ADVANCED MUSCULOSKELETAL PHYSIOTHERAPY HAND CLINIC

2016

The Prince of Wales Hospital

Hand Physiotherapists are primary contact health care providers and have the clinical, diagnostic and decision making skills to effectively manage a range of hand Injuries. The Advanced Musculoskeletal Hand Clinic is proposed to decrease the burden of increased demand on Multidisciplinary Hand Clinics at The Prince of Wales Hospital by providing direct management from the Emergency Department to discharge. Diagnosis specific referral and management pathways, protocols and Required Training Pathways are detailed. The AMPHC aims to provide patients with a high quality, timely service while remaining under the direct supervision of Plastics and Orthopaedic Hand Specialist Consultants at POWH.

Louise Rutter
Senior Hand Physiotherapist

ADVANCED MUSCULOSKELETAL PHYSIOTHERAPY HAND CLINIC

THE PRINCE OF WALES HOSPITAL

OBJECTIVE

Advanced Scope of Practice is a role that is within the currently recognised scope of practice but through custom and practice has been performed by other professions. The advanced role may require additional training as well as significant professional experience and competency development.

The objective of the Advanced Musculoskeletal Physiotherapy Hand Clinic (AMPHC) is to provide a high quality service to patients in a timely manner. Working collaboratively with healthcare teams the AMPHC aims to reduce the burden of increasing demand for services and enable doctors to treat patients who have complex conditions or require surgical intervention. Available evidence suggests that extended scope of practice Allied Health Practitioners can be a cost-effective and consumer accepted investments in improved patient outcomes (Saxon, Gray and Oprescu 2014)

The Prince of Wales Hospital Orthopaedic and Plastics Hand Clinics provide multidisciplinary care and are run concurrently on Wednesday mornings in the Adult Outpatients Department. The clinics are supported by one Senior Hand Physiotherapist and one rotating Physiotherapist. Patients are referred to the Clinics from the Emergency Department, post-Surgery and from the Community.

The problem

The Plastic Surgery clinic held in the Adult Outpatient Department has increased in volume from an average of 45 patients per clinic in 2014 to an average of 55 patients per clinic in 2016. As a result the clinic which is allocated to run between 8:30am to 12pm finishes between 2pm and 4pm. This volume is compounded when surrounding clinics are limited due to Registrars being on leave. The appointment schedule is based on 42 patients per clinic. To accommodate the increased demand appointment timeslots need to be overbooked which significantly increases patient waiting times on the day of clinic. There also appears to be an increase in new patients and emergency department referrals which are complex and require a longer consultation. Patients have waited up to 6 hours to be reviewed by medical, nursing and allied health teams. There is also an impact on staff wellbeing as there is no break for the duration of the clinic. (Liesel Straka, Nursing Unit Manager, NSW Health Service - South Eastern Sydney Local Health District)

As well as time cost to patients the clinic structure impacts treatment effectiveness. The high patient load and the busy clinic environment restrict the amount of time per patient to provide a tailored program for their presenting injury. Patients are often distressed due to the waiting time and may not be able to attend to education and instructions in this busy environment. In addition the Hand Therapy room in Outpatients is a multipurpose space and there are limited options for treatment available compared to the dedicated Hand Physiotherapy Clinic, for example, lycra and neoprene splints which require a sewing machine for fabrication.

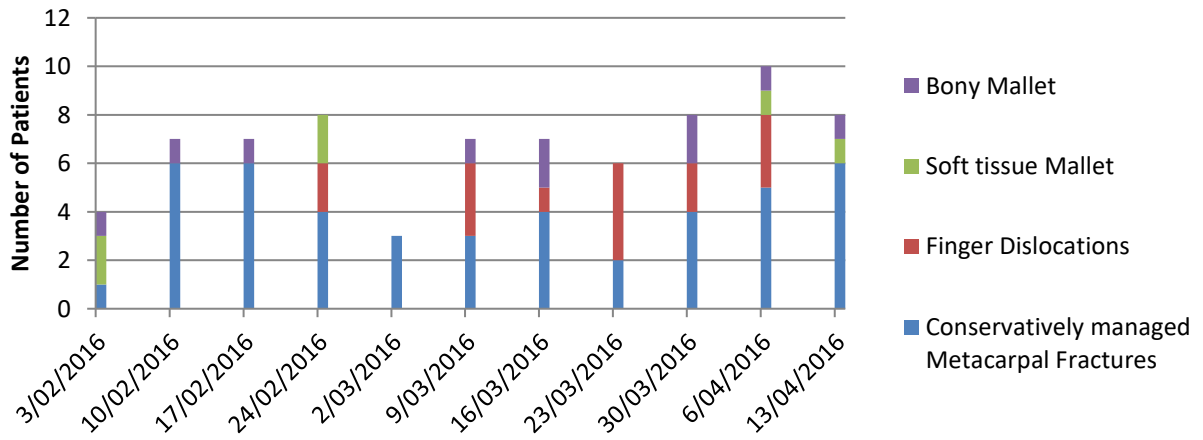
The high work load and long duration clinics have resulted in a work culture of Hand Physiotherapists not taking breaks. Due to the high workload Staffing is problematic when there are planned or unplanned absences.

PATIENT STORY

I was playing Frisbee and it hit my finger. I felt immediate pain and then the tip wouldn't straighten. It was swollen and painful. I came to ED and they said I had a small fracture. They put my finger in a cast then said I needed to come back to the Outpatients Clinic. I had a 9.30am appointment so I took the morning off work. When I got to clinic it was full of people, some had big plasters on and I felt that my injury was a bit insignificant. Not many people were called in to the clinic and more people kept arriving. I asked how long but they couldn't tell me. At 11.30 I called work and said I was still at the hospital. I eventually got into the cubicles at 12.45 and had to wait there for another 15 minutes. The Doctor was very nice but rushed. She didn't look at my finger because the plaster needed to stay on. She said I needed to have a splint for 6 weeks and that the Hand Therapist would see me soon to make a splint and would look after me from now on. I was then taken to another waiting area in a corridor. There was a queue to see the Hand Therapist. I was seen after about 40 minutes. The Hand Therapy took about 20 minutes and I finally got out of the clinic five hours after my appointment which was longer than I had spent in the Emergency Department **R.D. 28yr ♀**

A snapshot Feb- April 2016 found an average of 7 patients per clinic were provided with Hand Therapy based conservative management of their presenting injury (figure 1). These patients referred to Hand Clinics for conditions that, after initial assessment, are predominantly managed conservatively by Hand Therapy.

