

Faculty / Moderator: NO CONFLICTS

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rat...ICU/Flight/ED/ Ebola/ Humanitarian
Missions.....)**

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”DISCLAIMER”
Static Picture
of a
Dynamic Situation.
Degaje
Adapt and Overcome





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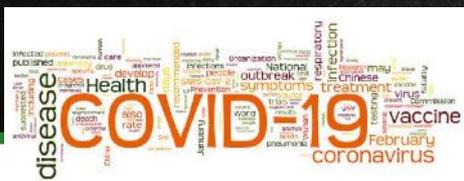
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WADEM Talking Points:

COVID-19 Requires a Data-Driven, Proportionate Response:

The world needs to hit the pause button and take the steps required to slow the spread, including personal hygiene practices and self-quarantine of the ill. As this pandemic progresses, we must all analyze the data and recommendations coming from WHO, and implement a response that is appropriate and mitigates community spread. This outbreak requires an emergency management approach across many disciplines in order to create healthcare strategies and economic policies that are scalable and appropriate, bringing everyone to as speedy a recovery as possible.





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WADEM Talking Points:

Protect Vulnerable Populations and not Overburden Health Systems:

COVID-19 is an emerging disease with a yet to be determined mortality rate.

Estimates of 2-4% are based on known or test positive cases. What we don't know is how many untested cases of mild and asymptomatic patients there really are. If that number is high, the mortality is much lower.

What we do know for sure is that mortality is higher in the elderly (almost 15% if you are over 80), and those with chronic illnesses such as heart disease or cancer. For those not in that group who become infected with COVID-19, most (80%) will only suffer from symptoms similar to the common cold, while some (15%) may require hospital-level care, to include supplemental oxygen, and a small percentage (5%) may require ICU-level care.





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WADEM Talking Points:

Protect Vulnerable Populations and not Overburden Health Systems:

....
If you are not in a high-risk group and have only mild symptoms, **STAY HOME** and self-quarantine so you don't spread it to others who may transmit it to the more vulnerable.

WADEM is also advocating for public health departments to work with governments to:

Establish COVID-19 Hotlines so that the public can be reassured, given advice for self-care and when to seek medical help;

Set up COVID-19 Assessments Centers (if the numbers are high) to help hospitals protect the vulnerable in their Emergency Departments and other high-risk areas.





Call for Calm
Unknown
Attack Rate
Flatten the
Curve
Infrastructure
Strain
Proper
Allocation of
Resources.

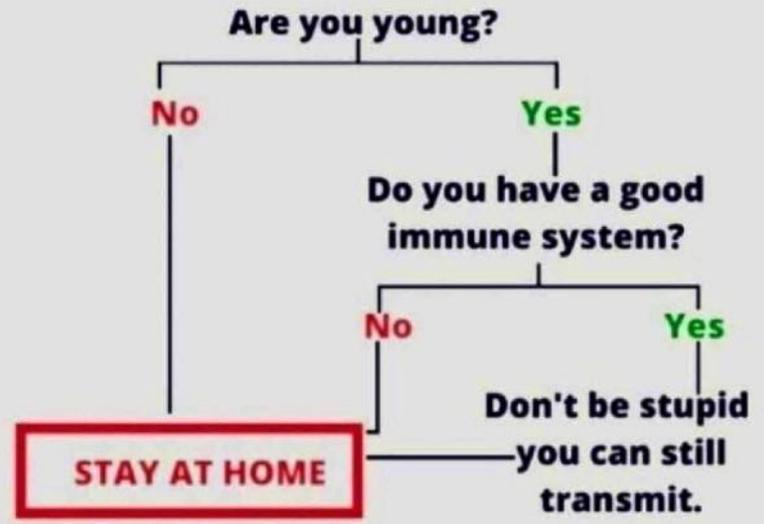
CORONAVIRUS EXPLAINED EASILY:

- Karen got infected yesterday, but she won't know until 14 days later.
- Karen thinks she's healthy and is infecting 10 persons per day.
- These 10 persons think they are ok, they travel, go out and infect 100 persons.
- These 100 persons think they are healthy and keep infecting 1000 persons.
- No one knows who is ok or who can infect you.

Do you understand why is important to stay at home?

Be responsible. Stay in quarantine.

COVID-19 Should you go out?





