MAJOR TRAUMA
E – REHABILITATION PLAN
CARE PORTAL

Care Portal - Richard Wilson (richard.wilson4@nhs.scot)

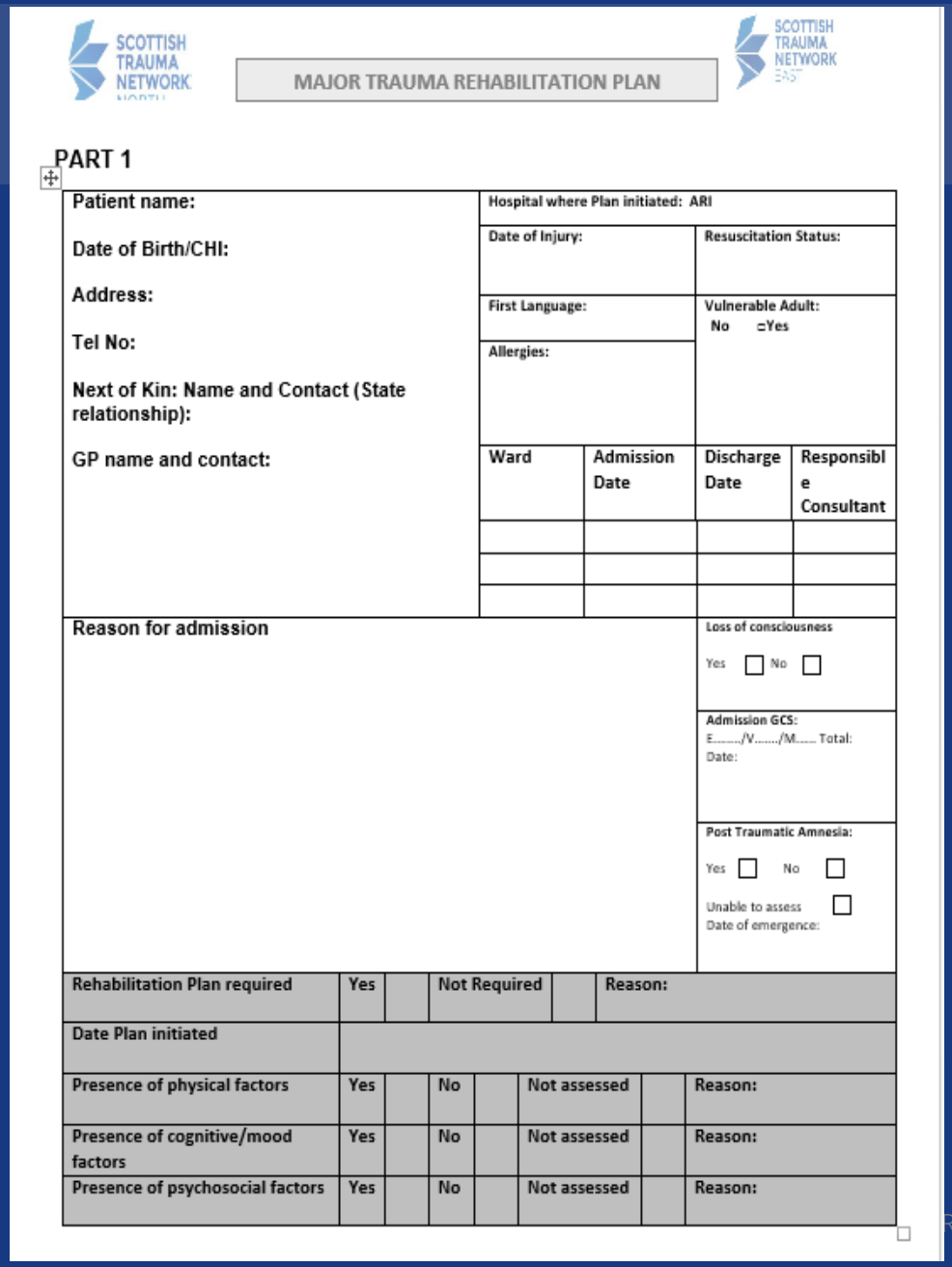
Major Trauma - Lesley Stables (lesley.stables2@nhs.scot)