Figure 1: Conditions management conservatively by Hand Therapy



In summary, a number of patients in this clinic have presented to the POWH Emergency Department with hand injuries which are amenable to AMPHC management. Diverting these patients from the Hand Clinics would assist in ameliorating the burden of increasing demand for services and enable doctors more time to treat patients who have complex conditions or require surgical intervention.

ESTABLISHING AN ADVANCED MUSCULOSKELETAL PHYSIOTHERAPY HAND CLINIC

How it would work

Patients presenting to ED with injuries that would be suitable for Hand Therapy conservative management are offered follow up by AMPHC. Suitable diagnoses for this pathway include simple proximal interphalangeal joint dorsal dislocations (volar plate avulsion injuries/fractures); boney and tendinous mallet injuries (zone I & II extensor tendon rupture or avulsion) and fifth metacarpal neck fractures (boxer's fractures); the pathway is outlined in figure 2: Referral to AMPHC pathway

Patients would be offered an appointment on Tuesday morning in the Physiotherapy Department. If on review the AMPHC Physiotherapist assessed the patients' needs as falling outside the scope of the AMPHC the patient would then be scheduled into the Wednesday morning clinic that they would otherwise have been booked into with no loss of time to Medical review. If red flags were identified the patient would be directed back to the Emergency Department for immediate review.

It is important that the Emergency Department has communicated clearly with the patient that they were going to see a Physiotherapist and not a doctor to avoid misunderstandings. The AMPHC Physiotherapist will also make it clear that they are providing a Physiotherapy service and not a medical service.

AMPHC referrals would be documented as EMR Allied Health Progress notes.

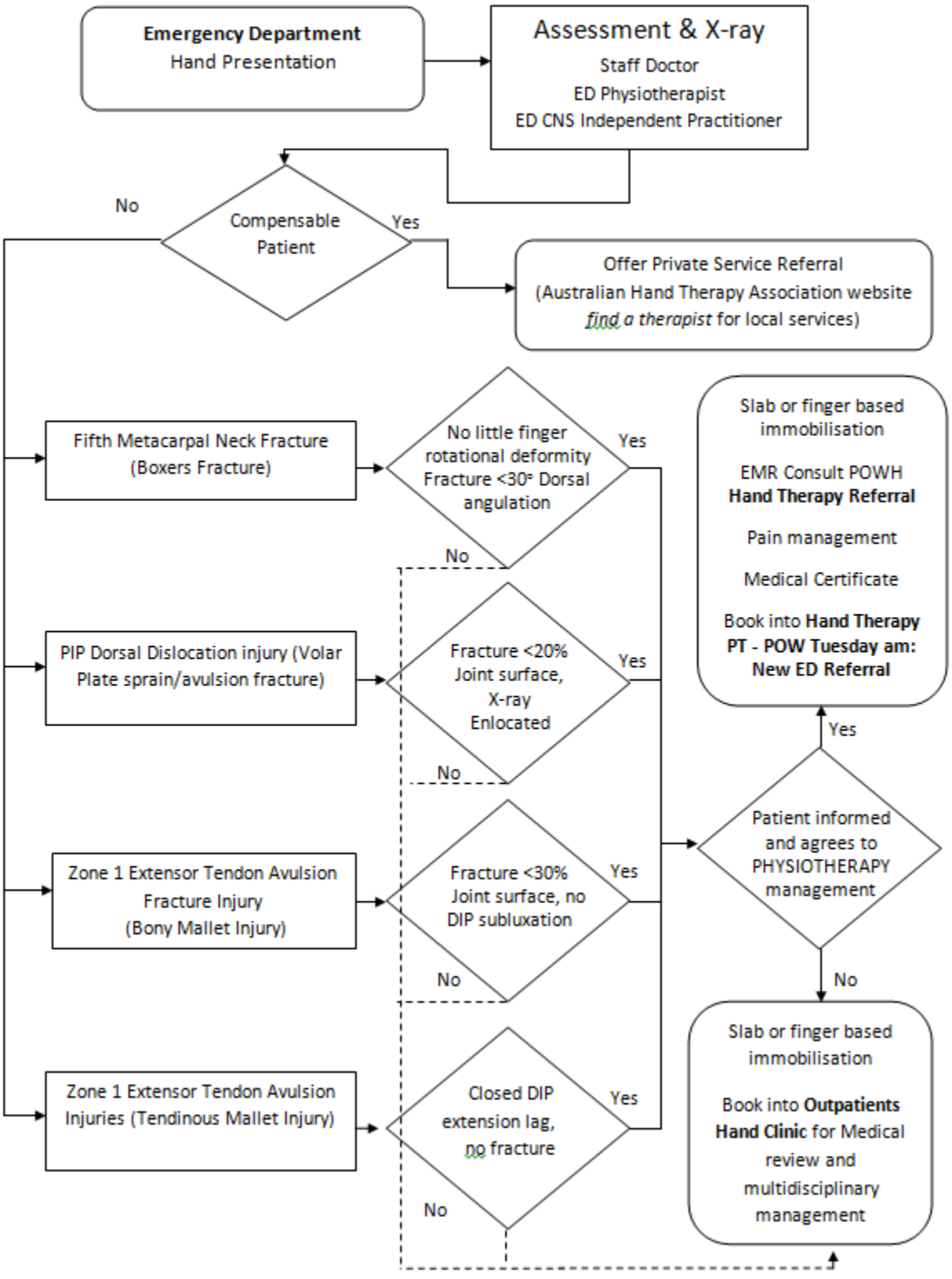


Figure 2: Referral to AMPHC pathway

REQUIREMENTS

1. Standardised operational policies and procedures to establish and support AMPHC
   a. Managing adverse events
2. Staffing
   a. Required training pathway for succession planning
   b. Competency assessments that are recognized and transferable between organisations
   c. Management of planned and unplanned absences
3. Evaluation including Key Performance Indicator

Standardised Operational Policies and Procedures to establish and support AMPHC

Management Pathway

1. Conservative Management of PIP Dorsal Dislocation (Volar Plate sprain/avulsion fracture
2. Conservative Management Fifth Metacarpal Neck Fracture (Boxers Fracture)
3. Conservative management Zone 1 Extensor Tendon Avulsion Fracture Injury (Bony Mallet Injury)
4. Conservative management Zone 1 Extensor Tendon Avulsion Injuries (Tendinous Mallet Injury)

