



# COVID19 AIRWAY & PROCEDURES TEAM MANUAL

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## GUIDING PRINCIPLES

### SAFETY FIRST

Developing an expert team of ANES Airway experts confident and trained in DON/DOFF procedures is the best way to ensure the safety of valuable healthcare providers.

- Limit personnel exposed to Sars-CoV2
- Ensure all providers are properly protected with PPE including during Don/Doff procedures
- Protecting trainees (student, resident, fellow) by limiting involvement in high risk patient care and/or high risk patients

#### HIGH RISK PATIENTS:

COVID+ or PUI

#### HIGH RISK PATIENT CARE:

Aerosolizing procedures such as intubation, open suctioning, bronchoscopy, some ENT procedures, high-flow or high-pressure oxygen delivery (BMV, NIPPV, HiFlow NC), chest compressions

#### GOALS of AIRWAY TEAM PROCEDURES:

##### 1) Limiting Exposure/Contamination

##### 2) Decreasing Aerosolization

- Preference for most experienced person performing high-risk patient care
  - Most experienced at procedures AND Don/Doff procedures i.e. COVID-Airway Team
  - Anesthesia attendings only on COVID Airway Team
- Use most protective form of PPE available at the time
  - Order of preference CAPR shroud > CAPR Shield > N95 + Full face shield
  - **IF** N95 + face shield, **THEN** consider surgical hood (blue cloth) or other neck coverage during aerosolizing procedures
  - Use checklist **EVERY TIME**
  - Use DON/DOFF buddy **EVERY TIME**
  - **DOFFING IS MOST DANGEROUS TIME FOR CONTAMINATION**
  - **HAND HYGIENE, HAND HYGIENE, HAND HYGIENE**
  - Bring only what you need into room
    - Create a “contamination” bin/bag in which to place equipment/meds & bring in room

CONSIDER	AVOID
RSI + VL as 1st choice	bag-ventilation
Early LMA over BMV	Patient coughing
Low pressure and low volume if bag used	HFNC, NIPPV
O2 by NC <6 LPM or NRB =15L/min	Large Vt or High pressures with bag

## RESPONSIBILITIES and PRIORITIES

### Why a COVID Airway Team?

#### ROLE CLARITY: A Team of Airway Experts and Proceduralists

#### who are also Experts in safe DON/DOFF Procedures

- **1st Priority:** Offloading the ICU teams during COVID19 Surge
  - Perform COVID+/PUI non-emergent intubations
    - ICU decides when to intubate but will ask for our opinion as we are the airway experts
    - Discuss with the ICU teams, plans for ventilator settings, oxygen delivery, sedation, hemodynamic management
      - prior to intubation
      - after extubation
    - readiness to extubate?
      - **\*\*NO PM EXTUBATIONS\*\***
    - ease/difficulty of re-intubation
    - presence at the bedside until patient is stable after extubation
  - Assist with all procedures in the ICU, including but not limited to arterial lines, central lines, feeding tubes, chest tubes, difficult IV placement, others
  - Assist with airway control during prone/supine positioning for ICU-ARDS patients
  - Critical care decisions should be made by critical care team
    - The COVID Airway Team member should work to stabilize the patient pre-procedure, intra-procedure, and post-procedure but sign out to ICU fellow and nurse once appropriate
- **2nd Priority:** Airway Coverage
  - If available - respond to all CODE Blue airways, whether PUI/COVID+ or NOT
  - REDUNDANCY in the airway coverage system in time of COVID19 SURGE
  - The COVID Airway Team is NOT to replace any current airway responder or change the current workflow
- **3rd Priority:** Safety and support of other ANES providers
  - Supervising and assisting OR ANES with intubations/extubations
  - Help with transporting COVID+/PUI patients
  - Teaching PPE
  - Sharing TIPS and guidance
- **4th Priority:** Helping everywhere else Wards/ED/Other
  - We may occasionally be called to help with other procedures across the hospital
  - This is the decision of each COVID Airway Team member, but we encourage all to help others to ensure the greatest safety for all providers and all patients
  - Just remember to write a note and charge capture wherever you are able!

**DAILY WORKFLOW**  
**SUBJECT TO CHANGE**

**7am – 6pm Day shift:**

- DAY TIME WORKFLOW:
  - 7 am: Sign into VOALTE on COVID Airway Phone
    - Once in-hospital 24/7 we can do warm handoffs with phone
    - Respond to CODE BLUE TEST page: **Pager 13064**
  - “COVID AIRWAY TEAM LIST” under shared patient lists
    - Review MICU and SICU patient lists for COVID+/PUI patients that may be unstable or require procedures
    - Review the “Active Covid-19 Infection” list and add any patient with increasing oxygen requirements to the COVID Airway Team list
    - Intubated patients should stay on the list until extubation and subsequent stability of airways
    - PUI patients that receive negative test results should be removed from the list
  - Review ANES Airway Schedule to determine who is on CODE Blue response team (Periop Attending, 500P Scheduler, 300P scheduler, ANES resident) and touch base about CODE Blue response - They are primary & we respond if available
    - 7:30 – HUDDLE (E2ICU front desk)
      - Charge RN, Response RN, MICU Triage fellow, others
      - Discuss patients at risk for intubation
      - Discuss patients for possible extubation
      - Discuss patients needing proning
      - Communicate needed workflow around intubations
      - All stakeholders should understand equipment, personnel, processes
  - Verify with Anesthesia techs understanding of workflow
    - Non-emergent ICU airways
    - CODE Blue
    - 500P 724-0219
    - 300P 736-1850
  - **Frequent check in with MICU Triage Fellow during the day** (Find role MICU TRIAGE FELLOW on Voalte or call 650-724-8820, ext 48820 in the hospital)

