An Integrated Care Pathway for the Management of Hemiplegic Shoulder Pain

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Guidelines for the management (prevention and treatment) of Hemiplegic Shoulder Pain (HSP) in rehabilitation settings.

These guidelines for best practice in the management of HSP are based on assimilation of the evidence available at the time of preparation and on current clinical opinion.

Guidelines for clinical management of HSP

- 1. Hemiplegic shoulder pain (HSP) requires co-ordinated multi-disciplinary management to minimise interference with rehabilitation and optimise outcome.
- 2. Prevention of HSP is as important as treatment, so all patients should be assessed as soon as possible following admission to identify the presence of HSP or the risk of developing it.
- 3. Education of all staff and relatives involved in handling the patient is vital to prevent damage that may prolong hospital stay and increase disability.
- 4. HSP broadly divides into hypotonic (flaccid) and hypertonic (spastic) presentations each requiring different approaches to positioning, handling and support. Management should vary accordingly.
- 5. All patients with HSP should have a clearly documented treatment plan with dated goals.
- 6. The analgesic regimen should be carefully adjusted to the timing and severity of pain.
- 7. The analgesia and support regimens should be reviewed and documented frequently (recommended at fortnightly intervals) and adjusted to changing need.
- 8. Physiotherapy targeted on restoring alignment and normal tone, range and movement patterns should be provided regularly (recommended at least three times a week) by a neurologically trained physiotherapist.
- 9. Passive range of exercises should only be undertaken by clinicians trained to handle the shoulder. **Overhead pulleys can cause damage and should be avoided**.
- 10. Medical assessment and investigation should be undertaken to exclude or treat associated conditions such as:
 - a) Soft tissue inflammation and damage (e.g. capsulitis, rotator cuff tears)
 - b) Reflex Sympathetic Dystrophy
 - c) Osteopenia/occult fracture
 - d) Neurogenic pain
 - e) Depression

- 11. Local injection with corticosteroid offers little proven benefit and can produce tissue atrophy which will further weaken the rotator cuff and periarticular soft tissues in the longer term. It should only be used in the presence of active inflammation (e.g. as demonstrated on T2-weighted MRI image or ultrasound).
- 12. Nerve blockade (e.g. supra-scapular nerve block) is non-specific but anecdotally successful in reducing HSP. It may be tried where severe pain interferes with sleep or with the rehabilitation programme, but may need repeating at 6-12 week intervals.
- 13. A number of specific interventions show promise for the management of HSP. These include:
 - Functional electrical stimulation (FES) for the hypotonic (flaccid) shoulder to build up tone and muscle bulk in the supraspinatus and posterior deltoid muscles.
 - Botulinum toxin to reduce painful hypertonia (spasticity) in shoulder girdle muscles (e.g. pectorals, rhomboids, subscapularis).

Service guidelines for the management of HSP

- 1. All rehabilitation centres should have an agreed written protocol for the prevention and treatment of HSP. This may take the form of an integrated care pathway (ICP).
- 2. An educational programme should be in place to raise awareness of HSP among all staff involved in handling patients and to teach them how to avoid further damage in the hemiplegic shoulder.
- 3. Rehabilitation services should have a range of equipment available for supporting the hemiplegic shoulder and trained staff with the relevant experience to select the most appropriate support for the individual patient's shoulder problem.
- 4. All centres should have access to the appropriate medical facilities to support investigation and management of HSP in line with the recommended guidelines. These include:
 - *Radiology services:* X-ray, Ultrasound MRI and isotope scanning (dexa- and 3-phase bone-scans)
 - *Pharmacy:* Ability to prescribe the recommended agents.
 - Specialist services: For Botulinum toxin injection and FES
 - Surgical services: E.g. for soft tissue release

Timescale

Summary of Intervention

Within 24 hrs of admission

Initial assessment of pain and physical presentation:

- Pain history (duration, location, severity, frequency)
- Overall presentation (hypotonic, hypertonic, subluxed or not)
- Questionnaires ('AbilityQ' and 'ShoulderQ' within 7 days if specialist help needed)

Initial action within 48 hrs of admission

Immediate multi-disciplinary management plan:

- Pain relief within 24 hours if needed (eg paracetamol, co-proxamol)
- **Positioning** and handling protocol (wall chart, guidelines)
- Support (wheelchair armrest, pillow, NPH bean bag arm support)
- Management goal set

Within 10 working days of admission

Multi-modal assessment of pain and physical presentation:

- Malalignment (inferior, anterior, medial subluxation)
- Mobility (loss of passive, active range, contractures)
- Musculoskeletal (neck, shoulder complex joints)
- Muscle tone (hypotonic, hypertonic, mixed picture)

Multi-modal action within 10 working days of admission

Detailed multi-disciplinary management plan as appropriate:

- Review analgesia for pain and change if needed
- **Review** positioning and wheelchair support for malalignment
- **Strapping** for subluxation (or a support if patient ambulant)
- Mobilise soft tissues for loss of range and contractures
- Manual facilitation for stimulating functional muscle activity
- Physical modalities (heat, ice, TENS) for on-going pain
- Handling/positioning/casting for reducing hypertonicity

Consider additional specific interventions

- FES for stimulating muscle tone and reversing hypotonicity
- Botulinum toxin (pectorals, biceps, subscapularis) for hypertonicity + pain
- Supra-scapular nerve block for intractable pain
- Local steroid injection closely targeted on inflammatory lesions demonstrated by MRI (e.g. rotator cuff tendinitis)

Fortnightly review during admission

Re-assessment of pain and physical presentation:

- Pain severity ('ShoulderQ' and/or team impression)
- **Joint pathology** (capsulitis, rotator cuff tear, sub-acromial bursitis)
- Severity of hypertonicity (whether reduced with physiotherapy)

Action following each review

Continue, revise or augment multi-disciplinary management plan:

Re-consider additional specific interventions as listed above, in particular, review
of arm supports as patients become ambulant

Protocols for basic management of Hemiplegic Shoulder Pain (HSP)

In the hemiplegic arm, shoulder pain may present in one of two basic patterns representing either end of a spectrum with a range of variations in between. While some of the basic principles of management are similar for hypotonic (flaccid) and hypertonic (spastic) shoulders, there are some important differences which require specific attention to detail.

Protocol A: Hypotonic (flaccid) shoulder

Floppy muscles around the shoulder girdle cause the shoulder to droop downwards on that side, and the head of the humerus literally to fall out of the shoulder socket (subluxation). Pain arises from stretching of the capsule and ligaments. The protocol focuses on supporting the arm from underneath the elbow at all times, to reverse subluxation.

Handling

Transfers and position changing

- Handle affected arm carefully
- Support upper arm and forearm when changing position
- *Never pull on the arm*, but guide from behind the shoulder.

Elevation of the arm e.g. for dressing

In the normal arm, elevation is accompanied by automatic rotation of the humerus to avoid impingement of the humeral head on the acromion and damage to the rotator cuff.

In the *hypotonic (flaccid)* shoulder, paralysis of the rotator cuff muscles prevents this rotation from occurring automatically. Unless it is provided by the person moving the arm, impingement and tearing of the rotator cuff may ensue.

- Abduction requires 45⁰ external rotation
- Forward flexion requires 30⁰ internal rotation

Subluxation must be reversed by re-location of the humeral head in the glenoid fossa prior to passive elevation of the arm.

- Never forcibly elevate the arm without the appropriate rotation
- If you have not been trained to do this, do NOT attempt to elevate the arm
- Never use overhead pulleys or other passive elevation devices

When dressing the upper body – always put the hemiplegic arm into garments first.

Support

The *hypotonic* (*flaccid*) arm should be supported in both lying and sitting to achieve the following:

- Elbow supported from beneath to bring the shoulders level and reverse subluxation
- The upper arm should be in about 30^0 abduction and 30^0 forward flexion, with as near to neutral rotation as possible
- Forearm in mid-position between pronation and supination (thumb uppermost)

In lying the *hypotonic (flaccid)* arm should be supported on pillows or a bean bag.

In the wheelchair the *hypotonic (flaccid)* arm is best supported by a tray or trough arm-rest, such as the 'Otto Bock' positioned at the correct height to support the elbow from below and bring the shoulders up level. The Otto Bock armrest has two alternative hand pieces – a *paddle*, to stretch out finger flexion contractures and a *pommel* to encourage supination. If this type is used, the correct hand piece should be selected by the physiotherapist or occupational therapist

If the patient is on their feet, the *hypotonic* (*flaccid*) shoulder should be supported using a brace or strapping.