NOS TRAUMA REHABILITATION PLAN

STN KEY PERFORMANCE INDICATOR (KPI) 2015

Major Trauma patients admitted to a MTC to have a rehabilitation plan written within 3 days of admission

- Electronic rehabilitation plan (Part 1+2) NoS, EoS
- Started at Aberdeen Royal Infirmary, Royal Aberdeen Children's Hospital and Raigmore Hospital
- Updated at times of significant change and prior to patient discharge/ transfer
- Where appropriate completed with the patient and family



MAJOR TRAUMA REHABILITATION PLAN

PART 1

Patient name: Date of Birth/CHI: Address: Tel No: Next of Kin: Name and Contact (State relationship): GP name and contact:	Hospital where Plan initiated: ARI			
	Date of Injury:		Resuscitation Status:	
	First Language:		Vulnerable Adult: No ☐Yes	
	Allergies:			
	Ward	Admission Date	Discharge Date	Responsible Consultant
Reason for admission			Loss of consciousness Yes ☐ No ☐	
			Admission GCS: E...../V...../M..... Total: Date:	
			Post Traumatic Amnesia: Yes ☐ No ☐ Unable to assess ☐ Date of emergence:	

Rehabilitation Plan required	Yes		Not Required		Reason:		
Date Plan initiated							
Presence of physical factors	Yes		No		Not assessed		Reason:
Presence of cognitive/mood factors	Yes		No		Not assessed		Reason:
Presence of psychosocial factors	Yes		No		Not assessed		Reason:

NOS REHABILITATION PLAN

- Documents injuries, current condition and rehabilitation needs
- Enables MDT to identify early specialist rehab and repatriation needs
- Used as a referral tool for specialist rehab units and community hospitals
- Rehab plan updated by next rehab team/ therapist

NOS E-REHABILITATION PLAN

Developed by Orion for Care Portal

- Test site used for demonstration at NoS Event August 2022
- Includes STN STAG Minimal Data set
- Further training planned for MTC, TU and specialist rehab teams
- Staff access to care portal via IT service desk

- Current clinical testing on new server

- Go live date to be confirmed

INTEGRATIONS (EXISTING & FUTURE)

Additional Access

1. High Street Pharmacists
2. Scottish Ambulance Service

Systems To Be Integrated

1. Order Comms
2. Morse Acute
3. Morse Community
4. Ward View
5. News Two
6. Formstream
7. Dental & Optomology
8. Vision (GP)

Q&A

Any Questions?

Rehabilitation after traumatic injury

NICE guideline [NG211] Published: 18 January 2022

Guidance

Download guidance (PDF)

1.1 Initial assessment and early intervention

1.2 MDT needs assx

- Assx physical function
- Assx cognitive function
- Assx psychological function

1.3 Setting rehab goals

1.4 Developing a rehab plan and making referrals

1.5 Rehab programmes of therapies and treatments

- General principles
- Intensive rehab programme
- Guided self Mx
- Monitoring progress against the rehab plan

1.6 Principles for sharing info and involving family and carers

1.7 Coordination of rehab care in hospital

- From admission to hospital
- When transferring between services and settings

1.8 Coordination of rehab care at discharge

- Discharge planning and MDT approach
- Planning for rehab and other support following discharge
- A single point of contact, key contact and key worker after discharge

1.9 Supporting access and participation in education / work / community

1.10 commissioning and organisation of rehab services

- Commissioning
- Organisation
- Rehab skills, knowledge and expertise in the workforce

1.11 Physical rehab

- Early intervention and principles
- Early weight bearing
- Aerobic and strengthening
- Gait training
- Manual therapies
- Splinting and orthotics
- Mx swelling, oedema and scars
- Scar Mx
- Nutritional supplements

1.12 Cognitive rehab

1.13 Psychological rehab

1.14 Rehab after limb reconstruction / loss inc pain Mx

1.15 Rehab after SCI

1.16 Rehab after nerve injury

1.17 Rehab after chest injury

Research recommendations

What is the effectiveness and cost effectiveness of intensive rehabilitation programmes in adults with complex rehabilitation needs after a traumatic injury?