DFTB + COVID-19

16.03.2020
PRACTICAL TRIAGE IN PRACTICE...
 from #DFTBCOVIDUK online paediatric healthcare discussion facilitated by @DFTBubbles

Paeds/Adult Hospital A

Streaming at front door by senior nurse with mask
 If respiratory - redirected to 'acute respiratory area'
 ↳ triaged by PPE staff
 Currently excluding pure fever → go to 'normal' triage
 ↳ located in re-appropriated



Paeds Hospital B [Tertiary]

Front door greeter
 Upper or lower resp
 ↳ Move to prev. main reception.
 Staff in back mask
 Triage room - PPE mask visor glove apron
 If triage Cat 1/2 → Paeds staffed area 'Clinical Decision Unit'
 O₂ req or ↑ WOB needing Rx

If not meeting ^{criteria} - Ambulance Entry
 Cat 4 + 5 - Streamed to outpatient area
 Cat 1-3 - Acute area



Paeds Hospital C [small unit]

one half non fever/resp side
 one half fever or cough
 only one cubicle with a door available
 ↳ full assessment with staff in full PPE



Communicating & Planning ahead

Mapping staffing Twice daily meetings
 Outpatients closed 16/3 joined by sur staff as insufficient reg cover (inc. nights)
 Looking at ST4 + rota



Stay up to date with [dontforgetthebubbles.com](https://www.dontforgetthebubbles.com)

#dontforgetthebubbles @gracie_lee



COVID-19 Adult Clinical Evaluation Guide

Consider COVID-19 in a patient with any of the following:

- Fever
- Cough
- Shortness of breath
- High risk travel/exposure

Clinical Signs/Symptoms

- Fever seen in >75% of hospitalized cases at some point *but almost 50% are afebrile on admission*
- Cough 60-80% (dry or productive)
- SOB 20-40%
- URI symptoms (HA, sore throat, rhinorrhea) in <15%
- GI symptoms (diarrhea, N/V) in <10%

Labs

- Check CBC with diff, BMP, LFTs, procalcitonin
- Clues to COVID-19: leukopenia, lymphopenia

Labs and biomarkers

- Median WBC 4.7, with leukopenia in 30-45% (leukocytosis in <5%)
- Lymphopenia in 33-85%
- Median platelets normal, but slight decrease in 35%
- AST/ALT increase in 4-22%
- CRP increased in 61-86%, LDH increased in 27-75%
- PCT: ≥0.5 in 5.5% overall (14% if severe, 24% if ICU)

Microbiology

- Check rapid flu/RSV, RVP
- Consider blood cultures, sputum culture
- Clues to COVID-19: absence of other pathogens

Microbiology

- Coinfection rate with viruses and bacteria is unknown but is low in published studies to date
- The presence of an alternative viral etiology (eg influenza) makes COVID-10 less likely (exception: rhinovirus since this is a common co-pathogen)
- Bacterial coinfection might increase with severity of illness so *bacterial infection in a severely ill patient does not exclude COVID-19*

Imaging

- CXR in all patients
- If CXR (-), consider CT for better sensitivity for PNA and to exclude alternative dx
- Clues to COVID-19: bilateral, GGO, peripheral distribution

Imaging

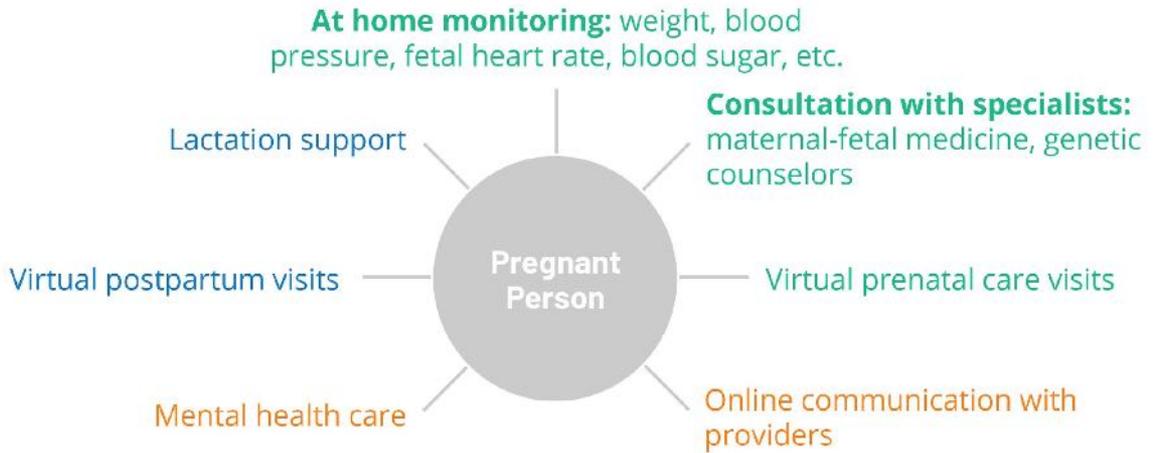
- CXR abnormal in 60% (77% if severe), chest CT abnormal in 86% (95% if severe)
- Unilateral findings on CXR or CT in 14-25% (especially if mild or early in disease)
- Most common findings: GGO and patchy consolidations (>50%), peripheral distribution >50%
- Nodules, LAN, cystic changes, effusion in <10%



Call for Calm: Strategies For Business as Usual / Allocation of Resources Under Social Distancing