Pain relief (Protocol A)

Pain control is actively monitored using the Shoulder Pain Questionnaire and Pain Chart.

Principles: Target analgesia based on timing and severity of pain:

1. First-line management

• Paracetamol/co-codamol prn – but this is rarely effective by itself

2. If there is evidence of inflammation:

- Use regular NSAIDs (eg Naproxen or Diclofenac Slow Release) with PPI cover if not contra-indicated
 - o Contraindications: GI bleeding, renal failure anticoagulation

3. Timing of pain symptoms

- Pain at rest during the day: give long-acting analgesics in the morning
- <u>Pain during movement only:</u> Target analgesia on active periods (eg physiotherapy sessions, washing/ dressing)
- Pain at night: give long-acting analgesics at bedtime.
 - Consider co-codamol or stronger opioids at night
 - (Sedative effects are best avoided during the day, but can be advantageous at night)
 - Watch out for constipation on opioids
- 4. Further medical intervention is undertaken in collaboration with the treating physiotherapist, having ensured that the basic Handling and Support techniques are in place. Consider:
 - Supra-clavicular nerve block for pain relief if successful may need to be repeated
 - TENS
- 5. **Intra-articular steroid** should only be given if there real evidence for local inflammation (as demonstrated on Ultrasound or MRI) as repeated steroid injections can weaken the rotator cuff and may it more susceptible to damage. All steroid injections should be targeted using appropriate imaging techniques (usually ultrasound)
 - For tendinitis or a partial tear of the rotator cuff with secondary sub-acromial bursitis. Steroid (triamcinolone 40 mg) to the subacromial burse may be indicated

6. For subluxation

- Functional electrical stimulation (FES) to stimulate muscle tone around shoulder girdle
- Strapping of shoulder

Protocol B: Hypertonic (spastic) shoulder

Tight muscles around the shoulder girdle hunch the shoulder upwards, typically pulling the arm into adduction and internal rotation, and often with flexion at the elbow. Pain arises from hypertonicity (spasticity) and traction on the muscle/ tendon insertion sites. The protocol focuses on maintaining a degree of abduction and external rotation in order to retain muscle length and reduce deformity and pain.

Handling

Transfers and position changing

- Handle affected arm carefully
- Support upper arm and forearm when changing position
- *Never pull on the arm*, but guide from behind the shoulder.

Elevation of the arm e.g. for dressing

In the normal arm, elevation is accompanied by automatic rotation of the humerus to avoid impingement of the humeral head on the acromion and damage to the rotator cuff.

In the *hypertonic (spastic)* shoulder, tight muscles pull the arm into internal rotation and prevent the external rotation which is needed for abduction. Unless it is provided by the person moving the arm, impingement and tearing of the rotator cuff may ensue.

Special care must therefore be taken when abducting the arm

- Never forcibly elevate the arm without the appropriate rotation.
- Always move the arm slowly allowing time for **hypertonic (spastic)** muscles to release their pull
- If you have not been trained to do this, do NOT attempt to elevate the arm
- Never use overhead pulleys or other passive elevation devices.

When dressing the upper body – always put the hemiplegic arm into garments first.

Support

The *hypertonic (spastic)* arm should be supported in both lying and sitting to achieve the following:

- The upper arm should be in about 30° abduction and 30° forward flexion, with as near to neutral rotation as possible.
- Forearm in mid-position between pronation and supination (thumb uppermost)

In lying the *hypertonic (spastic)* arm should be supported on pillows or a bean bag.

In the wheelchair, the *hypertonic (spastic)* shoulder cannot usually be externally rotated enough to use a tray or trough arm-support. Instead, a pillow or bean-bag is placed between the arm and the torso to encourage abduction and external rotation. A Bexhill arm support may be used to help keep the pillow in place.

Pain relief (Protocol B)

Pain control is actively monitored using the Shoulder Pain Questionnaire and Pain Chart.

