

The development and success of a Hand Therapy Trauma Clinic

Claire Paxman, Rosanne Ellis and Henry Lusby
Hand Therapy Unit (Gate 28A), Pinderfields General Hospital, Wakefield, UK

Background

This well-established Hand Therapy Unit (HTU) treat a wide variety of trauma and elective patients referred by the Plastic Surgery team. In 2017, on auditing the referrals, it was identified that **79% of patients sustaining closed injuries were managed non-operatively by the HTU**. Following this, a **new pathway** was developed for this patient group and the Hand Therapy Trauma Clinic (HTTC) was set up in **March 2018**. The **aim** of this pathway was to **utilise** the resources and **expertise** of the HTU to **improve** the **efficiency** of the patient’s journey.

Prior to March 2018, hand injuries were assessed and X-rayed by a clinician in the Emergency Department (ED) at one of the Trust’s three hospital sites. These patients were subsequently referred to the Plastic Surgery team at the central site of Pinderfields General Hospital. They were assessed on the same day by the on-call registrar who decided a management plan following discussion with consultants as required; either surgery or a referral to the HTU.

Method

- Discussions with Plastic Surgery consultants and Head of Service and consent gained. Liaised with ED staff.
- Funding for these HTTC sessions at a Band 8 tariff due to expertise required – achieved through current staff reducing hours.
- Successful Band 7 therapists stepped up. Backfill of their roles was carried out by experienced Band 6 therapy staff.
- Spare room in Rehabilitation Department at Pinderfields converted for use for HTTC sessions with assessment cubicle, computer and splint area.
- New pathway:
 - Patient attends local ED with closed hand injury.
 - Injury is assessed by ED clinician and X-ray completed as appropriate.
 - Phone consultation with Plastic Surgery registrar and review of notes and imaging.
 - If patient presents with an obviously unstable fracture or deformity, they would be sent to the Plastic Surgery Assessment Unit on the same day at Pinderfields.
 - If no concerning signs picked up through the phone consultation, these patients would be referred directly to the HTU HTTC. They would be placed in a plaster of paris or temporary splint by the ED.
 - Patients would attend the HTTC at around one week post-injury and undergo clinical assessment by a Band 8 therapist.
 - They would be prescribed a management plan with options for re-X-ray, splint, immobilisation or early active mobilisation. They were then referred to their preferred local HTU for follow-up.
 - If any concerns were highlighted, the Plastic Surgery team would be referred to and available to assess on the same day.

Results

Between 5th March 2018 and the 22nd September 2020, **2,915** patients were **referred** to the HTTC (average of 93 referrals per month). This represented 20.3% of the total number of referrals to HTU (14,371 patients). Of these, **38 (1.3%) required assessment** by the Plastic Surgery team. Only **17 (0.58%)** of these were **converted to surgical** management. Fourteen of these were fractures that were found to be unstable/slipped/rotated, one was explored for foreign body retention, one underwent a washout for a fight bite infection and one had a repair of a ulnar collateral ligament of the thumb.

