MedStar Health

Updated: 4/10/2020
Prepared by: General Surgery Clinical Advisory Group
Owner: Tom Watson, MD

COVID-19

Abdominal Surgical Procedures During the COVID Pandemic

Please refer to StarPort COVID Page (or https://medstarhealth.org/covid19resources off network) for the complete and most current guidance as this information is rapidly changing and updated.

Concern exists regarding the possibility for viral contamination of staff during open, laparoscopic or robotic abdominal operations, given the potential for aerosolization and dissemination of virus particles. Whether this risk is increased for minimally invasive surgery (MIS) procedures (including robotics) where insufflation is utilized is unknown. While prior research has shown that laparoscopy can lead to aerosolization of blood-borne viruses, there is no evidence to indicate that this effect is seen with COVID-19 or that it would be isolated to MIS procedures. The theoretical risks of MIS must be balanced against the risks inherent in open surgery, including challenges in filtration of aerosolized particles, as well as the benefits of MIS including decreased lengths of stay and a favorable complication profile. Considering these uncertainties, as well as guidelines published recently by several national surgical societies, **the following is recommended for patients testing positive for COVID-19 and for Persons Under Investigation (PUI) scheduled to undergo an abdominal surgical procedure:**

- Movement of staff in/out of the operating room should be minimized and limited to those essential to the conduct of the procedure. (Please refer to OR policies regarding essential personnel and equipment set-up procedures.)
- All Staff will wear the proper Personal Protective Equipment (PPE) for the ENTIRETY of the procedure. Proper PPE includes an **N95 mask face shield or goggles, sterile gown, and sterile gloves.** (Please refer to policies regarding the proper procedures for donning/doffing of PPE).
- To evaluate whether a PAPR is necessary, the following should be considered:
    - If the procedure is not necessary, reschedule for a time when the patient is no longer infectious.
    - If the reason for being unable to wear an N95 is related to facial hair, refer to Occupational health and Human Resources Policy.
    - Can the person unable to wear an N95 be safely replaced by an equally qualified individual who can wear a surgical N95 respirator
- If it is determined a PAPR is necessary,
    - The shroud/hood can and should be tucked into the surgical gown as long as they are still receiving proper airflow
    - The belt/blower should be worn inside of the gown as long as they are reaching proper airflow
    - The airflow should be checked for the blower at the end of the hose (while being donned inside of the gown) prior to attachment to the hood
    - The unit needs to reach proper flow (at least 6 CFM for all units)
    - Disinfect the unit after each use with an approved disinfectant active against COVID-19

COVID-19

- For all procedures, blood/fluid droplet spray should be minimized.
- For open cases, a **smoke evacuator** should be used (when available).
- **FOR LAPAROSCOPIC AND ROBOTIC PROCEDURES**:
    - Make port incisions as small as possible to avoid leakage of insufflated gas around them.
    - Use the lowest insufflation pressures (*e.g.* 10-12 mmHg) to achieve adequate visualization.
    - Anesthesiologists should maintain the patient in a deep neuromuscular blockade to avoid increased intraabdominal pressures.
    - Minimize leakage of CO2 through trocars. (Check seals in reusable trocars or use disposable trocars).
    - Electrosurgical and ultrasonic devices should be utilized in a manner that minimizes production of plume, with the lowest effective power setting and avoidance of long desiccation times.
    - When available, **a closed smoke evacuation/filtration system with Ultra Low Particulate Air (ULPA) Filtration capability should be employed**.
    - Avoid rapid desufflation or loss of pneumoperitoneum, particularly at times of instrument exchange or specimen extraction.
    - In addition, a laparoscopic suction may be used to remove surgical plume and desufflate the abdomen prior to port removal, specimen extraction, or conversion to an open operation. DO NOT VENT PNEUMOPERITONEUM INTO THE ROOM.