
Allied Health Led Post-Operative Hand Clinic: Evaluation of an alternative model of care

Initiative Type

System Improvement

Status

Deliver

Added

02 March 2022

Last updated

08 March 2022

URL

<https://cnxp3cuvtvrn68yjaibaht5ywrxspj7m.clinicalexcellence.qld.gov.au/improvement-exchange/allied-health-led-post-operative-hand-clinic-evaluation-alternative-model-care>

Summary

An increasing orthopaedic workload in Cairns Hospital has led to the establishment of an allied health-led hand therapy clinic to manage all post-operative care of routine hand surgeries. The allied health-

led service delivery model continues to offer a safe and effective alternative pathway for the management of routine post-operative hand surgery patients, with high patient and doctor satisfaction.

Key dates

Jul 2020

Jun 2021

Implementation sites

Cairns Hospital and Health Service

Key Contacts

Jo-Anne Sobb

2336

william.vanheerden.ced

Occupational Therapist

Cairns and Hinterland Hospital and Health Service

042268147

jo.sobb@health.qld.gov.au

Aim

The aim of this study was to evaluate the effectiveness, safety and patient satisfaction of this

alternative service delivery model.

Benefits

- prevent double handling of outpatient specialists and therapist appointments
- save on consumable waste
- save waiting times for patients
- enable specialists to see more complex patients quicker.

Background

An increasing and unsustainable orthopaedic workload in our hospital has led to the need to develop a solution that would also address patient flow.

Solutions Implemented

Targeted orthopaedic patients were seen by an occupational therapist or physio therapist post surgery, rather than a specialist.

Evaluation and Results

Prospective mixed method design evaluation was undertaken by occupational therapists and physiotherapists working in the field of hand therapy. Satisfaction surveys were completed by orthopaedic doctors and patients. Patient outcomes were assessed using the Quick Disability of Arm, Shoulder and Hand questionnaire, total active range of motion, Crawford classification, sensation and pain at six weeks post operatively. Data was collated and analysis of free text content for commonly occurring themes were grouped for interpretation. All complications and readmissions within a three-month period were identified and recorded to determine effectiveness and safety of the service. For the six-week post-operative review, 81 patients were seen by an allied health professional rather than a doctor. Patient satisfaction was high with 90 per cent of patients satisfied with post-operative care provided by allied health; 2 per cent of patients preferred to be seen by a doctor. Doctor satisfaction was also high with 95 per cent of doctors being satisfied and confident with the quality of care provided. A high proportion of patients reported pain 2/10 or less with activity (82.72 per cent), had full sensation (69.14 per cent), excellent range of motion (82.72 per cent), and Quick Disability Arm, Shoulder and Hand scores on average were below 25 per cent indicating minimal functional deficits. Only five patients required doctor involvement post-operatively.

Lessons Learnt

Liaise with a data statistician as early as possible in the process.