Management Protocols

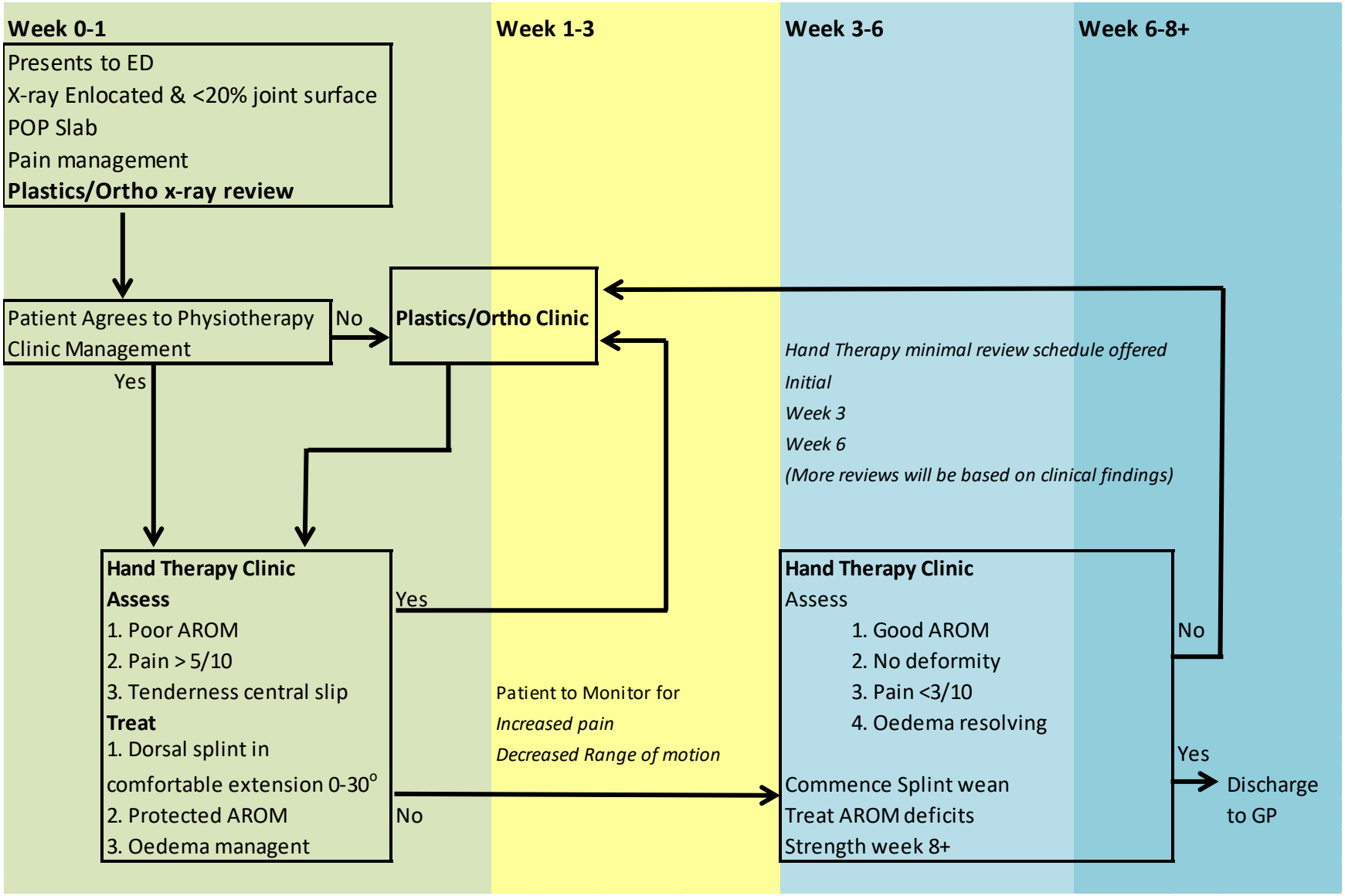
1. Conservative Management of PIP Dorsal Dislocation (Volar Plate sprain/avulsion fracture
2. Conservative Management Fifth Metacarpal Neck Fracture (Boxers Fracture)
3. Conservative management Zone 1 Extensor Tendon Avulsion Fracture Injury (Bony Mallet Injury)
4. Conservative management Zone 1 Extensor Tendon Avulsion Injuries (Tendinous Mallet Injury)

Succession Planning Training pathway appendix 1

The AMPHC Hand Physiotherapist would work directly under the clinical supervision of the Hand Surgeons, Dr Sean Nicklin (Plastic Surgery) and Dr Bernard Schick (Orthopaedics) and require a demonstrated ability to recognise their limitations and have clear understanding of the AMPHC scope of practice.

