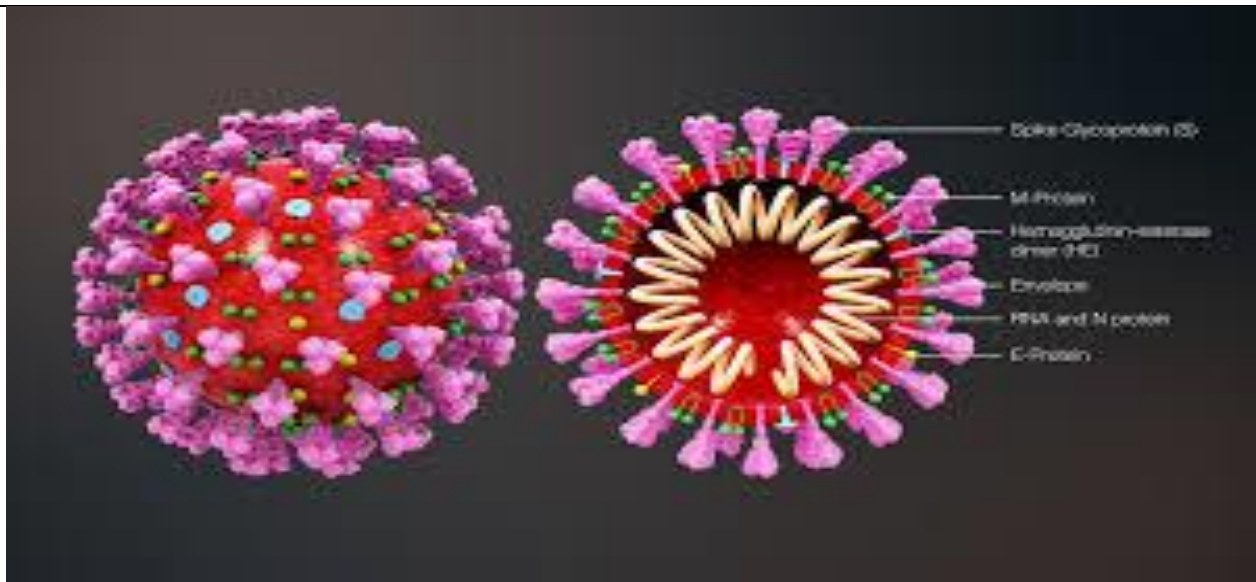


Corona Virus Disease USI Information Center



Dear Colleagues,
Greetings from USI!

In the past two weeks, the number of cases of COVID-19 cases are increasing rapidly. There are now more than 1,835,474 cases in 210 countries, and 113,191 people have lost their lives and many more are fighting for their lives in hospitals. India has total 9352 cases till today and rising. In the days and weeks ahead, we expect to see the number of cases, the number of deaths, and the number of affected countries climb even higher.

We, as healthcare workers are at the frontline of this pandemic. Our utmost priority is the well-being of our entire community, service towards our patients and at the same time, protecting ourselves and our families.

In the last newsletter, we discussed the initial knowledge about the disease, how to prevent the spread and the role of Urologist in this time of global pandemic. As more and more information is being available with time, we are sharing the latest with all the members.

OPD / Clinic :

Before Patients Arrive



- **Prepare the clinic.**
 - Know which of your patients are at higher risk of adverse outcomes from COVID-19.
 - Consider and plan for providing more telemedicine appointments.
 - Know how to contact your health department.
 - Stay connected with your health department to know about COVID-19 in your community. Step up precautions when the virus is spreading in your community.
 - Assess and restock supplies now and on a regular schedule.



- **Communicate with patients.**
 - Ask patients about symptoms during reminder calls.
 - Consider rescheduling non-urgent appointments.
 - Post signs at entrances and in waiting areas about prevention actions.



- **Prepare the waiting area and patient rooms.**
 - Provide supplies—tissues, alcohol-based hand rub, soap at sinks, and trash cans.
 - Place chairs 3–6 feet apart, when possible. Use barriers (like screens), if possible.
 - If your office has toys, reading materials, or other communal objects, remove them or clean them regularly.

When Patients Arrive



- **Place staff at the entrance to ask patients about their symptoms.**
 - Provide symptomatic patients with tissues or facemasks to cover mouth and nose.
 - Limit non-patient visitors.



