripheral nerve ❒ Musculoskeletal	Other: ❒ Vascular ❒ Burns ❒ Thoracic ❒ Abdominal ❒ Amputation
Family contact/ Next of kin	Contact phone number for family member	
Current location: **MTC:**	**Consultant:** **Keyworker:**	

Pre-injury / illness information	
Significant Past History	
Family support	
Housing	
Work	
Leisure	

Description of injuries: (and other details such as initial GCS, PTA etc)
Progress/ complications

Current functional status:		
Injuries still requiring active management		**GCS: E...../V...../M.... Total...../15** **Motor loss:** Yes / No **Sensory loss:** Yes / No

Summary of Impairments / function at a glance **(This section is optional as the information is included NPDS and Impairment set)**				
Sensory and upper limb	**Vision** ❒ Intact ❒ Impaired ❒ Unassessable	**Hearing** ❒ Intact ❒ Impaired ❒ Unassessable	**Perception** ❒ Intact ❒ Impaired ❒ Unassessable	**Upper limb function** ❒ Intact ❒ Impaired ❒ Non functional
Posture and pressure management	**Sitting out** ❒ Standard chair ❒ Special seating ❒ Unable	**Pressure relief** ❒ Independent ❒ Assisted + 1 ❒ Assisted + 2	**Pressure sores** ❒ Yes ❒ No Location and grade:	**Risk** ❒ Waterlow ❒ Braden Score.....
Mobility	**Transfers** ❒ Independent ❒ Assisted + 1 ❒ Assisted + 2 ❒ Hoisted	**Walking** ❒ Independent ❒ Assisted + 1 ❒ Assisted + 2 ❒ Unable	**Wheelchair** ❒ None required ❒ Independent ❒ Assisted ❒ No chair	**Wandering** ❒ No ❒ Low risk ❒ High risk
Sphincters and Continence	**Bladder control** ❒ Toilet ❒ Commode/urinal ❒ Catheter/convene ❒ Pads	**Bladder Assistance** ❒ Independent ❒ Assisted + 1 ❒ Assisted + 2	**Bowel control** ❒ Toilet ❒ Commode ❒ Pads	**Bowel Assistance** ❒ Independent ❒ Assisted + 1 ❒ Assisted + 2
Nutrition	**Consistency of diet** ❒ Normal diet/fluids ❒ Soft/pureed ❒ NG/PEG feed	**Swallowing** ❒ Normal ❒ Impaired	**Feeding** ❒ Independent ❒ Assisted + 1	**Nutrition** MUST score: .....
Ventilatory	**Oxygen support** ❒ Yes .....% ❒ No	**Tracheostomy** ❒ Yes ❒ No	**Ventilatory support** ❒ Full support ❒ Assisted (CPAP) etc ❒ None	**Details:**
Cognitive / communication	**Communication** ❒ Normal ❒ Impaired ❒ Unable	**Cognitive** ❒ Normal ❒ Impaired ❒ Unconscious	**Behaviour** ❒ Normal ❒ Impaired	**Mood** ❒ Normal ❒ Impaired

Rehabilitation Complexity Scale Extended (RCS-E) Trauma version (as confirmed by Rehab Physician)

	0	1	2	3	4	5	6
Medical	None active	Basic	Specialist	Potentially unstable	Acute medical / surgical	TU	MTC
Care	Independent	1 carer	2 carers	≥ 3 carers	1:1 supervision		
Risk	None	Low	Medium	High	Very high		
Nursing	None	Qualified	Rehab nurse	Specialist nursing	High dependency		
Therapy disciplines	None	1	2-3	4-5	≥ 6		
Therapy Intensity (Total therapist time)	None	low level (< daily) <15 hrs/wek	Moderate (eg daily) 15-24 hrs/wk	High (+ assistant) 25-30 hrs/week	Very high >30 hours/week		
Equipment	None	Basic	Specialist	-	-		

RCSE: M..... C..... N..... Td..... Ti..... E..... **Total ...../24**

Detail of Rehabilitation needs

	Optional checklist	Details
Medical	❒ Medical management ❒ Orthopaedic ❒ Neurosurgical ❒ Amputee ❒ Other:	
Physical	❒ Mobility ❒ Upper limb function ❒ Postural support (seating/W/C) ❒ Splinting / orthotics ❒ Spasticity ❒ Pain ❒ Other:	
Basic functions	❒ Tracheostomy / ventilator ❒ Respiratory / pulmonary rehab ❒ Continence – urinary / faecal ❒ Wound management ❒ Swallowing /nutrition ❒ Communication ❒ Other:	
ADL	❒ Personal care / ADL ❒ Continence ❒ Extended ADL ❒ Vocational ❒ Educational ❒ Other:	
Cognitive / psychosocial	❒ Sensory (Vision / hearing) ❒ Cognitive / perceptual ❒ Behavioural management ❒ Mood / emotion ❒ Formal family support ❒ Other:	
Discharge planning	❒ Housing / placement ❒ Benefits/finances ❒ Equipment / home adaptations ❒ Community visits ❒ Emotional load on staff ❒ Other:	
Equipment	❒ Orthotics/Prosthetics: ❒ Mobility aids/transfer equipment ❒ Specialist seating ❒ Bed/posture Management ❒ ADL equipment ❒ Other (eg Environmental controls)	
Any on-going risks		