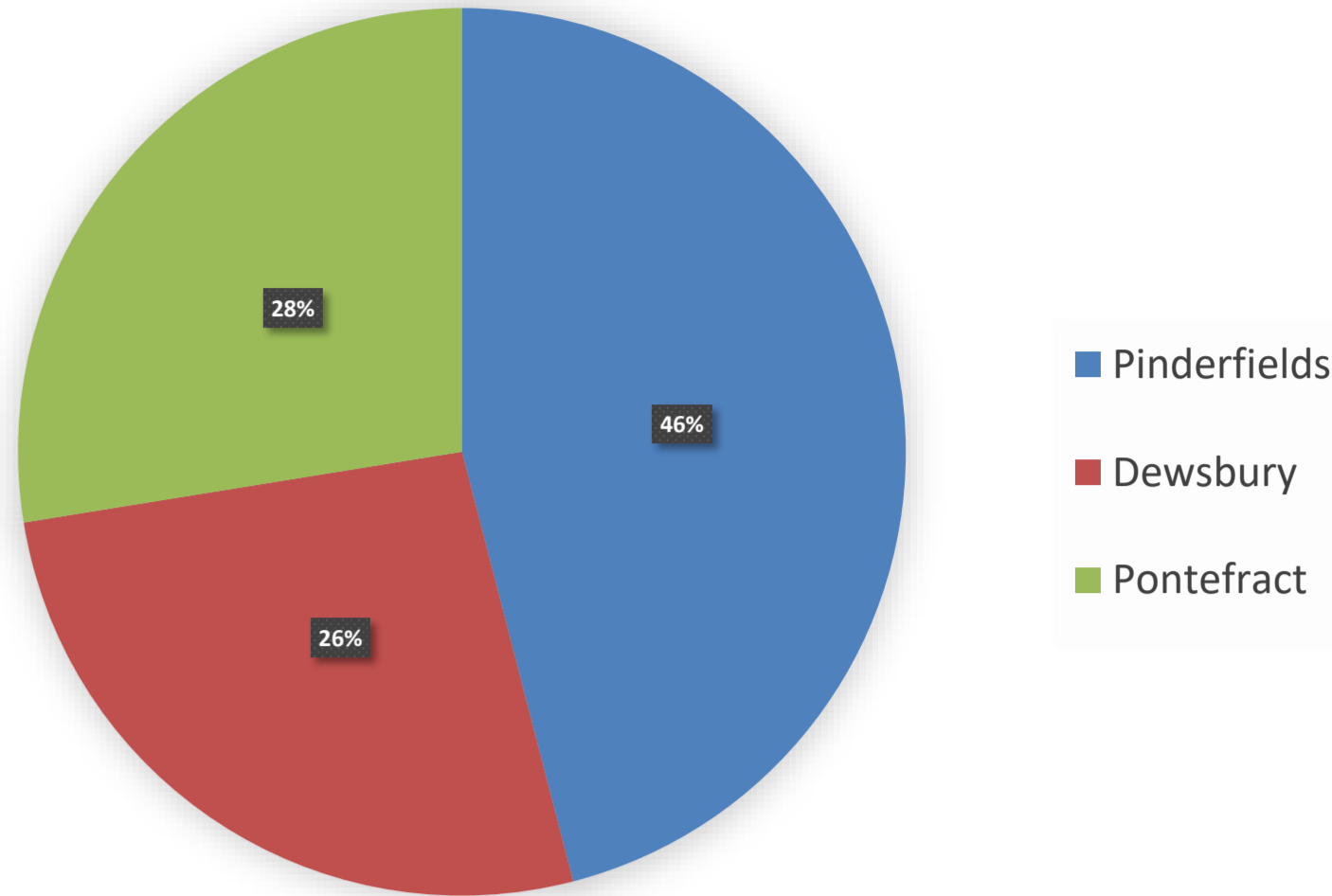
Types of injuries referred to the HTTC included **fractured** metacarpals, proximal phalanxes, middle phalanxes, distal phalanxes, avulsion fractures, **joint injuries** and **mallet** injuries. Other less common injuries assessed included carpal fracture, soft tissue injury, nerve injury, osteoarthritis, central slip avulsion and complex regional pain syndrome. The mean age of patients was 29 with a gender ratio of 3:1 (male: female). Patients were **assessed** by the HTTC at a mean of **8.2 days post-injury**.

Interestingly, the **average number of appointments** of those referred to HTTC was **3.1** from assessment to discharge. This is a **reduction from 4.8** appointments in a similar sample taken from pre-HTTC. In addition, it was calculated that **31 hours a month** was the **time saved** for the Plastic Surgery team to concentrate on more complex cases, surgery, training and other roles and responsibilities. **Positive comments** have been received from both staff and patients. The set up of the HTTC has also helped raise the profile of the HTU further with acknowledgement of the therapists’ level of expertise and competence.