- **Separate sick patients with symptoms.**
 - Allow patients to wait outside or in the car if they are medically able.
 - Create separate spaces in waiting areas for sick and well patients.
 - Place sick patients in a private room as quickly as possible.

After Patients are Assessed



- **After patients leave, clean frequently touched surfaces** using EPA-registered disinfectants—counters, beds, seating.
- **Provide at-home care instructions** to patients with respiratory symptoms. Consider telehealth options for follow up.
- **Notify your health department** of patients with COVID-19 symptoms.



Train and prepare your staff now

- Ensure that clinical staff know the right ways to put on, use, and take off PPE safely.
- Recognize the symptoms of COVID-19— fever, cough, shortness of breath.
- Implement procedures to quickly triage and separate sick patients.

- Emphasize hand hygiene and cough etiquette for everyone.
- Ask staff to stay home if they are sick.
- Send staff home if they develop symptoms while at work.



The Personal Protection Equipment (PPE) :

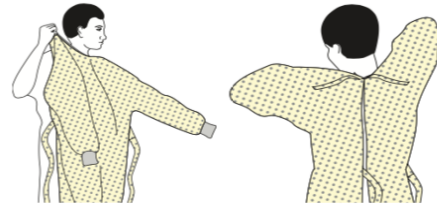
How to put-on PPEs

SEQUENCE FOR PUTTING ON PERSONAL PROTECTIVE EQUIPMENT (PPE)

The type of PPE used will vary based on the level of precautions required, such as standard and contact, droplet or airborne infection isolation precautions. The procedure for putting on and removing PPE should be tailored to the specific type of PPE.

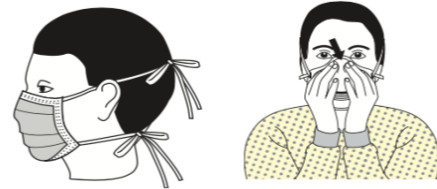
1. GOWN

- Fully cover torso from neck to knees, arms to end of wrists, and wrap around the back
- Fasten in back of neck and waist



2. MASK OR RESPIRATOR

- Secure ties or elastic bands at middle of head and neck
- Fit flexible band to nose bridge
- Fit snug to face and below chin
- Fit-check respirator



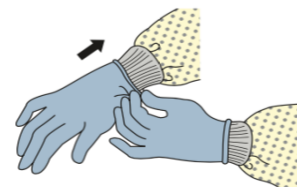
3. GOGGLES OR FACE SHIELD

- Place over face and eyes and adjust to fit



4. GLOVES

- Extend to cover wrist of isolation gown



USE SAFE WORK PRACTICES TO PROTECT YOURSELF AND LIMIT THE SPREAD OF CONTAMINATION

- Keep hands away from face
- Limit surfaces touched
- Change gloves when torn or heavily contaminated
- Perform hand hygiene



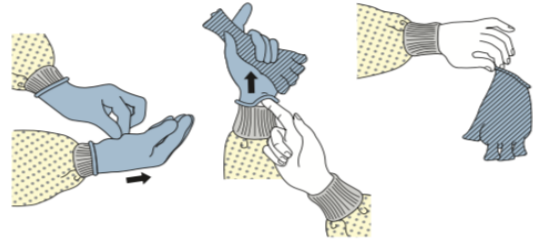
How to remove PPEs

HOW TO SAFELY REMOVE PERSONAL PROTECTIVE EQUIPMENT (PPE) EXAMPLE 1

There are a variety of ways to safely remove PPE without contaminating your clothing, skin, or mucous membranes with potentially infectious materials. Here is one example. **Remove all PPE before exiting the patient room** except a respirator, if worn. Remove the respirator **after** leaving the patient room and closing the door. Remove PPE in the following sequence:

1. GLOVES

- Outside of gloves are contaminated!
- If your hands get contaminated during glove removal, immediately wash your hands or use an alcohol-based hand sanitizer
- Using a gloved hand, grasp the palm area of the other gloved hand and peel off first glove
- Hold removed glove in gloved hand
- Slide fingers of ungloved hand under remaining glove at wrist and peel off second glove over first glove
- Discard gloves in a waste container