- 1. First-line and second line management Steps 1-4 as for Protocol A
- 2. **Intra-articular steroid** should only be given if there real evidence for local inflammation (as demonstrated on Ultrasound or MRI) as repeated steroid injections can weaken the rotator cuff and may it more susceptible to damage. All steroid injections should be targeted using appropriate imaging techniques (usually ultrasound)
 - For adhesive capsulitis consider intra-articular (GHJ) hydro-distension with bupivacaine and steroid (triamcinolone 40 mg)

3. For spasticity

• Consider botulinum toxin to subscapularis / pectorals and other spastic shoulder girdle muscles.

AbilityQ

	7	
Name:	Date:	
Please mark the "Ye	s" box. Please m	ark the "No" box.
Yes	Yes	
No	No	
Please place a mark at the	Please place a mark at the	Please place a mark at the
MID POINT Of the line below	HIGHEST SCORE On the line below	LOWEST SCORE On the line below
High	High	High
10	10	10
9 🕇	9 +	9 🕇
8	8 +	8 +
6 +	6 +	6 +
5	5 +	5
4 +	4 +	4 +
3 +	3 +	3 +
2 +	2 +	2 +
		1
Low	Low	Low
Please indicate "Mild" belo	ow: Please indic	ate "Much worse" below:
☐ None	☐ Much wors	e
☐ Mild	☐ A bit worse	
☐ Moderate☐ Severe	☐ The same☐ A bit better	
	☐ Much Bette	
How was the questionnaire com	pleted? If help was give	en, describe type of help:
☐ By the patient alone	☐ Just acting as	
□ With help from friend /family□ With help from staff		stions out to them ach question, one at a time
,		uestions enlarged on cards
	☐ Other:	II DACK OII LIACK

Print Name:

Administered by:

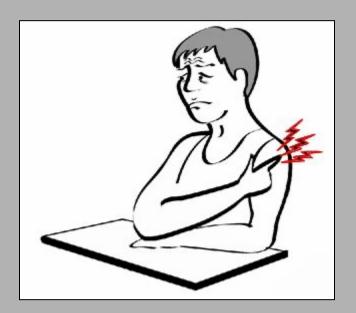
ShoulderQ

Name:	Da	ate:
1. Do you have pain in your sl	houlder? Yes No	
If Yes: 1a: When do you have pain? All of the time Most of the time Some of the time Only when my arm is moved	1b: How severe is your shoulder pain overall? Extremely severe Severe Moderate Mild	1c: How severe is your pain in comparison to last week? Much Better A little better The same A little worse Much worse
 2. Does your pain wake you from sleep a Most nights Some nights Not at all 	2a: If it wakes you fi ☐ More than twice ☐ Once or twice a ☐ Only occasionall	night
 3. Does your pain interfere with therapy Most sessions Some sessions Not at all 	3a: If it interferes w □ Very much □ Quite a lot □ Only occasiona	vith therapy sessions, how much?
4a: Mark on the line how severe your shoulder pain is AT REST Pain as bad as it could be 10 9 8 7 6 5 4 4 3 2 1 0 No pain at all	4b: Mark on the line how severe your shoulder pain is ON MOVEMENT (eg in Physio) Pain as bad as it could be 10 9 8 7 6 5 4 3 2 1 0 No pain at all	4c: Mark on the line how severe your shoulder pain is AT NIGHT Pain as bad as it could be 10 9 8 7 6 5 4 3 2 1 0 No pain at all
5. During which tasks do you have to a superior of the above □ Something else: (give details)	□ Positioning - sı □ Pain-killing tabl □ Strapping / brac	ce strical Stimulation ove

SPIN version of shoulderQ

For patients with communication difficulties

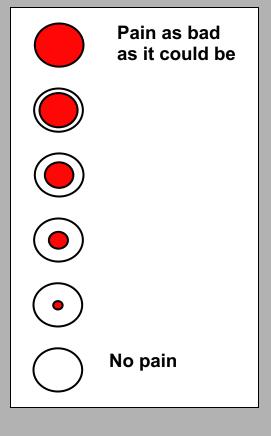
Do you have pain in your shoulder?