- They will keep you updated on how patients are doing on the floor and those that are being moved to the ICU due to worsening resp failure
  - Check in on procedures needed in ICU patients
- **Critical Care Resource Nurses and Administrative Nursing Supervisor:**  
These nurses are invaluable at monitoring the hospitals for deteriorating patients and will call you if they think intubation may be likely
- **Mid-morning ~ 10 AM** : Prone Protocol
  - Patients are supine 8 AM – 6 PM (8hrs) and prone for 16 hrs ( 6 PM to 10 AM) so we turn them prone at the end of the day. This is why day shift ends around 6 PM, you will be responsible to help prone these patients. If volume becomes too large you could activate the night person to help prone patients
  - As ICU personnel become more familiar with proning, this role may subside
- **During the afternoon check in with the MICU teams** (Find Role on Voalte: MICU GREEN FELLOW OR MICU BLUE FELLOW)
  - Discuss how patients are doing and err on the side of an early intubation for those that are not doing well and have had escalation on their oxygen requirement, requires multidisciplinary discussion
  - Check in on procedures needed in ICU patients
- Respond to CODE BLUE
  - Be sure to coordinate with other ANES Airway attendings as able
- 5-6 pm – SIGNOUT Considerations
  - MICU Triage fellow
  - +/- MICU attending
  - COVID Night MD (by phone if available)
- 6pm: Sign out of VOALTE

### **6pm – 7am Evening Shift:**

- In-House WORKFLOW:
- 6pm: Sign into VOALTE on COVID Airway phone
  - Touchbase with the MSD Faculty on call as you two will be first responders to CODE BLUES
- **CALLED FOR INTUBATION PROCEDURE BY MICU WORKFLOW:**
  - Review patient info with MICU by phone:
    - Patient location
      - Can they move to ICU?
    - Current Oxygen requirement
      - Place on NRB @10-15L for pre-oxygenation
    - Potassium and relevant labs

- Airway exam
- Tell MICU to Initiate:
  - “Intubation Order Set”
  - “Post-intubation sedation orders”
  - “Place ventilator order and settings”
  - “Inform nurse to setup for COVID intubation workflow”
  - “Call RT to setup for COVID intubation set-up”
  - “Call PHARM to assist with medication preparation”
- **CODE BLUE WORKFLOW**
  - **IF** unable or unlikely, **THEN** call ICU and discuss activation of back-up COVID Airway or CODE Blue if necessary
    - Calling 211/CODE BLUE is always the best way to get all needed resources quickly
    - AVOID calling “CODE Difficult Airway” unless surgeon is needed
  - **IF** primary COVID Airway team member is unavailable, **THEN**:
    - Direct MICU to call in back-up team member
    - Primary COVID Airway calls in back-up COVID Airway person
    - MICU should activate 211/CODE BLUE

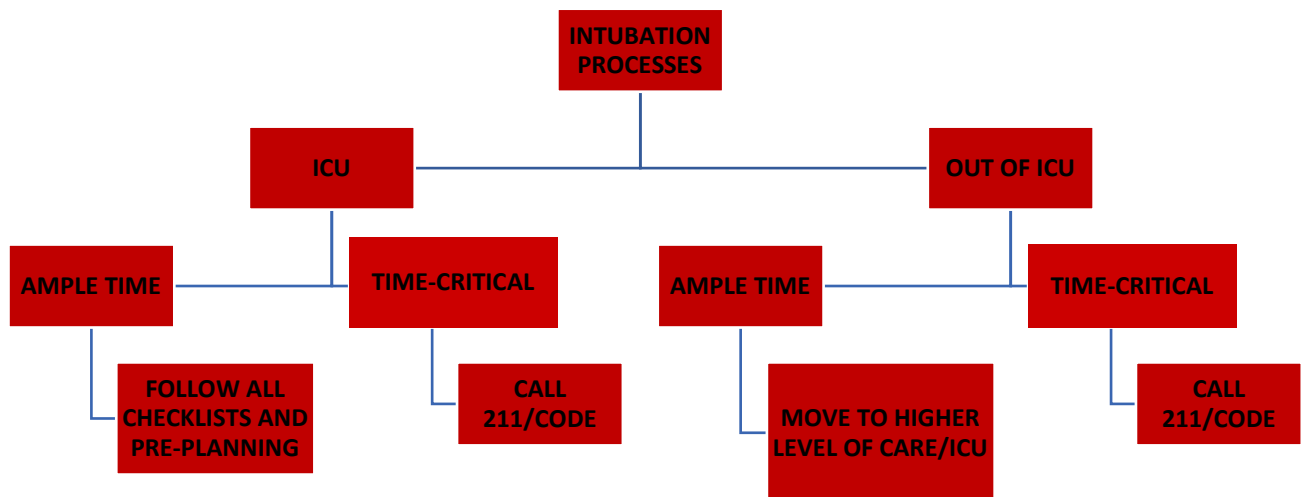
**Call/Shift Credit**  
(as of 3/23/2020 per Dr. Pearl/Lorenzo)

Starting this Monday March 23, 2020, the day credit is a regular clinical day credit  
For now, **PLEASE KEEP TRACK OF YOUR SHIFTS AND HOURS and submit to Nicky Chu/Rosario Ngo by email**

## INTUBATION PROCESSES

### In this section:

- Scenario 1: Urgent Intubations - CODE Blue
- Scenario 2: Non-urgent Intubations - ICU
- Equipment Lists
- Difficult Airway Considerations
- Medication Considerations
- Useful Tips from COVID Airway Colleagues





**AIRWAY RESPONSE TEAM  
EMERGENT SCENARIO  
CODE BLUE**

Although some intubations will be controlled in the ICU with time for pre-planning and organization, many will be time-sensitive or time-critical. CODE BLUE response teams are the same as pre-COVID19 with the exception of our team added as ADDITIONAL airway responders. We are experts in airways AND experts in safe DON/DOFF workflows.