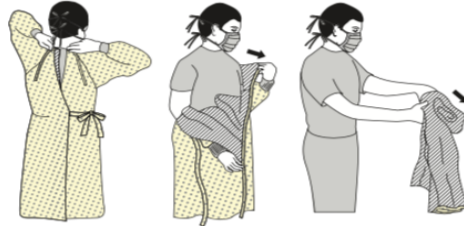
2. GOGGLES OR FACE SHIELD

- Outside of goggles or face shield are contaminated!
- If your hands get contaminated during goggle or face shield removal, immediately wash your hands or use an alcohol-based hand sanitizer
- Remove goggles or face shield from the back by lifting head band or ear pieces
- If the item is reusable, place in designated receptacle for reprocessing. Otherwise, discard in a waste container



3. GOWN

- Gown front and sleeves are contaminated!
- If your hands get contaminated during gown removal, immediately wash your hands or use an alcohol-based hand sanitizer
- Unfasten gown ties, taking care that sleeves don't contact your body when reaching for ties
- Pull gown away from neck and shoulders, touching inside of gown only
- Turn gown inside out
- Fold or roll into a bundle and discard in a waste container

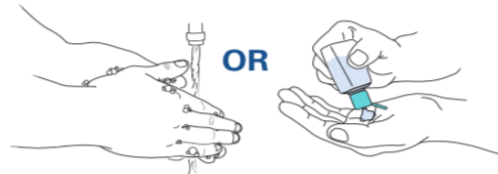


4. MASK OR RESPIRATOR

- Front of mask/respirator is contaminated — DO NOT TOUCH!
- If your hands get contaminated during mask/respirator removal, immediately wash your hands or use an alcohol-based hand sanitizer
- Grasp bottom ties or elastics of the mask/respirator, then the ones at the top, and remove without touching the front
- Discard in a waste container



5. WASH HANDS OR USE AN ALCOHOL-BASED HAND SANITIZER IMMEDIATELY AFTER REMOVING ALL PPE



**PERFORM HAND HYGIENE BETWEEN STEPS IF HANDS
BECOME CONTAMINATED AND IMMEDIATELY AFTER
REMOVING ALL PPE**



Correct use of PPEs

No.	Setting	Activity	Risk	PPE	Remark
1	Triage area	Triaging patients Provide triple layer mask to patient.	Mod	Triple layer mask Gloves	Patients get masked
2	Screening area help desk/ Registration counter	Provide information to patients	Mod	Triple layer mask Gloves	
3	Temperature recording station	Record temperature with hand held thermal recorder	Mod	Triple layer mask Gloves	
4	Holding area/ waiting area	Nurses / paramedic interacting with patients	Mod	Triple layer mask Gloves	Minimum distance of one meter needs to be maintained
5	Doctors chamber	Clinical management (doctors, nurses)	Mod	Triple layer mask Gloves	No aerosol generating procedures allowed
6	Sanitary staff	Cleaning frequently touched surfaces/ Floor/ cleaning linen	Mod	Triple layer mask Gloves	
7	Visitors accompanying young children and elderlies	Support in navigating various service areas	Low	Triple layer mask	No other visitors should be allowed to accompany patients in OPD settings. Visitors should practice hand hygiene





N95 masks and full PPEs are essential for aerosol generating procedures, which includes obtaining a nasopharyngeal swab for testing, in the lab testing samples for COVID-19, inside ICU and inside OR.




Do not use nebulizers in patients and practice strict hand hygiene methods regularly.

Re-using PPEs

Due to limited supplies of PPEs, it has been now recommended to reuse PPEs whenever it is required. Simple cloth masks can be washed and air dried before reuse. Surgical mask If dry and the layers and shape are intact, are to be put it in a zip lock pouch with a desiccated gel. The gel absorbs moisture and keeps the mask dry. If the mask is intact and not torn, it can be reused for 3 days. N95 masks can also be reused. It is best is to use four N95 masks and number them 1-4. On day 1 use mask 1, then let it dry for 3-4 days. On day 2 use mask 2 and then let it dry for 3-4 days. Same for Day 3 and Day 4. Another method is to sterilize the N95 mask by hanging it in the oven (without contacting metal) at 70 degrees C for 30 min. Or use a wooden clip to hang the respirator in the kitchen oven. N95 masks are degraded by UV light so keep them away from UV light or sunlight. Label the string of the mask with your name so that no one else uses it.