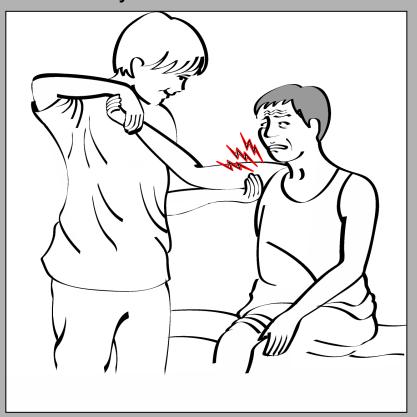
Yes No

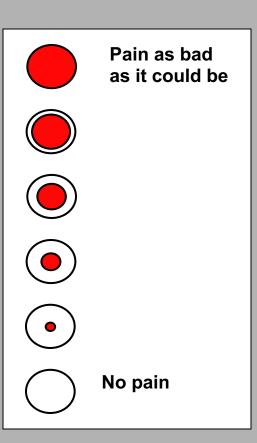
How **bad** is the **pain** when sitting still?





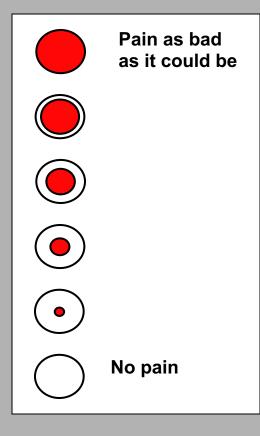
How **bad** is the **pain** when your arm is **moved?**





How bad is the pain at night?





Appendices

- 1. Proforma Documentation for recording process of care
- 2. Database assessment forms
 - Preliminary assessment and management form
 - Multi-disciplinary assessment and management form
 - Summary of management form

Hemiplegic Shoulder Pain Protocol

Name:	Admission o	late:/		
Day 1 – Within 24 hou	rs			
Doctor's Assessment: Co	ompleting Doctor:		Date	
Tick if done ☐ HSP Assessment Form (Pr	reliminary Assessment Page 1)			
☐ Ability to Complete Questionnaire ☐ Independent ☐ Able with help ☐ Unable				
☐ Shoulder Pain Questionna	ire Administer with sa	ame type of help as	AbilityQ	
Variance (reasons) i.e. if not do	one, say why and when			
Initial Management:				
Severity of shoulder pain		lerate Sever		
Type of shoulder syndrome:	☐ Hypotonic (Flaccid)	☐ Hyper	tonic (Spastic)	
Initial Analgesia: Current medication for				
HSP:				
Simple analgesia p.r.n:				
Other modalities: Heat / ice/				
Other comments:				
Liaison: Nurse:	Physio	O/T		
Investigations:				
Tick if done		Abnormal resu	Its:	
☐ Full Blood Count	Normal: Yes / No			
☐ U+E, LFTs	Normal: Yes / No			
☐ Erect AP shoulder x-ray (if a	able to sit unsupported)			
Measurement of subluxation on x-ray Normal Affected				
Vertical distance: Inferior Acromial point – mid Humeral head:mmmm				
Horizontal distance: Mid-Glenoid – mid Humeral head:mmmm			mm	

Day 2: Within 48 hours			
Nurse's Protocol: Completing Nurse			Date
Tick if done ☐ Positioning chart above bed			
HSP protocol ☐ Hypotonic (flaccid)	shoulder (A)	☐ Hyper	tonic (spastic) shoulder (B)
Other comments:			
If protocol not initiated, give recent:			
If protocol not initiated, give reason:			
Support system: Completing O/T:			Date
Recommended support system:	(None need	ded)	
☐ Arm-support on wheelchair:	☐ Bexhill	☐ Ottobock	_
Cushion in chair/wheelchair	☐ Beanbag	☐ Pillow	Other
☐ Personal	☐ Strapping	Sling	Туре:
Was recommended system provided?	☐ No	☐ Yes	
(If not, given details in variance box below)			
Other comments:			
If not, reason for variance (eg recommended sys	stem not availab	le, say what wa	as done instead)
Documentation: Completing O/T / P/	T:		Date
Goal for management of HSP to be documen			
Tick if done			
Goal:			
If not, reason for variance			

