

# Complex Regional Pain Syndrome: A new model of care improving patient outcomes

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## Introduction

Complex regional pain syndrome (CRPS) is a condition that can affect the limb and is characterised by pain, loss of movement, oedema and significant sensory abnormalities. It is usually associated with trauma of the affected limb and frequently requires high healthcare utilisation. Literature indicates up to 50% of patients diagnosed with CRPS will not return to the workforce.

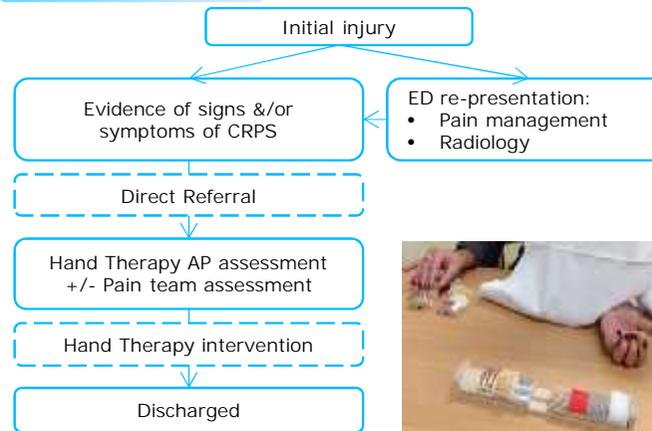
At Melbourne Health, intervention was provided in silos and lacked co-ordination of care for this patient group. This service gap was identified by both allied health and the pain management services. With the support of a Department of Health & Human Services Allied Health Workforce Advanced Practice grant a new management pathway has been developed.

## Methods

- An advanced practice (AP) hand therapy role was developed and supported by a Department of Health & Human Services Allied Health Workforce Advanced Practice grant.
- Collaborative relationships with pain management services were further strengthened throughout the project
- A literature review was undertaken and relevant outcome measures selected
- A CRPS screening tool and direct referral pathway was developed
- Developed, implemented and distributed resources including clinical identification tool, clinical pathway and assessment tool
- Provision of education to key stakeholders within Melbourne Health



## Clinical Pathway



## Results

### Demographics:

Demographics N = 63	Range (Average)
Age (average)	23-83 (55)
Gender (ratio)	Female = 38 Male = 25 (3:2)
Funding Source	Public = 52 Compensable = 11 ( 5:1)
Occupation	Manual = 17 Office = 16 Retired = 17 Home duties = 6 Other = 7
Injury / condition	Wrist fracture = 32 Carpal tunnel release = 1 Dupuytren's release = 1 Other = 29

### Early access to care:

- 63 patients have been discharged from the CRPS pathway
- 33 of these met the Budapest diagnostic criteria for CRPS

### Healthcare utilisation:

Healthcare Service	Pre-pathway occasions	Post-pathway occasions
Emergency Department	0 – 8 (1.81)	0
Inpatient admissions	0 – 3 (1.24)	0 – 2 (0.08)
Outpatient surgical consults	2 – 22 (8.67)	0 – 11 (3.75)
Pain Services appointments	2 – 35 (8.38)	0 – 8 (1.34)

### Improvement in Clinical Outcomes:

- Functional outcomes for patients have improved with an average change of 58 points on the Human Activity Profile
- 90% of patients have returned to their pre-injury workplace prior to discharge

## Discussion

Hand therapy in collaboration with pain management services, have developed and implemented an innovative clinical approach to the management of patients with signs and symptoms of CRPS. This pathway provides a single point of contact for this complex patient cohort and enables patients to access the right care at the right time.

This pathway has demonstrated its effectiveness by reducing health care utilisation, improving patient access to care, whilst also improving patient outcomes.

It is recommended that the advanced practice hand therapy role continue to ensure the pathway is sustained and embedded into long term core practice within Allied Health at RMH. Furthermore, ongoing data collection is required for this pathway to further strengthen the evidence regarding the best management of patients with CRPS.

## References

Available upon request  
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