Surgical Mask --reuse

#1: Rotation	#2: Baking	#3: Preserving	#4: Homemade
			
Label masks 1-4. After use, leave each in a dry, atmosphere for 3-4 days to dry out and kill virus	Hang with wooden clip for 30 mins at 158F (70C). Avoid contact with any metal surfaces	Beware UV: damages polypropylene charge. Do not touch inside portion to avoid contamination	Cotton isn't fine enough to filter virus, and can't be charged, but may be an effective shield over N95

 **#CoVisuals** Source: SAGES re-use guidelines  @CAHarrisMD 

Surgeries :

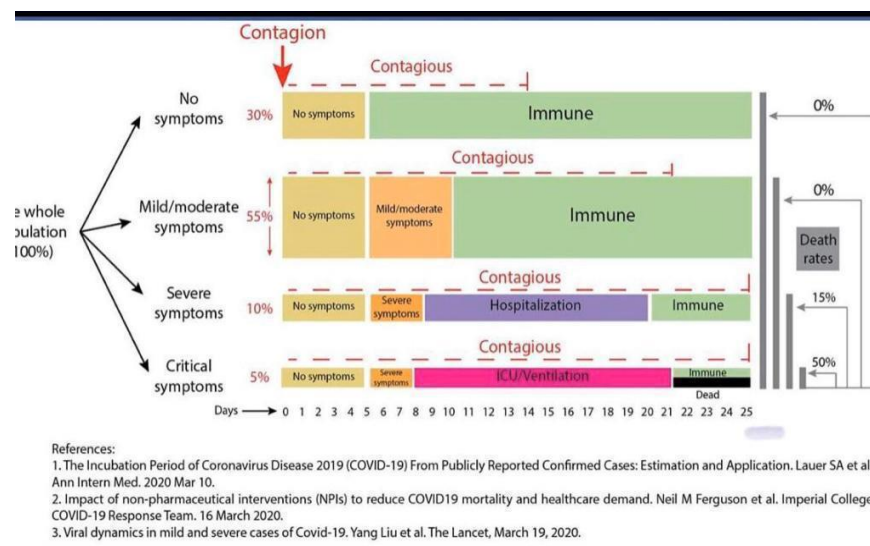
We must prioritize based on patient, disease and availability of resources. Conservation of critical resources such as beds, ventilators and Personal Protective Equipment (PPE) is essential. We should try limiting the exposure of non COVID-19 patients and staff to the SARS-CoV-2 virus. The priorities for the surgeon are how best to provide surgical services and procedures to save a life, preserve organ function and avoid further harms from underlying condition. The decision making can be done at individual, team or institutional levels. We should cancel all non-urgent, elective cases and do semi-urgent or emergency cases after proper screening.

First cancellation	Optional/Secondary Cancellation	Not to be Cancelled	Emergency cases only as early as possible
Vasectomy Circumcision Scrotal Cyst	Cystectomy (low risk cancer)	Cystectomy (high risk cancer)	Obstructed kidneys/infection
Radical prostatectomy (Low risk cancer)	TRUS Biopsies (LA)	Radical Nephrectomy (time sensitive)	Abscesses / bladder washouts
TRUS Biopsies (GA)	TURBT (Low risk cancer)	TURBT (High risk)	Testicular torsions
Benign Nephrectomy/Partial Nephrectomy	Radical prostatectomy (High risk cancer)	Nephroureterectomy (High risk cancer)	
Andrology Cases/ Female Urology	Nephroureterectomy (low risk cancer)	URS with stents or Ureteric stones	
Brachytherapy		IVC Thrombus - Nephrectomy	
Functional Reconstruction			
Elective URS/PCNL			
TURP/HoLEP/BPH			
Ureterolysis			

Inside Operation Theater

Ideally, all patients should receive preoperative health screening, regardless if they are symptomatic or not. A detailed history of travel, recent respiratory and febrile symptoms, history of any possible contact with suspected or covid positive patient should be elicited. Currently ICMR does not recommend routine pre-op screening of all patients for COVID-19. These guidelines will change very soon. Serological antibody tests will be available soon. One should do oropharageal or nasal swab test before surgery to see his covid status. Plain CT scan is also a screening test to see any feature of atypical pneumonia. If it is not available, you should treat him/her a potential covid positive patient. All the staff inside OR should practice universal precautions as patient can be in the incubation period and have potential to infect others. The below cartoon explains the period of infectivity in an asymptomatic, symptomatic and a critical patient.

