

APPRECIATION FOR CRNAs AUDRA KENNEDY, MICHAEL MORALES, SUSAN KPANA, JORDYN WOODS

From: Debra J. Jones <Debra.J.Jones@kp.org>

Sent: Wednesday, April 22, 2020 4:27 PM

Re: Our Anesthesia Process for Stat Intubations and Intubations in the OR (including the process intubating in the procedure room) to share

Good Afternoon All,

I am very proud of our Downey Anesthesia team in the way they responded without reservation in developing a Stat Intubation Team and process for Covid-19. Audra Kennedy CRNA, has done an exemplary job by stepping up and leading our group every step of the way in this process. Having Audra as our point provider to the Stat Intubation Team along with Michael Morales, Lead Certified Anesthesia Tech, Jordyn Woods CRNA educating the staff in equipment, and Susan Kapana CRNA recreating and maintaining the CRNA and Anesthesia Tech schedule was the key to our success. Audra, Susan, Jordyn and Michael continues to make adjustments as the Covid-19 situation changes. Audra has gone above and beyond in assuring the entire Anesthesia team, Peri-op team, ICU team and command center are kept up to date in real time. Let your team do what they do best and be there to support them. I am so moved by our Downey Anesthesia group jumping right in from the very start of Covid-19 to assure our patient's safety and staff safety!

Please see our process through Google that Audra is sharing with you below. She is also willing to help your team by answering questions. You can reach her at 562-657-7837.

Thank you for letting us share our successful processes with you,

Debbie

Debra J. Jones, BSN, RN, RNC - OB

Director, Department of Anesthesiology

Southern California Permanente Medical Group - SCPMG

Downey Medical Center/Bellflower Surgery Center & Pain Block Center

1. DMC Covid intubation team: <https://docs.google.com/document/d/1uyYpPGAivYUkmT0fWk13q0sGZcckk-VBmkm8gqFgnRo/edit?usp=sharing>
2. Intubation Team CRNA responsibility: https://docs.google.com/document/d/1C7eztDq-NqG8E8p55_f3z0NqncjHxtKbDITgc27qYls/edit?usp=sharing
3. CRNA volunteer intubation team: <https://docs.google.com/spreadsheets/d/1VWQEdn3llLAgxm1OXY6491ovTMeswjPlt9ZiDcSqaSl/edit?usp=sharing>
4. Guidance for intubation of Non Covid pts: <https://docs.google.com/document/d/1rAqm7ae7A7Qo7OQbr5ZNof4UB5pn0L0bdGQykI9tU/edit?usp=sharing>

5. Intubation of suspected or Covid +
pts: https://docs.google.com/document/d/1oXx_NPgybqNtgKwiw9S_E15zrM0QGxH5XHM7FJH9bkl/edit?usp=sharing
6. How to access and edit Covid+ pt list: https://docs.google.com/document/d/1e19I6E_JarRklmJgN6UhSOP9GEE2NYu69Z-3fgFKn_o/edit?usp=sharing
7. How to document intubation note: <https://drive.google.com/file/d/1HLbQTbZl1Q-4o9YMJ0sodr9sECfRDYyf/view?usp=sharing>
8. ICU A-line insertion checklist: <https://docs.google.com/document/d/1RUUyP-LO85I3E9RY6vaySYgWTWIQU57GVLMo8y7SnnE/edit?usp=sharing>
9. ICU Rounding Document: <https://drive.google.com/file/d/11jYurHaLtF5-iDXq8YRpk1MRjvFQA7a/view?usp=sharing>
10. Par Levels for
N95: <https://docs.google.com/document/d/17OIzIpZD1mGtB4herJtQ7k02hhooNfErAk9ea4Hfcg/edit?usp=sharing>
11. Primary Airway Manager: https://docs.google.com/document/d/15fli5fjkkwOCO9cGL8AqO1Nt7sHWBRyxQ8FA-d_WCNU/edit?usp=sharing
12. Spotter
Checklist: <https://docs.google.com/document/d/1hgC0EpYFHYpGYGukoDj3YB3INYUfRPNach1x8ET8SOK/edit?usp=sharing>
13. RN/RT responsibility (stat
intub): https://docs.google.com/document/d/1aoRPFLFKW006YtGu1144mohuF1nCDt_0YGSErkVDuIA/edit?usp=sharing
14. Covid Code Blue Policy DMC: <https://docs.google.com/document/d/1pUSt7Ea4-arbK-CbSEt9hmJlJ6JXHjrveTTLQydODNA/edit?usp=sharing>

