Delivering the Emergency General Surgery service in the UK during the coronavirus COVID-19 pandemic

Summary

1. **Provide safe, efficient care for continuing emergency general surgery.** Increase ambulatory services and minimise hospital attendances / bed occupancy. More hands will be needed.
2. **Ensure as much work as possible is ambulatory or undertaken as day case.**
3. **Reduce outpatient attendance:** Use video or teleconferencing if possible
4. **Make updated and active decisions on urgent elective surgical cases in the light on national guidance and current increased risks of inpatient surgery.**
5. **Work collegiately.** Be prepared to help with other roles whether as leader or follower.
6. **Look after your personal safety and wellbeing and that of your colleagues.** Attend training sessions and follow national guidance on PPE. Support young colleagues.
7. **Share good practice.** Colleagues are encouraged to submit effective tips and changes.

Many of us have seen enormous changes this week with COVID-19 and this advice is offered to assist teams and support patients requiring Emergency General Surgery. Requirements will vary depending on how compromised your service becomes and as matters progress, aspects of this advice will become out of date. It is important that teams refer to the national websites and follow NHS guidance on hand-washing, self-protection, self-isolation and medical practice.

Scotland: [https://www.hps.scot.nhs.uk/a-to-z-of-topics/COVID-19/](https://www.hps.scot.nhs.uk/a-to-z-of-topics/COVID-19/)

Staff numbers will likely be a principal challenge, even with the closing down of normal elective surgical practice. With regard to general surgery, early aspects of the Chinese experience are becoming available on line as are more anecdotal reports from Europe. These will not be reviewed here yet due to time constraints.


A designated lead consultant separate from the emergency consultant is required for ward patients and service coordination.
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The joint anaesthetic / intensive care professional site is also particularly informative:
Twitter @AnnalsofSurgery runs a useful series of messages, videos and briefings from around the world on surgery in relation to COVID-19 as does the twitter hashtag #COVID19surgery.

**Be Aware, take care**

Precise safety / risk details are not available for general surgery but follow guidance and be aware of the ways in which you and your patients may come in contact with COVID-19. The level of **personal protective equipment** advised depends on the situation. Aerosol generating procedures pose the greatest risk and require highest level protection with an FP3 mask. These procedures mostly involve proximity to the upper airway and aero-digestive tract. Placement of nasogastric tubes can generate aerosols.

You are likely to contact undiagnosed COVID-19 patients in every general surgery setting: outpatients, endoscopy, elective and emergency surgery inpatients. Please read and follow the guidance for PPE from Public Health England AS IT UPDATES at https://www.gov.uk/government/publications/wuhan-novel-coronavirus-infection-prevention-and-control#PPE . In confirmed / suspected areas or attending a patient with suspect symptoms, disposable plastic apron, gloves and fluid repellent surgical face mask should be worn. Disposable eye protection should probably be used for at risk situations. Wash your hands thoroughly with soap and water before putting on and after taking off PPE.

Emergency admissions offer the greatest uncertainty as COVID-19 can present with abdominal symptoms and apparently minor symptoms or pneumonic changes: check the lung bases on CT abdomen. Presentation of COVID-19 with diarrhoea is recorded. There may be live virus in stool. Patients with diagnosed or undiagnosed COVID-19 still get typical abdominal pathologies and need management.

Ward patients who develop new complications must have COVID-19 factored in to differential diagnosis – post-op chest infections or sepsis may be due to coronavirus in addition to or instead of more typical causes.

Operating on patients isolated for, or suspected of having, COVID-19 will cause concern. Current UK advice for surgery in an affected patient is limited and does not recommend more than standard surgical protection although the theatre recommendations include anaesthesia taking place within the operating theatre. Surgical scrub and operating team members should vacate theatre when intubation and extubation occur. There is no current advice on whether there is greater risk associated with either open or laparoscopic surgery. The risk will probably be greater for your anaesthetic colleagues. They will value your support. Six useful steps including a reinforced team brief have been described https://twitter.com/bratogram/status/1239373926947577857.

**Altered Decision Making in Urgent Surgery**

The risk of operating in the current phase of a rapidly expanding pandemic is increased as the risk of coronavirus infection after surgery is now added. Described risk factors for adverse outcome from COVID-19 include age, fraility, BMI and co-morbidities. Potential inaccessible of critical care support is a compounding factor. Current decisions on urgent surgery (non-immediately life saving, most commonly for cancers) should factor these in to decision making and include patient involvement.

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*March 2020*
A prolonged disruption will eventually alter the risk balance again but the current unstable expansion phase seems particularly uncertain. NHS England consensus guidance on decision making in cancer is available https://www.england.nhs.uk/coronavirus/wp-content/uploads/sites/52/2020/03/Specialty-guide_Cancer-and-coronavirus_17-March.pdf. Essential care must continue but where that is not absolute, balanced decision making is needed.

