

ESGE Recommendations on Gynaecological Endoscopic Surgery during Covid-19 Outbreak*

**These recommendations are subject to change and will be updated regularly as more information comes to light.*

Background:

Global coronavirus pandemic has become the dominant issue throughout the world whilst the governments, nations and health services are trying to deal with its impact. Many countries are in either complete or partial lockdown to reduce the speed of transmission and save lives. Meanwhile healthcare systems are diverting their resources to looking after patients infected by the coronavirus. At the same time, women continue to present with gynaecological emergencies or are diagnosed with cancer treatment of which cannot be postponed. In order to guide our members and other colleagues organise their priorities and minimise the risk to themselves and their patients, the ESGE Executive Board has decided to release this statement.

- During the time of crisis the healthcare providers need to be able to concentrate their resources on the care of people severely affected by the coronavirus, hence elective operations for benign conditions should not be carried out during the pandemic. When possible, alternative medical treatment approaches should be considered to minimise suffering and keep women at home, away from hospitals.
- Depending on the availability and priorities of the healthcare system, it would be useful to screen patients for corona virus infection before planned surgical treatment, when possible.
- In suspected or documented Covid-19 positive patients, surgery should be postponed until full recovery, if there is no immediate life threatening situation. Consideration should be given to non-surgical alternatives when possible. If this is not possible, surgery must be performed with full Personal Protective Equipment (PPE) (FFP3 or N95 standard respirator, visor, fluid repellent gown and gloves) worn by the entire theatre staff to reduce the risk of transmission.
- Hospitals should have arrangements in place to be able to look after women with gynaecological emergencies. Health services should also be able to care for women with possible gynaecological cancer and treat those who have been diagnosed with gynaecological cancer. Surgery for gynaecological cancer should continue, unless alternative interim options are possible until the end of the outbreak.
- Laparoscopic surgery for gynaecological emergencies and cancer would be beneficial for the health system and the society by reducing hospital stay and quicker recovery,

compared to open surgery. However, this should be weighed against possible disadvantages of laparoscopic surgery may pose during the outbreak.

Specific considerations on laparoscopic surgery

There has been some concern on the safety of laparoscopic surgery during the coronavirus outbreak as laparoscopy is considered as an aerosol generating procedure (AGP). Pneumoperitoneum is an essential component of laparoscopic surgery and brings the risk of aerosol exposure to the operating team. Aerosol exposure occurs during intentional or unintentional release of CO₂ which is used to achieve pneumoperitoneum during and at the end of laparoscopic surgery. CO₂ release is more likely during insertion or removal of ports, introduction and removal of instruments through the ports, specimen retrieval and removal of pneumoperitoneum at the end of surgery. It is known that the Covid-19 virus is present in the blood of infected patients but the viral load appears to be very low. In addition, it is known that surgical smoke contains viral particles such as HIV, HBV or HPV in infected patients. Currently, there is no data on the presence of Covid-19 in surgical smoke, but this is a possibility. Risks of smoke inhalation to surgeons and staff when carrying out laparoscopic surgery have been documented. Assuming that Covid-19 particles may be present within the body cavity of the patient being operated upon, there would be a risk to staff. However, presence of surgical smoke is an issue with open procedures as well and, in fact, laparoscopy may have some advantage over open surgery by confining surgical smoke to a closed space.

Therefore, based on very limited data and extrapolation from other viruses, additional risk of transmission from laparoscopic surgery is not clearly known but likely to be relatively low. COVID-19 is a respiratory virus and procedures which involve general anaesthesia are more likely to pose a much bigger transmission risk of the virus to the anaesthetic team.

Where laparoscopic surgery is carried out the following precautions should be employed.

Recommendations:

- All surgery should be considered high risk as asymptomatic patients may be carrying the virus. Preoperative testing should be considered when possible.
- During laparoscopic surgery take steps to minimise CO₂ release.
 - Close the taps of ports before inserting them to avoid escape of gas during insertion.
 - Attach a CO₂ filter to one of the ports for smoke evacuation if needed, do not open the tap of any ports unless they are attached to a CO₂ filter or being used to deliver the gas.
 - Minimise introduction and removal of instruments through the ports as much as possible.
 - For specimen retrieval such as in ectopic pregnancy, deflate the abdomen with a suction device before removing the specimen bag from the abdomen. Re-insert the port before turning CO₂ on again.

- At the end of the procedure turn CO₂ off, deflate the abdomen with a suction device and via the port with CO₂ filter, before removal of the ports.
- Minimise use of ultrasound and diathermy if possible.
- Minimise sudden gas dispersal during total laparoscopic hysterectomy when the specimen is removed, deflate the abdomen with a suction device before removal the uterus through the vagina.

Specific considerations for hysteroscopic surgery

Hysteroscopy is not considered an AGP. In addition, limited evidence which is currently available does not indicate presence of the COVID-19 virus in genital fluids.

Use of electrosurgery during operative hysteroscopy does produce some surgical smoke (i.e. gaseous by-products of electrosurgery) but this mostly remains confined to the uterine cavity and is released through the outflow into the suction device or rapidly absorbed into the circulation.

Hence, although it is not clearly known, the significance of surgical smoke during hysteroscopic surgery is likely to be low. Hysteroscopic tissue removal systems have the advantage of lack of surgical smoke formation.

Recommendations for hysteroscopic surgery:

- Surgeons should wear standard droplet precaution PPE for hysteroscopic procedures; apron + gown, surgical mask, eye protection and gloves.
- Hysteroscopic surgery may be carried out as outpatient procedures without anaesthesia or as ambulatory procedures under anaesthesia. Regional anaesthesia or conscious sedation should be preferred over general anaesthesia to reduce the risk from intubation, if anaesthesia required.
- Suction devices connected to the outflow sheaths of the operative hysteroscopes are highly recommended.