References

1. Beaton, D.E., Wright, J.G., & Katz, J.N. (2005). Upper Extremity Collaborative Group. Development of the QuickDASH: comparison of three item-reduction approaches. *JBJS*. 1;87(5):1038-46.
2. Birkhauer, J., Gaab, J., Kossowsky, J., Hasler, S., Krummenacher, P., Werner, C., & Gerger, H. (2017). Trust in the health care professional and health outcome: a meta-analysis. *PLoS one*; 12(2). <https://doi.org/10.1371/journal.pone.0170988>
3. Cox, R., Laracy, S., Glasgow, C., Green, K., & Ross, L. (2020). Evaluation of occupational therapy-led advanced practice hand therapy clinics for patients on surgical outpatient waiting lists at eight Australian public hospitals. *Journal of Hand Therapy*, 33(3), 320-328. https://doi.org/10.1016/j.jht.2019.01.004_
4. Crawford, G.P. (1984). The Molded Polythene Splint for Mallet Finger Deformities. *Journal of Hand Surgery*, 9(2):231-237. [https://doi.org/10.1016/S0363-5023\(84\)80148-3](https://doi.org/10.1016/S0363-5023(84)80148-3)
5. Desmeules, F., Roy, J. S., MacDermid, J. C., Champagne, F., Hinse, O., & Woodhouse, L. J. (2012). Advanced practice physiotherapy in patients with musculoskeletal disorders: a systematic review. *BMC musculoskeletal disorders*, 13(1), 107. <http://dx.doi.org/10.1186/1471-2474-13-107>
6. Ellis, B., & Kersten, P. (2002). The developing role of hand therapists within the hand surgery and medicine services: an exploration of doctors' views. *British Journal of Hand Therapy*. 7(4): 119-123. <https://doi.org/10.1177/175899830200700402>
7. Elnikety, S., El Hussein, M., Kaal, T., Talawadekar, G.D., Richards, H., & Smith, A.M. (2012). Patient satisfaction with postoperative follow up by a hand therapist. *Musculoskeletal Care*. 10, 39-42. <https://doi.org/10.1002/msc.225>
8. Gummesson, C., Ward, M., & Atroshi, I. (2006). The shortened disabilities of the arm, shoulder and hand questionnaire (QuickDASH): validity and reliability based on responses within the full-length DASH; *BMC Musculoskeletal Disorders*, 7:44. <https://doi.org/10.1186/1471-2474-7-44>
9. Harle, D., Ilyas, S., Darrah, C., Tucker, K., & Donell, S., (2009). Community based Orthopaedic follow up. Is it what Doctors and patients want? *Annals Royal College of Doctors*, 91,66-70. <https://doi.org/10.1186/1471-2474-7-44>
10. Ogrinc, G., Davies, L., Goodman, D., Batalden, P., Davidoff, F., Stevens, D. SQUIRE 2.0 (Standards for Quality Improvement Reporting Excellence): revised publication guidelines from a detailed consensus process.
11. Ibn El Haj, H., Lamrini, M., & Rais, N. (2013). Quality of care between Donabedian model and ISO9001V2008. *International Journal for Quality Research*, 7(1). <https://doi.org/10.1111/j.1553-2712.2011.01033>.
12. Libberecht, K., Lafaire, C., & Van Hee, R. (2006). Evaluation and Functional Assessment of Flexor Tendon Repair in the Hand. *Acta Chirurgica Belgica*. 06, 560-565. <https://doi.org/10.1080/00015458.2006.11679952>

-
13. Marks, D., Comans, T., Bisset, L., & Scuffham, P.A. (2017). Substitution of doctors with physiotherapists in the management of common musculoskeletal disorders: a systematic review. *Physiotherapy*, 103(4), 341-351. <https://doi.org/10.1016/j.physio.2016.11.006>
 14. Mintken, P.E., Glynn, P., Cleland, J.A. (2009). Psychometric properties of the shortened disabilities of the Arm, Shoulder, and Hand Questionnaire (QuickDASH) and Numeric Pain Rating Scale in patients with shoulder pain. *Journal of Shoulder and Elbow Surgery*, 1;18(6):920-6.
 15. Pearse, E., Maclean, A., & Ricketts, D. (2006). The extended scope physiotherapist in orthopedic outpatients - an audit. *The Annals of The Royal College of Doctors of England*, 88(7), 653-655. <https://doi.org/10.1308/003588406X149183>
 16. Peck, F.H., Kennedy, S.M., & McKirdy, L. (2001). The Introduction of Practitioner Led Hand Clinics in South Manchester. *British Journal of Hand Therapy*, 6(2):41-44. <https://doi.org/10.1177/175899830100600201>
 17. Peck, F.H., Kennedy, S.M., Watson, J.S., & Lees, V.C.,. (2004). An evaluation of the influence of practitioner led hand clinics on rupture rates following primary tendon repair in the hand. *British Journal of Plastic Surgery*, 57(1):45-9. <https://doi.org/10.1016/j.bjps.2003.10.003>
 18. Stanhope, J., Grimmer-Somers, K., Milanese, S., Kumar, S., & Morris, J. (2012). Extended scope physiotherapy roles for orthopedic outpatients: an update systematic review of the literature. *Journal of multidisciplinary healthcare*, 5, 37. <https://doi.org/10.2147/JMDH.S28891>
 19. Wong Baker Faces Pain Rating Scale•. Wong Baker FACES• Foundation. <http://wongbakerfaces.org/>. Copyright date 2016. Accessed March 30, 2020.