**IF** we are unavailable, **THEN** the MSD ANES attending will need to intubate.

**\*\*Please carry your own N95 & Face shield. You may arrive prior to the resource nurses.  
Your safety is NOT to be compromised for any reason \*\*  
We have COVID Airway Team Backpack for PPE**

We have a dedicated iPhone [(650) 387-5008; Passcode 202020] and a dedicated COVID Airway pager number: **13064**. We will receive all CODE BLUE pages through this phone. COVID+/PUI patients will be designated on the CODE BLUE as “**COVID.**”

Airway intubation procedure in order of preference during CODE BLUE is as follows:

- Primary = COVID Airway Attending
- Secondary = Anesthesia Attending (Scheduler 500P, Scheduler 300P, Peri-op Attending)
- Third order = Most skilled airway provider available who is confident with PPE
  - try to spare our trainees at all costs

**GUIDELINES:**

- PPE is NOT to be compromised for any reason
- Anesthesia residents and technicians should NOT enter the room but should remain on standby
- Providers in anteroom must have gown, N95, face shield, gloves
- **IF** no anteroom, **THEN** providers close to room door must don PPE or step away
- ALL NON-ESSENTIAL PERSONNEL must step away from room to avoid contamination from aerosolization
- Doors to anteroom and/or patients room MUST REMAIN CLOSED as much as possible
- **IF** anteroom, **THEN** ONLY ONE door can be open at a time
- USE CHECKLISTS
- Refer to Stanford Hospital Airborne Precautions Policy

**AIRWAY RESPONSE TEAM  
NON-EMERGENT SCENARIO  
ICU INTUBATIONS**

Unlike intubations on the floor or during CODEs, ICU intubations allow and require more planning, discussion, and management of sedation and hemodynamics. See equipment lists and medication considerations below.

There is significant overlap in this workflow and roles between the COVID Airway Team member and the ICU Team. Communication is key. Please discuss with the ICU team resident or fellow, regarding the management of the patient's procedure and the medications needed:

- EPIC Intubation Order set
  - Anxiolysis
  - Induction
  - Muscle relaxant for RSI
    - Check all electrolytes
  - Post-intubation sedation
    - Midazolam and Dilaudid preferred
  - Hemodynamic management (hypotension, hypertension, bradycardia, tachycardia)
    - Review hemodynamic trends during chart review
    - Echo
- Pharmacy should be called to assist with medication preparation for all intubations
- Use Intubation Checklist
- Use DON Checklist
- Use DOFF Checklist
- Review Equipment List, medication considerations, difficult airway considerations, and TIPS below

**EQUIPMENT LIST**

**1. Obtain from Bedside RN or Charge Nurse or Nursing Supervisor:**

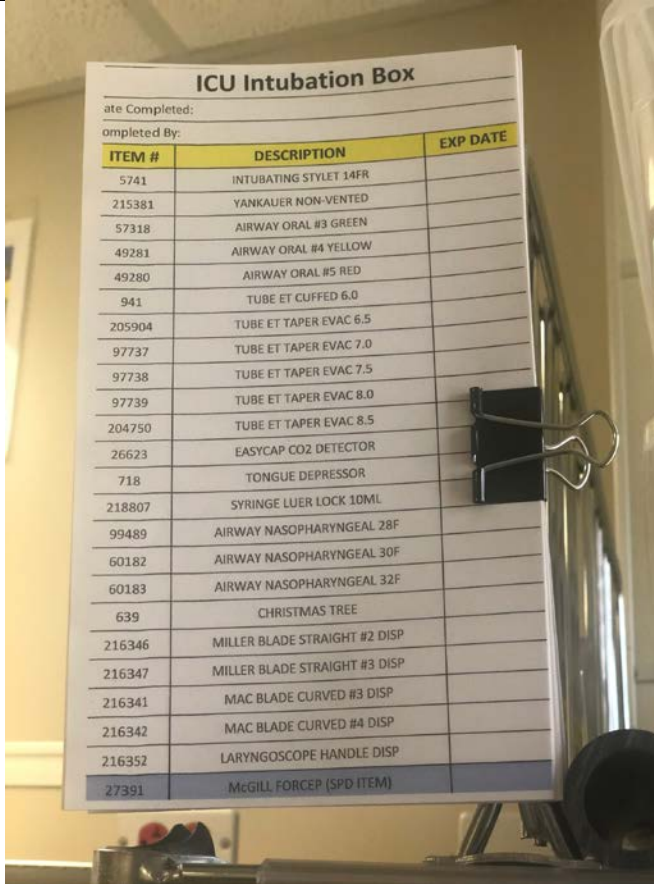
PPE	Specify number of PPE needed Preference: CAPR-Shroud > CAPR-Shield > N95+goggle/shield
-----	---

**2. Obtain from Anesthesia Workroom/Anesthesia Technicians:**

VIDEO LARYNGOSCOPE (CMAC or Glidescope)	On stand with clear plastic equipment cover
COVID Airway Kit (See Below)	

**3. Obtain in ICU Storage Room (RN can grab for you):**

ICU Intubation Box



**\*\*Select only what you will need to take into the room\*\***

**4. Confirm with RN:**

**Suction (Avoid if possible)**

Preferred Yankaur available
Canister set-up and turned ON

**IV and Drips**

IV fluid bag and tubing	Ensure it runs freely; ENSURE IV WORKS; Opposite arm from NIBP
IV manifold for infusions	Ensure enough ports for post-intubation drips
SpO2	Audible at highest volume, Opposite arm from NIBP
Whether A-line is needed and if kit available	

**5. Confirm with RT:**

Ambu Bag with filter (VFE 99.9%)	Avoid bag-ventilation if possible; Consider LMA early
----------------------------------	---

Mechanical Ventilator with filter (VFE 99.9%)	Set with PEEP & FiO2 per ICU
PetCO2 on side port	Calibrated and running on monitor
<b>i. INSIDE Room: ANES: decides equipment needed in room, place in contamination bag or bin, leave rest outside, notify RUNNER or ASST if additional items needed in room</b>	
<b>ii. OUTSIDE Room (If need anticipated; or call EARLY)</b>	
Difficulty Airways Cart	Fiberscope 4.0 mm and 5.0 mm; AMBU Scope and Screen
Airway assistant should be available inside or outside room if anticipated difficult airway with PPE available or DONned.	