- Code team members that should enter patient room:
 - 1 MD (code team leader/Intensivist/Hospitalist- VERIFY upon arrival if pt PUI or COVID+)
 - Anesthesia/CRNA team for airway management (typically 2 providers)
 - 1 Respiratory Therapist (Place HEPA filter on BVM upon arrival)
 - RN #1 (Brings code cart and glidescope into room, administers medications, manages defibrillator)
 - RN #2 (either floor or critical care RN, assist RN #1 and document)
 - 2-3 TO's for chest compression
- Code team members that should remain outside patient room:
 - Nursing supervisor (crowd control, manages entry and exit from room)
 - Unit charge nurse (don/doff safety checks, assures PPE availability)
 - RT supervisor (extra supplies and acts as runner)
 - Pharmacist (will hand medications through door)
 - Extra floor RNs for back up

Proper Personnel Protected Equipment (PPE)-To remain outside of room

- Water resistant gown and gloves
- One of these mask/face protection options
 1. N-95 mask, goggles or face shield, hair cap or hood, shoe covers
 2. PAPR (consider additional coverage of neck if exposed)
 3. Leave white coat, phone, stethoscope, etc... Outside of the room
- In addition to above TO's or other providers performing CPR should wear impermeable

DMC Guidelines for CODE BLUE of Patients with Suspected or Confirmed COVID-19 Infection "CODE BLUE COVID"

DMC Guidelines for CODE BLUE of Patients with Suspected or Confirmed COVID-19 Infection "CODE BLUE COVID" Overview
CPR is an aerosolizing generating procedure Airborne + enhanced contact precautions must be maintained during the code Door should remain closed during the code Limited staff ... docs.google.com

15. Visual Aid for Covid Code

Blue: <https://docs.google.com/presentation/d/1vxG86guBaxvCrA0BPKOzLJ6t5GRSTnbdyluWDHLNgs/edit?usp=sharing>

16. Sign out sheet for

PAPR: <https://docs.google.com/document/d/126RJ11Ap2bxtfDdShUrBYrflX4VEJlswwiRfm1mOPaM/edit?usp=sharing>

17. Ordering a Rapid Covid

Test: <https://docs.google.com/document/d/1tKN8Gh6PpxinmNIFIJo4QJK9iJgY5ALU2i8oyGtcDc/edit?usp=sharing>

18. Endoscopy Covid Workflow: https://docs.google.com/document/d/1_PRuR6qhJWgg-DydGtLNv3YUci-rkfQ63J4zxIWTENY/edit?usp=sharing

19. Airway Team Vocera Group workflow: <https://docs.google.com/document/d/18F9-wAZAcHxfkEUUpqWb-TBFF1oPCvTRZkyHt89CkRxc/edit?usp=sharing>

20. Aline bundle supply

list: https://docs.google.com/document/d/1PD_IA5meAqi4NJxTRxtfACtbnXqJpjkGKpjuWFXZHBE/edit?usp=sharing

21. Anesthesia Tech Covid Info: <https://docs.google.com/document/d/1xl8MMARJbjTSjt65clp47W5IDZzhLsRF4R2QzspRt-M/edit?usp=sharing>

22.

<ol style="list-style-type: none"> 1. Place expiratory limb filter (gray) for all ORs with covid or pui coming to OR. This is especially important if pt coming from the bronch or endo suite to OR because a circuit will not be on the machine. The providers are using a Jackson Rees style circuit that will attach directly to the machine, so the filter needs to already be in place. Filter must be labeled with an exp date 48 h from the time you place it. 2. Every Jackson Rees style circuit needs to have a "sampling line and airway adapter" ET/CO2 in line. The orange end will be plugged into the transport monitors so the provider can have an ET/CO2 reading when using the Jackson Rees. 3. Bags or covers need to be placed on machines for covid or pui prior to pt in the room. Please see Michael for what plastic is being used (crash cart bag and ortho shower curtain) 4. Anes now places all A-lines for ICU. Sometimes this may happen at same time as stat intubation. Please keep Par level of A-line kits in the workroom at ten(10). Approximately 4 kits will be kept in the ICU. Anes providers should replace the stock (4 kits) in ICU, not techs. 5. Check the Stock of covid airway cart when assigned to intubation team, check cart at 0600 (michael has stock list, provide to others)-Let Audra know if there are problems with cart 6. Understand don/doff procedure. See video sent by Audra to your email. See instructions on the counter in the anesthesia workroom. Ask any CRNA to go over with you if you want to practice. 	<p style="text-align: center;"><u>Anes tech info covid-19</u></p> <p>Anes tech Place expiratory limb filter (gray) for all ORs with covid or pui coming to OR. This is especially important if pt coming from the bronch or endo suite to OR because a circuit will not be on the machine. The providers are using a Jackson Rees style circuit that will attach directly t...</p> <p style="text-align: center;"><u>docs.google.com</u></p>
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23.

