Tools & trainings

OpenCriticalCare.org

Guidelines

tablerocovid19.org/
covid19treatmentguidelines.org/

Clinical Protocols

covidprotocols.org
• Edu portal to **disseminate select ventilator TA** to IPs & collaborators
• Content is **publicly available** via web from computers or mobile devices
• Curated resources are a combination of **original content, vetted material, resources from partnerships**
• Resources can be **tailored to address local needs and context** through input from USAID Implementing Partners and collaborators
• Long-term vision is to build an open access library of critical care tools with **utility beyond COVID**
What technical resources are your teams requesting?
What technical resources are your teams using?
What your teams and collaborators can find at Open Critical Care.org
The hub for critical care education tools

This site (currently in beta) aims to help healthcare workers in resource-variable settings find open-access, high-quality critical care learning tools. We are starting with respiratory care & COVID!

Visit our Resource Library  View our Suggested COVID Trainings

Welcome to OCC!
Sign up to receive updates on new content.
Information from experts:
- Via automated chatbot
- Live chat weekly (Time listed at the top)
Information from experts:
- **Via automated chatbot**
- **Live chat weekly** (Time listed at the top) or the button is green and says "Live Chat available now"
Is live chat useful for your teams?
If so, what times are best?
Featured links from the homepage include:

- **Free subscriptions for UpToDate** for eligible healthcare workers
- **Oxygen supply and demand** calculator (to see how long your supply lasts or model a COVID19 ward scenario)
- **Ventilator Simulator**
- **Ventilator Training Material**
Information on oxygen supply and delivery:
- Frequently asked questions, **answered by experts**
- Sorted by topic
- Searchable
- Can be **easily shared**
### Information on oxygen supply and delivery:
- Frequently asked questions, answered by experts
- Sorted by topic
- Searchable
- Can be easily shared

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<thead>
<tr>
<th>Topic</th>
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What different types of ventilator circuit exist?

- There are multiple configurations of dual and single limb circuits (outlined below).
- **Note on humidification & circuit configurations**: some dual and single limb circuits may contain a heated wire in the inspiratory limb to optimize heat & humidity delivery to the patient and to prevent excess condensation from accumulating when using an active heated humidification system. If an active heated humidification system is used in the absence of a heated wire inspiratory limb, a water trap is often needed. Some water traps may allow for emptying without circuit disconnection (an important consideration with COVID-19).
- **Dual limb circuit** (Figure a, b and c) – used by most traditional critical care ventilators. Flow, pressure and PEEP are commonly measured/controlled in the machine, and thus no additional circuit transducer tubing is needed (a). Some circuits do use proximal flow/pressure sensors (b). These may include a heating element in the inspiratory limb and port for temperature monitoring (c).
- **Standard single-limb with built-in leak** (Figure A) – mostly for non-invasive devices.
- **Standard single-limb circuit with active exhalation valve and internal PEEP** – (Figure B and C) – These circuits are made by multiple manufacturers and can work with multiple vent models.
- **Standard single-limb circuit with active exhalation valve and manual PEEP** – (Figure D)
- **Standard single-limb circuit with active exhalation valve, internal PEEP and proximal pressure sensor** – (Figure E) – this is one of the most common single limb circuit setups
- **Standard single-limb circuit with active exhalation valve, internal PEEP and two proximal pressure/flow sensors** – (Figure F) – this is usually a proprietary circuit type that is commonly encountered and allows measurement of exhaled tidal volume.

Information on oxygen supply and delivery:
- **Frequently asked questions, answered by experts**
- **Sorted by topic**
- **Searchable**
- **Can be easily shared** by clicking the blue link
Information on oxygen supply and delivery:

- Frequently asked questions, **answered by experts**
- Sorted by topic
- Searchable
- Can be **easily shared**
- Submit new questions

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## Ventilator Setup

This page contains resources for setting up and operating various mechanical ventilators. We have highlighted ventilators for which we have received frequent inquiries. Soon this page will be expanded to include instructional resources for the use of other oxygen delivery devices. Please contact us to suggest additional resources for inclusion on this page.

### Resources to help setup and operate most ventilators

#### Learn to setup any ventilator

A comprehensive list of ventilator training materials can be found by visiting the Ventilator Training Alliance on the web or via the Google Play or App Store.

#### Zoll - Z Vent & 731

- User Manual
- Training Videos
- Online Care Modules
- Cleaning Instructions

#### Vyaire - LTV2 2200

- User Manual
- Training Course
- Training Videos & VFA
- Training Videos & YouTube
- Technical Support
- More information on setup and operation
March 2021

10
WED

Mobilizing Civil Society for COVID Prevention and Vaccination
March 10 @ 8:00 am - 9:00 am New York
By UHSS
The Aid-tel, USAID-funded Local Health System Sustainability Project (ELHSS) has gained substantial experience helping national governments respond to COVID-19 while simultaneously strengthening health systems to increase countries’ ability to adopt and respond to health emergencies. This is the second of the three webinars to share UHSS approaches and learning around COVID-19 pandemic response and health syste...

