Specialty guides for patient management during the coronavirus pandemic

Clinical guide for the management of Radiology patients during the coronavirus pandemic

20 March 2020 Version 1

“…….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 on national and local guidelines. We also have a specific responsibility to ensure that essential radiological services continue with the minimum burden on the NHS. We must engage with those planning our local response. We may also need to work outside of our specific areas of training and expertise. The General Medical Council 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

Radiology may not seem to be in the frontline with coronavirus, however the impact on imaging capacity should not be underestimated as 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, non-elective patients continue to need care. We should seek the best local solutions to continue the proper management of these patients while protecting resources for the response to coronavirus.

In addition, we will need to discuss which patients require radiological services during this time.

Categories of patients to consider
Radiology patients can be considered in a few categories:

- Interventional and diagnostic
- Inpatients, urgent and non-urgent
- Outpatient, urgent and non-urgent
For all of these categories of patients it will be necessary to review all local protocols and Standard Operating Procedures (SOPS) to take into consideration minimising the transmission of infection e.g. for infected in-patients whether portable x-ray or ultrasound is most appropriate.

Consideration should also be given to community based services in order to lower hospital attendances.

Cancellation or deferring routine follow-up activity / out-patient or non-urgent GP referrals should also be considered where capacity is insufficient.

When planning your local response, please consider the following:

**Leadership**

- **A consultant must be designated as ‘lead or duty consultant’**. This duty can be for one day, a few days or even five days in small units. This is an essential role during crisis management. It cannot be performed by the consultant ‘on-call’ or a consultant covering other multiple commitments. They must be free of clinical duties and the role involves co-ordination of the whole service from emergency department (ED) 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 the co-ordination!
- **A leadership team should support the lead and include relevant members of the multidisciplinary team (MDT).**
- Establish a daily situational report (sitrep) and dashboard with critical data to share across the imaging workforce. That should include patient flows, workforce issues, stock levels and other key messages (e.g. changes to Standard Operating Procedures, state of coronavirus response, personal protective equipment (PPE) requirements).
- Make contingency plans for supply chain issues.
- Home reporting where possible should be considered, to allow dissemination of the workforce, however this will need to take into account the onsite needs of the radiology department to support clinical decision making and supervision.
- Shorter MDTs and virtual participation should be established to preserve radiology capacity and ensure the most effective utilisation of resource.

**Interventional radiology**

- **Injuries and other conditions that can be managed interventionally.** 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 may be a shift towards non-interventional care. i.e. a reduction in access to IR
• Non-interventional care may reduce the inpatient and operative burden on the NHS.
• It may also protect the individual from more prolonged exposure in a hospital setting.
• It may free up beds for more urgent cases.
Radiology decision tool for suspected COVID-19

Suspected COVID-19

- < 50% have fever but > 80% have lymphopenia
- Clinical assessment and labs
-Seriously ill: Sats <94%* or NEWS≥3
- Stable: Sats > 94%, NEWS <3

CXR

- Normal CXR
- Abnormal CXR

Definite/ Probable COVID-19 pattern**

Bilateral (peripheral) opacification**

Uncertain/ Normal

CT SCAN*** (Pre-contrast ± CTPA)

Non-COVID-19 disease

Don't isolate

Clinico-radiological review

Isolate

Indeterminate

Self isolate with follow up

- 94% unless known COPD in which case <90%
- ** Unsuspected/unexpected cases may be incidentally discovered on CXR/ CT at this stage; should be reviewed in the context of clinical suspicion as to likelihood of COVID-19.
- ***Classic and Indeterminate CTs should be scored either: 'mild' or 'moderate/severe'

Please upload all COVID-19 cases to BSTI database: https://www bsti.org.uk/training-and-education/covid-19-bsti-imaging-database/
Other considerations

- We should avoid unproductive attendances at hospital.
- Senior decision-making at the first point of contact should reduce or even prevent the need for further attendances.
- 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 their sub-specialist areas. They will need to be supported.
- Seven-day services will be essential.
- Senior vetting of requests for radiology will limit unnecessary imaging.
- CT scanning and other imaging may be limited as radiology departments divert resources towards the coronavirus pandemic. All referrers will need to consider a substantially higher threshold for referral to CT.
- The need to clean scanners, interventional suites and plain film equipment after imaging infected or high risk patients will significantly reduce an imaging departments capacity.
- Radiologists will need to consider alternate investigations if access to CT scanning is more limited.