<b>COVID Airway Kit (Brought by Anes Techs)</b>	
<b>Surgical Hoods (blue cloth)</b>	<b>Neck protection if CAPR-Shroud unavailable</b>
<b>Video Laryngoscope (CMAC Blades 3, 4, &amp; D)</b>	<b>CMAC or Glide with clear equipment cover</b>
<b>Bougie</b>	----
<b>Stylets</b>	<b>D-Blade stylet - OR - regular stylet for CMAC 3, 4</b>
<b>iGel</b>	<b>Sizes 3, 4</b>
<b>Clean Equipment cover</b>	<b>For post-procedure transportation after cleaning</b>

## DIFFICULT AIRWAY CONSIDERATIONS

\* IF non-emergent, THEN have airway assistant available OR in room with PPE

\* Call for help early 📞 Activate second ANES attending

\* Call for difficult airway cart

\* Place iGel early to avoid Bag-Ventilation

\* Try D-Blade on CMAC

\* AVOID surgical airways

## MEDICATION CONSIDERATIONS

### Intubation Medications (ANES/RN give; PHARM prepares)

TIP: ANES chooses which meds he/she plans to use

TIP: PHARM prepares meds unless unavailable, then ANES/RN prepare

TIP: Avoid coughing 📢📢📢 RSI and adequate sedation/paralysis

TIPS from COVID Airway Team Providers:

- Concern regarding awareness → Midazolam pre-induction
- Succinylcholine wears off and patient coughs → Rocuronium for RSI
- Patients are coughing after extubation → Use Dilaudid drip for post-intubation sedation
- Hypotension is common → have rescue drugs and drips ready
- During DOFFing full focus is needed → communicate with other providers to manage sedation/hemodynamics
- 

Medication	Amount (TBW)	Notes
Midazolam	4 mg IV	syringe
Fentanyl	100mcg IV	syringe
Dilaudid	2 mg IV	syringe
Propofol	2.5 mg/kg	syringe
Ketamine	1-2 mg/kg	syringe
Etomidate	0.3 mg/kg	syringe
Rocuronium	1.5 mg/kg	syringe
Succinylcholine	1.5 mg/kg	syringe
Post-Intubation Sedation (ICU orders, RN prepares)		
Dilaudid	1 -2 mg/hour	Infusion + pump
Propofol	0 – 100 mcg/kg/min	Infusion + pump
Dexmedetomidine	0.7 – 1.2 mcg/kg/hour	Infusion + pump
Midazolam	1 - 5 mg/hour	Infusion + pump
Rescue Medications (ANES gives, PHARM prepares)		
Phenylephrine	100 mcg/mL	syringe
Epinephrine	10 mcg/mL	syringe

## USEFUL TIPS FROM COVID AIRWAY COLLEAGUES

### TIP: Medications

- ANES chooses which meds he/she plans to use
- PHARM prepares meds unless unavailable, then ANES/RN prepare
- Avoid coughing 🤧🤧🤧 RSI and adequate sedation/paralysis
- Concern regarding awareness → Midazolam pre-induction
- Succinylcholine wears off and patient coughs → Rocuronium may be better for RSI
- Patients are coughing after extubation → Use Dilaudid drip for post-intubation sedation
- Hypotension is common → have rescue drugs and drips ready and accessible
- During DOFFing full focus is needed for ANES, RT, RN → communicate with other providers to manage sedation/hemodynamics
- 

### TIP: SAFE DON/DOFF Procedures

- Go Slow
- Use a Buddy
- DOFF one at a time
- Use a DOFF checklist
- Hand Hygiene between EVERY step
- Remember your neck
- Some units have someone to DOFF your CAPR helmet into a bag so you may not need to wipe it down
- Change your scrubs

### TIP: Communication is Key

- Run checklists before entering room
- Communication is difficult in PPE
- Use written communication as needed: paper or whiteboard and pen in room

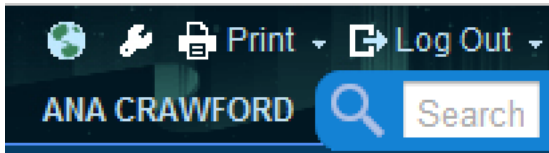
### TIP: Limit Contamination

- Use Negative pressure rooms when available
- Bring in only what you need as anything brought into room is contaminated
- Clean equipment thoroughly prior to leaving patient room, then clean again outside room
- Hand Hygiene, Hand Hygiene, Hand Hygiene
- Please wipe the VL down inside the room and remove clear cover, then after DOFF final PPE outside the room, clean thoroughly again to protect our anesthesia techs.

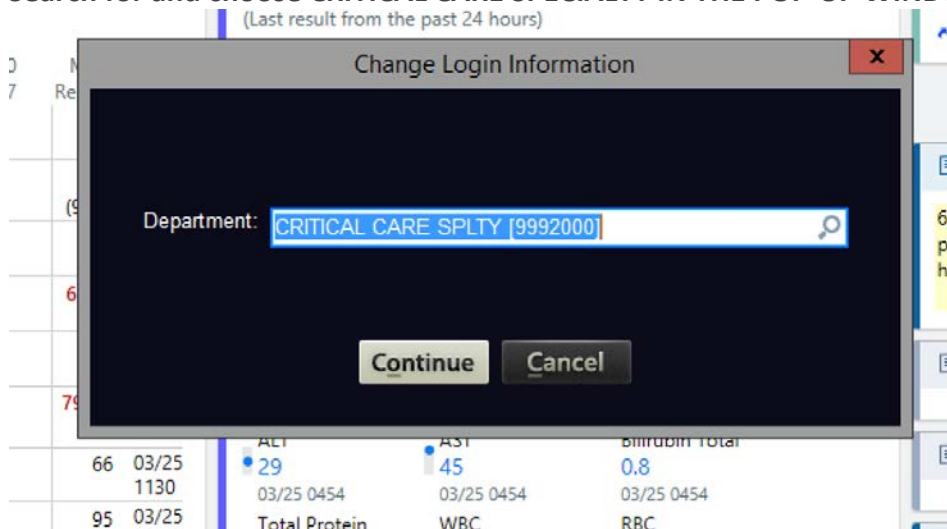
## EPIC NOTES AND CHARGES FOR INTUBATIONS AND LINES

After all procedures, we must write procedure notes and capture charges in EPIC. DO NOT create an OOR record.