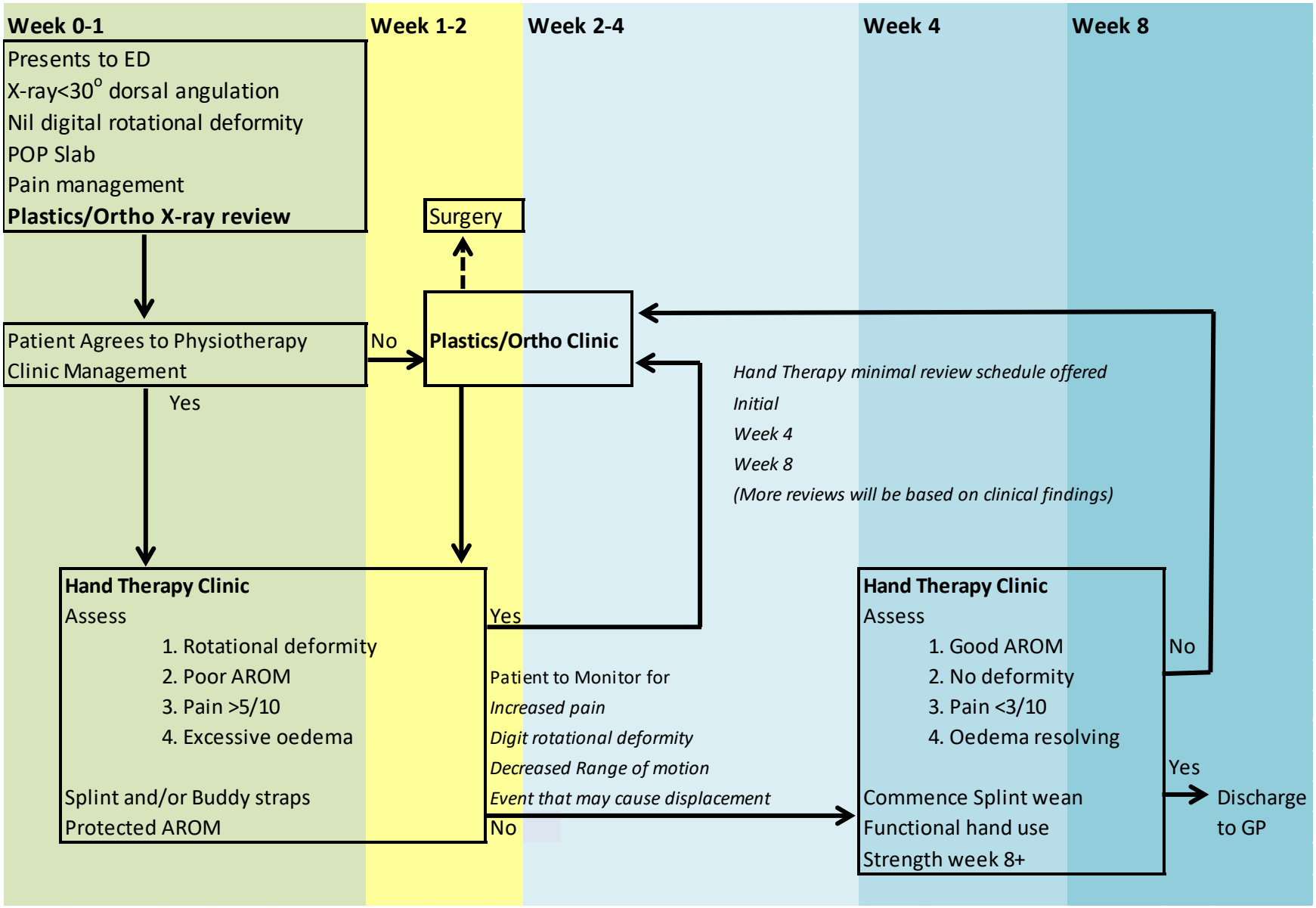
POWH Hand Therapy Advanced Scope of Practice Pathway

Conservative management PIP Dorsal Dislocation injury (Volar Plate sprain/avulsion fracture)



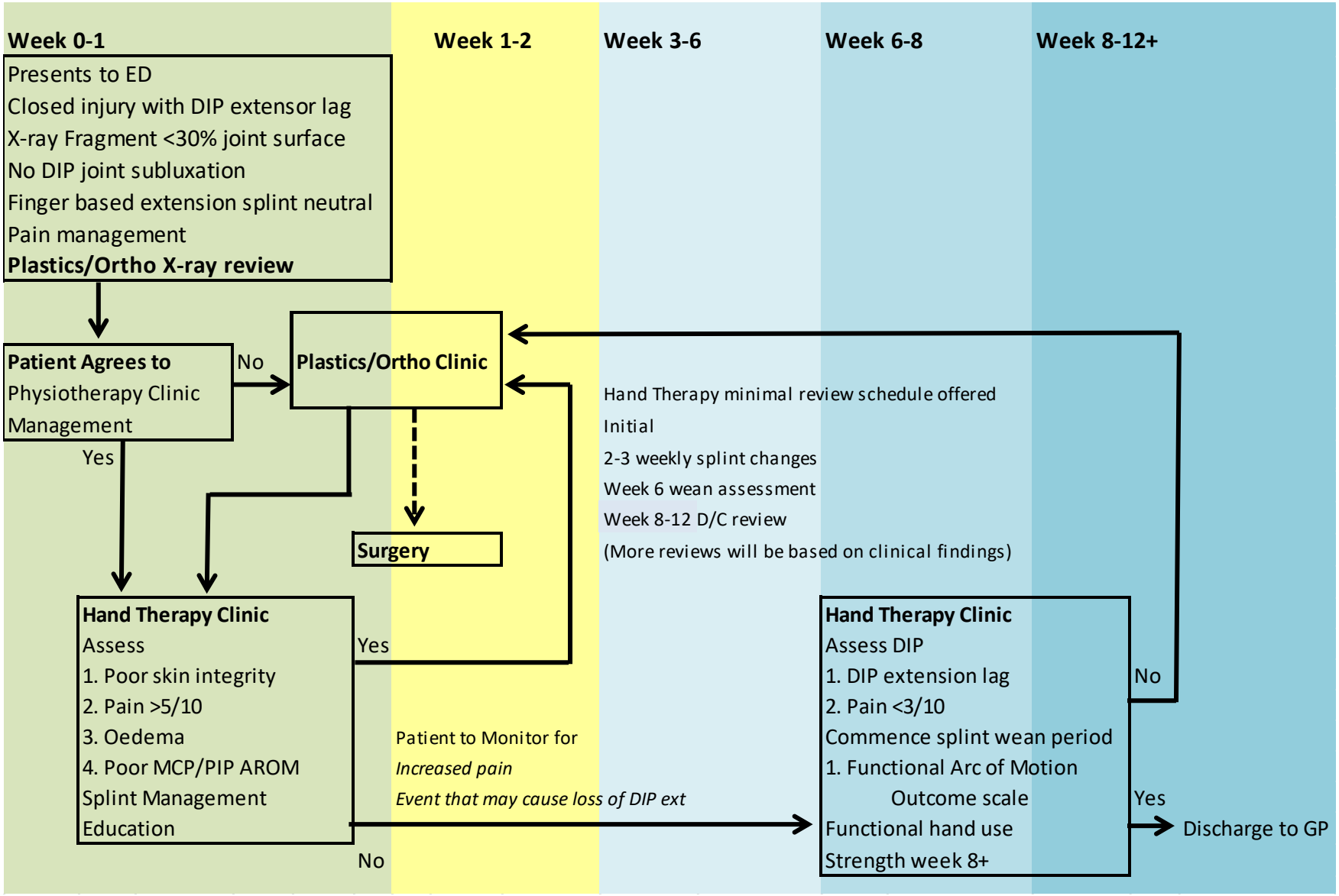
POWH Hand Therapy Advanced Scope of Practice Pathway

Conservative Management Fifth Metacarpal Neck Fracture (Boxers Fracture)