Infectivity--duration of infection



Wherever possible, please use local, spinal or epidural anaesthesia for various urological procedures. During regional anaesthesia, patient should wear 3 surgical masks to prevent any aerosol contamination during cough. If general anaesthesia is

required, intubation and extubation is to be done by expert anaesthesiologist and support staff to minimize aerosol generation. Keep minimum staff inside OR during intubation / extubation and surgical team to enter OR 15 min after intubation. All surgeries are to be done by experienced surgeons and support staff to minimize OR time and reduce complications. For all endourological procedures, the surgeon should use endoscopic camera to minimize spillage and for open surgeries, use protective shield. All endourological consumable should be cleaned and disinfected with hypochlorite or 70% alcohol based disinfectant/cidex/hydrogen peroxide solution. Generally, laparoscopic and robotic procedures are best avoided, but if they are to be done then create pneumoperitoneum carefully, keep intra-abdominal pressure as low as possible and avoid sudden deflation. Standard surgical approaches to be followed and minimize use of energy sources as they create a lot of smoke containing the virus. Use minimum power settings required for electrocautery and use aerosol filters if available. Surface cleaning after the surgery should be as per standard protocol. The theatre may be closed for 1 hour to allow for adequate air exchange. Decontamination of surgical instruments in theatre with Enzymatic cleaning agent for 15-30 min and then sent to CSSD. Handling of Linen should be one sanitary worker with appropriate PPE (mask, cap, gown, gloves), tossing of linen should be avoided; they should be soaked in sodium hypochlorite and processed in Laundry. All surface (including OT table, equipment's, light etc.) should be thoroughly cleaned with disinfectants.

Laparoscopic Surgery - Specific evidence relating to the presence of SARS-CoV-2 virus in the peritoneal cavity and thus its transmission during laparoscopic surgery via aerosol is lacking, but theoretical risks may be extrapolated from previous pandemics and viral infections. Release of surgical smoke during lap surgery may carry small viral particle. Whether this will lead to contamination of OT staff is not known or proven. In patients who are COVID-19 positive, unless they have a life-threatening emergency that requires surgery, we advocate for non-operative treatment and delay of surgery until recovered. If surgery cannot be delayed for a COVID-19 positive patient, an open operation should be performed. Laparoscopy can be performed in a COVID-19 unknown status patient if

the entire operating room team has access to necessary personal protective equipment and extreme care is taken to prevent release of pneumoperitoneum into the operating theatre. If possible, intelligent integrated flow system should be used. One should keep pneumoperitoneum to lowest possible level, preferable to 8-10 cm. An Ultra-Low Penetrating Air filter (ULPA) should be used for smoke evacuation which will capture any particle above 0.01µm. If such device is not available, one can use sterillum soaked gauze piece at the gas evacuation exit port at the time of gas evacuation. One should use electrocautery at lower setting to decrease smoke generation. Ultrasonic device should also be used to minimum. At the end of the procedure or during specimen extraction, there is some risk of aerosol contamination. So, one should be very careful about it. At end of the procedure gas should be exited from one port exit valve and one should keep a wet sponge over it so that all gases should pass through a multilayer wet sponge. Specimen should be extracted after removing all gas as mentioned before. All OR staff should use standard PPEs.

There is no evidence that virus may be transmitted through the urine but catheterization before lap or robotic surgery should be done with caution.

Robotic surgery - One should not reuse drapes, even after re-sterilizing. All drapes should be discarded. All precautions of laparoscopy should be followed. Bowel handling should also be kept minimum. Consider open surgery if bowel opening is involved (i.e. ileal conduit, ileal neobladder etc.). If bowel is opened one should keep pneumoperitoneum at minimum as virus may be spread by bowel content. One should suck all enteric contamination and wash it.

Renal Transplant:

DECEASED DONORS

Person who returned from countries with >10 infected patients or exposed to a patient with confirmed or suspected COVID-19 within 14 days should not be accepted as a donor. Likewise donors with unexplained respiratory failure leading to death should be excluded.

LIVING-RELATED TRANSPLANTS

Living donation should not be performed on either a donor or recipient who has returned from countries with >10 infected patients or who have been exposed to a patient with confirmed or suspected COVID-19 within 14 days. Donors should not be accepted if they have fever and/or respiratory symptoms unless COVID-19 is excluded.

TRANSPLANT RECIPIENTS

If transplant patient is in good health and there is no pressing reason to perform surgery urgently, he should be discouraged from the transplant surgery for the time being. We should discuss the possibilities of catching a corona infection or any other infections in post operative period and make them aware about the current situations. If any patient still insists to undergo transplant, an informed written consent must be taken.