Medication review: Co	ompleting Doctor:	Dat	te
Pain severity at rest	☐ None	Mild Moderate	Severe
Pain severity on movemen	t None	Mild Moderate	Severe
Interference with daily fund	ction	Nursing tasks	Therapy sessions
Night-time disturbance by	pain 🗌 Yes 🗀] No	
Requests for prn analgesia	a/24 hrs 🔲 0]1-2	>4
Pain Control	☐ Satisfactor	y	ry
Contra-indications to NSAID impairment	s Gastric histo	ory	☐ Renal
NSAID use permissible	☐ Yes ☐]With care \square NO – absol	ute contra-indication
-			
Suggested analgesic i	egimens (for information	on only)	
Agent	Persistent daytime pain	If Pain disturbs sleep Add:	If Pain interferes with therapy: Give 1 hour before
NSAIDs (1st choice unless contra- indicated)	Voltarol Retard 75mg morning	Voltarol Retard 75mg evening	Voltarol (normal) 25-50 mg NB Total daily dose must not exceed 150mg
Precautions: Consider Misoprostol protection	Alternatives Naprosyn 250 mg tds Ibuprofen Retard 800mg od	Naprosyn 250mg nocte Ibuprofen Retard 800mg	Naprosyn 250mg Ibuprofen 400mg
Regular simple analgesics	Paracetamol 1g tds	Paracetamol 1g nocte ± Temazepam 10mg	Co-proxamol ii 1hr before NB: Total dose of paracetamol not to exceed 4g per day
Stronger analgesics Precautions: consider	Co-proxamol ii tds	Co-proxamol ii nocte ± Temazepam 10 mg	Ditto
Lactulose / Senna	Alternatives		
	Co-dydramol ii tds	Co-dydramol ii nocte	
Chosen medication re	aimen		
	<u> </u>		
Regular medication:			
P.r.n medication:			
	/es □ No □ (on No) Details:	•	,
Other: eg Nerve Block /Bot Details:	tulinum Toxin		

Other Associated features.

Soft tissue damage:				
 Soft tissue shoulder syndromes a Rotator cuff tears may result from Adhesive capsulitis is probably le 	n poor handl	ling or falls	s, espec	cially in the subluxed shoulder
Pre-existing shoulder problems:		No 🗆	Yes	Details:
History of falls:		No 🗆	Yes	
Suspected soft tissue da	amage:		No	Type:
If yes, MRI Requested:		No 🗆] Yes	Result:
Local steroid injection given:		No 🗆	Yes	
(only if demonstrable inflammation or	n MRI)			
Details of injection: (Agent, dose,	site(s)):			
Osteopenia / occult fracture				
		ge-group -	- espec	cially with petite form or Hx of steroid
therapy			·	•
Occult fracture may follow traum.	a / talls / pod	or nanaling	!	
Known osteopenia:	☐ No	☐ Yes		
Risks for osteopenia:	☐ No	☐ Yes	D€	etails:
Women: Post-menopause:	☐ No	☐ Yes	Υє	ear of menopause:
On HRT:	☐ No	☐ Yes	De	etails:
Suspected osteopenia	☐ No	Ye	es D	Oetails:
If yes, Dexa scan requested:	☐ No	☐ Yes	 Re	esults:
Suspected occult fracture	☐ No	☐ Ye	s D	etails:
If yes, Bone scan requested:	☐ No	☐ Yes	Re	esults:
Prescription: Bisphosphonates HRT	Other:			

	iy		
 Oedema, wasting and flexural co Look for vasomotor change – ski 			n the hemiplegic hand anyway weating – and MCP/wrist tenderness
Features of RSD:	☐ No	☐ Yes	Possible Details:
Suspected RSD	☐ No	☐ Yes	
If yes, Bone scan requested:	☐ No	☐ Yes	Result:
Prescription: ☐ Steroids ☐ Ganglion blockade	Other:		
Neurogenic pain			
Constant, unremitting pain with burns Central (so-called 'thalamic type Traction on peripheral nerves eg	') pain	·	·
Neurogenic type pain:	☐ No	☐ Yes	Details:
Peripheral neurological signs:	☐ No	☐ Yes	Details:
Suspected neurogenic p	ain:	☐ No	☐ Yes
If yes, EMGs requested:	☐ No	☐ Yes	Result:
Prescription:			
☐ Amitriptyline ☐ Carbamazepine	Other:		
☐ Carbamazepine	Other:		
Carbamazepine Neck: cervical spondylosis Musculoskeletal pain and stiffnes	ss in neck	ain radiating o	down arm ± neurological root signs
☐ Carbamazepine Neck: cervical spondylosis Musculoskeletal pain and stiffnes	ss in neck	ain radiating o	down arm ± neurological root signs
 □ Carbamazepine Neck: cervical spondylosis • Musculoskeletal pain and stiffnes • With or without cervical root entra 	ss in neck apment – pa	J	down arm ± neurological root signs Details:
 □ Carbamazepine Neck: cervical spondylosis • Musculoskeletal pain and stiffnes • With or without cervical root entranse Neck stiffness: 	ss in neck apment – pa	☐ Yes	
 Carbamazepine Neck: cervical spondylosis Musculoskeletal pain and stiffnes With or without cervical root entrance Neck stiffness: Signs of root entrapment 	ss in neck apment – pa No	☐ Yes	
 ☐ Carbamazepine Neck: cervical spondylosis • Musculoskeletal pain and stiffnes • With or without cervical root entrangement Neck stiffness: Signs of root entrapment Suspected neck pain:	ss in neck apment – pa No No	☐ Yes ☐ Yes	Details:

First Multi-disciplinary Re	eview: (Approx Day (10-14)) Date//
P/T Assessment: Completing	P/T: Date
Tick if done ☐ HSP Assessment form: M-D As	sessment Page 2
If not, reason for variance (eg not done	e to timescale)
Treatment Plan / Goals:	
Review of handling / support:	
What is current support system? Is it appropriate / best available?	
If not, what is recommended	
	ng Doctor: Date Date
Tick if done ☐ Shoulder Pain Questionnaire	☐ Better ☐ Same ☐ Worse ☐ Resolved
Pain control	☐Satisfactory ☐ Not satisfactory
Current medication for HSP:	
Change of medication to:	
Monitoring:	FBC U+E LFTs
	Other
Other intervention: eg Nerve Block	/Botulinum Toxin
Details	

Progress notes:	

Copy and repeat as necessary

Subsequent Multi-disciplina	ary Review: Date/
Individual Review: P/T	Date
Update Treatment Plan: Hypotonic (Flaccid) shoulder - Have you of Hypertonic (Spastic) shoulder - Have you	
Update handling / support What is current support system? Is it appropriate / best available? If not, what is recommended NB: When pt gets on feet will need alte	ernative support system
Medication review: Completing	Doctor: Date
Tick if done ☐ Shoulder Pain Questionnaire	☐ Better ☐ Same ☐ Worse ☐ Resolved
Pain control	☐ Satisfactory ☐ Not satisfactory
Current medication for HSP:	
Change of medication to:	
Monitoring:	FBC
Other intervention: eg Nerve Block /Bo	otulinum Toxin
Details	

Copy and repeat as necessary

Final Assessment: Date/
Discharge Pain resolved
Final Assessment: Doctor Date
Tick if done ☐ Shoulder Pain Questionnaire ☐ Better ☐ Same ☐ Worse ☐ Resolved
☐ HSP Assessment form (Page 3: Summary of management) complete
Follow-up plans:
Final assessment: P/T Date Date
Tick if done ☐ HSP Assessment form (Page 3: Summary of management) complete
Follow-up Plans:
Review of Protocol and reasons for variance
Further Comments
Signed

SHOULDER PAIN HSP ASSESSMENT AND MANAGEMENT FORM

PAGE 1: PRELIMINARY ASSESSMENT	
Surname Age Age	Hospital number
First name Sex O M	ale O Female Date of admission
MAIN DIAGNOSIS Diagnosic category	Physical deficit L hemi Other
Date of onset	☐ R hemi☐ Tetraparesis
DESCRIPTION OF SHOULDER PAIN	Duration of shoulder pain (weeks)
Brief History of shoulder pain	
Pain severity	Sleep disturbance Yes No
None Moderate Mild Severe	Pain at rest Yes No
	Pain on movement Yes No
Main category of HSP ☐ Hypotonic (flaccid)	Neurogenic type pain Yes No
☐ Hypertonic (spastic)	Localisation of pain
History of Trauma	
Yes (describe)	
Descious Shoulder problems	
Previous Shoulder problems Yes (describe)	
□ No	
Main examination findings	
	Investigations ☐ U+E ☐ Dexa scan
	☐ FBC/platelets ☐ EMGs ☐ Plain AP xR ☐ Cx Spine Xray
	☐ MRI Shoulder ☐ Cx Spine MRI ☐ Bone Scan ☐ Other
Data of initial management plan	
Date of initial management plan See proforma page 1 for details of management plan	
Print nameSigned	Date/

