

Clinical Guide for Trauma and Orthopaedic Patients during the Coronavirus Pandemic

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“.....and there are no more surgeons, urologists, orthopedists, we are only doctors who suddenly become part of a single team to face this tsunami that has overwhelmed us”.

Dr Daniele Macchine, Bergamo, Italy. 9 March 2020

As doctors we all have general responsibilities in relation to coronavirus and for these we should seek and act upon national and local guidelines. We also have a specific responsibility to ensure that essential Trauma and Orthopaedic care continues with the minimum burden on the NHS. We must engage with management and clinical teams planning the local response in our hospitals. We may also need to work outside of our specific areas of training and expertise and the GMC has already indicated its support for this in the exceptional circumstances we may face. <https://www.gmc-uk.org/news/news-archive/how-we-will-continue-to-regulate-in-light-of-novel-coronavirus>

Trauma and Orthopaedics may not seem to be in the frontline with coronavirus but we do have a key role to play and this must be planned. In response to pressures on the NHS, the elective component of our work may be curtailed. However, the non-elective patients, who are predominantly trauma-related, will continue to need care. We should seek the best local solutions to continue the proper management of these Trauma patients whilst protecting resources for the response to coronavirus.

In addition, we need to consider the small possibility that surgical facility for emergency surgery may be compromised due to a combination of factors including staff sickness, supply chain and the use of theatres and anaesthetic staff to produce ITU pods. This is an unlikely scenario but plans are needed.

This document provides (1) a structure for planning of services for trauma and acute musculoskeletal patients and (2) a Coronavirus Trauma and Orthopaedic Escalation Policy.

Structure for planning the Orthopaedic Trauma response to coronavirus

Trauma and acute musculoskeletal patients can be considered in a few categories:

1. **Obligatory in-patients:** Continue to require admission and surgical management e.g., hip fracture. *We must expedite treatment to avoid pre-op delay and expedite rehab to minimise length of stay.*
2. **Non-operative:** Patients with injuries that can reasonably be managed either operatively or non-operatively e.g. displaced wrist fracture. *We must explore non-operative care first, especially if this avoids admission*
3. **Day-cases:** Surgery can be safely undertaken for a large number of conditions. *Provision for day-case surgery must be made.*
4. **First contact and clinics:** *Outpatient attendances should be kept to the safe minimum.*

When planning your local response, please consider the following:

Obligatory in-patients.

- **A consultant must be designated as “Lead Consultant”.** This duty can be for 1 day, a few days or even 5 days in small units. This is an *essential* role during crisis management. It cannot be performed by the consultant “on-call” or the consultant in fracture clinic or the consultant in theatre. They must be free of clinical duties and the role involves coordination of the whole service from ED through to theatre scheduling and liaison with other specialties and managers.
- It can be very stressful during a crisis. Support each other and share the workload. Do not expect the Clinical Director to do all of the coordination!
- The daily trauma conference should include an update on logistics; identifying problems and those tasked to deal with them.
- Use elective theatre capacity and surgeons to ensure minimum pre-operative delay.
- Use elective rehab services to minimise post-operative stay.
- The majority of trauma admissions are the frail elderly. Work closely with orthogeriatrics and infection control to protect these patients during their admission.
- An anaesthetic guideline for patients requiring surgery and who are coronavirus positive will be required.
- Contingency plans for supply chain issues.

Non-operative management

- A number of injuries can be managed either operatively or non-operatively. Clinical decisions during a serious incident must take into account the available facility for the current patient and also the impact this may have on the whole community.
- As the system comes under more pressure, there will be a shift towards non-operative care.
- Non-operative care may will reduce the in-patient and operative burden on the NHS.
- It will also protect the individual from more prolonged exposure in a hospital setting.
- It will free up beds for more urgent cases

Day-cases

- Many trauma-related procedures are clinically suitable to be performed as a daycase.
- During the coronavirus crisis, an increase in day-case trauma surgery will:
 - Avoid unnecessary admission
 - Reduce exposure of the individual to a hospital environment.
 - Free-up beds for more urgent cases
 - Allow staff from elective theatres to continue working in a familiar environment
- During the coronavirus emergency, it is likely that the only elective day-case surgery occurring will be urgent cases. Careful prioritisation of day-case patients will be needed across both the elective and non-elective patients based on theatre/staff capacity.