**A-Line Bundle supply list for Anes Techs
Workroom Par Level=10**

- 2 Arrow A Line catheter
- 1 Chloroprep stick
- Needle driver, reusable. (Return to SPD for reprocessing after use. 2-3h turnaround)
- 2.0 or 3.0 silk curved suture
- Wrist support (rolled taped towel)
- 1 roll of tape
- 4 Sterile 4x4 Gauze
- 1 Sterile OR towel pack
- 2 normal saline flush 10cc
- 2 Pink BD Angiocaths 20G
- Guidewire
- Disposable scalpel
- Rentable armboard

[A-Line Bundle supply list for Anes Techs](#)

A-Line Bundle supply list for Anes Techs Workroom Par Level=10 2 Arrow A Line catheter 1 Chloroprep stick Needle driver, disposable 2.0 or 3.0 silk curved suture Wrist support (rolled taped towel) 1 roll of tape 4 Sterile 4x4 Gauze 1 Sterile OR towel pack 2 normal saline flush 10cc 2 Pink BD An...

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24.

1. Before going into a stat intubation, the primary airway manager who is entering the pt room should press the button one time and state: "**Urgent broadcast to airway team**".
2. At that point anyone who has added themselves to the "airway team" will be in a group conversation. The person who initiated the broadcast (primary person) will be able to talk continuously without pressing any further buttons. They will be handsfree and in essence speaking into a microphone.
3. Any other member of the airway team may respond/talk to the group by pressing and holding the badge button, wait for the ding, and then speak. (if you do not hold the button the entire time, it will not work).
4. You may end the broadcast by pressing the badge button once.

I would suggest reading through the resources on vocera. There is a slight difference between the badges and the zebra phones, but is quite intuitive. If you have problems with Genie understanding you, there are ways to train her.

Resources:

-Power Point guide for learning the vocera badge:

https://sites.sp.kp.org/teams/downey/clinical_depts/dmcnursing/Shared%20Documents/Vocera%20Training%20Resources%20Downey/Vocera%20Badge/KP%20Downey_Vocera%20Badge%20Training.pdf

[AIRWAY TEAM VOCERA GROUP](#)

AIRWAY TEAM VOCERA GROUP Utilizing a Vocera "group" will allow providers on the airway team to communicate solely amongst their team. This is extremely beneficial when part of the team is in a patient room doing a procedure and then other members are outside offering support and supplies. To U...

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25.

WORKFLOW FOR ENDOSCOPY ROOM

Endoscopy workflow should mimic the OR protocol (based off CDC guidelines) and incorporate the measured ACH (Air Changes per Hour=12) to provide the safest environment for our patients and staff.

- Anesthesia will induce and intubate and extubate as usual in Fluro 1. Anyone present in the room or entering the room must have N95 and goggles or face-shield. Doors should remain closed as much as possible
- Any staff member without an N95 should not enter for 20 minutes after an aerosolizing procedure (KP regional guideline)
- After extubation, the patient can exit the room immediately.
- Once the patient has left the room, EVS can clean without N95s after 20 minutes has passed--*Signage should be placed on the doors by Gi staff to prevent inadvertent entry during this 20 minute time frame (see below)*
- Once the room is clean, EVS should notate the time the room can be used on the signage posted on the door (see below)

[Endoscopy covid workflow/anes/GI](#)

WORKFLOW FOR ENDOSCOPY ROOM Endoscopy workflow should mimic the OR protocol (based off CDC guidelines) and incorporate the measured ACH (Air Changes per Hour=12) to provide the safest environment for our patients and staff. Anesthesia will induce and intubate and extubate as usual in Fluro 1. ... [docs.google.com](#)

26.