If any transplant patients become COVID-19 positive, the treatment protocol for these patients is still evolving. Many drugs are being tried i.e. HCQ, macrolides, ivermectin or various anti-viral agents, but the data is scarce. There is a general agreement of stopping antimetabolite drugs and decrease calcineurin inhibitors by 50%. Steroid should be continued on same doses. (Massachusetts General Hospital COVID-19 Treatment Guidance).

Like all persons, transplant recipients should adhere to travel advisories for follow up to a distant place. They should be encouraged for tele-consultation/WhatsApp/e-mail with their respective nephrologist/transplant surgeons/Urologists. If possible, make arrangements for home delivery of immunosuppressive drugs for transplant recipients. In the case of any emergency they should consult the local Nephrologist/transplant surgeons/Urologists.

It must be accepted that COVID-19 pandemic has led to a slowdown in all economic activities and healthcare is no exception. A large number of people are dependent on functioning healthcare industry for their livelihood. This unprecedented lockdown will have far reaching economic consequences in times to come. We will have to make the difficult choice of limiting our practice to avoid spread of this disease.

Stay home, stay safe and be healthy. Please look after yourself, your loving family and your patients. I am sure we will overcome this pandemic and good times will be back soon. I pray for the good health of entire nation and humanity.

May God bless us all!

Dr Anant Kumar

President,

The Urological Society of India

Our recent webinar on Covid 19 on 09-04-2020 is uploaded on USI TV. All the questions/answers are also uploaded for the review. Please visit USI TV for the Covid -19 webinar.

General information on COVID19

1. [WHO information on COVID19](https://www.who.int/emergencies/diseases/novel-coronavirus-2019)

(<https://www.who.int/emergencies/diseases/novel-coronavirus-2019>)

2. [Frequently Asked Questions on COVID-19](https://www.mohfw.gov.in/pdf/FAQ.pdf)

(<https://www.mohfw.gov.in/pdf/FAQ.pdf>)

3. [Advisory - Social Distancing](https://www.mohfw.gov.in/pdf/SocialDistancingAdvisorybyMOHFW.pdf)

(<https://www.mohfw.gov.in/pdf/SocialDistancingAdvisorybyMOHFW.pdf>)

4. [Advisory for Hospitals and Medical Institutions](#)

(<https://www.mohfw.gov.in/pdf/AdvisoryforHospitalsandMedicalInstitutions.pdf>)

5. ACS: COVID-19 Guidance for Triage of Non–Emergent Surgical Procedures

(<https://www.facs.org/about-acscovid-19/information-for-surgeons/triage>)

6. CMS Adult Elective Surgery and Procedures Recommendation

(<https://www.cms.gov/files/document/31820-cms-adult-elective-surgery-and-procedures-recommendations.pdf>)

7. Donor Screening and Deferral Recommendations to Tissue Bank Medical Directors Related to the Novel Corona virus (2019-nCoV) Outbr

(<https://www.notifylibrary.org/sites/default/files/Bulletin%202020-3%20-%20The%20American%20Association%20of%20Tissue%20Banks%20%28AATB%29.pdf>)

8. Guidance on Corona virus Disease 2019 (COVID-19) for Transplant Clinicians

(<https://tts.org/tid-about/tid-presidents-message/23-tid/tid-news/657-tid-update-and-guidance-on-2019-novel-coronavirus-2019-ncov-for-transplant-id-clinicians>)

9. Rational use of personal protective equipment for coronavirus disease (COVID-19)

<https://www.who.int/emergencies/diseases/novelcoronavirus-2019/technical-guidance/infection-prevention-and-control>

10. How to put on and take off personal protective equipment (PPE). Geneva: World Health Organization; 2008

(<http://www.who.int/csr/resources/publications/putontakeoffPPE/en/>)

11. Wang W, Xu Y, Gao R, Lu R, Han K, Wu G, Tan W. Detection of SARS-CoV-2 in Different Types of Clinical Specimens. JAMA 2020 Mar 11. doi: 10.1001/jama.2020.3786

12. Zheng MH, Boni L, Fingerhut A. Minimally invasive surgery and the novel coronavirus outbreak: lessons learned in China and Italy. Ann Surg. 2020

13. <https://www.sages.org/resources-smoke-gas-evacuation-during-open-laparoscopic-endoscopic-procedures/>

14. Surgical Decision Making in the Era of COVID-19: A New Set of Rules, The Journal of Minimally Invasive Gynecology (2020), doi: <https://doi.org/10.1016/j.jmig.2020.04.001>