During The COVID-19 Pandemic, Many Pregnancy-Related Services Could Be Delivered Via Telemedicine

- Services delivered during pregnancy (prenatal care)
- Services delivered after pregnancy (postpartum care)
- Services delivered during and after pregnancy (prenatal/postpartum)





- **The Role of POCUS:**
- **Containment (e.g.: vs CT Scan, etc)**
- **Cost**
- **Multidisciplinary not clinician specific**
- **Index of Suspicion, again, Containment**





POCUS

Many MANY Devices (e.g.: CLARIUS)

Disclaimer

Butterfly is an EXAMPLE

Example I chose because of

1. Cost (~ \$3,000 TOTAL, including mobile device for display)

2. Presets/ Low Learning curve

3. Dedicated COVID Specific Support

4. Small Size = Easy Infection Control ... Can easily shield both probe and mobile device for display.





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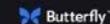
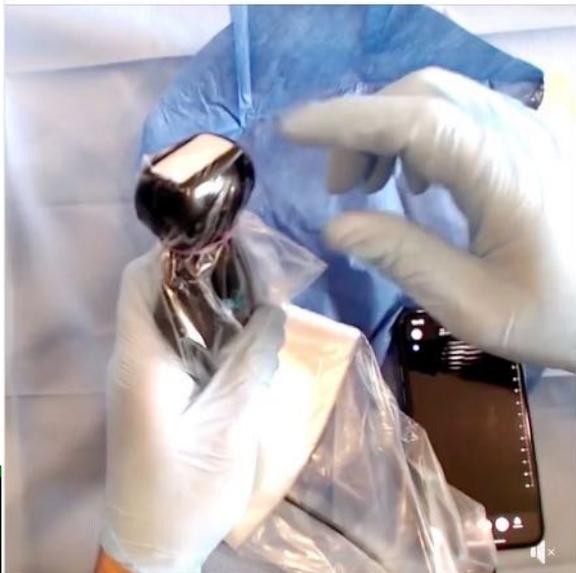
Butterfly Network, Inc

15 hrs · 🌐

In light of rising concerns about infection control, know that a standard probe sheath can be used to cover your #ButterflyIQ and phone.

Here, our Director of Education, Dr. Mike Stone demonstrates how to carefully fit the probe, cord, and phone into one sheath.

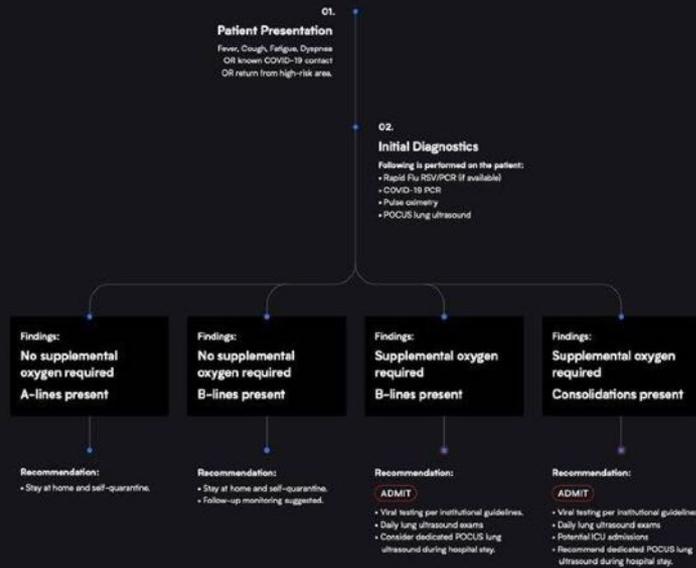
Learn more: <https://bit.ly/2vmIhN5>



COVID-19 Lung Ultrasound Triage

Dr. Mike Stone, MD

Note: The proposed protocol below is based on expert suggestion but has yet to be validated by prospective trials.





”Early literature suggests that patients with confirmed COVID-19 pneumonia demonstrate typical lung imaging features with pulmonary ground-glass or ground-glass/consolidation lesions that are peripherally-located, bilateral, and favor the lower lungs. These patients demonstrated:

1. Focal B-lines and fused B-lines
2. Discontinuous, rough appearance to the pleural line, with subpleural consolidation
3. Foci of disease located predominantly in the posterior lung fields, particularly in the lower lung fields”

NB: NOT DEVICE SPECIFIC. ALL POCUS.





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Fighting COVID-19 Together

Thursday, March 19 at 2pm PST / 5pm EST



Dr. John Martin
Chief Medical Officer,
Butterfly Network Inc.



Dr. Mike Stone
Director of Education,
Butterfly Network Inc.



Dr. Yale Tung Chen
COVID-19 Patient
Emergency Medicine Hospital
Universitario La Paz



Rick Mendez
Head of Clinical Development,
Butterfly Network Inc.