ORDERING A RAPID COVID-19 TEST

1. Make sure you order the RAPID test (Abbott). See the specific directions and visual aid enclosed with the test kits.
2. Do not completely pull package open, just enough to remove the swab
3. Swab the posterior oropharynx first, then the nasal passage (with the same swab). It is ok that the order says the specimen is "throat", Dr. Hsiung was instructed that swabbing 2 different sites increases viral load and will give a more accurate test.
4. Place the swab back in the minimally opened package and place a patient label directly on the package.
5. Place the labeled package into a biohazard bag (careful not to contaminate bag)
6. Test must go to lab within ONE HOU

SARS-COV-2 (COVID-19) RNA, QUANTITATIVE RT, NAA ✓ Access | ✕ Cancel

Priority: Routine Routine

Specimen Site: THROAT SW

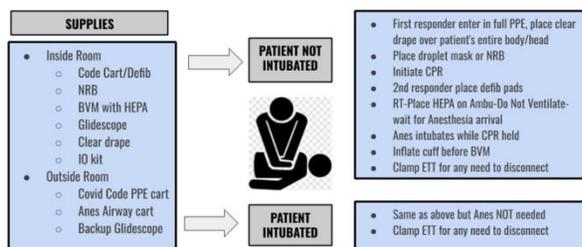
Frequency: ONCE Once

[ORDERING A RAPID COVID-19 TEST](#)

ORDERING A RAPID COVID-19 TEST Make sure you order the RAPID test (Abbott). See the specific directions and visual aid enclosed with the test kits. Do not completely pull package open, just enough to remove the swab Swab the posterior oropharynx first, then the nasal passage (with the same swa... [docs.google.com](#)

27.

DMC COVID CODE BLUE



VISUAL AID DMC Covid Code Blue

DMC COVID CODE BLUE Inside Room Code Cart/Defib NRB BVM with HEPA Glidescope Clear drape IO kit Outside Room Covid Code PPE cart Anes Airway cart Backup Glidescope SUPPLIES PATIENT NOT INTUBATED First responder enter in full PPE, place clear drape over patient's entire body/head Place droplet mas...

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STAT INTUBATION PROTOCOL

RN duties

- Supplies in room prior to intubation Ambu bag, NGT, A-line dressing
- A-line tubing attached to module and zeroed
- At least one working IV
- Peripheral IV running with sedation medication hooked inline prior to

RN/RT responsibilities

STAT INTUBATION PROTOCOL RN duties Supplies in room prior to intubation Ambu bag, NGT, A-line dressing A-line tubing attached to module and zeroed At least one working IV Peripheral IV running with sedation medication hooked inline prior to intubation Respiratory Therapy duties Supplies in ...

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- f. Double glove
 - g. BUDDY CHECK!
3. After Intubation:
 - a. Place glidescope blade and outer gloves in **red biohazard bin trash can**
 - b. Place glidescope cord in ziplock
 - c. Take glidescope cable out of pt room and place ziplock bag into red Biohazard bag
 4. Doffing PPE
 - a. In the room
 - i. Roll up plastic bag covering glidescope from bottom up and gently push glidescope into anteroom. Anteroom pushes glidescope out to anes tech for cleaning.
 - ii. Doff shoe covers
 - iii. Doff gown and outer gloves
 5. Doffing PAPER
 - a. Out of the room
 - i. Spotter gives primary clean gloves + wipes
 - ii. Primary wipes PAPER hood
 - iii. Once wiped, doff PAPER/CAPR into **biohazard bin**
 - iv. Wash hands
 - v. Shower and change scrubs in locker room

PRIMARY AIRWAY MANAGER

PRIMARY AIRWAY MANAGER SUPPLIES: Bouffant cap or blue head covering with under chin tie Shoe covers if desired Gown (surgical or blue plastic) PAPER/CAPR Double glove Procedure: Hand Hygiene Don PPE in order: Bouffant Don shoe covers PAPER/CAPR Attach Battery to back pocket Don gown Double glove ...

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29.