“Change context” from “ANESTHESIOLOGY” to “CRITICAL CARE SPECIALTY” by clicking the down arrow to the right of the “Log Out” button



Search for and choose CRITICAL CARE SPECIALTY IN THE POP-UP WINDOW



- Procedure notes
  - Please use “Create in NoteWriter” option and click through options for intubations, a-lines, other procedures
- Evaluation Progress Note
  - NOT Mandatory but if you find useful information or have an airway exam this is a good way to store it for others
  - Use Smart Phrase “.AMCCOAW” or create your own

## Billing for Critical Care Time for Prone-Supine Positioning

### Please follow these steps:

You will need a Note to bill for Critical Care Time. The note needs a physical exam, a list of critical care activities that justifies time and a ROS. Luckily, this is all in a smartphrase and it will take you less than 5 minutes to write this note.

Use these same steps when turning a patient from prone to supine just be mindful to change in the note a few things to clarify if you are turning supine versus prone.

#### Step 1:

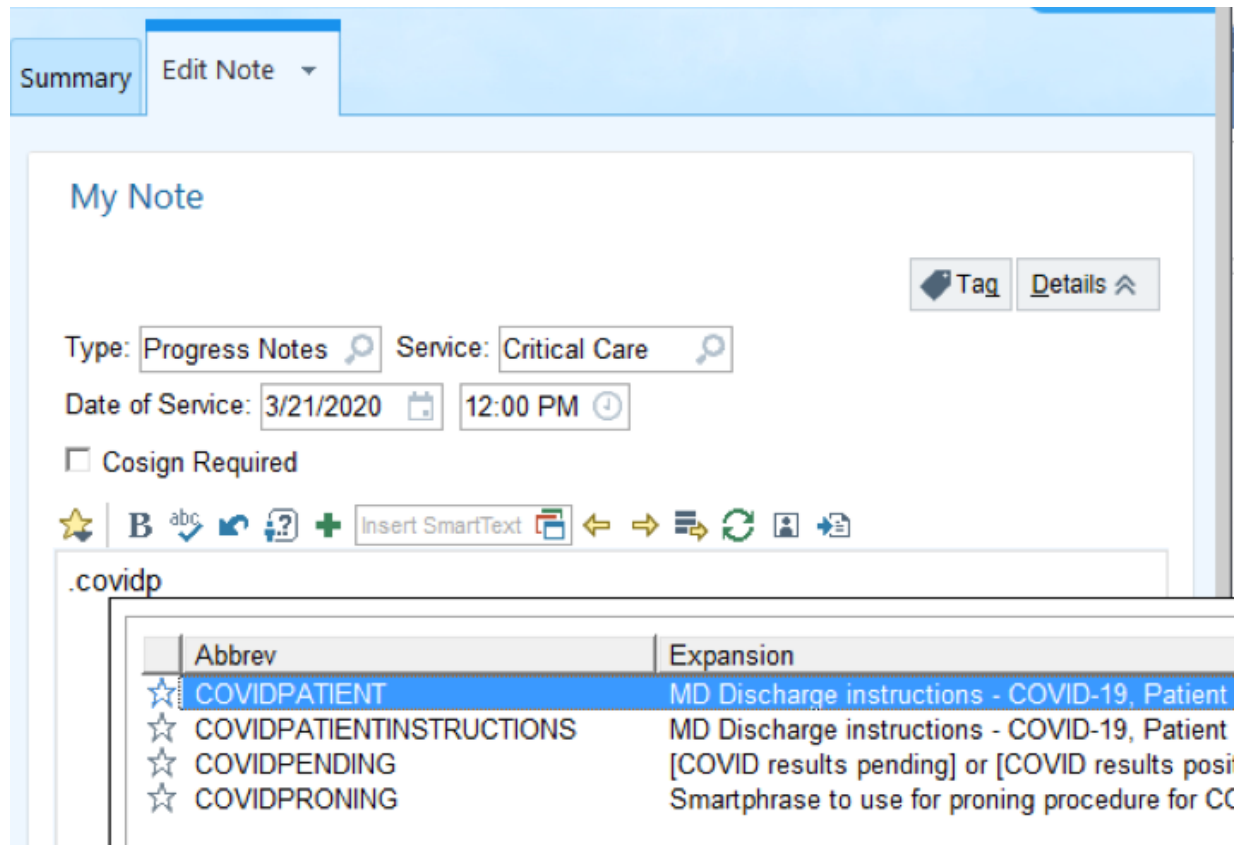
Log into EPIC under Critical Care SPLTY (NOT ANESTHESIA SPLTY)

#### Step 2:

Open a new Note, designate this note as a "Progress Note"

Use smartphrase: .COVIDPRONING

It should look like this:



The screenshot shows the 'My Note' interface in EPIC. The 'Type' is set to 'Progress Notes' and the 'Service' is 'Critical Care'. The 'Date of Service' is '3/21/2020' at '12:00 PM'. A 'Cosign Required' checkbox is present. The text entry field contains '.covidp', which has triggered a smartphrase search. The search results are displayed in a table below the text field.

Abbrev	Expansion
☆ COVIDPATIENT	MD Discharge instructions - COVID-19, Patient
☆ COVIDPATIENTINSTRUCTIONS	MD Discharge instructions - COVID-19, Patient
☆ COVIDPENDING	[COVID results pending] or [COVID results posi
☆ COVIDPRONING	Smartphrase to use for proning procedure for CC



## My Note

Tag Details

Type: Progress Notes Service: Critical Care

Date of Service: 3/21/2020 12:00 PM

Cosign Required

★ B abc ↻ ? + Insert SmartText ↵ ↶ ↷ ↸ ↻ 📄



### Prone Positioning Event for ARDS Management.

#### Step 3:

The smartphrase will generate a note you will have to press F2 to work through all the required fields. You'll need to write a brief summary line for the patient. It can be very brief: "70 M with severe ARDS due to COVID-19 infection. The rest of the note should look like this:

Prone Team identified and sequence of event discussed and reviewed outside of room  
PPE donned (contact, airborne and droplet precautions)  
FIO2 turned to 100% approximately 10 mins before proning  
EKG leads placed anteriorly  
Circuit connections taped to minimize disconnection.  
Hemodynamics managed with drips and IV pushes as needed  
Oropharynx suctioned  
Patient turned supine with prone team  
Pressure point padded and eyes checked  
IV tubing checked, no kinks or disconnects  
Infusions resumed and ventilator settings checked.