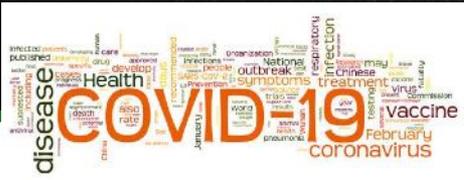
<https://www.butterflynetwork.com/covid-19>





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Transport





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Treatment





Health Care Provider Well-Being During Covid-19

Health care providers and other hospital and clinic staff are on the frontlines of the pandemic. Many of us have competing demand scaring for our patients and our families. Here are concrete strategies to help manage stress during this challenging time.

Psycho-Social Dimensions:

Self Care: **You Can't Take Care of Them if You Don't Take Care of YOU!** **WHO, CDC, etc.** **UColorado:** **Dept. of Psychiatry.**

Feeling worried or anxious?

Increased anxiety is common as we navigate Covid-19 and its broad consequences. Patient care and uncertainty about health outcomes, finances, childcare, travel and scheduled events are highly stressful. Action is one of the best treatments for anxiety. Share your concerns and problem solve with colleagues, family and friends to plan coping steps.

Pace Yourself

Our work is a marathon not a race. Monitor yourself for excessive fatigue irritability, poor focus or marked anxiety. If we run on empty, we can't care for our patients, families or communities.

Breathe

Try mindful breathing several times a day. Take a moment for low and slow breaths before getting out of the car, when you enter your work area, prior to entering a patient room or a procedure. Breathing is calming and helps concentration.

Maintain Good Health Habits

As stress and demands increase, our health habits often take a hit. Bring your meals to work to maximize healthy eating, limit alcohol and THC use, prioritize exercise and get some sunlight!

Keep Moving

Aerobic exercise is vital for stress reduction. Consider walking, biking, running and hiking, throwing a frisbee or ball as well as exercise and yoga videos if gyms and other exercise facilities close. For home exercise and Yoga videos see: fitnessblender.com and yogawithadriene.com. A short aerobic walk or workout is better than nothing!

Stay Connected

Reach out to family, friends, colleagues and your favorite community groups for social contact. Call, Facetime, Zoom, Skype, or try Google Hangouts to reduce your isolation. Meaningful and fun connection, emotional support and healthy problem solving are vital to your health and well-being. Consider joining another family or friend for a meal by social media to reduce isolation for everyone.

Take Breaks at Home and Work

Work with your team to take mini breaks. Even a 10-minute walk during your shift is calming and improves vital energy and focus. Plan down time at home. Exercise, distraction with a good book, movie, podcast, games with your family, and mindfulness techniques help us refuel physically and emotionally.

Maintain Structure at Home

If you or your children are working from home, establish a consistent workspace to help with focus and productivity. Plan breaks as well.

Promote Team-Work

If you have children or relatives who need care, let your team, friends and neighbors know asap. They may be in the same situation and relieved to develop a shared plan to help with family responsibilities.

Flexibility is Key

Increased demand for care, social distancing and other unique stressors will test our flexibility and adaptability. We will all have to practice outside of the box – especially when things go wrong and are chaotic. It's ok – ask for support, evaluate, modify and move forward.



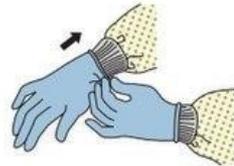
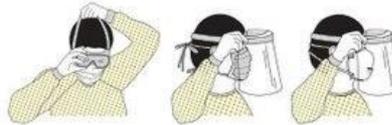
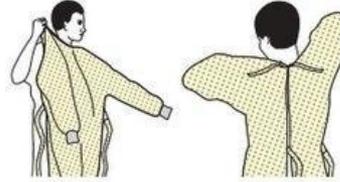
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PPE: Donning / Doffing / Disinfecting.

WHO
CDC

COVID
CHOLERA
EBOLA





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covid19.sccm.org/nonicu.htm

Bookmarks AV8 BrainPickings CCPI Ebola FamilyFriends Haiti Sean Humanitarian Life Hacks Martial Arts Association of Haiti...

Society of
Critical Care Medicine
The Intensive Care Professionals

SCCM HOME MYSCCM LEARN ICU PATIENTS & FAMILIES

COVID-19 Resources

Home / Critical Care for the Non-ICU Clinician

Critical Care for the Non-ICU Clinician

As the COVID-19 pandemic spreads, the number of critically ill patients is expected to surge in hospitals across the United States. This may result in non-ICU clinicians being needed to care for critically ill patients. SCCM's Critical Care for the Non-ICU Clinician provides online education to healthcare professionals who may benefit from critical care training. Be prepared with this free resource.

SCCM does not offer CE/CME or a certificate for completing these resources. Be sure to check back often for new resources that will be added as they are available.

If you are having trouble playing modules on a mobile device, download the Articulate Mobile App available in [iTunes](#) or [Google Play](#). Or, use a desktop web browser.

