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SURAKSHA MODULE – 3

Instrumentation Handling – Best practices during Covid 19 pandemic







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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.
- In our country with low resources, we are easily susceptible to contract Covid 19 infection during our practice unless we take proper precautions to prevent the transmission.
- Various organisations both govt and others have set few protocols to prevent health care workers from getting infected from covid infection.
- Elective consultations & elective surgeries should be avoided during this period. Most of our OPD consultations can be replaced by **Tele-consultations** if possible.
- These are few guidelines to be followed in our hospital practice during this covid-19 Pandemic







IN OPD

- 1. Ensure proper cleaning & disinfection of OPD premises- (floor & all surfaces where contact is possible) using low level disinfectants
- 2. Give prior telephonic appointments to patients.
- 3. Provide no touch waste containers with disposable liners in all reception, waiting areas.
- 4. The instruments to be disinfected with 70% alcohol are stethoscopes, blood pressure cuff, thermometer etc.
- 5. Pts/ visitors attending OPDS should be thoroughly screened at the entrance for fever, history of respiratory infections, travel history, occupation, contact & cluster (TOCC). All pts with respiratory symptoms/ fever should be sent to fever clinic.









IN OPD

- 6. Limit the number of visitors/ relatives accompanying with the pt to minimum, in order to avoid the transmission.
- 7.Pts should be encouraged to use masks.
- 8.Rather Use of surgical gowns, face shield, face mask & gloves is must for health care workers
- 9.Hand hygiene with use of sanitizer& soap & water remains very important to avoid the transmission of infection.
- 10. Reorganize waiting area to keep minimum 6 feet distance between patients
- 11. Prohibit use of toys, magazines, pens, display boards, phones, etc. in waiting area









USG ROOM

- Ultrasound remains to be an important tool at hands of gynaecologists for diagnosis of obstetrical & gynaecological emergencies in our day to day practice. But it exposes both sonologist & patient to extra risk of contracting Covid 19 during this pandemic.
- Survival of severe acute respiratory syndrome (SARS)associated viruses incl. SARS- CoV-2 on dry inanimate surfaces such as ultrasound systems is between 48 to 96 hrs.









Recommendations

- 1. It is necessary to clean the ultrasound room every morning and all contents should be wiped with a compatible low-level disinfectant (LLD), including the ultrasound monitor, computer keyboard and mouse, stretcher rails, transducer holder, gel container, door handles, cabinet knobs, light switches, chairs, and countertops.
- 2. All the unnecessary accessories in the USG room should be removed and stored in cabinets if possible.
- 3. Minimum number of transducers should be attached to the machine, rest should be kept in clean close cabinet.
- 4. Fabric covered chairs should be replaced with hard surface chairs that can be wiped on regular basis with disinfectants.
- 5. All towels & washable linens should be replaced by disposable ones, so new ones can be used for new pts.
- 6. Clean USG probes and wires after every scan.
- 7. Use of gloves, mask & face shield is must while doing any USG.
- 8. At the end of day, all soiled linen should be handled with double gloves and disposed properly







Protecting The Patient And Healthcare Workers During USG

- 1. Screen all patients-based on travel history, occupation, contact and cluster (TOCC)
- 2. Ultrasound providers with specific health problems should be excluded from performing USG.
- 3. Schedule appointments to avoid crowding and strictly follow social distancing.
- 4. No visitors should be allowed in USG room.
- 5. Proper PPE should be donned by health worker.
- 6. Perform hand hygiene before and after each patient.
- 7. Disposable glove should be used during USG and changed after each patient.
- 8. Single use gel packs are recommended.
- 9. No detailed explanation of report be given during USG.
- 10. The duration of examination should be shortened.







Preparation of transducer involves 2 steps

1. Cleaning of ultrasound Transducer

Following steps should be undertaken to clean ultrasound transducer after wearing disposable gloves.

- 1. Disconnect the transducer.
- 2. Clean the transducer with a soft brush and non-abrasive detergent.
- 3. Rinse the transducer with tap water.
- 4. Clean the transducer cable with a LLD wipe (Low Level Disinfectant umipes)
- 5. Dry the transducer with a cloth or towel.









2. Disinfection

- High level disinfectants include ethanol 80- 95% (Exposure time- 30s), 2-propanolol75-100% (Exposure time- 30 s), 2.4-3.2% Glutaraldehyde products (like CIDEX), 7.5 % hydrogen peroxide solution or 0.21% sodium hypochlorite solution should only be used as disinfectant only after reading USG company guidelines.
- Household bleaching powder (5.25% sodium hypochlorite) 10 ml diluted in 1 litre of tap water though effective is not advocated by ultrasound manufacturers as it may cause damage to metal & plastic parts.
- Intra cavitatary USG should be avoided during this time as risk of spreading infection is more with TVS than Trans abdominal scan.



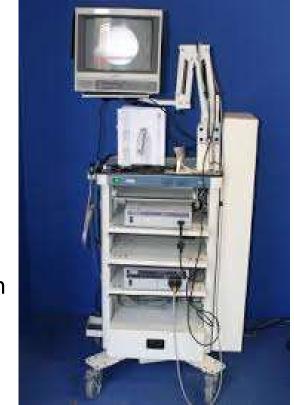






Laparoscopy Set up

- Laparoscopic surgery for gynaecological emergencies & cancer would be beneficial for the health system & patients by reducing hospital stay compared to open surgery. However this should be weighed against possible disadvantages of laparoscopic surgery during this COVID 19 outbreak.
- Laparoscopy appears to be aerosol generating procedure (AGP) so the risk of spread is considered more than open surgery. Plus additional risk of intubation for GA in Laparoscopy also is another factor.
- Aerosol exposure occurs during intentional or unintentional release of CO2 from Pneumoperitoneum during & at the end of procedure.









All Laparascopic Surgeries Should Be Considered High Risk As Asymptomatic Pts May Carry The Virus

Precautions during Laparoscopy

ESGE has issued few recommendations for emergency laparoscopic surgeries

- Preoperative Covid testing should be preferably done if possible before procedure.
- Spinal anaesthesia instead of GA may reduce the chances of aerosol generation during the intubation.
- All proper protective gear should be used by all personnel involved in the procedure.







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- All the taps of ports should be closed before insertion to avoid escape of CO2.
- Minimise introduction & removal of instruments through the ports as much as possible.
- During the specimen retrieval during procedure, abdomen should be deflated with suction device.
- Minimise use of surgical diathermy &Ultrasonic instruments to reduce the smoke.
- Proper disinfection of all instruments involved in procedure with high level disinfectants like CIDEX is recommended







Disinfectants To Be Used During Covid-19 Pandemic

- 1% freshly prepared sodium Hypochlorite can be used as disinfectant.
- The solution should be prepared fresh.
- Leaving the solution for contact time 10 min is recommended.
- Alcohol (70% isopropyl or 70% ethyl alcohol) can be used on metal surfaces.
- Automated high-level disinfection can be done by UV radiation type C, codex and matricide solutions.
- High touch surfaces like doorknobs, telephone, call bells, bedrails, stair rails, light switches, should be cleaned every 3 4 hrs.
- Low touch surfaces like walls, mirror, should be mopped daily once.









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