Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

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Editorial

Prioritisation of patients requiring orthopaedic trauma surgery: A call for action

The Covid-19 pandemic continues to have an impact on every National Health Care System. In the UK NHS, the burden is ongoing and the latest reported shortage of staff due to sickness and self-isolation requirements due to the omicron variant has led to further pressures and additional cancellation of acute lists and patients requiring emergency surgery. Similar to other countries, the big challenge in the UK remains how we effectively prioritise patients requiring orthopaedic trauma surgery when demand exceeds capacity, but could easily be extrapolated to other non-elective and trauma specialties.

The need for emergency surgery and subsequent prioritisation of surgical patients is not a new concept. The ancient Greeks knew that implements like spear tips and arrowheads had to be removed, wounds had to be cleaned and kept clean, whilst excessive blood loss must also be prevented. In the 18th century, during the Napoleonic wars, a French surgeon Dominique Jean Larrey (1766-1842) created a system of triage, or caring for the wounded in the order of the seriousness of their injury, regardless of rank or nationality.

The existing NCEPOD (National Confidential Enquiry into Patient Outcome and Death)[1] classification of intervention was issued in December 2004. This categorises the surgical intervention into immediate, urgent, expedited or elective depending on the target time to theatre from minutes to potentially months. However, this is not specific to orthopaedic trauma and indeed the categories don't fully 'fit' with other national guidance, such as NICE (National Institute for Health and Care Excellence)[2] and BOAST's (British Orthopaedic Association Standards of Trauma Care)[3].

One therefore may argue, that we have national guidance, may be not perfect, but a framework to build services on. However, due to the Covid-19 pandemic, virtually overnight, access to theatres for elective or scheduled surgery all but disappeared and emergency surgery capacity was significantly reduced. Some elements of trauma presentations reduced with population lockdown, but others such as hip fractures, which occur in a patient's own home, were largely unchanged.

Our national advisory bodies, the British Orthopaedic Association (BOA) and the Federation of Surgical Specialty Associations, rapidly produced guidance from March 2020 to support clinical decision making. Not only advising how to prioritise surgery, but also how to reduce 'face to face' patient review and indeed making decisions for non-operative treatment where possible. Virtual clinics prospered, the art of applying a plaster cast was re-visited and 'P' codes became common language.

While virtually no elective surgery was possible, validation of elective waiting lists was undertaken with patients assigned an appropriate 'P' code to enable effective planning for recovery after the pandemic. Unfortunately, the 'P' codes didn't entirely 'fit' for the appropriate timing of orthopaedic trauma surgery (P1 < 72 hrs, P2 < 1 month), but that may not matter. As elective waiting lists inevitably started to grow, hospital trusts were required to report on their 'P' breaches. This did not, however, include non-elective breaches. The assumption was that urgent and emergency surgery was being undertaken in a timely fashion. But was it?

The Kings Fund view[4] is that "waiting times are consistently ranked as one of the publics concerns with the NHS and have a big impact on patient experience of the service. The Covid-19 pandemic has caused elective waiting times, and the overall size of the waiting list to grow substantially; with recent warnings that it could get a lot worse before it gets better." Equally, there is no doubt that issues with capacity for non-elective care, inevitably impact the elective care which can be delivered.

Currently the only injuries for which timing of surgical intervention is nationally reportable are for hip and open fractures, through the NHFD (National Hip Fracture Database) and TARN (Trauma Audit and Research Network). The most recent report from the NHFD regarding data from 2020 shows 69% (range 22-95%) of patients had their surgery within 36 hours and the Major Trauma Centre National Dashboard (data from TARN) Q2 2021-22 demonstrates 70% of patients had soft tissue coverage within 72 hours of the incident. We may not expect these figures to be 100%, but is non-compliance with national guidance for almost a third of patients with high profile injuries acceptable? This also raises the question, what about the injuries we aren't being held to account for?

The origination of the BOA Trauma Exchange, a national networking group of orthopaedic surgeons with an interest in trauma surgery, enabled discussion of a variety of issues faced in clinical practice and in particular highlighted concerns from around the

[1] Ncepod.org.uk
[2] NG 37 / 38: nice.org.uk
[3] Trauma BOAST: boa.ac.uk

[4] 'Waiting times for elective (non-urgent) treatment: referral to treatment (RTT); The Kings Fund View kingsfund.org.uk 05/08/21

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country regarding capacity for orthopaedic trauma surgery in the wake of the pandemic. Work is ongoing to modify the NCEPOD categories to align with the evidence for timing of orthopaedic trauma procedures.

Part of this work has led to a couple of 'snap-shot' audits, which do appear to show that patients requiring surgery for acute fractures are not getting it within nationally agreed timescales. The overall scale of the potential problem, however, is unknown but does it matter?

There is little evidence to show that patient outcomes are affected if, for example, their ankle fracture is fixed at three weeks rather than within 36 hours, as guidance would advise. Anecdotally though, the surgery does not get easier the longer it is left and the impact on the individual patient and overall society is unknown. Operating on acute fractures does seem to reduce operative time and maybe could enable orthopaedic surgeons to positively impact theatre productivity, which is otherwise somewhat of an enigma. There also does seem to be a tendency to more reliance on scarcely available sub-specialty surgeons when fracture surgery is delayed, on occasion, for weeks. Perhaps this is worthy of investigation?

As we begin the journey out of the pandemic and 'learning' to live with Covid-19, it is important that delivery of our non-elective care features in the plans for elective recovery. Using the tool with appropriate categories for orthopaedic trauma, which can be modified for other specialties, will aid decision making and can be used for local audit and even possibly national reporting. Knowing the extent of the problem will be a starting point to improvement.

Other strategies are also emerging for how we manage the risk of patients on waiting lists, with software available to calculate for an individual not only their personalised risk of a certain procedure, but also the risk in delaying intervention. Simple time on a list will not be the only factor for scheduling.

Back to the Kings Fund iv: "building on collaboration seen during the pandemic, there is an opportunity to think about how services can be provided in more innovative, more efficient ways that reach those in most need, address health inequalities and can sustainably meet the waiting-time standards, for elective care *and more widely* across the NHS."

Our response as an orthopaedic trauma community to this challenge may be to maximise day-case opportunities or by reviewing existing pathways to ensure we haven't inadvertently created unnecessary delays. The development or strengthening of Regional Fracture Networks may also enable more effective use of existing resources. Sharing successful strategies and understanding more clearly the 'problem' will help to support how national policy or reporting may be of benefit.

Sharon Scott
Orthopaedic Department, Aintree Site, Liverpool University Hospital NHSFT, Longmoor Lane L9 7AL Liverpool, United Kingdom

E-mail address: sharon.j.scott@liverpoolft.nhs.uk