What is the effectiveness and cost effectiveness of intensive rehabilitation programmes in children and young people with complex rehabilitation needs after a traumatic injury?

What are the benefits and harms of using thoracic lumbar sacral orthoses in older people with thoraco-lumbar vertebral fractures?

What is the effectiveness and cost effectiveness of rehabilitation programmes combined with self management materials, compared with rehabilitation programmes alone, in people with complex rehabilitation needs after a traumatic injury?

What is the effectiveness and cost effectiveness of short-term bed rest compared with long-term bed rest on functional outcomes in people with complex rehabilitation needs after traumatic injury that involves the spinal column or spinal cord injury?

Self assessment

Number of relevant or partially relevant recommendations	**238**	
Number of recommendations met	188	
Number of recommendations partially met	46	
Percentage of recommendations met	79%	
Percentage of recommendations partially met	19%	
Number of standards not met	6	

Standards not Met

Regularly reassess (using clinical assessment and validated tools) whether referral for specialised rehabilitation is still needed and what other referrals may now be needed.
When setting long-term rehabilitation goals, agree small steps so that progress can be monitored in a way that is meaningful and motivational for the person.
Discuss and give people information about scar management such as keeping the wound out of direct sunlight for 1 year, and using recommended emollients.
Provide a massage programme for scar tissue after healing, to desensitise the affected area and increase tissue mobility.
Consider referral for specialist treatments for people with problematic scars such as hypertrophy or contracture across joints.
Assess adults presenting with rib fractures for their risk of fragility fracture in line with NICE's guideline on osteoporosis.

Improvement Plan

Working Groups

- Goal processes, SCI standards

Monthly Updates

- Training for scar management
- Source and order accessible buzzers
- Chasing feedback from PROM and arranging analysis and reflections on pt experience questionnaires
- Liaising with cardiothoracic team re fragility fracture risk assx

Annual review

- Full MDT self assessment

Linking with Work outside of MT team

“For young people who are transitioning between children's and adults' services, see recommendations about the role of the named worker in the NICE guideline on transition from children’s to adults’ services for young people using health or social care services” Work ongoing on transition in NHSG

“Rehabilitation units should maintain an online directory of care pathways, rehabilitation facilities and voluntary sector services (including recreational facilities) so that practitioners have access to up-to-date information and contact details to pass on to people with complex rehabilitation” Part of wider NHSG rehabilitation Strategic Review

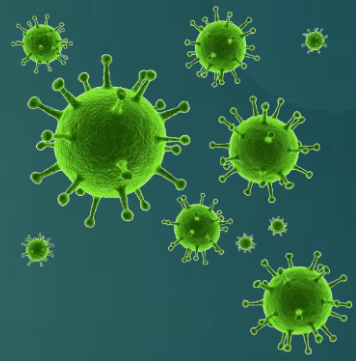
Summary

- Brief outline of NICE MT Rehab Guidance
- Good example of teamwork
- Reasonably good results meeting majority of recommendations
- Action plan ongoing to improve further
- Full guidance self assessment again next summer