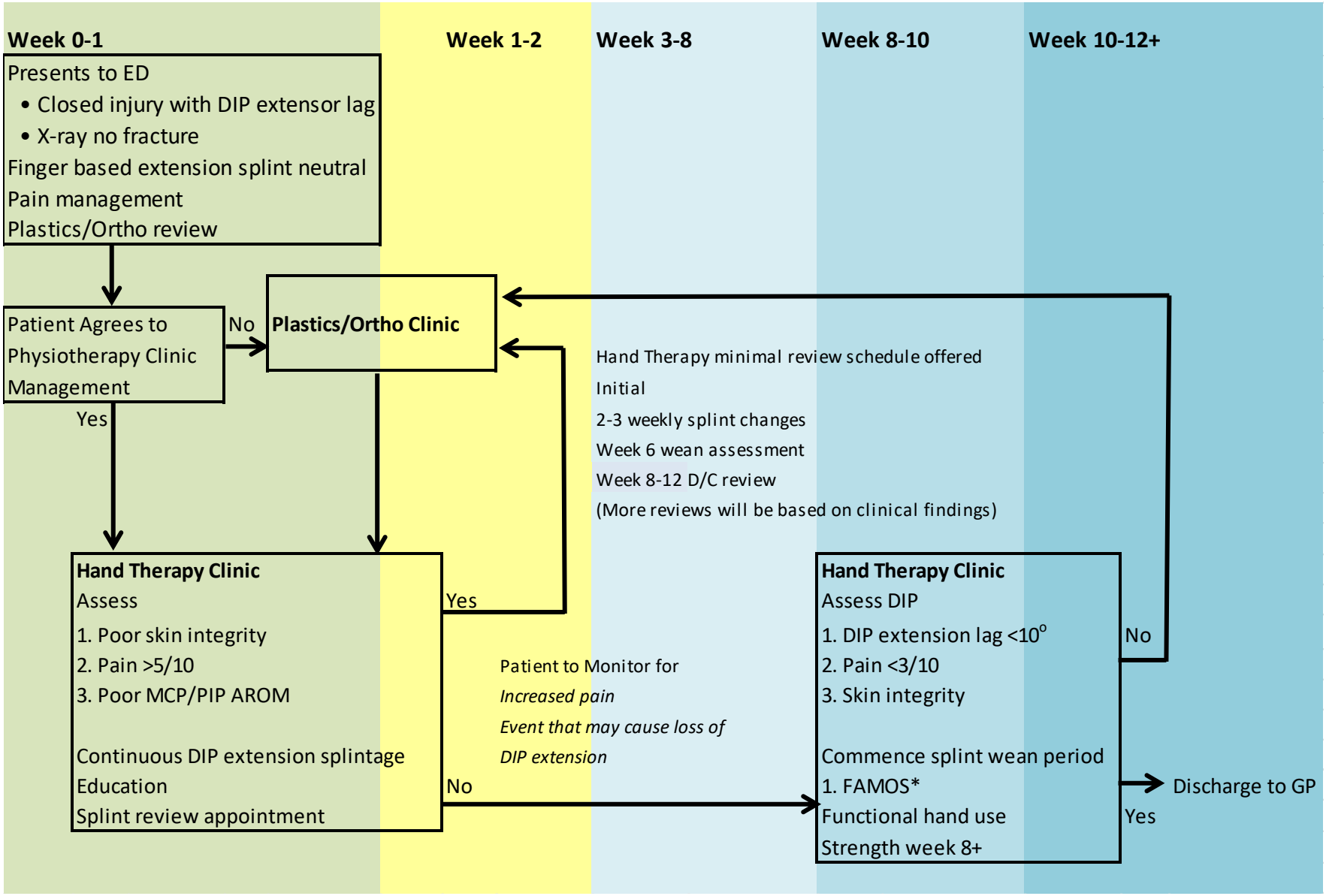
POWH Hand Therapy Advanced Scope of Practice Pathway

Conservative management Zone 1 Extensor Tendon Avulsion Fracture Injury (Bony Mallet Injury)



POWH Hand Therapy Advanced Scope of Practice Pathway

Conservative management Zone 1 Extensor Tendon Avulsion Injuries (Tendinous Mallet Injury)



Prince of Wales Hospital Hand Therapy Protocols

PIP Dislocation/ Volar Plate Avulsion Fracture

Dislocation of finger(s) with joint reduction and x-ray prior to review
Review within 7 days post injury to prevent prolonged immobilisation

Assess

Active AROM
- FDP
- FDS

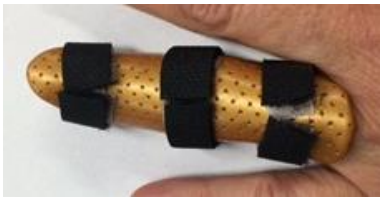
Point tenderness
- volar plate
- collateral ligament insertions[1]
- Central slip[2]

X-ray
- Fracture fragment[3]
- Joint enlocation

Pain & Oedema

Splint

Dorsal Thermoplastic in comfortable extension 0-30°.
Oedema management.
If splinting in flexion serial splint changes to achieve 0° extension by 3 weeks



Simple sprain injuries with minimal pain, oedema and good ROM may be protected with buddy strapping alone

1. Isolated collateral ligament injuries may be managed with buddy strapping to ipsilateral finger.

Exercises

Blocked FDP and FDS
Hooking
Composite Flexion
MCP Flexion IP extension
10 reps each 2 hours

Advice

Remove splint for hand hygiene +/- to perform exercises.
Light pain free use of the hand in splint encouraged.

Progress

Remove Splint for light pain free use of the hand at 3 weeks but continue at risk and night.

Cease protective splint at 6 weeks.

Manage flexion contracture or joint stiffness if present.

Strengthen if indicated

2. Central slip involvement treat as zone III Extensor tendon injury
3. Avulsion fractures >25% joint surface splint in 30° flexion with x-ray to confirm enlocation and are managed in conjunction with Hand Clinic

Outcomes: Pain free functional use of the digit expected with over 50% of patients experiencing good resolution of symptoms at one month. Less than 20% of patients may experience some swelling and stiffness past 6 months.

