



Guidelines for management of Patients with Confirmed or Suspected COVID-19 requiring cesarean delivery 04-23-20

The following document should be used when a COVID+/PUI patient needs a surgical intervention. These cases should be prioritized to **OR 14**. It is **IMPORTANT** to remember that there are **NO EMERGENCIES, SLOW DOWN**, talk through each step and protect yourself and your team members.

COVID-OB team admission tasks:

1. Sign a surgical consent with all patients
2. Discuss pain management and recommendation for epidural
3. Discuss possibility of a lower threshold for cesarean delivery given difficulty performing emergent procedures

Pre-procedure tasks:

1. OB Team calls in L&D Backup/Ward Attending
2. Create a tiger connect group with surgical team and RN team
3. Call a team huddle, **assign roles** and review indication and surgical plan
4. **Assign TEAM LEADER**: This person will remain outside the OR to coordinate activities.
5. Anesthesia team informs main OR Anesthesia In Charge (AIC) that they will be overseeing a COVID case on labor and delivery
 - a. Anesthesia should have 3 people on floor to assist with COVID OR case and main OR will need to send additional anesthesia team to address laboring patients if needed
6. Prior to donning PPE team members should remove all jewelry, badge, phone and assign their role to in Tiger Connect to another staff member as needed
7. All team members who will be in the OR and who will be involved in direct patient care should obtain second pair of scrubs, N95 mask, procedure or surgical masks, face shield and Tupperware prior to donning. Items can be obtained from RN supervisor office.
8. All team members should go to bathroom and drink plenty of water before donning

Nursing Team:

RN1: primary RN, prepares patient and circulates in the OR, wears COVID PPE: starts in patient room as transporter

RN2: RN supervisor or designee, circulates in OR, wears COVID PPE: goes to OR after the huddle

RN3 (ideally this is the team leader): RN supervisor or designee, runner outside room, wears procedural mask, calls NICU and MBU teams: clean assist that clears the hall and gets the patient bouffant and bicitra, set up donning/doffing station outside OR, ensure team member names are printed on all gowns

RN4 (if no 4th nurse RN3 takes duties of RN 4): additional clean assist, wears procedural mask, pulls meds from Pyxis, may need to run to the blood bank and will be required to hand transport all blood samples to the lab as needed

Surgical Team:

OB1: OB Attending, wears COVID Surgical PPE: goes to OR after the huddle



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OB2: OB Senior Resident, wears COVID Surgical PPE: puts surgical mask over N95 and impermeable boots, and then starts in patient room as transporter – doffs yellow gown in OR and then scrubs completely

OB3: OB senior resident or second attending, provides back-up surgical help as needed. May assist with RN3 tasks as needed

Scrub tech:

1 scrub tech in COVID Surgical PPE: goes to OR after huddle

Anesthesia Team:

A1: Anesthesia Attending, COVID PPE: goes to OR after the huddle

A2: Anesthesia Resident: starts in patient room as transporter

A3: Anesthesia resident: clean assist

NOTE: If only one anesthesia team member is in the OR during the procedure, a 2nd person should be in COVID PPE outside room ready to enter quickly for emergent intubations

Transport team: Primary nurse, 1 Anesthesia and 1 Surgeon

- Bring PACU stretcher into patient room for transport
- Put on COVID PPE and enter room to prepare patient for surgery.
- RN1: prepares patient for surgery, puts procedural mask on patient, covers patient with fresh sheet, wipes down bed with Cavi wipe, puts surgical consent into a plastic cover (only bring surgical consent to room)
- Anesthesia (A1 or A2): Boluses anesthesia if epidural already placed
- Surgeon (OB1 or OB2): reviews indication and consent with patient
- This team will transport patient to OR and will *not* doff when exiting the LDR with the patient

Clean assist: (RN3, OB3, or A3)

- Responsible for opening all doors (no gloves necessary) and clearing the hallway
- Drops bouffant for the patient and bicitra on bed

Runners: (RN3, RN4, OB3, A3)