#### Physical Exam

**General Appearance:** {NO ACUTE DISTRESS:26277::"No acute distress"}

**HEENT:** {ENT:26278::"Not examined"}

**Neck:** {NECK:26279::"Not examined"}

**Lungs:** {EXAM;ICU;PULMONARY:30413406::"Normal symmetry and expansion"}

**Cardiac:** {EXAM;ICU;CARDIAC:30413405::"Regular rate and rhythm"}

**Abdomen:** {ABDOMEN:26280::"Normal bowel sounds"}

#### Step 4:

Work through all the details of the physical exam. You do not need all the systems but you should focus on the most important:

#### Example:

Gen: Intubated and Sedated

Lungs: Bilateral breath sounds, intubated.

Cardiac: RRR

Abdomen: Soft, nontender, nondistended

Skin: Warm, intact, etc

**Step 5:**

Select the Critical Care Services Performed. For the most part you will select almost all of them.

Select “Critically Ill”

Select time spent doing this from start to finish. Usually 45 min – 60 mins (could be longer)

See below:

**Critical Care Services Performed**

Telemetry review

Hemodynamic measurement interpretation

ECG interpretation

Ventilatory management

Blood gas interpretation

Radiology image review

Laboratory data interpretation

Discussion of patient's care with other medical staff

**Current Status of the Patient**

Critically ill: I personally spent 40 minutes performing critical care services.

Critical Care Time: 99291 (1st hour)

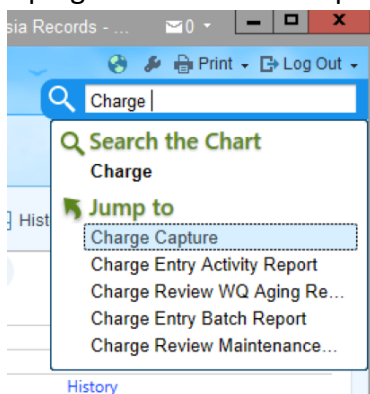
Javier Lorenzo, MD

3/27/2020, 4:37 PM

**Step 6:**

Go to Charge Capture Tab

NOTE: if you can't find a Charge Capture Tab you can always go to the Chart Search bar in the top right corner and “Jump To” Charge Capture, see below:



**Step 7:**

Select “Charge Capture” in Left Column

Select “Inpatient”

Select “Critical Care Time:

Select the designated time you took (usually “30-74 mins”, if longer you can bill for an additional 30 mins, you’d have to select them both if longer than 75 mins)

**Charge Capture**

Service Date: 3/21/2020 | Department: M4 | Place of Service: STANFORD HOSPITAL

Service Provider: Lorenzo, Javier, MD | Billing Provider: Lorenzo, Javier, MD | Referring Provider: Self-Referred

Diagnoses: SARS-associated coronavirus infection [B97.21 (ICD-10-CM)]

Search for new charge

No Billable Service Provided

Inpatient

- Consult
- Admission
- Subsequent Care
- Critical Care
  - 99291 Critical Care 1st 30-74 min
  - 99292 Critical Care Each Addtl 30 min
- Discharge

**Step 8:**

Select the Critical Care Charge by clicking on it

It will open a window (see below)

Here you can link to a diagnosis.

Use SARS-associated coronavirus infection

If no diagnosis listed you can always search for it under “other diagnosis”

Click ACCEPT

**99291 Critical Care 1st 30-74 min**

Service date: 3/21/2020 | Department: M4 [110100014]

Place of service: STANFORD HOSPITAL 500P [11] | Service provider: Lorenzo, Javier, MD [S0037503]

Billing provider: Lorenzo, Javier, MD [S0037503] | Referring provider: Self-Referred [U002787]

Quantity: 1

Diagnosis:

Diagnosis	Qualifier
<input checked="" type="checkbox"/> SARS-associated coronavirus infection [B97.21 (ICD-10-CM)]	
<input type="checkbox"/> Acute kidney injury (nontraumatic) (CMS-HCC) [N17.9 (ICD-10-CM)]	
<input type="checkbox"/> Acute respiratory failure with hypoxia and hypercapnia (CMS-HCC) [J96.01]	
<input type="checkbox"/> Anticipatory grieving [F43.20 (ICD-10-CM)]	
<input type="checkbox"/> ARDS (adult respiratory distress syndrome) (CMS-HCC) [J80 (ICD-10-CM)]	

Other diagnosis:

Modifiers: | Bill area:

Comment:

**CHECKLISTS ARE DRAFTS ONLY  
NOT STANFORD APPROVED DOCUMENTS**

# COVID+ / PUI INTUBATION Checklist



## PRE-PROCEDURE

### 1 | People

- Notify RN
- Notify RT
- Notify PHARM
- Identify Runner
- Discuss with ICU team/Chart review

### 2 | Equipment

- PPE (From bedside RN, ANS or Crisis RN)  
*CAPRs (shield/shroud) or N95 (with full face shield)*
- Anesthesia technicians
  - 300P: 736-1850 ● Video Laryngoscope w/ clear equipment cover
  - 500P: 724-0219 ● COVID Airway Kit
- ICU Equipment Room  
*ICU Intubation Box*
- Contamination bin or bag  
*Place needed equipment to bring in room*
- Large biohazard receptacle outside room  
*For DOFFing head PPE and final gloves*