MTC Follow-up

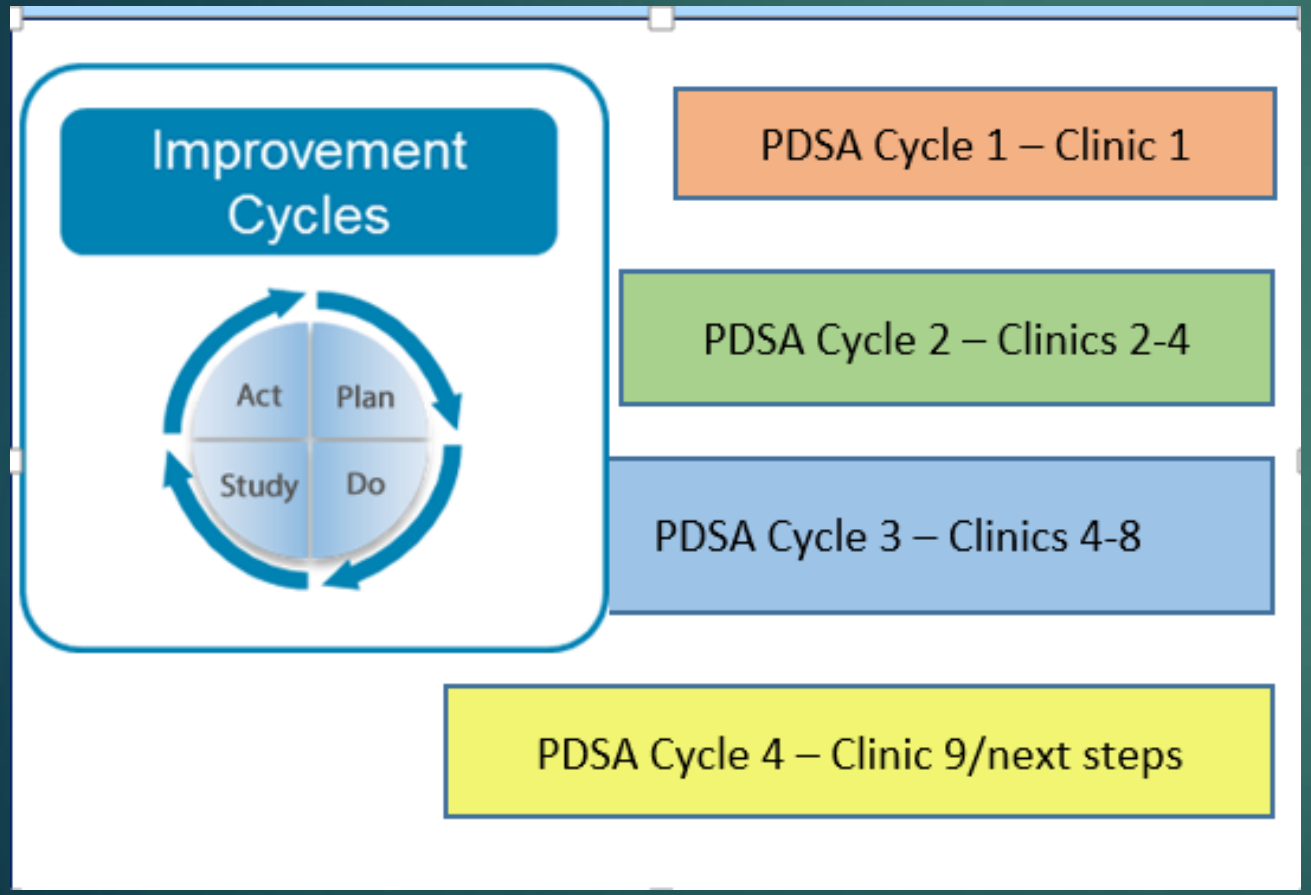
BACKGROUND

- AWARENESS OF NEED FOR POST DISCHARGE FOLLOW-UP SINCE EARLY ON IN SERVICE.
- ADHOC FOLLOW-UP YEARS 1-2 (2019 – EARLY 2020)
- COVID – PAUSED DUE TO REDEPLOYMENT OF STAFF/DEVELOPMENT PAUSES ACROSS NHS
- AUGUST 2021 – BEGAN STANDARDISED 2 WEEK POST DISCHARGE PHONE-CALL TO ALL PATIENTS BEING DISCHARGED FROM MTC, ORTHO REHAB, COMMUNITY HOSPITAL OR REFERALS FROM OTHER MTC/TU'S



MTC Follow-up Clinic

Improving post discharge follow-up of Major Trauma Patients
A Multi-disciplinary Quality Improvement approach



October 2021

December 2021 – April 2022

May 2022 – August 2022

September 2022 +

Test of change 1 (clinic 1)-

The team agreed initially to trial face to face clinics 10-12 patients per 3 hours clinic.