PAR LEVELS FOR ANESTHESIA N95's EMERG # 79100

1. OSFA (one size fits all) 1870+ (white mask)= 20
 2. 1860S (small, green cone mask)= 20
 3. 1860 regular (reg green cone mask)=20
- Only take a mask if you passed the fit test for it. Do not place masks in scrub pockets, bend, or wear makeup as it degrades the filter
 - Please continue to conserve PPE and follow dept guidelines for allocation of mask
 - At this time Anes Techs are not given N95's. Do not ask them

Par Levels for PPE

PAR LEVELS FOR ANESTHESIA N95's EMERG # 79100 OSFA (one size fits all) 1870+ (white mask)= 20 1860S (small, green cone mask)= 20 1860 regular (reg green cone mask)=20 Only take a mask if you passed the fit test for it. Do not place masks in scrub pockets, bend, or wear makeup as it degrades th...

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30.

- 2) Priority #2- Use PPE appropriately/judiciously; try to go minimize # of times going into room (N-95/PAPR for aerosol generating procedures: suctioning/nebulization treatments/intubations/bronchoscopies)
 - a. Consider deferring exam in certain situations
- 3) ICU MDs divide pts at board in the AM; write initials of provider next to bed #
- 4) Staffing
 - a. 8am-5pm
 - i. Weekdays: AM 4 MDs; PM 2 MDs in PM (split covering all the pts in the PM)
 - ii. Weekends: 2 MDs all day + extra MD(s)
 - iii. Often have a pulm/CCM fellow from Harbor-UCLA who also rounds on ICU pts/have to staff pt with ICU attending
 - iv. All ICU pts not rounded on by intensivist directly should be staffed with ICU attending
 - b. After 5pm: MOD covers ICU; can page ICU MD overnight with questions
- 5) ICU covers medical, cardiac, surgical pts
 - a. During COVID surg; ICU team may ask other services to round on pts without intensivist (e.g. cardiology/neurology/surgery)
- 6) ICU pods: 10 pts/pod
 - a. POD #1 dedicated to COVID
 - b. PODs #2 COVID positive pts (spillover from POD #3)
 - c. POD #3 dedicated to COVID+/PUI pts in ICU/DOU status

[ICU rounding.docx](#)
[drive.google.com](#)

- 2 Pink BD Angiocaths 20G--REMOVE THIS ITEM AND LEAVE OUTSIDE ROOM
- Guidewire--REMOVE THIS ITEM AND LEAVE OUTSIDE ROOM

Supplies--in pt room (ICU RN responsibility)

- Side table to abduct and secure pt arm 90 degrees (overbed bedside table, room nightstand, mayo or prep stand)
- 1 table to open and lay out TV sterile equipment
- Arterial line transducer with pressure bag
- Connect Arterial Line cable and Zero (will need to connect the catheter during the procedure to evaluate waveform to confirm placement)
- Medium surgical drape
- Biopatch
- Tegaderm/peripheral IV dressing

Supplies on Standby--outside pt room (Ask Anes Provider)

- Zonare Ultrasound Machine with plastic drape (on loan to ICU from Anes)
- 1 sterile ultrasound probe cover

[ICU A-Line insertion checklist](#)

ICU Arterial Line Insertion Checklists A-Line Bundle for pt room-- (Made by Anes) ICU PAR LEVEL=4 (*Bundle is packaged in gallon ziplock bags in a bin located in nursing station) 2 Arrow A-Line catheter 1 Chloroprep stick Needle driver, reusable. (RN to return to SPD for reprocessing after use....

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The image shows two screenshots of an EMR system. The top screenshot is a detailed 'INTUBATION' procedure form. It includes a 'Procedure' dropdown set to 'Intubation', a 'Location of patient' dropdown, and a 'Reason for intubation' section with radio buttons for 'Code Blue', 'Respiratory failure', 'Airway protection', 'Tube exchange', and 'Other'. There is a section for 'Airway placement' with 'Easy', 'Moderate', and 'Difficult' options. Below that is a 'Bed Person verification' section with checkboxes for 'Procedure verified', 'Consent obtained', 'Side verified and marked as appropriate', 'Catheter inserted', and 'Risk discussion refused. Adult agrees to procedure'. The bottom screenshot shows a similar 'INTUBATION' form with a 'Time of intubation' field and a 'Patient location' dropdown.