Summary

Expected duration of admission	Patient category confirmed	Service Level required	Please ensure the following are completed and entered in the UKROC dataset:
❒ Assessment /rapid intervention (2-4 wks) ❒ Short stay (eg 6-8 wks) ❒ Medium stay (eg 3-4 mths) ❒ Long stay (eg 5-6 mths)	❒ A ❒ B ❒ C ❒ D	❒ Level 1 ❒ Level 2a ❒ Level 2b ❒ Level 3 ❒ Other	❒ RCS-ET (as above) ❒ Full Patient Categorisation Tool ❒ Itemised NPDS (for NPCNA) ❒ Impairment set

If not for rehabilitation: Reason and alternative recommendations:

Name and contact details of your key worker:
YOUR REHABILITATION PRESCRIPTION: Services referred to: (including contact details and anticipated waiting time)
Other key information (eg patient/family wishes. potential barriers to discharge)

INFORMATION GIVEN TO PATIENT / FAMILY
About their condition and treatment on the MTC
About their further treatment / follow-up
Other forms of support (eg Headway)
Anything else

Appendix 4: Key skills for Consultants in Rehabilitation Medicine working within the Major Trauma Networks

The practice of Specialist Rehabilitation within Major Trauma Networks has led to increased involvement of Rehabilitation Medicine (RM) Consultants and trainees within acute assessment and step-down rehabilitation units.

Patients are coming under the care of a RM Consultant much sooner at a time when their medical state is less stable and their clinical presentation is still evolving. These developments are welcomed as it should reduce hospital length of stay, prevent adverse events and improve overall outcome. Many Rehabilitation Medicine specialists are already practising in this way but some will need to extend their skills in order to practise in effective inter-specialty teams with their acute colleagues.

The BSRM recommends the following list of skills to senior trainees or RM CCT holders practising in acute trauma rehabilitation. It is hoped that this list will be of value to both practitioners and their employing Trusts and ensure that trainees will obtain the necessary experience and education to be able to deliver a high quality rehabilitation service in the acute trauma centre or trauma unit setting.

Domain 1 **Knowledge, skill and performance**			
Area	**Knowledge**	**Skills**	**Behaviour**
1. Emergency	Resuscitation protocols	Able to prioritise effectively in the context of multiple demands	Responds in a timely and expert manner to emergencies
2. Interspecialty working	Aware of recent developments in critical care, neurosurgery and orthopaedics as they pertain to RM assessment and planning	Able to participate usefully in inter-specialty treatment planning and promote rehabilitation approaches to clinical colleagues	Works within inter-specialty teams with an understanding and respect for other specialties' contribution. Is aware of limits of their own competence in the acute setting and requests advice appropriately
3. Assessment	The range of concurrent injuries that may have been sustained by an unconscious patient	Can identify the need for any additional investigation or referral	Constantly alert to potential complications of trauma and consistently applies recommended protocols of management.
4. Peripheral nervous system	The assessment, investigation and acute management of plexus and peripheral nerve injuries	Able to make an accurate neurological examination in the context of acute injury. The provision of effective pain relief. Can interpret results of investigations to offer accurate prognosis. Appropriate specialist referral	Effective joint working with neurological and therapy colleagues
5. Swallow	The physiology of swallowing and how this can be affected by trauma	Safe administration of a swallow test	Aware of limits of their own competence and appropriate referral to SLT services
6. Ventilation	Ventilatory physiology, assisted respiration and tracheostomy	Can monitor patients with a tracheostomy safely and supervise the change or removal of tracheostomy tubes	Works within limits of competence and makes appropriate referral to Critical Care, ENT and specialist nursing and physiotherapy staff
7. Spasticity	Postural and pharmacological management of acute spasticity	Can make appropriate use of spasticity treatments to preserve range of movement	A co-operative attitude towards other disciplines in the management of acute postural abnormality and spasticity
8. Nutrition	The nutritional demands of acute injury	The appropriate use of nutritional supplements, specialist dietetic advice and non oral nutrition	Timely referral and management of nutritional problems. Good use of assessment measures. Works effectively with dietetics
9. Physiology	The physiological disruption caused by acute injury. The range of possible endocrine abnormalities	The interpretation of common tests, appropriate management of electrolyte disturbance and identification of hormonal changes	Constantly alert to possible metabolic complications. Appropriate use of specialist referral
10. MSK injury	Principles of mobilisation, fixation, load bearing and pain relief after acute MSK injury. Complications of multiple trauma. Risk of heterotopic ossification; its diagnosis, assessment and management	To complete a comprehensive MSK examination in the context of acute injury. To institute effective pain relief and pursue rehabilitation objectives within the limits imposed by skeletal injury	Liaises well with physiotherapy and orthopaedic colleagues
11. Autonomic nervous system	Autonomic nervous system disturbance after TBI and SCI	Can differentiate infection from dysautonomia and 'Sympathetic Storm', and institute appropriate management	Interprets and acts upon the physiological monitoring of acutely injured patients, autonomic dysreflexia and other autonomic disturbance