References:

Jespersen B, Nielsen NS, Bonnevie BE, Boeckstyns ME. Hyperextension injury to the PIP joint or to the MP joint of the thumb – a clinical study. Scand J Plast Reconstr Hand Surg 1998;32:317-2
Little K & Jacoby S (2011) Intra-articular Hand Fractures and Joint Injuries. In Skirven et al, Rehabilitation of the Hand and Upper Extremity 6th Ed. Elsivier pp 403-407

POWH Hand Therapy Protocols

Metacarpal Fracture Conservative Management

Fracture Metacarpal with x-ray prior to review
Review 3-7 days post injury to prevent prolonged immobilisation

Assess

X-ray

- Ulna digits MC head and neck angulation <40°
- Ulna digits MC shaft angulation <20°
- Radial digits angulation <10°

Active ROM
Affected finger(s) cascade for absence of rotational deformity
Point tenderness
Oedema and pain

Splint

MC Neck/head

Hand based ulna gutter splint[1] in MCP flexion 60°-70°, IP's free

MC Shaft

Forearm based ulna gutter[2] splint wrist 20° extension, MCP 60°-70° flexion, IP's free

MC Base (undisplaced)

Wrist splint 20° extension and buddy strapping affected digit(s)

Exercises

MCP Flexion IP flexion and extension
10 reps each 2 hours
Composite extension and hooking out of splint
10 reps 3x day

Advice

Remove splint for hygiene and to perform hook exercises.
Light pain free use of the hand in splint encouraged.
Avoid strong gripping and heavy lifting

Progress

Wean splint for light activities at 4 weeks.
Wear at risk only at 6 weeks.
Strengthen if indicated at 8 weeks.
Unrestricted use at 12 weeks

1. If good ROM with minimal pain is present consider buddy strapping alone
2. If good ROM and minimal pain consider hand based fracture brace and buddy strapping

Outcomes

Expect full ROM/grip strength. If fracture is angulated/impacted the deformity will be permanent with a less defined or dropped knuckle.

References

Colditz, J (2011) Functional Fracture bracing. In Skirven et al, Rehabilitation of the Hand and Upper Extremity 6th Ed. Elsivier pp 1625-1627
Belsky, M(2011) Extra-articular Hand Fractures. In Skirven et al, Rehabilitation of the Hand and Upper Extremity 6th Ed. Elsivier pp 377-378

POWH Hand Therapy Protocols:

Bony Mallet Injury (Zone I Extensor Tendon Avulsion Fracture)

Distal Inter-phalangeal joint lag with X-ray prior to review

Assess

Maintain DIP extension with previously immobilised injury

X-ray

- Fracture <30% joint

Active AROM of PIP/MCP only

Skin Integrity

Pain & Oedema

Splint

DIP extension to neutral without dorsal skin blanching

In the presence of oedema consider dorsal thermoplastic

Extend splint proximally to block PIP hyper-extension if present, use releasable proximal strap to facilitate PIP flexion AROM exercises

Exercises

Composite MCP and PIP flexion to palm
10 reps each 2 hours

Advice

Do not remove splint
Light pain free use of the hand in splint encouraged
Wet the splint once a day only to maintain skin integrity (Thermoplastic splints must be kept dry at all times)

Progress

Assess for DIP lag after 6-8 weeks of continuous extension splintage.
Remove splint for short periods, progressing over 2 weeks e.g. 15 minutes 3x day, progressively increasing if no lag
Continue night splintage for 4 weeks

Failure of wean: lag of >10° with tenderness over tendon insertion. Consider further 2-4 weeks continuous immobilisation

Outcomes: Functional arc of motion outcome scale: Excellent: ≤ 5° lag, functional flexion (DIP ≥ 40°, Thumb IP ≥20°); Good: ≤6°-10° lag, functional flexion; Poor: ≥11° Lag, not functional flexion. Seventy percent achieve excellent FAMOS on discharge.
Expect poorer DIP extension outcomes in presence of increased oedema, increasing age and decreased splinting adherence

References:

Valdes k, Algar, L (2015). Conservative treatment of mallet finger: A systematic review Journal of Hand Therapy 28 (2015) 237-246.
Rutter, L (2015)Mallet outcomes and FAMOS: NSW PH HT SIG project

POWH Hand Therapy Protocols

Soft Tissue Mallet Injury (Zone I-II Extensor Tendon Rupture)

Distal inter-phalangeal joint lag with X-ray prior to review

Assess

Maintain DIP extension with previously immobilised injury

If DIP unprotected

- DIP active and passive extension

If DIP protected in extension

- Active AROM of PIP/MCP only

Skin Integrity

X-ray

- Absence of avulsion fracture

Pain & Oedema

Splint

DIP extension in slight hyperextension without dorsal skin blanching

In the presence of oedema consider dorsal thermoplastic

Extend splint proximally to block PIP hyper-extension if present, use releasable proximal strap to facilitate PIP flexion AROM exercises

Exercises

Composite MCP and PIP flexion to palm

10 reps each 2 hours

Advice

Do not remove splint

Light pain free use of the hand in splint is encouraged

Wet waterproof splints once a day only to maintain skin integrity

Progress

Assess for DIP lag post 8-10 weeks of continuous extension splintage.

Remove splint for short periods, progressing over 2 weeks e.g.: 5 minutes 3 x day, progressively increasing if no lag develops

Continue night splint for 4 weeks

Failure of wean: lag of >10° with tenderness over tendon insertion. Consider further 2-4 weeks continuous immobilisation

Outcomes: Functional arc of motion outcome scale: Excellent: ≤ 5° lag, functional flexion (DIP ≥ 40°, Thumb IP ≥20°); Good: ≤6°-10° lag, functional flexion; Poor: ≥11° Lag, not functional flexion. Seventy percent achieve excellent FAMOS on discharge.

Expect poorer DIP extension outcomes in presence of increased oedema, increasing age and decreased splinting adherence

References:

Valdes k, Algar, L (2015). Conservative treatment of mallet finger: A systematic review Journal of Hand Therapy 28 (2015) 237-246.

Rutter, L (2015)Mallet outcomes and FAMOS: NSW PH HT SIG project

Managing adverse events

As stated, Patients would be offered an appointment on Tuesday morning in the Physiotherapy Department. If on review the AMPHC Physiotherapist assessed the patients' needs as falling outside the scope of the AMPHC the patient would then be directed to book into the Wednesday morning clinic that they would otherwise have been booked into with no loss of time to Medical review. If red flags were identified the patient would be directed back to the Emergency Department for immediate review. Any unplanned event resulting in, or with the potential for, injury, damage or other loss, including a near miss would be reported as per the requirements of PD2014_004 Incident Management Policy.

Required Training Pathway

The AMPHC Practitioner is a senior experienced physiotherapist with extensive clinical expertise in assessment and treatment of hand conditions throughout the continuum of care. A minimum skill level would be assessed as a meeting the requirements of a positional or personal level 3/4 Hand Therapist. They would require excellent communication skills and working relationships within the POWH Plastics and Orthopaedics Services.