Clinical Resources

[View Resource](#)

Recognition and Assessment of the Seriously Ill Patient

Evaluate early signs and symptoms of critical illness and perform initial assessment and early treatment of critically ill patients.

FORCE
MULTIPLIERS
Education is
the most
powerful
weapon...
Eg: SCCM
and FCCS,
FDM





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The role of early noninvasive positive pressure ventilation (NIPPV):
CONSERVE RESOURCES,
REDUCE MORBIDITY/MORTALITY
Prevent VAP/VILI
ASSOCIATED Morbidities Often Kill COVID
Pats
**(NB: With Proper Precautions
Aerosolization constitutes minimal risk.
(Filters, PPE, Isolation)**





vapootherm.com/blog/covid-19-patients-on-vapootherm-therapy/

lookmarks AVB BrainPickings CCPI Ebola FamilyFriends Haiti Sean Humanitarian Life Hacks Marti



COVID-19 Hi-VNI® Technology Patient Care Areas Products Re:

NIV:

COVID-19 Patients on

With COVID-19 spreading across the globe, Vapootherm therapy offers them and their patients the informed decision-making tool they need.

A Mask-Free, Comfortable

Vapootherm therapy is an alternative to NiPPV (e.g. BiPAP®). It provides ventilatory support through a mask that converts the nasal, oral, and pharyngeal airway into a single, significantly decreased volume, non-pressure-based, mask that supports the full range of respiratory volumes for any age patient population.

Patient Compliance



COVID-19 Resource Center

World Health Organization states in their Clinical Management Guidelines that, "Recent publications suggest that newer HFNO and NIV systems with good interface fitting *do not* create widespread dispersion of exhaled air and therefore should be associated with low risk of airborne transmissions."

The Respiratory Care Committee of the Chinese Thoracic Society recommends placing a face mask on the patient on high velocity/high flow therapy.

Learn more about the use of Vapootherm high velocity therapy during the COVID-19 pandemic.

[Learn More](#)





SAFE AIRWAY SOCIETY

COVID-19 AIRWAY MANAGEMENT

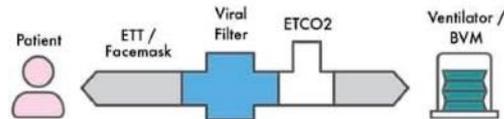
Team Members



COVID Intubation Tray

- | | | |
|---|---|--|
| <input type="checkbox"/> Macintosh VI blade | <input type="checkbox"/> Bougie / Stylet | <input type="checkbox"/> ETCO2 |
| <input type="checkbox"/> Hyperangulated VI blade (if available) | <input type="checkbox"/> 10 ml syringe | <input type="checkbox"/> NG tube (large bore) |
| <input type="checkbox"/> Macintosh direct laryngoscope | <input type="checkbox"/> Tube tie | <input type="checkbox"/> OPA + NPA |
| <input type="checkbox"/> SGA (2nd generation) | <input type="checkbox"/> Lubricant sachet | <input type="checkbox"/> Scalpel + bougie CICO kit |
| <input type="checkbox"/> ETT (appropriate size range) | <input type="checkbox"/> Viral filter | |

Circuit Setup





PRINCIPLES* OF AIRWAY MANAGEMENT IN CORONAVIRUS COVID-19

FOR SUSPECTED/REPORTABLE** OR CONFIRMED CASES OF COVID-19



BEFORE

STAFF PROTECTION



Hand Hygiene



Full Personal Protective Equipment***



Early Preparation of Drugs and Equipment



Meticulous Airway Assessment



Use Closed Suctioning System



Minimize Personal During Aerosol Generating Procedures****



Airborne Infection Isolation Room (if available)



Formulate plan Early



Connect Viral/Bacterial Filter to Circuits and Alarm Ventilator



Use Video Laryngoscopy (Disposable if available)

PREPARATION

DURING

TEAM DYNAMICS



Clear Delineation of Roles



Clear Communication of Airway Plan



Airway Management by Most Experienced Practitioner



Tight Fitting Mask with Two Hand Grip to Minimize Leak



Ensure Paralysis to Avoid Coughing



Closed-loop Communication Throughout



Crisis monitoring by All Team Members for Potential Contamination



Lowest Gas Flows Possible to Maintain Oxygenation



Rapid Sequence Induction and Avoid Bag-Mask Ventilation When Possible



Positive Pressure Ventilation Only After Cuff Inflated

TECHNICAL ASPECTS

AFTER



Avoid Unnecessary Circuit Disconnection



If Disconnection Needed, Wear PPE and Standby Ventilator +/- Clamp Tube



Strict Adherence to Proper Degasming Steps



Hand Hygiene



Team Debriefing



*Principles of Airway Management of COVID-19 may apply to Operating Theatre, Intensive Care, Emergency Department and Ward Settings. Similar principles apply to intubation of COVID-19 patients.