### 3 | Drugs

- Induction and muscle relaxant
- Rescue medications
- Sedation drips

### 4 | Verify with RN

- Suction canister with Yankaur turned on
- IV Bag and tubing free flowing
- Post-intubation  
*Drips made, programmed, connected, ready*
- IV Manifold  
*Ports for medication push and sedation drips*

### 5 | Verify with RT

- Viral Filter on Bag and Ventilator
- Bag ventilation  
*Ambu or Jackson-Rees at Low Vt*
- Oxygen  
*Nasal cannula, non-Rebreather*
- Ventilator  
*Appropriate LPV parameters set*
- PETCO2  
*Connected, calibrated, monitor waveform present*

### 6 | Verify with RT and RN

- Review checklist and plan prior to procedure start



**Stop:** Go to Don checklist

## PROCEDURE/TIME OUT

- Preoxygenate 5 minutes with NC and NRB
- RSI and Video Laryngoscopy
- AVOID aerosolization, bag-vent or coughing
- Think early LMA, not bag-vent
- Inflate ETT cuff before ventilation

## POST-PROCEDURE

- Remove outer gloves
- Clean VL cord & visualizer with germicidal wipes; Place in bin; Remove clear equipment cover
-  **Stop:** Go to Doff checklist
- DOFF gown & gloves with BUDDY
- Hand Hygiene, then clean gloves
- Open door and Exit with CMAC
- DOFF head PPE and final gloves
- Wash hands, forearms, neck as needed for 2 minutes
- Call anesthesia technicians for pick up
  - 300P: 736-1850
  - 500P: 724-0219

# DONNING

## Checklist



### DON CAPR SHROUD

BEFORE ENTERING A PATIENT'S ROOM • USE A DON BUDDY

- |  |  |
|--|--|
| <b>1</b> Hand Hygiene<br><i>Gel or soap and water for 2 minutes</i>                        | <b>7</b> Nitrile gloves<br><i>Second pair to assist doffing later</i>  |
| <b>2</b> Assemble helmet and shroud<br><i>Sizes: Sm or Med/Lg secondary and filter cap</i> | <b>8</b> Helmet cord<br><i>Pass cord down back inside gown and plug into battery</i>                             |
| <b>3</b> Place head covering<br><i>Bonnet or hair covering cap</i>                         | <b>9</b> Helmet face shield<br><i>Chin in first then adjust inner shield to seal in face</i>                     |
| <b>4</b> Battery on waist<br><i>Use belt if necessary</i>                                  | <b>10</b> Helmet fit<br><i>Adjust knob at occiput clockwise to tighten</i>                                       |
| <b>5</b> Gown  | <b>11</b> Shroud<br><i>Pull down over shoulders<br/>High tie under chin<br/>Low tie through loops at sternum</i> |
| <b>6</b> Surgical gloves<br><i>Longer to cover wrists</i>                                  |  |

### DON CAPR SHIELD

BEFORE ENTERING A PATIENT'S ROOM • USE A DON BUDDY

- |   |  |
|---|--|
| <b>1</b> Hand Hygiene<br><i>Gel or soap and water for 2 minutes</i> | <b>6</b> Nitrile gloves<br><i>Second pair to assist doffing later</i>                        |
| <b>2</b> Assemble helmet and shield<br><i>Snaps to helmet</i>       | <b>7</b> Helmet cord<br><i>Pass cord down back inside gown and plug into battery</i>         |
| <b>3</b> Battery on waist<br><i>Use belt if necessary</i>           | <b>8</b> Helmet face shield<br><i>Chin in first then adjust inner shield to seal in face</i> |
| <b>4</b> Gown   | <b>9</b> Helmet fit<br><i>Adjust knob at occiput clockwise to tighten</i>                    |
| <b>5</b> Surgical gloves<br><i>Longer to cover wrists</i>           |  |

### DON N95

BEFORE ENTERING A PATIENT'S ROOM • USE A DON BUDDY

- |   |   |
|---|---|
| <b>1</b> Hand Hygiene<br><i>Gel or soap and water for 2 minutes</i>     | <b>6</b> Gown   |
| <b>2</b> Place head covering<br><i>Hair Bonnet and/or Surgical Hood</i> | <b>7</b> Surgical gloves (under)<br><i>Longer to cover wrists</i>     |
| <b>3</b> N95 mask<br><i>Verify size and seal check</i>                  | <b>8</b> Nitrile gloves<br><i>Second pair to assist doffing later</i> |
| <b>4</b> Face/Neck covering<br><i>Full face shield</i>                  |   |



# DOFFING

## Checklist



### BEFORE LEAVING A PT'S ROOM

#### USE A BUDDY/MONITOR

- 1** Remove outer gloves
  - Contaminated by intubation or procedures
  - Grasp outside of glove at wrist
  - Peel glove away from body inside out
  - Throw 1st outer glove away
  - Place clean finger(s) inside second outer glove at wrist
  - Peel second outer glove off inside out
  - Throw away 2nd outer glove
- 2** Hand hygiene  
*Gel sanitizer on surgical under glove*
- 3** Re-glove  
*New nitrile glove over surgical under glove*
- 4** Equipment  
*Clean any equipment with OXIVIR wipes and place near door*
- 5** CAPR Shroud
  - Undo upper tie and pull over head toward face bringing it into view
  - Tie upper tie strands together to control and keep in view
  - Undo lower tie and pull forward in front of body and tie together to control two strands
  - Starting from occiput, pull hood forward toward face peeling the hood inside out
  - Hood should be inverted, surrounding head like a lion's mane
  - Inside toward face is contaminated
  - Outside toward back is "clean"; do not touch
- 6** Outer gloves  
*Remove as above (Step 1)*
- 7** Hand hygiene  
*Gel sanitizer on under glove*
- 8** Gown
  - Remove gown by pulling forward, away from body, breaking ties and neck connection
  - Surgical under glove will be removed with gown
  - Discard gown
- 9** Hand hygiene and re-glove  
*Gel sanitizer*
- 10** Leave patient's room to antechamber room or outside