12. Burns	The assessment and general management of burns	The promotion of healing, the relief of pain and the prevention of disabling joint contracture	Effective joint working with burns and plastic surgery departments in the rehabilitation management of injured patients
13. Seizures	The risks and management of seizures after ABI	The appropriate use of drug prophylaxis and accurate advice to the patient regarding the implications of seizures and legal requirements	Safe and appropriate use of medication and ready provision of patient information
14. Alcohol and drug abuse	Knowledge of alcohol and drug abuse, assessment methods and recommended protocols for management	The appropriate use of alcohol and drug withdrawal protocols and treatment of complications of drug and alcohol abuse	Consistent use of protocols and a positive attitude towards the support of patients with drug and alcohol problems
15. Disorders of consciousness	Assessment methods and management of patients in low awareness states or prolonged disorders of consciousness	The recognition of voluntary activity in the context of severe neurological impairment. The interpretation of results from clinical, neurophysiological and radiological assessment. Can identify and prevent complications of low awareness states. The ability to support families and staff. Familiarity with standard monitoring and assessment instruments viz CRS-R, WHIM, SMART. The appropriate use of palliative care services	Maintains a positive attitude to patients in low awareness states. Willing to support distressed family members and to advocate for the provision of adequate care. Respects Advance Care Plans and responds appropriately to Advance Directives
16. Delirium	A theoretical understanding of post traumatic confusional states and their prognostic implications	The assessment and management of delirium, post traumatic amnesia and post traumatic confusional states	Gives careful attention to reducing risks faced by agitated and confused patients
17. Neurosurgery	Awareness of the neurosurgical complications of TBI, the use and complications of craniectomy and the assessment and management of hydrocephalus	Attentive to neurological complications and effective joint working with Neurosurgical Services. Can give informed advice to patients and families	Diligent in preventing neurosurgical complications of TBI
18. Hand injuries	The assessment and early rehabilitation management of hand injuries	Can accurately examine for tendon injury and measure the range of motion of joints	Works effectively with orthopaedic and plastic surgery colleagues and therapy teams
19. Spinal injury	The assessment, investigation, acute management and prognosis of Spinal Cord Injury	Can examine accurately using the ASIA scale, and institute measures to prevent complications. Can convey prognostic information sensitively and advocate for recommended services	Diligent and compassionate approach to the spinal injured patient and family
20. Minor spectrum TBI	Mild and moderate TBI and the emotional impact of acute injury. The impact of premorbid problems. The identification, assessment and management of PTSD	The formulation of complex bio psychosocial problems and the appropriate use of management techniques and specialist referral. The assessment of mood in patients with limited communication	A positive attitude to emotional problems and the relief of distress

21. Old age groups	Prognosis for recovery from trauma in older age groups. The avoidance of preventable disabilities and adverse events in older adults. Awareness of elderly care rehabilitation services	The appropriate use of prognostic indicators and risk scales and management of co-morbidities	Patient non discriminatory approach to older adults and ready liaison with elderly care services
Domain 2 **Safety and quality**			
Area	**Knowledge**	**Skills**	**Behaviour**
1. Trauma rehabilitation services	The local and national trauma networks and protocols. Indications and provision of local and distant specialist rehabilitation services	Ability to make and document a comprehensive rehabilitation prescription for complex patients	Timely response to requests and commitment to service improvement and safety. Participation in clinical governance initiatives. A constructive approach to managers, colleagues and commissioners
2. Legislation and risk Management	Driving regulations and specific recommendations for high risk sports or work environments, Risk association with co-morbidities such as alcohol or drug abuse, osteoporosis	Alert to future risks and the secondary prevention of injury	Timely completion of DVLA or occupational health reports. A high regard for public safety and professional obligations
Domain 3 **Communication, partnership and team work**			
Area	**Knowledge**	**Skills**	**Behaviour**
1. Interagency working	The prognosis of injuries. Treatments and services that facilitate recovery. Sources of patient information and legal advice. Professional obligations eg confidentiality	Able to write an accurate and comprehensive report on injuries and give an accurate prognosis Able to recognise the context of an enquiry from an external source	An approachable and accessible attitude towards staff, families or legal representatives. Prompt, accurate and honest completion of return to work certificates. A balanced and impartial approach to the family, the rehabilitation team and external stakeholders
2. Legal	Familiar with professional obligations in the context of criminal or civil injury (BSRM/RCP/APIL 2006). The legal framework covering incapacitated patients, and adults or children who are at risk.	Able to recognise domestic violence Can keep accurate records which can be of value for future legal examination Can assess the fitness to give evidence or participate in police interviews Can make appropriate use of Deprivation of Liberty safeguards and safeguarding protocols	Use the principles of the Mental Capacity Act to manage incapacitated patients. Alert to risks that the patient or children in the family might be exposed to. An ethical and consultative approach to complex situations.
3. Return to work	The Disability Discrimination Act. Employment and vocational rehabilitation services. Work related benefits	Effective support and advice that promotes timely return to work	Attentive to the vocational implications of injury, vocational opportunities and risks to work