

Specialty guides for patient management during the coronavirus pandemic

Clinical guide for the perioperative care of people with fragility fractures during the coronavirus pandemic

25 March 2020 Version 1

“...and there are no more surgeons, urologists, orthopaedists, 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 the coronavirus pandemic, and for these we should seek and act on national and local guidelines. We also have a specific responsibility to ensure that essential trauma 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 our specific areas of training and expertise and the General Medical Council has already indicated [its support](#) for this in the exceptional circumstances we may face.

Hip and fragility fracture services may not seem to be in the front line with coronavirus, but we do have a key role to play and this must be planned. High quality, prompt care of **all** people with hip and fragility fracture is a key component of helping patient outcomes and bed occupancy during the coronavirus pandemic.

Coronavirus **NEGATIVE and ASYMPTOMATIC people are to be treated normally**

People who are asymptomatic, are not self-isolating or who have not had contact with a known coronavirus-positive individual should be treated in accordance with normal practice.

Optimising resource use

These guidelines are to assist in the operative management of fragility fractures in patients with frailty, once the decision to operate has been made. This decision must be considered both in the best interests of individual patients and using up-to-date knowledge of the locally available resources – physical and personnel. As the resources diminish, it is vital that these are informed decisions taken at a senior level. To enable this, we recommend regular meetings of senior theatre, surgery, orthogeriatric and anaesthesia decision-makers to determine priorities for theatre lists.

- 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:
 - non-operative care of some fragility fractures may well reduce the inpatient and operative burden on the NHS
 - it will also protect the individual from more prolonged exposure in a hospital setting
 - it will free beds for more urgent cases.
- The team, ideally with the input of an orthogeriatrician or other physician, must clarify the current coronavirus status of every patient to be listed as either ‘treat as coronavirus’ or ‘treat as non-coronavirus’. This is a clinical judgement to be based on current [Public Health England guidelines](#) and an understanding that older patients may not present with typical coronavirus symptoms. This judgement should not be delayed by waiting for coronavirus test results. The rationale for this decision should be clear and documented.

The following is guidance for people classed as suspected coronavirus or who have tested positively for coronavirus as per current [PHE guidance](#)

Presentation

- Hip fracture surgery is likely to be one of the most common major operations undertaken during the coronavirus pandemic and is used as the example in these guidelines, but the principles should be applied as appropriate to other injuries.
- Most hip fractures occur in the home, and the social isolation policy will not prevent these. A significant reduction in the incidence of hip fracture is not anticipated.
- Late presentation may become more common.

General principles

- Most people with coronavirus will survive, even those with frailty. Risks after a fragility fracture are increased, but early surgery is humane, facilitates nursing care and will reduce overall impact on health and social care services.
- **Ceilings of treatment** should be discussed and documented preoperatively.
- Aim for **prompt** (<24 hours) **consultant-delivered** surgical and anaesthetic care where possible. This may help reduce length of stay.
- **Do not wait** for results of coronavirus swabs to make a decision about management.
- Confirmed or suspected coronavirus infection is **not a reason to delay or cancel surgery**.
- Follow the [Association of Anaesthetists' guidance](#) on reasons for postponement and optimisation for hip fracture surgery.
- **Rehabilitation services** may be limited, but early discharge should be supported if possible.
- There is little good evidence to directly support any recommendations; anaesthetists, surgeons and orthogeriatricians will need to make individual case-based decisions.

Anaesthetic choices

Regional anaesthesia

- Regional blocks should be offered to all relevant patients. This may help reduce opioid requirements and workload for staff.
- Use **regional or spinal anaesthesia if possible**. This may benefit the patient, have a positive impact on theatre throughput and reduce the risk of aerosol generation.
- **Accept lower SpO₂** if this avoids the need for general anaesthesia.
- Anaesthetists and assistants should wear fluid resistant surgical masks properly applied during placement of regional or spinal blocks, in accordance with current [Public Health England PPE guidelines](#) for non-aerosol generating procedures.
- Minimise any sedation co-administered with spinal or regional anaesthesia to avoid any further respiratory compromise.

- PPE precautions for **awake patients** should be the same as on the ward (check [Public Health England PPE guidelines](#) and your local protocols and see table below for managing PPE according to the patient's level of oxygen requirements).

Oxygen requirements	Mask and/or oxygen delivery device on patient
None	Surgical mask to reduce droplet spread
Minimal	Nasal cannulae at low flow and surgical mask
High	Non-rebreathe mask only

General anaesthesia

- If regional or spinal anaesthesia is not possible, airway choice for general anaesthesia (supraglottic vs tracheal tube) should be guided by a standard clinical decision-making process, with the added consideration of limiting aerosol generation. **Follow your hospital's GA coronavirus plan** and [national guidance](#).

Surgical considerations

- Minimise operative time and blood loss:

For hip fractures:

- perform cemented hemiarthroplasty rather than total hip replacement for intracapsular fractures.
- use sliding hip screw fixation of trochanteric fractures rather than IM nails where possible.

Operating theatres

- PHE recommends that ventilation in both laminar flow and conventionally ventilated theatres should remain fully on during surgical procedures where patients may have COVID-19 infection.
- Air passing from operating theatres to adjacent areas will be highly diluted and is not considered to be a risk.

PPE for staff managing patients undergoing surgery and receiving regional, spinal or general anaesthesia

- Almost all fragility fracture surgery requires an element of bone drilling and aerosol generation, and should follow [Public Health England PPE guidelines](#) for aerosol generating procedures.

Evidence and experience will accumulate, and we will update this guidance if there are significant developments.