The UK government released updated guidance on Personal Protective Equipment (PPE) on 2 April. This advice changes or clarifies guidance regarding the use of PPE in common general surgical settings including the ward, admission area, endoscopy and operating theatre and it is essential that you read it. A convenient summary table is also available. Following the advice is essential for your own safety, to protect your patients and family also, and to allow you to continue to treat patients during this crisis.

Consider the possibility of COVID-19 infection in every patient, follow national guidelines and apply common sense to at risk clinical environments. Unfortunately, many patients will be disadvantaged by the current pandemic and increased risks apply to all patients. Teams may have to apply judgement based on local circumstances, resources and for some exceptional patients. This guidance is intended to aid development of consensus regarding regional and local approaches to treatment. There will remain a great deal of uncertainty regarding the pandemic and you should update yourself from government and hospital resources also. The Colleges and other bodies have excellent resources on line.

1. Acute patients are our priority. COVID-19 should be sought in any patient referred acutely or needing emergency surgery: history, COVID-19 testing, and CXR can assist. Any patient undergoing an abdominal CT scan for acute pain as an emergency presentation should have a CT chest at the same time, unless CT chest previously performed within 24 hours. Current tests for COVID-19, including CXR and chest CT, may be false negative.

2. Any patient currently prioritised to undergo urgent planned surgery must have self-isolated and be assessed for COVID-19 as above. The current greater risks of adverse outcomes from possible COVID-19 infection after surgery should be factored into planning and consent. Consider stoma formation rather than anastomosis to reduce need for unplanned post-operative critical care for complications.

3. Operating theatres where Aerosol Generating Procedures (AGPs) are regularly performed are considered a higher risk clinical area and full PPE is advised where COVID-19 is possible or confirmed. General anaesthesia is an AGP. In line with PHE guidance, full PPE consists of disposable gloves and fluid repellent gown, eye/face protection and FFP2/3 mask. It is imperative to practise sterile donning and doffing of PPE in advance. Procedural tasks are slower and more difficult when wearing full PPE.

4. Laparoscopy is considered to carry some risks of aerosol-type formation and infection and considerable caution is advised. The level of risk has not been clearly defined and the level of PPE deployed may be important. Advocated safety mechanisms (filters, traps, careful deflating) can be difficult to implement. The smoke plume at laparotomy from coagulating instruments may also not be without some risk. Given the current requirement to protect staff and other patients, a safety-first approach is needed.
• Consider laparoscopy only in selected individual cases where clinical benefit to the patient substantially exceeds the risk of potential viral transmission to surgical and theatre teams in that particular situation.

• Where non-operative management is possible and reasonable (such as for early appendicitis and acute cholecystitis) this should be implemented. Appropriate non-operative treatment of appendicitis and open appendicectomy offer alternatives. Some gall bladder operations can be reasonably deferred for several weeks. Commissioning advice from AUGIS on gallstone disease can be helpful in assessing urgent cases that cannot be deferred.

5. In theatre:

• Minimum number of staff in theatre
• Appropriate PPE for all staff in theatre depending on role and risk
• Smoke evacuation for diathermy / other energy sources
• Team changes will be needed for prolonged procedures in full PPE
• Higher risk patients are intubated and extubated in theatre – staff immediately present should be at a minimum.

6. Only emergency endoscopic procedures should be performed. Routine diagnostic work should be avoided and BSG guidance followed for urgent cases. Upper GI procedures are high risk AGPs and full PPE must be used.

7. Consider the diagnosis and risk of COVID-19 in other situations in Emergency General Surgery settings and act and use PPE accordingly. Presentations with intestinal symptoms occur and COVID-19 may present initially as an apparent post-operative complication. Naso-gastric tube placement may be an aerosol generating procedure (AGP). Also, although chest compressions with CPR are not normally considered aerosol generating, compression patients often splutter and cough so full PPE in these instances should also be considered. AGPs are high risk and full PPE is needed. Consider carrying out in a specified location.

Association of Surgeons of Great Britain & Ireland

Association of Coloproctology of Great Britain & Ireland

Association of Upper Gastrointestinal Surgeons

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Royal College of Surgeons of England

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