Data was collected on the clinic activity, the actions / unmet needs identified, referrals made and whether the patients needed physical assessment, this allowed assessment of the feasibility for near-me clinic option.

Test of change 2 (clinics 2-4) –

Offering of near me and Face to Face Clinics. Same time scale. Benefits found included using less paper than previous clinic, Near me appointments worked well, utilised QR code for patient feedback

Test of change 3 (clinics 4-8) –

A Pro forma developed as clinic guide/checklist, near me appointments (or) telephone. 2 staff members allocated to each patients, variety of professions depending on patient need and staff availability. Use of Major Trauma team office for staff – area often busy and noisy.

Test of Change 4

New location. Off site to facilitate ongoing near-me clinics every 2 weeks for 90-120 mins with 3 members of staff (TC, Neuros-psychologist and Rehab medicine consultant) with a further review of outcomes, patient and staff feedback end of November 2022.

Clinic Guide/Check list (as appropriate)

Any issues you wish to discuss?
Planned follow-up
Current input
Medications

Pain – inc analgesia
Cognition
Mood
Communication
Diet/Nutrition
Swallow
Bladder/bowels
Mobility/Upper limb function
ADL's
Social Circumstances
Vocation
Social activity
Driving

Anything else?
Summary

Pro-forma used by staff during clinics.

From the initial clinics the **activity** is seen below:

MDT Members seen	Unmet needs identified	Advice / supported self Mx	Referrals made	Med changes	Physical exam needed
TC Dr	Ct And surg FU needed Replaced collar	Yes		No	Yes
TC Dr	Nil	Yes		Yes	No
TC Dr Psych	Physio and psychology pt and family	Yes	Physio, psychology	No	Yes
TC PT psych	Psychology	Yes	VR	No	No
TC PT psych	Psychology VR offered	yes		No	No
TC PT				No	No
TC PT			physio	No	No

Next Steps

- Continue current format
- Focus on gaining more patient and staff feedback along with clinic outcomes
- Voc Rehab in post and hopeful to join clinics if appropriate
- Moderate number of DNA's. Noticeable vulnerable and seldom reached groups - scope for improving this.
- Generic letters to patients who we have been unable to contact at 2 week call with a clinic appointment booked.
- Generic letter offering further appointment if DNA at clinic

Guidance for the Management of Adults with New Spinal Cord Injury

NHS Grampian

Updated October 2022

- Patient placement
- Family information
- Early prognostic discussion for those not going to Glasgow

Breathing

- Patients with high cord lesions (C3/4/5) have a high risk of respiratory deterioration. There should be early discussion with patient and family about the potential for respiratory dysfunction, chest infection and the need for intubation.
- · Monitor SaO2, blood gases and vital capacity
- · Use humidified oxygen and 4 hourly bronchodilators
- · Early, regular and frequent physiotherapy including cough assist to be set up and used 4 times per day and incentive consider spirometry
- · Regular turns to optimise V/Q mismatch
- · Elective ventilation may be needed
- · Secure airway if vital capacity <1L
- · Consider primary tracheostomy
- · Pre-oxygenate with 100% oxygen before and after suctioning as bradycardia and hypoxia can occur
- · Carbocysteine can be used if indicated
- · Use an abdominal binder before mobilising into chair and do not mobilise into wheelchair during any weaning
- · Note NEWS scores will need values adjusted for people with SCI

Skin

1. Heels should be supported clear of the bed with pillows
2. Pressure relief and minimum 30 degrees side to side turning should occur every 2 hours from admission
3. Consider spinal beds if spine has been stabilised
4. In patients with cervical injuries the trauma collar should be replaced with Miami J Select or Aspen Vista collar as soon as possible. Regular skin checks should be performed around the collar daily