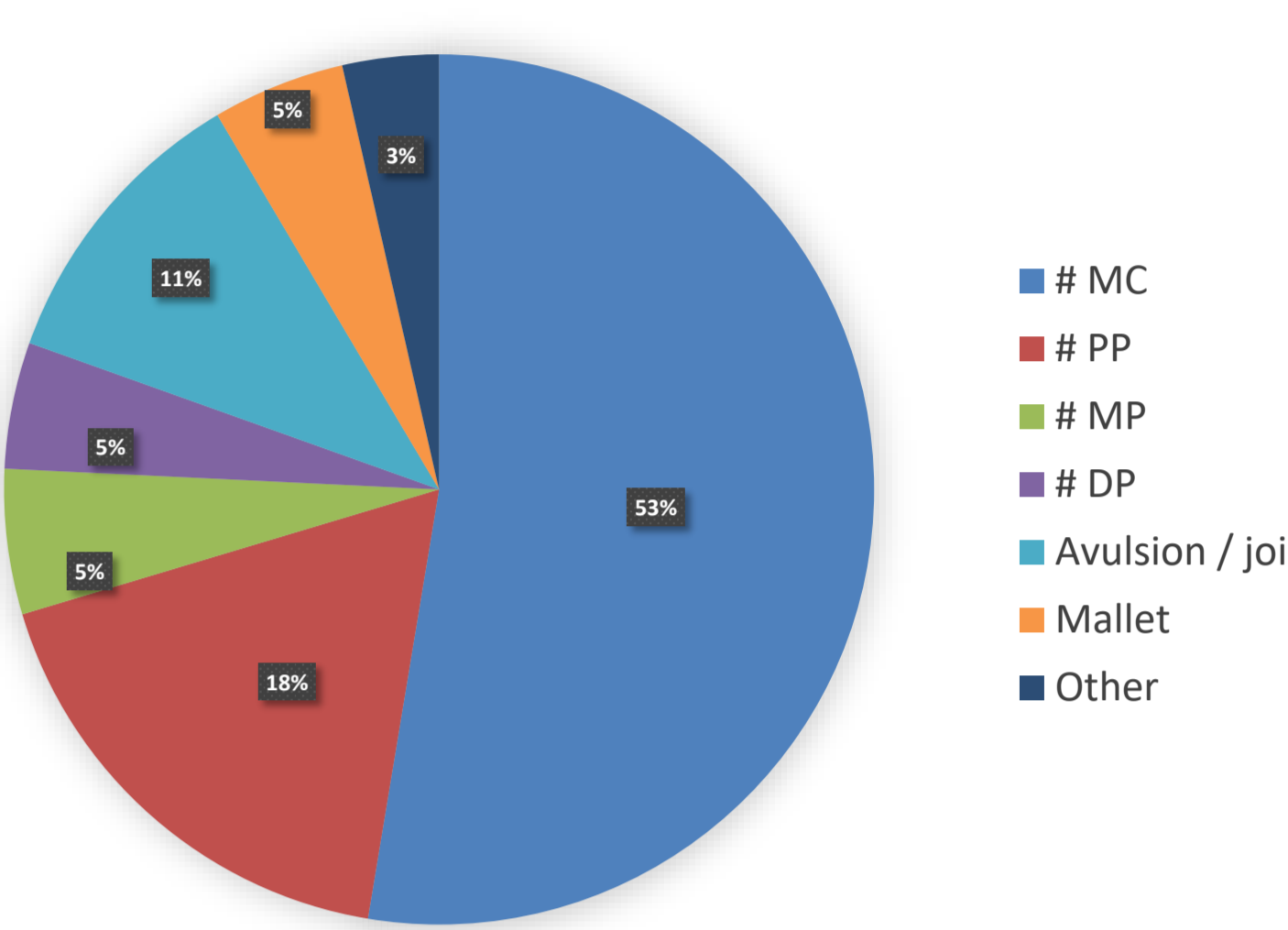
Conclusion

The HTTC has led to a **more efficient pathway** for patients and staff, reducing total number of appointments needed, increasing time available to surgical staff and improving both patient and staff satisfaction. The reduction of Covid-19 transmission risk to patients and staff through reducing the need to travel cross-site was especially important. Contrarily, a **potential risk** of this process includes the chance of a poorer outcome with **delayed surgical input** at one week post-injury. However, there have been no such cases highlighted so far.