- Prior to moving patient from room to the OR, runners should set up donning/doffing station outside the OR: eye protection recycle bin, trash bin, yellow gowns, gloves, hand sanitizer pump, large pink basins, eye protection, tape (for tidi-shields if needed)
- Dry erase pen to write on the outside of the OR window if needed

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- RN3 should bring a pen, patient chart, baby bands and stickers for cord blood/cord gases, and hemorrhage medications (methergine and misoprostol, avoid hemabate)
- RN4 may need to run to the blood bank and will be required to hand transport all blood samples to the lab as needed
- Write names on OR board and on tape then stick on yellow gowns (for those wearing yellow gowns)

Room Set up:

- RN supervisor (RN2) and Scrub tech will put on COVID PPE and wait to receive patient in OR 14 and set up room:
 - Ensure Smoke Bovie machine is moved to OR14
 - Ensure roller board available to transfer patient
 - Open and prepare surgical field (pull 2 gloves for all surgeons even if this is not their normal practice)
 - Set up doffing station in the OR to include:
 - empty red bio-hazard bin, regular trash, hand sanitizer pump, gloves
 - Dry erase marker in the OR to write on windows if need additional medications
- RN Supervisor (RN2) should bring their RN Supervisor phone into the OR. **NOTE** this should be the only phone in the OR (consider putting it on speaker during entire case to facilitate communication)

Transporting patient before delivery and delivery steps

- All team members should communicate they are ready via Tiger Connect prior to moving patient
- Clean assist will clear hallways and open doors
- Once patient is in the OR, RN3 will inform the MBU RN supervisor and NICU RN supervisor
- PACU Stretcher or LDR bed should remain in the OR during the case and the same bed will be used to transfer patient back to the LDR for recovery
- NICU team will consist of 4 persons- 2-4 will go into the OR with COVID PPE to receive neonate, depending on gestational age. Will bring own N95s but will need remainder of COVID PPE
- MBU/NICU team will bring isolette for infants
- MBU and NICU team will come with 2 persons to transport neonate – a transporter and clean assist (MBU staff will not be in purple scrubs)
- Once baby is born, RN1 or RN2 will communicate gender and time via phone or by writing on window

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- RN3 will write baby band and inform front desk to register baby and give to receiving RN team from NICU or MBU – 2 bands will go with baby and baby will be banded in nursery
- RN1 or RN2 will drop cord blood into small biohazard bag and give sticker to receiving RN team from NICU or MBU – NICU/MBU will label the tubes and send from the NICU or MBU
- Receiving nursing team will place isolette up to OR door
- Receiving nursing team will open OR door to allow NICU team to place infant in isolette and receiving RN team will transport baby, baby bands and cord blood to appropriate nursery
- NICU team exits OR and doffs per protocol (runners to act as doffing buddies)
- RN1 will give full report to NICU/MBU team after procedure and once they are out of the room

Transferring patient back to LDR and Doffing

- Entire team will assist to transfer patient to stretcher
- Primary RN (RN1) and anesthesiology (A1 or A2) will transport the patient back to the LDR
- Surgical consent and fetal strip should be placed back into plastic cover and is transported out of room with the patient
 - For patients who received regional anesthesia:
 - Patient will be transferred back to LDR for their PACU recovery
 - When the patient is ready for transport, clean assists/runners will open doors and clear hallways and remain outside room as doffing buddy
 - Anesthesia and Primary RN (RN1 and A1 / A2) should transport the patient back to their room (will not Doff but will need to ensure PPE is still adequate)
 - Remaining team members will exit OR and doff after the patient leaves with runners as doffing buddies
 - Anesthesia will doff at LDR with second anesthesiologist as doffing buddy (ensure they have buckets for face shield if applicable).
 - For patients who received general anesthesia and are extubated in OR:
 - 2 anesthesia team and 1 RN will remain in room with patient
 - Remaining team members will exit and doff with runners as doffing buddies
 - Patient will be extubated and anesthesia team and RN will remain in OR for 20 minutes before transferring patient back to LDR for recovery
 - For patients who received general anesthesia and require transfer to ICU:
 - OB attending will call COVID-19 ICU New Consult to accept patient
 - Anesthesia and Primary RN will transport patient to ICU
 - Clean assist/Runner will travel with patient and transport team to open doors
 - Remainder of surgical/OR team will exit after patient leaves and doff with runners as doffing buddies
- Surgical team can change scrubs in entry way or in locker room and shower
- Dirty scrubs can be placed back into scrub bin either as is or in linen bags