**Emergency laparotomy (EL)**

ASGBI fully supports the NELA criteria within a healthcare service working at normal capacity, but believes that patients should still be offered emergency surgery even if intensive care capacity results in ward level care postoperatively. Surgical teams will need to make decisions in partnership with patients and record the circumstances and additional risks.

**Managing Emergency Admissions**

Emergency admissions are our largest volume service and the most challenging. We need to minimise admissions and increase our ambulatory processes. As the manpower need for elective surgery diminishes, re-deploy senior and junior staff to the Emergency General Surgery (EGS) Service.

**Consider:**

**Increased consultant presence** on Surgical Triage Unit (STU) / admission area from all specialties (gen surg, urology and Gynae) on a daily basis to speed throughput, avoid excessive waiting in seating area, and aid prompt decision making to reduce unnecessary admissions where possible. With reduction in elective activity this should be achievable.

Use a one stop clerking checklist to **minimise patient contact episodes**: see the patient once only, ensuring all activities required are performed such as urine dip, bloods, cannula, observations, clerking, administration of initial symptom relief.

**Improve hot clinic flow and limit patient contact**

- Consider using additional hot clinic areas on temporary basis to assist with flow, by repurposing spaces such as outpatient departments.
- Review staffing levels and allocate advanced care practitioner / junior cover and additional consultant cover at peaks.
- Minimise attendance for non-essential face to face activity (repeat bloods, scan results etc) – use telephone follow up especially for negative results.
- Consider offering telephone clinical review/follow up for those who don’t need ambulatory imaging or bloods.
- If ultrasound availability is reduced at weekends, consider reducing hot clinic slots availability in favour of Fridays and Mondays.
- Consider seating area use and proximity of attendees.
Review other aspects of EGS practice in line with NHS / Trust plans:

Hot gallbladder lists – revise usual triage to defer cases when reasonable. The balance between appropriateness and urgency will be reset several times in coming weeks and differ between Acute pancreatitis, acute cholecystitis and biliary colic.

Consider / discuss what radiology facilities/capacity are available and plan accordingly.

Publicise trust SOPs and guidance for how to deal with COVID-19 in acute admission area. Support and brief junior, nursing and allied staff.

**Staff deployment**

Prepare a ghost junior rota to respond to absence/sickness of on call front line staff rota

Only call additional staff in to cover times of increased pressure or for clearing backlogs of patients requiring review to avoid staff becoming tired, overworked and demoralised.

Increase tiers of front line staff and ward cover in hours and out of hours to help deal with increasing complexity of demands on the emergency team. If possible cross cover to allow short ‘bleep free breaks’ for on call team during peak periods.

Extend use of Advanced Clinical Practitioner team, capitalising on their pre-existing skill set to focus where they are best deployed

Higher intensity of senior cover assessing emergency general surgical ambulatory referrals and triaging GP referrals may help to **reduce unnecessary hospital attendances and admissions**.

Direct senior review of **selected** referrals such as abscesses, abdo pain, etc in now vacant OPD areas could ease strain on the ED and STU, and free up the main on call team to continue to prioritise patients likely to need major surgery.

Increased senior cover utilising staff freed up from cancelled elective activity is needed at ward level also to optimise patient care, shorten stay and **minimise duplication of patient interactions** created by the usual system of escalating reviews by increasingly senior members of the team. Employ adapted NEWS scoring triggers to triage ward reviews of deteriorating patients to higher grade of clinician earlier.

Staff need to be aware that depending on pressures they may ultimately be required to manage ventilated patients as has occurred in Italy. Critical Care plans should include contingency and training for non-critical care staff in basic management of ventilated patients.

**Support your staff – some are very junior and are often the last to hear about new developments**

1. Attend handovers and inform, educate and reassure
2. Email is a poor method of communication as junior staff do not have time to read them.
3. Debrief after involvement in critical incidents relating to COVID-19
4. Educational supervisors encouraged to ‘check in’ with their trainees on a regular basis offering pastoral and practical support
5. Increased awareness and sensitivity to burn out, encouraging supportive attitudes and avoiding blame in high stress situations.
6. Encourage our junior teams to feel safe to challenge situations where they are being expected to work beyond their skill set and provide support.
7. Night team/ On call team feedback forum (virtual/physical) to allow emerging issues to be highlighted and give an opportunity to offload the stress of the shift. Secure communication apps (e.g. Siilo) can provide group communication set up and also a document sharing section (eg for disseminating latest guidance or new rotas etc)

8. Time off when possible – this is likely to be a marathon.

**Share Good Practice**
Please submit any effective changes you have made for us to consider and help disseminate. Please send them to bhavnita@asgbi.org.uk. These will appear on the ASGBI website.