Joint mobility

- Daily passive limb movement (within limitations of any fractures / spine stability), stretching and positioning with input from PT, OT and nurses from admission. Consider early splinting / PRAFO's.
- See separate physiotherapy guidance for specific ranging procedures

Autonomic Dysreflexia

- Patients with a lesion at or above T6 are prone to autonomic hyper-reflexia (dysreflexia).
- Common precipitants include blocked catheters or rectal examination, instrumentation and operation.
- Section added on acute treatment of this

Highland Trauma OT Service

Julie Blade – Advanced Practice OT

Rosie Wade – Specialist OT

Background

- June 2019 – A.P OT joined Major Trauma Team

  Community remit only.
- Patient's seen on ward and duty of care transferred to Community Trauma OT.
- Treatment – On going assessment/goals

  Cognitive rehabilitation

  Functional rehabilitation

  Equipment & Adaptations

  Vocational rehabilitation

Advantages –

1 Therapist for all ongoing rehabilitation.

Interventions in own home/work/community.

Disadvantages –

Handover of duty of care.

Need to build therapeutic relationship.

Duplication of information.

Developments

- 2022 funding for 2nd band 7 post released.
- Post for acute OT.
- Unable to recruit to band 7 post.
- Band 6 post advertised and successfully recruited to.
- Underspend used to fund 15 hours of band 4 OT AP.
- Band 7 recruited to Caithness Major Trauma Team. Close cross cover team communication between Raigmore and Caithness had weekly.

However...

The service for Major Trauma Occupational Therapy was evaluated and agreed that it would best meet patients' needs to have an in reach/outreach service. This meant that there would be the major trauma Occupational Therapist allocated to a patient from admission to community.

In reach/ Out reach

- Band 6 OT commenced in post April 22
- Pt's discussed at MDT and allocated.
- Pt's seen in ICU/SHDU/Ward
- Followed through from admission to discharge back into community for ongoing rehabilitation.

Advantages

Same therapist from admission to discharge.

Therapeutic relationship from day 1 with patient and family.

No handover of care.

No duplication of information.

No duplication of assessment.

Positive feedback from patients regarding therapeutic relationships and familiar staff at a time of uncertainty

More time efficient for community input as patients are not waiting in pressured community waiting lists

Raising awareness around the wards of the major trauma team and relieving caseload numbers from ward OTs

Flexibility between OTs to cover for annual leave and sickness for allocated patients.

Disadvantages

Working over Multiple sites.

Need good case load & time management.

Competing demands of inpatient and out patient caseload – difficulties if there have been a mass admission of major trauma patients into acute

Differing forms of documentation – CAD, OT, Part 2

Multiple MDTs to attend to across different sites and not always being able to attend

No storage for MT resources such as neuro rehab, long handled aids, therefore needing to use from other wards.

Thank you very much for listening.

Any questions?

Trauma Team
Caithness and Sutherland

Mairi MacLean Physiotherapist (Band7)
18.75 hrs
Patricia Sinclair Occupational Therapist (Band 7) 18.75hrs

Work on a Monday, Tuesday and Wed am in Major Trauma.
Based at Caithness General Hospital in Wick
Contact number 01955 880 328

Pre Trauma Post OT

- Caithness : No coordinated approach as different therapists involved depending on location at point of transfer. No community rehab
- North West Sutherland: Community rehab was available
- Sutherland: potential to provide community rehab but no recent capacity due to staff vacancies
- Rehab goals and progress not always captured on rehab plans

Benefits of the new post

- Close links to the MDT Trauma at Raigmore – coordinated approach
- Local staff have local knowledge of geography and resources
- Referral to direct patient contact is quick (face to face)
- Facilitate earlier discharge home as community rehab is available
- Therapists can work with the patient on their whole journey
- In reach to the acute setting
- Rehab plans are updated and current
- Single point of contact for the team, the patient ,the family and local staff
- Education and information point(Roadshow)