BRITISH ASSOCIATION
OF HAND THERAPISTS

Standards of hand therapy practice in the rehabilitation of surgically and non-surgically managed open fractures of the hand

Endorsed by:
British Association of Hand Therapists

Devised by the Open Fracture Standards Working Group, 2022
Further information is available from: https://www.hand-therapy.co.uk

This BAHT Standard has been developed to compliment the respective BSSH Standard of Care in Hand Trauma. It is based on research and expert opinion.

The following standards relate to the management and rehabilitation of open fractures of the hand, wrist and forearm in all age groups.

Definition:

For the purposes of this document open fractures have been defined as: ‘Breaks in a bone complicated by a wound or wounds’ (NICE, 2017).

Standards

1. Following diagnosis and, if required, surgical intervention, a timely referral for hand therapy should be completed by the operating surgeon. All patients should ideally be referred to a hand therapy service. If not available, referral should be made to a therapist with competent hand therapy skills (including splinting) with support provided by the referring unit.
2. The treating therapist should have:
    a. Digital access to all operative/assessment details, imaging, surgical/wound care treatment plans and follow up arrangements.
    b. Direct and timely access to the referring team to ensure optimised multidisciplinary decision-making regarding interventions. Access must also include fast track assessment for complications such as wound infection and compartment syndrome.
    c. Access to appropriate IT hardware and software to facilitate efficient and encrypted MDT digital communication and transfer of confidential information (e.g. clinical notes, images, photographs).
3. Hand therapy should be initiated, where indicated, within five-seven days of surgery. Intervention times may vary as dictated by the severity and complexity of bony/soft tissue injuries and skin coverage post-surgical intervention.
4. Patients should be offered regular hand therapy rehabilitation as indicated, with intervention continuing until optimal function is restored.

5. Appointments will require face to face consultations and utilise virtual and telephone appointments as appropriate.
6. Rehabilitation should aim for a ‘one stop pathway’ for all hand therapy and wound care intervention. If not available, appropriately skilled wound care support must be arranged and planned to combine with hand therapy appointments, both to minimise patient attendance requirements and optimise care.

   Note:

   - Patients suffering psychological distress may require additional intervention from a Clinical Psychologist.
   - Long term wound care may require support from tissue viability teams and district nursing staff.
   - Patients with persistent pain may require Pain Team support.

   Timely referral should be initiated for these additional services in discussion with the MDT.

7. Rehabilitation should aim to optimise both physical and psychosocial function using skilled hand therapy interventions.

   Particular attention should be paid to:

   a. Pain and oedema management
   b. Maintenance of fracture stability
   c. Wound care and scar management
   d. Maintenance of soft tissue and joint extensibility through the prevention of adhesions
   e. Restoration of strength, joint range of motion and function

Note: Clinicians must be particularly vigilant for signs of infection, sepsis and compartment syndrome and must organise urgent medical review if suspected.

8. The patient should be involved in decision making at all stages of their rehabilitation, with decision and treatment plans/regimes supported by both written and verbal information.
9. Core outcome data should be collected on initial assessment, as appropriate intervals and on discharge from hand therapy. Measures should be standardised and include an objective range of motion measure, a pain scale and a patient reported outcome measure such as the Patient Specific Functional Scale (PSFS).
10. Outcome data should be retained locally, with regular audit and peer review completed to evaluate and improve patient care.

Implementation of these standards should be used to guide and advice therapists in the clinical setting. However, it is recognised that care may be influenced by factors including access to hand therapy, injury, patient characteristics and surgical management. Professional judgement, based on clinical reasoning, will strongly influence the management and outcome following open fractures.

Evidence and Supporting Literature

Fractures (complex): assessment and management – Open fractures (2017) *NICE guideline N37*

Ka-Ho La M., Howard DP., King R. (2019) ‘A picture tells a thousand words” smartphone based secure clinical image transfer improves compliance on open fracture management, *Injury*, 50(7), pp 1284-1287

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Stratford P., Gill C., Westaway M., Brinkley J., (1996) Assessing disability and change on individual patients: a report of a patient specific measure, *Physiotherapy Canada*, 47, pp. 258-263

Warwick D., Dunn R (2018) *Hand Surgery: Therapy and Assessment (Oxford Specialist Handbooks in Surgery),* 2nd Ed., Oxford University Press

Membership of the Standards Working Group:

Nikki Burr
Laura Cooper
Kevin Spear
Becky Stockton