**There are regional and institutional variations on definition of a suspected/reportable case. Please refer to your own institutional practice.

***Personal Protective Equipment according to your own institutional recommendation, may include: Portable Respirator, Cap, Eye Protection, Long-sleeved Waterproof Gown, Gloves

****Aerosol Generating Procedures: Tracheal Intubation, Non Invasive Ventilation, Tracheoscopy, Cardiopulmonary Resuscitation, Manual Ventilation before Intubation, Bronchoscopy, Open Suctioning of Respiratory Tract

References:
1. World Health Organization. Infection prevention and control during health care when novel coronavirus (nCoV) infection is suspected interim guidance. January 2020.
2. Center for Disease Control and Prevention. Interim Infection Prevention and Control Recommendations for Patients with Confirmed 2019 Novel Coronavirus (2019-nCoV) or Persons Under Investigation for 2019-nCoV in Healthcare Settings. February 2020.

Disclaimer: This infographic is used for informational purposes only, and is not intended to replace institutional policy. Please refer to your own institutional guidelines for appropriate recommendations. © Department of Anaesthesia and Intensive Care, Prince of Wales, Hong Kong. All rights reserved.

OUTSIDE ROOM CHECKLIST FOR SUSPECTED COVID-19 PATIENT

THIS CHECKLIST SHOULD BE COMPLETED OUTSIDE THE ISOLATION ROOM IN THE CLEAN AREA AND USED WITH THE 2ND PART (INTUBATION CHECKLIST)

CLEAN SPACE CHECK

PART A (PRE-PROCEDURE)

- INTUBATION SUITABLE?
- CHECK TEAM NAMES AND ASSIGN ROLES
- POCKETS EMPTY CHECK
- COVID AIRWAY TROLLEY FOR KIT
- TICK OFF KIT AGAINST KIT LIST
- CHECK VL (MCGRATH/GLIDESCOPE) & DL
- ENDOTRACHEAL TUBE CLAMP
- INTUBATION DRUGS (SEE BELOW)
- ANY ALLERGIES?
- FASTED/NG FEED STOP (IF ITU)
- REVIEW INTUBATION PLAN/DIFFICULT AIRWAY?
- DISCUSS FRONT OF NECK AIRWAY ACCESS
- DISCUSS CPR/DNACPR
- IV ACCESS PLAN
- ROUTE TO CRITICAL CARE

- **MUST USE TRUST PPE** 
- **ASSISANT/2ND INTUBATOR**
- **CLARIFY TEAM ROLES**

**INDUCTION AGENT ? KETAMINE
ROCURONIUM 100 MG
METARAMINOL/EPHEDRINE
OTHER EMERGENCY DRUGS +
OXYGEN**

DON PPE AND MAKE READY

PART B (PROCEDURE)

- IDENTIFY AREA INSIDE ROOM FOR COVID AIRWAY TROLLEY
- DON PPE (SEE PHE GUIDANCE)
- **STOP** - BUDDY TO CHECK PPE 
- READY?
- **USE INTUBATION GUIDELINE (2ND PART OF CHECKLIST)** 
- HAND THIS PIECE OF PAPER TO RUNNER
- TAKE COVID AIRWAY TROLLEY/KIT/DRUGS AND ENTER COVID AREA/ISOLATION ROOM

ROLES

(MINIMISE NUMBERS IN ROOM)

- PRIMARY INTUBATOR
- SECOND INTUBATOR/HELP
- ODP/CRITICAL CARE NURSE
- OUTSIDE RUNNER

THE RUNNER SHOULD CONFIRM TRANSFER ROUTE AND CONFIRM THIS WITH TEAM IN THE ROOM

2ND INTUBATOR/HELP SHOULD BE IN FULL PPE OUTSIDE THE ROOM

**DISCONNECTION DISTAL TO
FILTER = CLAMP TUBE**

WHEN CLEAN

PART C (POST-PROCEDURE)

DEBRIEF ESSENTIAL

ANY ISSUES WITH:

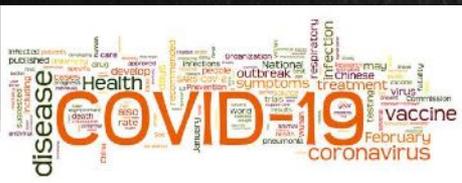
- PPE
- KIT
- INTUBATION
- TRANSFER
- VENTILATOR
- COMMUNICATION
- UNEXPECTED HAZARDS
- STRESS LEVELS
- STAFF WELL BEING
- ANY CONCERNS AT ALL?

DOCUMENTATION OF PROCEUDRE AND DEBRIEF IN CLINICAL NOTES

RESTOCK EQUIPMENT IN COVID AIRWAY TROLLEY

MODIFIED FROM A CHECKLIST BY CRITICALCARENORTHAMPTON.COM





Airway Ventilation



Sean Smith shared a post.