[How to Document Intubation Procedure.pdf](#)
[drive.google.com](#)

How to Access and Edit COVID-19 Patient List

Contact Tuyen or Dr. Phamduong if the list is not shown on your screen.

Even though the list is named "Covid patients under investigation," PUI and confirmed positive patients are **both** on the list.

Purpose:

1. For the Intubation Team to know who is PUI & + prior to entering
2. Know the current status of patients
3. Keep the list updated

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(Links are clickable and will bring you to the specific section)

[How to View the List](#)

How to Access and Edit COVID-19 Patient List on Health Connect

How to Access and Edit COVID-19 Patient List Contact Tuyen or Dr. Phamduong if the list is not shown on your screen. Even though the list is named "Covid patients under investigation," PUI and confirmed positive patients are both on the list. -----

----- Purpose: ...
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5. Glidescope assisted endotracheal intubation, use outer gloves to contain laryngoscope, INFLATE cuff
6. Connect Jackson Rees system to ETT. Adjust purple open--close valve to give positive pressure
7. Transport to OR, connect to anesthesia machine with PALL filter on Exp. limb.



Intubation of suspected or confirmed COVID-19 Patient in Neg Press Room

BEFORE PT ARRIVES or BEFORE ENTERING ROOM:
Should already have donned PPE: gown, shoe covers, PAPR respirator (or N95 mask), eye protection, double gloves. Medications and glidescope ready to go.
Assemble Jackson Rees system (See PICTURE BELOW)
Remind Anesthesia Tech. to place PALL filter o...
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- Time out- Anes to give OR emergency #'s to call for airway help
 - OR team to hallway watching
 - **If provider has concerns, ask 2nd anes person (resource or sup MDA) to obtain N95 and eye protection and watch from door entire time ready to enter in emergency, ***Hand signal to OR RN if help call needed.**
 - Anes induces, intubates and secures airway, timer started for 20 min
 - OR team outside hallway door watching attentively
 - **After 20 min, OR team comes in, surgery proceeds**
- Reasoning: Prevent traffic coming into room for 20 min after aerosolizing event*

Extubate on Gurney or OR Table--Anes Decision:

Extubate on gurney- (Pt may be more secure on gurney with side rails up and 3) velcro straps for safety

- Gurney brought in, pt moved from OR table to gurney (with circuit attached to ETT)
- *If provider has concerns, ask 2nd anes person (resource or sup MDA) to obtain N95 and eye protection and watch from door entire time ready to enter in emergency***Hand signal to OR RN if help call needed.*
- OR team outside the hall door watching attentively, Anes provider extubates.
- Anes provider **waits 20 min before pushing pt out of OR.** transports to

[Guidance for intubation of NON COVID patients](#)

Guidance for intubation of NON COVID patients Enter OR: Whole OR team present for time out OR RN, scrub, surgeon, CRNA or MDA, 2nd anes person if needed (CRNA or MDA) Time out- Anes to give OR emergency #'s to call for airway help OR team to hallway watching If provider has concerns, ask 2nd a...

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31.

DMC Covid-19 Intubation Team

The DMC intubation team was created as a rapid response team for stat intubations, code blues, airway decompensation related to the Covid-19 pandemic. The team should consist of at least 3 members: primary airway manager, secondary airway manager, and a backup/spotter. An anesthesia tech will also be part of the team and at times can function as the 3rd member or "spotter" (if the backup anes provider is unavailable). The primary and secondary members of the intubation team should be **FREE FROM OTHER DUTIES 100%**. The backup person should be mostly available and the anes techs have graciously accepted covering 24/7 during the covid crisis to be of assistance.

Keeping the intubation team intact is paramount during the Covid crisis. It is not only about having "bodies" to fill the spots. The providers assigned should discuss their roles, assign duties, and communicate on how they plan to handle emergencies. Disruption of these communications make stat intubations and codes more risky for our colleagues.

[DMC Covid-19 intubation team](#)

DMC Covid-19 Intubation Team The DMC intubation team was created as a rapid response team for stat intubations, code blues, airway decompensation related to the Covid-19 pandemic. The team should consist of at least 3 members: primary airway manager, secondary airway manager, and a backup/spott...

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Audra Kennedy, CRNA, MSN
Health Connect Anesthesia Super User