In addition the skillset of AMPHC Hand Physiotherapist would include:

1. Radiology Interpretation of plain films
2. Radiology ordering privileges
3. Advanced differential diagnosis
4. Splinting and plastering competencies for orthotic fabrication
5. Knowledge of fracture management and POWH protocols
6. Wound assessment and management skills
7. Completing medical certificates
8. EMR documentation capability

Competency Assessments

Local organizational Competency Checklists for Hand Therapy skills are provided in Appendix 1. These represent minimal requirements for unsupervised practice. Currently there are no across-organisation competency assessments available for evaluation of advanced Hand Therapists skills. A succession planning training outline suggesting a combination of experiential and formal training options is provided in appendix 2.

Staffing

The proposed schedule is for eight allocated 30 minute New ED Referrals timeslots to be available on Tuesday mornings from 8.30am to 12.30 in the Senior Hand Physiotherapists Schedule. These times are now used for Hand Therapy new patients and follow-up reviews.

Currently the Hand Physiotherapy Service provides coverage for inpatients with hand conditions that is consultation, treatment and specialised splinting for the Spinal acute and Rehab, Rehabilitation, Neurology, Aged Care and Mental Health services. We also provide coverage for general Plastics inpatients. That is mobility and respiratory Physiotherapy assessment and management. Four hours a week are allocated to general Inpatients as part of the Hand Therapy Rotator roster. Currently there are difficulties with this arrangement as having one hour a day set aside to cover this fluctuating workload is not responsive to the needs of the Plastics inpatients. If this workload could be absorbed into another area this would provide the four hours required for the AMPHC.

Due to the frequent clinic over-runs the Hand Physiotherapy schedule has deleted Wednesday afternoon appointments. If, on implementing the AMPHC, it was found that the clinics ended earlier these times could be made available for Outpatient bookings again.

Planned and unplanned absences

As prolonged immobilisation of hand injuries is associated with poorer outcomes it is necessary to ensure patients are reviewed in a timely way.

In the case of planned absences without suitable cover the Orthopaedic, Plastics and Emergency departments would be informed. The POW PT New ED referral timeslots would be blocked and Patients would be booked into the Wednesday morning Orthopaedic or Plastics Consultants clinic for management.

In the case of an unplanned absence without suitable cover two options are possible

1. Patients with proximal interphalangeal joint dorsal dislocations (volar plate avulsion injuries/fractures) and fifth metacarpal neck fractures (boxer's fractures) would be would be called and offered an appointment later in the week or re-directed to the Wednesday Morning Consultants clinic for management.
2. Patients with boney and tendinous mallet injuries (zone I & II extensor tendon rupture or avulsion) would be called and offered an appointment later in the week or early the following week or re-directed to the Wednesday Morning Consultants clinic for management.

Evaluation

1. Assess number of patients diverted from the Plastics and Orthopaedics Hand Clinics (Workforce Capacity)

$$\text{KPI} = \frac{\text{Number of patients managed by AMPHC without referral to Consultants Hand Clinic}}{\text{All patients referred to AMPHC}}$$

Goal 100%

Definitions:
Numerator: All Patients who are appropriately referred from POWH Emergency Department by the referral to AMPHC Pathway who have attended for assessment and are discharged from the service without referral and involvement of the POWH Orthopaedic or Plastics Consultants Clinics. Excludes all Patients who do not attend the AMPHC Review.

Denominator: All patients who present to the POWH Emergency Department and are managed by the referral to AMPHC pathway. Excludes all Patients do not attend the AMPHC Review.

2. Plastics Clinics Waiting Times as evaluated by Adult OPD (Access to Care)
3. Patient incidents: Major/serious adverse events as evaluated by IIMS reporting (Safety and Quality)

IN SUMMARY

The Advanced Musculoskeletal Physiotherapy Hand Clinic (AMPHC) is proposed to provide a high quality service to patients in a timely manner. Working collaboratively with healthcare teams the AMPHC aims to reduce the burden of increasing demand for services and enable doctors to treat patients who have complex conditions or require surgical intervention.

Standardised operational policies and procedures, including management pathways and protocols for assessment, treatment and management of adverse events have been provided. Staffing and training requirements have been detailed. A key performance indicator has been described.

REFERENCES

Belsky, M(2011) Extra-articular Hand Fractures. In Skirven et al, Rehabilitation of the Hand and Upper Extremity 6th Ed. Elsivier pp 377-378

Colditz, J (2011) Functional Fracture bracing. In Skirven et al, Rehabilitation of the Hand and Upper Extremity 6th Ed. Elsivier pp 1625-1627

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Little K & Jacoby S (2011) Intra-articular Hand Fractures and Joint Injuries. In Skirven et al, Rehabilitation of the Hand and Upper Extremity 6th Ed. Elsivier pp 403-407

Rutter, L (2015)Mallet outcomes and FAMOS: NSW PH HT SIG project

Saxon r, Gray M, Oprescu, F (2014) Extended roles for allied health professionals: an updated systematic review of the evidence. Journal of Multidisciplinary Health Care 2014:7 479-488

Valdes k, Algar, L (2015). Conservative treatment of mallet finger: A systematic review Journal of Hand Therapy 28 (2015) 237-246.

Appendix 1: Workplace Clinical Competency Checklists

1. Sewing Machine Operation
2. Orthotic Fabrication
3. Short Arm Cast
4. Removal of Cast
5. Suture Removal

POWH Hand Therapy Sewing Machine
Clinical Competency Checklist

Operate Sewing Machine	**Yes**	**No**
Check cords and turn sewing machine on at the wall and on at the machine		
Sit at the machine employing safe manual handling principles (posture and position of foot pedal)		
Identify machine hazards		
Remove and reapply work tray		
Bobbin - Remove Bobbin - Fill bobbin with thread - Replace into machine - Feed thread through		
Thread cotton from reel all way through to needle		
Operate the Foot raising and lowering lever and lower the foot before sewing		
Identify the following: - Stitch selection buttons - Quick reverse button		
Complete sewing machine maintenance table - Cleaning the screen - Feed-dog area - Cleaning the hook - Lubricating - Practice inserting new needle - (130/705 H-S stretch; 90/14sec ballpoint) - Dispose of bent or broken needles in sharps disposal		
Change the following: - Stitch type (zig zag and straight) - Width of stitch - Length of stitch - Speed of sewing		
Sew on the following materials - Tubigrip - Neoprene: stitch and Velcro tab - Stockinette - Lycra		