HSP ASSESSMENT AND MANAGEMENT FORM

PAGE 2: M-D	ASSESSMENT	Date of M-D Assessment
Functional Neglect arm	of Yes No	Assessors Dr - name:
_earned disuse	Yes No	
MUSCULOSKELE	TAL ASSESSMENT	RANGE OF NON-PAINFUL MOVEMENT
Neck movement		Measured with shoulder aligned as far as possible, but before physiotherapy
☐ Normal ☐ Neck pain at res	t	Abduction
☐ Neck pain on movement ☐ Painless restricted range		Flexion
Suspected root		External rotation
GlenoHumeral jo	int	Internal rotation
☐ Normal ☐ Degenerative change: Non-tender enlargement		Elbow flexion
☐ Inflammation: W ☐ Effusion	arm / swelling / redness	Elbow extension
AcromioClavicula	ar joint	Suspected RC Yes No
Normal	ange: Non-tender enlargement	tear
☐ Degenerative change: Non-tender enlargement ☐ Inflammation: Warm / swelling / redness ☐ Effusion		Osteopenia Yes No
SternoClavicular	oint	Suspected Occult Yes No No fracture
Normal	ange: Non-tender enlargement	Position assessed in Sitting Standing
	arm / swelling / redness	Lying
Sensation in arm	■ □ Intact	Tone around ☐ Predominantly Low ☐ Predominantly High
ensation in ann	Somatic loss Propioceptive loss	Other
	☐ Not assessable	Overactive None Subscapularis Pectorals Biceps
Reflex sympathetic	None ☐ Red/purple skin discoloration	☐ Lat dorsi ☐ Triceps ☐ Trapezius ☐ Other
eatures	Temperature change Loss of sweating	Rhomboids
	☐ MCP tenderness ☐ Thin shiny skin	Restriction of None Elbow flexors ange Medial rotators Other
Severity of GHJ	■ None Marked	Adductors
ubluxation	Mild	Distal tone ☐ Predominantly Low ☐ Predominantly High
HJ Subluxation	Flaccid Other	☐ Predominantly High ☐ Other
Direction of GHJ ubluxation	☐ Inferior ☐ Medially rotated ☐ Anterior ☐ Superior	Muscle activity at shoulder □ None □ Selective □ Flickers □ Functional □ Gross
capular malalignme	None Protracted Elevated Retracted Depressed Winged	Return of None Distal Proximal Throughout

HSP ASSESSMENT AND MANAGEMENT FORM PAGE 3: SUMMARY OF MANAGEMENT Help for positioning Protocol initiated Main method of locomotion ☐ Full assistance Standard protocol A (Flaccid) ☐ Manual Wheelchair Occasional assistance ☐ Standard protocol B (Spastic) ☐ Electric wheelchair ☐ Not needed Individual ☐ Walking Support in bed Support in wheelchair Support on feet ☐ Pillows Bexhill Arm support ☐ Strapping ☐ Bean cushion ☐ Ottobock support ☐ Brace Other... ☐ Bean cushion Sling (Type) ☐ Pillow Other... Other... Physiotherapy management ☐ Yes ☐ No Botulinum toxin given ☐ Positioning Botulinum toxin response ☐ Good ☐ Partial ☐ None Reduction of tone ☐ Mobilisation of soft tissues Botulinum toxin sites ☐ Subcapularis Biceps ☐ Splinting / casting Pecs Retractors ☐ Manual facilitation of activity FES used ☐ Yes ☐ No ☐ Pain relieving modalities (ice / TENS) ☐ Advice to pt / carers ☐ Functional re-education ☐ Good ☐ Partial ☐ None **FES** response ☐ Sensory stimulation Other... FES muscle groups Details of medical management Summary of Analgesia Suprascapular block given ☐ Yes Suprascapular block response Good Partial ☐ None RESULT Pain resolved ☐ Completely ☐ Partially Date of resolution

Date

Signed