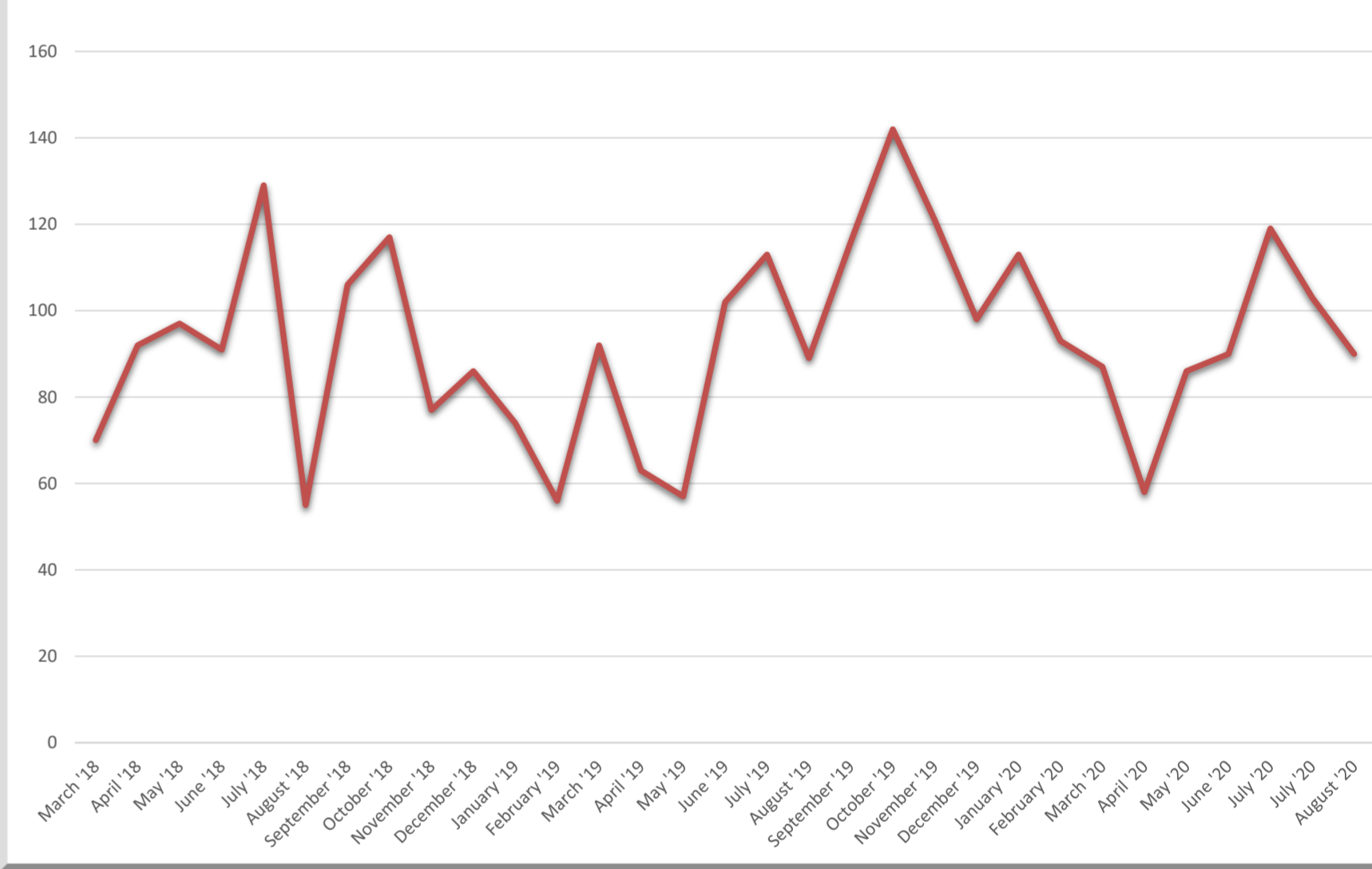
Referrals by area



Referral types



Referral numbers

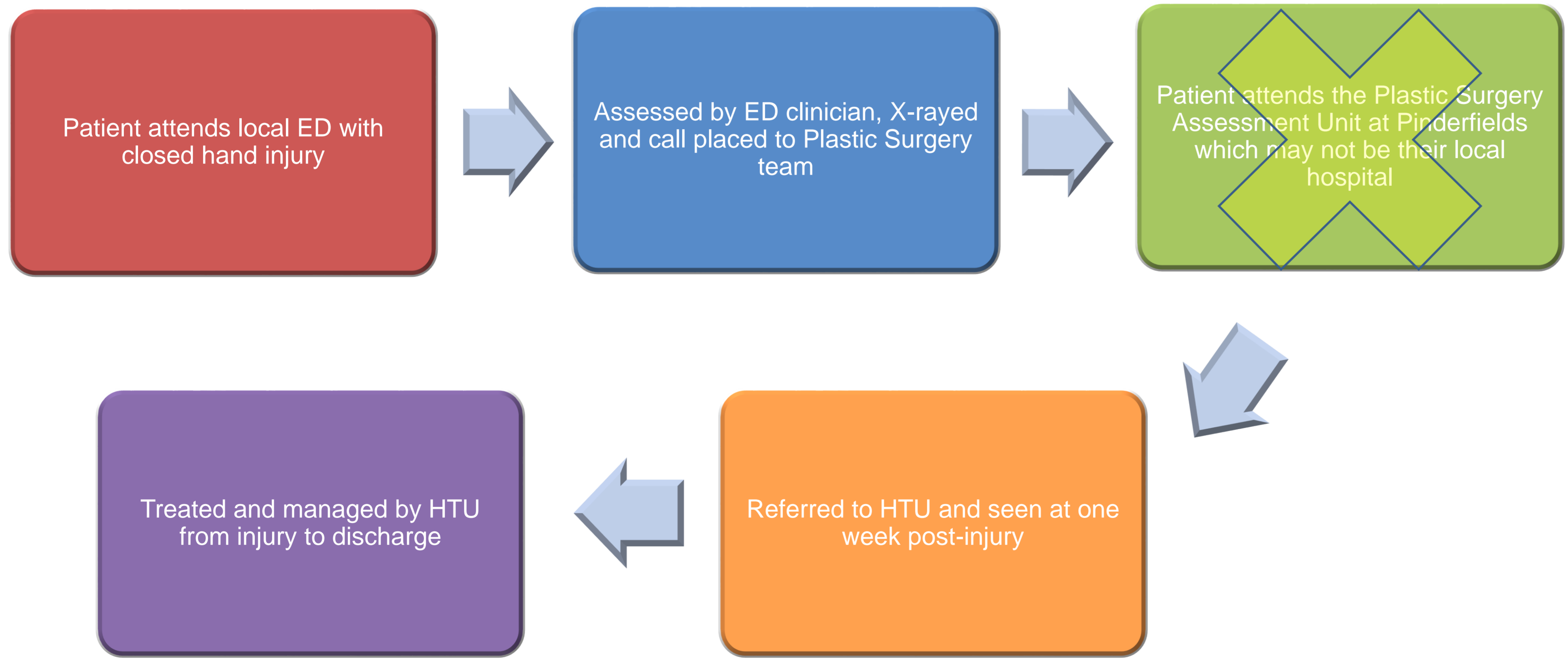
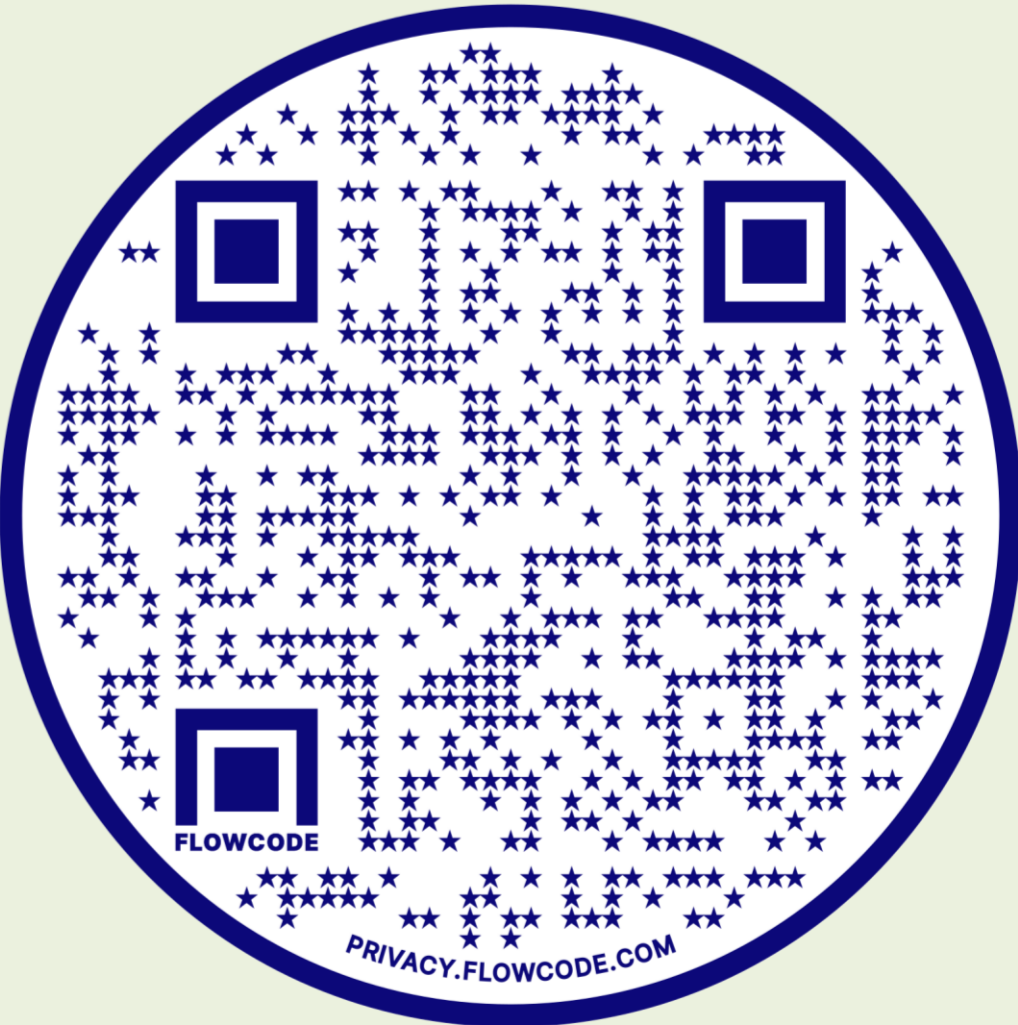


‘Rapidly and efficiently gets the patients to the right place for the right treatment’

‘I’m grateful.....allows us clinicians to devote our time to other more complex patients and those requiring surgery’

‘Same day, assessment, diagnosis and treatment – why would you chose any other route’

‘Fewer visits – better treatment’



Out of 2,915 patients, **1.3%** required assessment by the Plastic Surgery team with **0.58%** converted to surgical management. The remaining **98.7%** were managed solely by the HTU.