 New Member · March 21 at 2:33 PM



Critical-Care Professionals International, PLLC

March 21 at 2:31 PM

<http://accrac.com/episode-166-covid-airway-management-with.../>



ACCRAC.COM

Episode 166: COVID Airway Management with Aliaksei Pustavoitau



5

2 Shares



Mass Casualty Lesson Learned Las Vegas

A Single Ventilator for Multiple Simulated Patients to Meet Disaster Surge

Greg Neyman, MD, Charlene Babcock Irvin, MD

Abstract

Objectives: To determine if a ventilator available in an emergency department could quickly be modified to provide ventilation for four adults simultaneously.

Methods: Using lung simulators, readily available plastic tubing, and ventilators (840 Series Ventilator; Puritan-Bennett), human lung simulators were added in parallel until the ventilator was ventilating the equivalent of four adults. Data collected included peak pressure, positive end-expiratory pressure, total tidal volume, and total minute ventilation. Any obvious asymmetry in the delivery of gas to the lung simulators was also documented. The ventilator was run for almost 12 consecutive hours (5.5 hours of pressure control and more than six hours of volume control).

Results: Using readily available plastic tubing set up to minimize dead space volume, the four lung simulators were easily ventilated for 12 hours using one ventilator. In pressure control (set at 25 mm H₂O), the mean tidal volume was 1,884 mL (approximately 471 mL/lung simulator) with an average minute ventilation of 30.2 L/min (or 7.5 L/min/lung simulator). In volume control (set at 2 L), the mean peak pressure was 28 cm H₂O and the minute ventilation was 32.5 L/min total (8.1 L/min/lung simulator).

Conclusions: A single ventilator may be quickly modified to ventilate four simulated adults for a limited time. The volumes delivered in this simulation should be able to sustain four 70-kg individuals. While further study is necessary, this pilot study suggests significant potential for the expanded use of a single ventilator during cases of disaster surge involving multiple casualties with respiratory failure.

ACADEMIC EMERGENCY MEDICINE 2006; 13:1246-1249 © 2006 by the Society for Academic Emergency Medicine

Keywords: disaster, ventilator, respiratory failure, surge capacity

After the events of September 11, 2001, and the recent hurricanes in the Gulf Coast, there has been a focus on anticipating the need for medical care for large numbers of victims.¹ Addressing surge capacity requires a multitiered approach involving local

In the event of a large influx of patients in respiratory distress (e.g., a large outbreak of botulism), the number of ventilators available may not be enough to support all of the patients.

While government resources would eventually be





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Quick Hits:
2 Strains
”Reinfection”
Testing
Ibuprofen
Hydroxychloroquine
**[https://www.cdc.gov/coronavirus/
2019-ncov/hcp/therapeutic-option
s.html](https://www.cdc.gov/coronavirus/2019-ncov/hcp/therapeutic-options.html)**





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References / Resources





Disaster Preparedness and Response

[View Resource](#)

ICU Microcosm Within Disaster Medical Response

Understand the role of the ICU in disaster preparedness and review concepts of preparation, leadership, and communication in times of disaster.

[View Resource](#)

Augmenting Critical Care Capacity During a Disaster

Recognize the need to modify staffing and space when the number of patients in the ICU overwhelm capacity.

[View Resource](#)

Disaster Triage and Allocation of Scarce Resources

Describe triage goals and resource requirements and limitations. Discuss ethical triage during times of disaster.

[View Resource](#)

Sustained Mechanical Ventilation Outside Traditional Intensive Care Units

Understand resource and space requirements for mass respiratory care. Identify key characteristics of positive pressure ventilation and other respiratory equipment needed for mass critical care.

[View Resource](#)

Biohazard Disasters: Natural and Intentional Outbreaks

Identify different types of biological events and detect threats as early as possible. Implement effective infection control measures.

FDM:
Mass Casualty
MindSet
Many Courses
Out There.

This is just one
example and it's
free and validated.





Simulation:
The more
you bleed
in training,
the less
you bleed
on the
battlefield.



World Health
Organization



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Coronavirus disease (COVID-19) training: Simulation exercise

← Coronavirus disease 2019

← Training

Simulation exercise

Online training

To support countries' preparedness effort on the COVID-19 outbreak, WHO's Department of Health Security and Preparedness has developed a generic COVID-19 tabletop exercise package.

The exercise aims to examine and strengthen existing plans, procedures and capabilities to manage an imported case of 2019-nCov and targets the health authorities at the national level.

The simulation package consists of different elements including:

1. A participants' guide and a facilitators' guide to explain what is expected from the different people involved in the preparation and running of the exercise.
2. A PowerPoint presentation to support the facilitation of the exercise and its subsequent debriefing
3. [A set of reference documents and technical guidance on 2019-nCov](#)

The package highlights clearly where some minor adaptations are needed to make the simulation country-specific and more relevant to the participants.