Comments:
Date of assessment:

Name: _____ Assessors Name: _____

Signature: _____ Assessors Signature: _____

POWH Hand Therapy Static Orthosis Fabrication Clinical Competency Checklist

Procedure	YES	NO
Equipment i. Clear work area ii. Appropriate selection and use of scissors iii. Safe use of Stanley knife iv. Safe use of heat gun v. Safe use of splint pan vi. Explain choice of Thermoplastic selected		
Explain to patient i. Informed consent ii. Why they are being provided with an orthosis iii. What they need to do during the orthoses fabrication iv. Warnings re heat of materials		
Fabricate the Orthosis i. Position patient safely and comfortably ii. Correct landmarks used to draw template if used iii. Apply padding over bony prominences (if required) iv. Ensure temperature of the thermoplastic is tolerable for patient v. Check optimal joint position is achieved and preserve the arches of the hand		
Finish the Orthosis i. Check edges are not sharp and flare appropriately ii. Fastenings adequate and well fitting iii. Check movement of uninvolved joints & adjust if required iv. Check that patient is able to apply and remove the orthosis		
Orthosis Prescription i. Explain orthosis wear regimen and care to patient ii. Provide & explain warnings to patient including exercises program where applicable iii. Utilise written information where appropriate		
Document treatment provided		
Clear work area and dispose of waste in appropriate receptacle		
Safe manual handling during procedure for Patient and Therapist		

Comments:

Date of assessment:

Name: _____ Assessors Name: _____

Signature: _____ Assessors Signature: _____

POWH Hand Therapy Apply Short Arm Cast Clinical Competency Checklist

Procedure	YES	NO
Inform patient about the procedure and possible risks associated with procedure Gain verbal consent		
Position the Patients hand/arm so that it is comfortably supported considering safe manual handling for both Therapist and Patient		
Apply under cast padding of appropriate thickness (e.g. Webril 2-3 layers with extra padding over bony prominences where indicated)		
Apply resin impregnated bandage or plaster without tension to the appropriate thickness (Synthetic 4 layers)		
Ensure all uninvolved joints are unrestricted using anatomical landmarks i. Distal palmar crease ii. Thenar eminence with thumb movement sufficient for light use iii. 2/3 length of forearm		
Evaluate Cast i. Check and ensure correct wrist position ii. Check edges of cast are not sharp iii. Check cast moulded into palm		
Inform Patient (+/- Carers) i. Cast Care ii. Warnings iii. Range of motion for uninvolved joints		
Document procedure		
Clean area after application		

Comments:

Date of Assessment

Employee's Name: _____ Supervisor's Name: _____

Employee's Signature: _____ Supervisor's Signature: _____

POWH Hand Therapy Removal of Cast Clinical Competency Checklist

Procedure	YES	NO
View and adhere to the safe working procedures for use of a cast saw		
Inform patient about the procedure and possible risks associated. Gain verbal consent		
Position the Patients hand/arm so that it is comfortably supported considering safe manual handling for Therapist and Patient		
Employ appropriate personal protective equipment, e.g. ear muffs, and safety glasses for Therapist; ear plugs for Patient. Use a under cast cutting strip if indicated		
Use cast saw as designed. Cut the cast using an up/down motion. Rotate saw to prevent the blade overheating		
Bivalve the cast		
Ensure scissors or shears are kept parallel to limb to prevent the tip digging into patients skin when cutting padding		
Check skin condition		
Reapply if clinically indicated or dispose of in appropriate waste receptacle		
Documentation: consent, skin condition, warnings, any adverse events		
Clean & tidy area		

Comments:

Date of assessment:

Name: _____ Assessors Name: _____

Signature: _____ Assessors Signature: _____

POWH Hand Therapy Suture Removal
Clinical Competency Checklist

Procedure	YES	NO
Completed ANTT mandatory training module		
Explain to Patient i. Inform patient about the procedure and possible risks associated ii. Gain verbal consent		
Assess pain		
Equipment i. Perform appropriate hand hygiene (5 moments) ii. Set up sterile dressing pack/ space appropriately using Aseptic Non Touch Technique iii. Open required instruments/ dressings whilst maintaining integrity of aseptic field		
Prepare i. Position the hand/arm so that it is well supported and comfortable and appropriate for the injury/surgery ii. Perform appropriate hand hygiene iii. Remove old/dirty dressings and dispose of in correct receptacle iv. Maintain safe positioning of the limb		
Remove stitch with correct aseptic technique: i. Perform appropriate hand hygiene ii. Identify type of stitch and technique required for clean/complete removal iii. Cut made on one side of knot iv. Cut made close to the skin (If using cutter slide away from therapist and parallel to skin) v. Stitch gently pulled across wound vi. Stitch checked to be intact and complete vii. Every second stitch removed if concern about wound healing and monitor for dehiscence viii. Dress wound on completion of technique (as necessary) ix. Perform appropriate hand hygiene		
Education provided to patient regarding wound and skin care		
Follow safe working procedures for use of sharps and disposal		
Documentation: consent, wound condition and applied dressings, post procedure instructions and any adverse events.		
Safe manual handling during procedure (patient/therapist)		
Clean & tidy area		

Comments:

Date of assessment:

Name: _____ Assessors Name: _____

Signature: _____ Assessors Signature: _____

Appendix 2: Succession Planning Training Pathway

Define workplace competency assessments that are recognized and transferable between organisations

Skill Set	Pathway: combination of experiential and formal training options
Radiology Interpretation of plain films	Mentorship Plastics and Orthopaedic Consultants Successful completion of a Hand Therapy Radiology Skills Quiz (yet to be developed)
Advanced differential diagnosis	Mentorship Plastics and Orthopaedic Consultants Training Resources AHTA Introduction to Hand Therapy Course AHTA Advanced Trauma Management Course Minimum of 3600 hours of Hand Therapy specific clinical experience
Splinting and plastering competencies for orthotic fabrication	Completion of AHTA level 1 Immobilisation Orthotic fabrication Course including exam and case study 50 CPD hours. Completion of AHTA level 2 Mobilisation Orthotic fabrication Course including exam and case study 50 CPD hours.
Knowledge of fracture Management and POWH protocols	POWH Protocols review. Demonstrated skills to review and update protocols with advances to evidence based practice
Wound assessment and management skills	Wound management for Hand Therapists e.g. SHHU wound management for Hand Therapists RPA wound management for hand Therapists
Completing medical certificates	Reading the Australian Physiotherapy association guidelines.