### IN ANTECHAMBER ROOM/OUTSIDE

- 11** Open door  
*Use sanitized but gloved hand*
- 12** Remove head PPE  
*Doff head PPE into red biohazard bin/trash outside room*
- 13** Remove gloves
- 14** Hand hygiene  
*Gel sanitizer on bare hands*
- 15** Re-glove with clean nitrile gloves  
*Clean CAPR helmet and cord with OXIVIR wipes and place in return bag*
- 16** Hand hygiene
  - Remove gloves
  - Hand wash for 2+ mins with soap & water up to elbows
  - Consider scrubs change

## COVID AIRWAY TEAM SCHEDULE AND USEFUL CONTACTS

[https://docs.google.com/spreadsheets/d/1V8Er\\_ZhmO\\_0mICad7AGLOCuLtGdDiExv6Rzna5Mvcws/edit#gid=1079804413](https://docs.google.com/spreadsheets/d/1V8Er_ZhmO_0mICad7AGLOCuLtGdDiExv6Rzna5Mvcws/edit#gid=1079804413)

### COVID AIRWAY TEAM iPHONE

- Role: SHC Attending
- Unit: SHC Anesthesiology
- Voalte “name”: SHC COVID Airway
  - Username: covidair
  - Password: 11111
  - Team: COVID19 Airway Access
- Phone Number: 650-387-5008
  - Passcode 202020
- Pager Number 13064
- iPhone owner: Patient Care Services
  - Contact person: Amanda Giordano

### Alphabet Acronym Soup (AAS)

<b>CCRN</b>	<b>Critical Care Resource Nurse</b>
<b>ANS</b>	<b>Administrative Nurse Supervisor</b>
<b>AAU</b>	<b>Adaptive Acuity Unit</b>
<b>ACRT</b>	<b>Acute Care Response Team</b>
<b>PCS</b>	<b>Patient Care Services</b>
<b>MERC</b>	<b>Medical Emergency Response Committee</b>
<b>CNO</b>	<b>Chief Nursing Officer</b>
<b>OPL</b>	<b>One Point Lesson</b>
<b>CORT</b>	<b>CLinical Operations Resource Team (Top Stanford Clinical Leadership)</b>



## ONLINE RESOURCES

COVID19 ICU Task Force: <https://sites.google.com/view/stanford-covid/home>

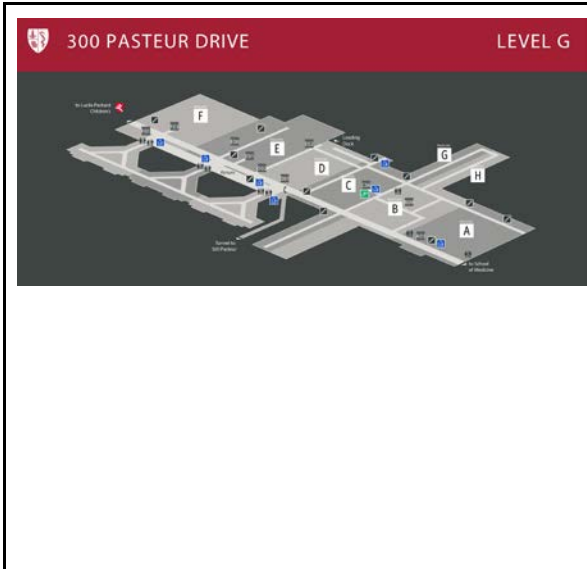
Stanford Intranet: <https://stanfordhealthcare.org/campaigns/portal.html>

Departmental Resources: <http://ether.stanford.edu>

### **CDC DON/DOFF Video:**

[https://cdnapisec.kaltura.com/html5/html5lib/v2.75/mwEmbedFrame.php/p/2550282/uiconf\\_id/44123452/entry\\_id/0\\_kahwkhtn?wid=2550282&iframeembed=true&playerId=kaltura\\_player&entry\\_id=0\\_kahwkhtn&flashvars](https://cdnapisec.kaltura.com/html5/html5lib/v2.75/mwEmbedFrame.php/p/2550282/uiconf_id/44123452/entry_id/0_kahwkhtn?wid=2550282&iframeembed=true&playerId=kaltura_player&entry_id=0_kahwkhtn&flashvars)

# HOSPITAL MAPS & UNITS



B2	AAU	Med Onc/Heme/GIP	37101	17
B3	AAU	Medicine	87442	17
C2	AAU	Medicine	35236	17
C3	AAU	Medicine	37266	18
EGR	AAU	BMT, Hematology	57120	18
E1	AAU	BMT	57121	18
E3	AAU	Gyn Onc, GI Onc	57123	18
FGR	AAU	Hematology, Med Onc	37231	18
F3	AAU	ENT, Plastics, Breast Onc, Pain	35013	17
G2P/H2	PSY	Psychiatry	57122	15
E2	ICU	Medicine, Oncology	57122	15
J2	ICU	Cardiac Surgery, Thoracic, Heart/Lung Tx	73325	24
J4	ICU	Cardiology, Arrhythmia, Pulmonary HTN	73301	20
K4	ICU	General Surgery, Trauma, Surgical Tx	73313	20
M4	ICU	Neurosciences, Medicine, Hepatology	73294	20

J5	AAU	Cardiac Surgery, Heart Transplant	73219	22
J6	AAU	Thoracic Surgery, Heart/Lung Tx, Vascular, Cardiac Surgery	73253	22
J7	AAU	Cardiology, Pulmonary HTN	73281	22
K5	AAU	Hepatobiliary, MIS	73240	22
K6	AAU	Colorectal, Urology, Surgery Oncology	73268	22
K7	AAU	Trauma, General Surgery, Ortho Trauma	73290	22
L4	AAU	Neurosurgery	73306	20
L5	AAU	Neurology, Stroke	73228	22
L6	AAU	Medicine, Orthopedics Overflow	73262	22
L7	AAU	Orthopedics	73286	22
M5	AAU	Hepatology, Nephrology, Liver/Abd Tx	73214	22
M6	AAU	Advanced Lung Disease, Medicine	73246	22
M7	AAU	Medicine	73275	22