If you need technical support to implement this exercise, please contact your WHO country office or regional office focal point.



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References / Resources

- <https://wadem.org/covid-19/>
- [**WHO and www.cdc.gov \(PPE/ transport /dedicated units.\)**](#)
- <https://www.butterflynetwork.com/covid-19> (POCUS)
- [**BMJ, NEJM, Lancet. Etc/**](#)
- <https://informationisbeautiful.net/visualizations/covid-19-coronavirus-infographic-datapack/>





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References Resources

futurelearn.com/courses/covid19-novel-coronavirus

Apps Bookmarks AVB BrainPickings CCPI Ebola FamilyFriends Halti Sean Humanitarian Life Hacks Martial Arts Association of Halti... Other Bookmarks

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COVID-19: Tackling the Novel Coronavirus

What is COVID-19 and how might the outbreak affect you? Find out more about coronavirus and explore its worldwide implications.

Go to course – started 22 Mar

Overview Topics Start dates Requirements Educators What's included Try it More courses



Duration 3 weeks

Weekly study 4 hours

Learn Free

Digital upgrade Free

Support



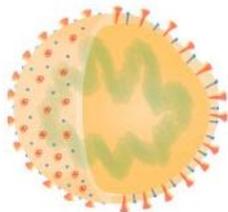
LITCOVID

Ex: Remdesivir



NIH > NLM

GENERAL INFO MECHANISM TRANSMISSION TREATMENT CASE REPORT EPIDEMIC FORECASTING



LitCovid is a curated literature hub for tracking up-to-date scientific information about the 2019 novel Coronavirus. It is the most comprehensive resource on the subject, providing a central access to [1558](#) (and growing) relevant articles in PubMed. The articles are updated daily and are further categorized by different research topics and geographic locations for improved access. You can read more at [Chen et al. Nature](#) (2020) and download our data [here](#).

WEEKLY PUBLICATIONS



COUNTRIES MENTIONED IN ABSTRACTS



LATEST PUBLICATIONS

CASE REPORT

SARS-CoV-2 turned positive in a discharged patient with COVID-19 arouses concern regarding the present standard for discharge.

Zhang, Jing-Feng et al. • Int J Infect Dis

MECHANISM

Clinical characteristics of novel coronavirus disease 2019 (COVID-19) in newborns, infants and children.

Hong, Hao et al. • Pediatr Neonatol

GENERAL INFO

Offline: COVID-19-a reckoning.

Horton, Richard et al. • Lancet

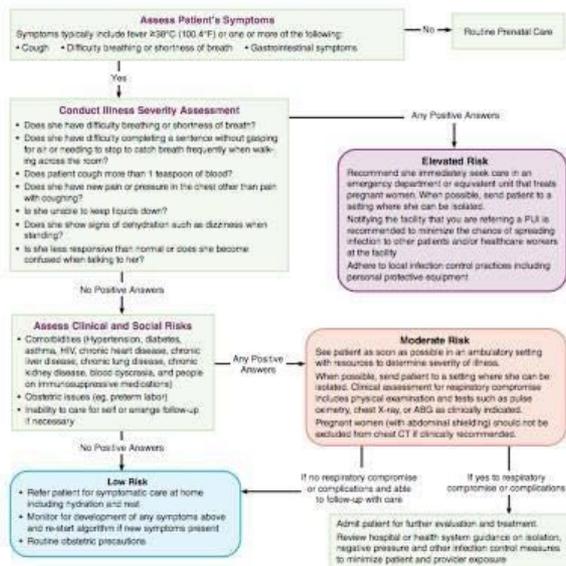




NB: No Omission of International Colleagues Intended by Referencing American Professional Societies

ACOG

ACOG algorithm for the evaluation of pregnant patients with suspected COVID-19.

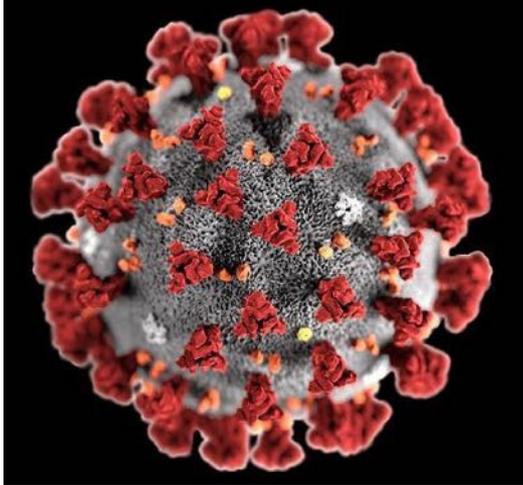




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Stay Safe.
Stay Sane.
And Thank You.
Thank You Very Much!
For Attending and for All
YOU
do!



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