First contact and fracture clinics

Emergency Departments (ED) are likely to come under intense and sustained pressure and Orthopaedic Surgeons can make an important contribution by reducing the ED workload so that clinicians in ED can focus on medical patients.

Emergency Departments will change their system and will use triage at the front door and stream patients directly to Fracture Clinic before examination or diagnostics. Fracture clinics are likely to be asked to take *all* patients presenting with trauma (including wounds and minor injuries) straight from triage. It is possible that this temporary service will need to be expanded to provide a 12-hour service, 7 days per week.

ED will continue to take patients requiring resuscitation, Trauma Team etc.

- We must avoid unproductive attendances at hospital.
- Senior decision making at the first point of contact is essential: it will reduce or even prevent the need for further attendances.
- No patient should be scheduled for surgery by a junior doctor without discussion with a consultant.
- A decrease in elective work will allow for a greater senior presence at the front door.

- Clinicians may need to work in unfamiliar environments or outside of their sub-specialist areas. They will need to be supported.
- Consider, where appropriate, the use of splints rather than plaster casts to allow for removal without hospital re-attendance.
- Protocols to identify those injuries that require no follow up should be reviewed.

- Fracture clinic will need to be open-access at least 09.00-17.00 and potentially to 21.00
- The longer hours will allow ED access and help reduce crowding in waiting rooms.
- The possibility of a 7-day service must be considered.
- Urgent elective e.g. infected prosthesis and red-flag patients e.g. Cauda Equina? will need access to the fracture clinic if all urgent elective clinics are suspended.

- Using Virtual Fracture Clinic (VFC) will not reduce ED workload. Hospitals using this system may need to switch during the crisis to the system outlined above.
- The patient information used in VFC will be very effective in reducing follow-up visits.
- Consider postponing long-term follow-up patients until the crisis has passed.
- Can a follow-up VFC be developed with your facility?
- Plaster rooms should be accessible for the longest possible time. This will reduce the need for repeat visits to amend casts or splints.
- A temporary minor operating theatre and dressings clinic may need to be set up in fracture clinic to allow for suturing of wounds etc.
- CT scanning may be limited as it is the investigation of choice for coronavirus pneumonitis.

Coronavirus Trauma and Orthopaedic Escalation Policy

Whilst the above forms the basis for planning which should commence immediately, the practical implementation will likely be in a progressively escalated fashion. Below is the current best estimate as to how this will be structured

Prevalence	Low	Medium	High	Very high
Impact	Normal Winter Pressure Business as usual	Limited ITU Limited beds	No ITU Theatre ITU pods No Beds Emergency Discharges	Emergency surgery limited Isolation limited
Phase	Prepare to respond	Stop routines	Prioritise Urgent	Major Incident
Trauma Operating	Normal	Increase day-case Consultant Surgeon Trauma Coordinator Early surgery to decrease LoS (using elective capacity) – <i>No pre-op delays</i>	Maximise day-case Increase non-op	Further increase non-op
Elective Operating	Normal except no vulnerable patients e.g. ASA 1 only	Urgent and cancer only	All elective surgery stops	
Fracture Clinic	Normal new patient Start reducing follow-up Start designing virtual Fracture Clinic (VFC) follow-up	Increase use of splints All-day open access new pt VFC follow-up where possible Elective surgeons to support	All ED injuries triaged to fracture clinic except resus cases Minor ops in fracture clinic 7 day, 12h service	
Elective Clinic	Normal new patient Start reducing follow-up	Urgent only No follow-up	Urgent diverted to fracture clinic	

Community MSK

Triage

Normal referral informed by ECI guidance and local P'ways

Rehab

Normal access informed by Local p'ways

Triage

Emergency / urgent referral only

Rehab

Specific FU clinics for fracture + elective rehab
Rehab support in fracture clinic where possible
Consider virtual FU where possible

Triage

Emergency / urgent referral only

Rehab

fracture and elective rehab
Free up resource to assist with other tasks