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Recovery and transfer patient to WSC

- RN1 will remain in room if possible to recover patient as quickly as possible, ensuring PPE is still adequate (if not adequate will require doffing and re donning)
- Once patient is ready for transfer RN1 will call WSC (or receiving unit if applicable) to notify them of transfer
- WSC will prepare room
- RN1 will prepare patient for transfer (clean hand rails/cover patient/ensure mask is on patient)
- RN2 (or designee) will serve as clean assist
- RN1 will doff in WSC (supplies in cabinets between patient rooms)

Cleaning OR

- OR should remain empty for 1 hour prior to cleaning
- Environmental services will perform terminal clean and bioquill room



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SHORT SUMMARY FOR DONNING AND DOFFING

Surgical DON: (in order)

- 1st bouffant or surgical cap (better than bouffant if possible)
- OR shoe covers for all but OB surgeons – don impermeable boots
- yellow gown for OB transporter and all non-surgical team members
 - hand sanitize
 - gloves if using prior N95
- N95
 - remove gloves
 - hand sanitize
 - new gloves
- yellow surgical mask with face shield OR tidi-shield and face shield
- 2nd bouffant

Surgeons and scrub tech:

- doff yellow gown if transport team member
- scrub
- enter OR
- gown and double glove

Surgical Team DOFF: (in order)

In the OR:

- boots, then top surgical gloves for surgical team; otherwise hand sanitize gloves
- gown (yellow gown or surgical gown)
 - take off gloves
 - hand sanitize
 - put on new purple gloves
- take off top bouffant
 - take off gloves
 - hand sanitize
 - put on new gloves
- walk out of OR

In the hallway outside of OR: (items in italics are only if using a face shield)

- *face shield off in dirty bin if wearing face shield*
 - *take off gloves*
 - *hand sanitize*
 - *put on new gloves*
- *take off tidi shield*
 - *take off gloves*
 - *hand sanitize*
 - *put on new gloves*
- *wipe face shield with oxivir wipes and move to clean bin*
- **another person puts on gloves and wipes dirty bins with oxivir wipes**



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- *take off gloves*
- *hand sanitize*
- *put on new gloves*
- take off surgical mask and throw away in designated trash
 - take off gloves
 - hand sanitize
 - put on new gloves
- sanitize Tupperware with oxivir wipe and allow 1 minute dry time
- take off N95 into Tupperware
 - take off gloves
 - hand sanitize
 - Put on new gloves
- take off second bouffant and throw in designated trash
 - take off gloves
 - wash hands with soap and water
 - put on new gloves
- wipe down glasses with oxivir if you wear glasses
- wipe down shoes with oxivir
 - take off gloves
 - wash hands with soap and water; shower if desired
- change into new scrubs and place old scrubs in linen bag

IMPORTANT REMINDERS

- Surgical team should consider using yellow surgical masks with face shields for ease of practice
- Must wear tidi-shield (or glasses) AND face shield to make sure the face shield does not slide down over eyes, and also protect from splash of liquids during section
- DO NOT wear any jewelry, ESPECIALLY dangly earrings and rings
- DO NOT tie rings on scrubs or put them in pockets
- Leave phone, papers, ID badge, anything that was in your scrub pockets in the board room or elsewhere. DO NOT take into OR
- Write people's names on boards
- Write names on gowns: write names on tape and then affix tape to gowns
- Keep noise level at a minimum in the OR as harder to hear with all the PPE
- Consent all COVID+ and PUI admits for C/S
- Strong consideration for early epidurals
- Get extra scrubs before you start
- Have tape available at donning stations outside LDR and OR for tidi-shields
- ALL STAFF MUST SCAN QR CODE AFTER PROCEDURE