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17
WED

Enfermeria en Cuidados Criticos: Elementos Fundamentales en el Cuidado de Pacientes COVID-19
March 17 @ 7:00 pm - 8:00 pm Honduras
By Health Policy Plus+
El proyecto CC, en colaboración con el proyecto STAR, ha desarrollado esta serie de seminarios web interactivos para presentar información práctica y actualizada que ayudará a los trabajadores sanitarios de primera línea a mejorar la prestación de servicios a pacientes diagnosticados con COVID-19 moderado-grave. La información médica está en constante evaluación, y es necesario que todo el personal...

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22
WED

“High Flow Nasal Cannula, BiPAP and CPAP” – Session 8 Oxygen Therapy Series
March 22 @ 9:00 am - 10:30 am New York
By Asid International
ASSIST International, Stanford Anesthesia Division of Global Health Equity and Project ECHO developed this comprehensive webinar series to support all levels of learners—students, trainees, nurses and physicians—to increase preparedness of all providers caring for patients who require oxygen or critical care. The sessions take place online using the Project ECHO education model, and are live-streamed with all the...

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This page lists upcoming TA events by OCC and some IPs.
Opencriticalcare.org/resources

- Multiple languages
- Material tailored to training level
- Content presented through different mediums
- Variety of topics related to critical care
Opencriticalcare.org/resources

Examples of collaborators’ content

Visit https://opencriticalcare.org/resources/ and use the filters below to access these tools

- AARC Harvard - Course
  Level 2 → English → Courses → Respiratory Care

- Free access to UpToDate
  Level 1-3 → English → Guidelines → Apps

- COVID PPE Infographic - Lifebox
  Level 1 → Portuguese → Visual Aids → Infection Prevention Control
Opencriticalcare.org/resources

Examples of vetted content

Visit https://opencriticalcare.org/resources/ and use the filters below to access these tools

Vent Sim - OpenPediatrics
Level 2 → English → Interactive Tools → Respiratory Care

Ventilator Training App
Level 1 → English → Apps → Respiratory Care

COVID-19 Course
Level 1+2 → Courses → COVID19
Oxygen forecasting tool
Opencriticalcare.org/resources
This free, comprehensive, interactive online training course was created by Lifebox to support healthcare worker training in personal protective equipment (PPE) use. The course was designed to have relevance to providers in all practice settings, including those where resources may be variable.
The series of teaching slides decks is intended to serve as a framework of content to be modified, updated and used by local instructors supporting healthcare workers caring for COVID19 patients.

- COVID19 Case Series: Personal Protective Equipment
- COVID19 Case Series: Intro to Bedside Care and Charting
- COVID19 Case Series: Non-invasive oxygen delivery
- COVID19 Case Series: Mechanical ventilation (part 1)
- COVID19 Case Series: Mechanical ventilation (part 2)
- COVID19 Case Series: Therapeutics

By OCC
COVID19 Respiratory Care Protocols
Openccriticalcare.org/resources

Spontaneous breathing and awakening trials protocol

Sedation Interruption Safety Screen* - Full Pass

Discontinue Radiation Screen

Oxygen Therapy Order Set

Hospital Name/logo

Oxygen Therapy Order Set by

Choose a Delivery Device

Nasal Canula:

Seated, patient<40 Kg:

Seated, patient>40 Kg:

Simple Face Mask:

Seated, patient<40 Kg:

Seated, patient>40 Kg:

Nasal/Oral Humidification:

Seated, patient<40 Kg:

Seated, patient>40 Kg:

High Flow Nasal Cannula:

Seated, patient<40 Kg:

Seated, patient>40 Kg:

Check the patient’s response to the treatment, ensuring the patient is pain free and comfortable.

Adequate Support for Breathing

- Adequate chest wall excursion and no stridor
- Adequate airway patency
- Adequate ventilation

Sedation Interruption Failure

- No significant sedation
- No acute withdrawal (e.g. alcohol)
- No mechanical blockade
- No myoclonus
- No LOC

Sedation Interruption Safety Screen* - Full Pass

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# COVID19 Respiratory Care Charting & Checklists

[Opencriticalcare.org/resources](http://Opencriticalcare.org/resources)

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**Intensive Care Unit Flowsheet (comprehensive)**

<table>
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**Pain**

| Pain Score (0-10) | | | | | | | | | | | | |
| Pain Location | | | | | | | | | | | | |

**CAM-ICU**

| CAM-ICU Assessment | | | | | | | | | | | | |
| RASS Score | | | | | | | | | | | | |

**ESR/CRP**

| ESR/CRP | | | | | | | | | | | | |
| WBC | | | | | | | | | | | | |
| Hct | | | | | | | | | | | | |
| Hgb | | | | | | | | | | | | |
| Platelets | | | | | | | | | | | | |

**Urine**

| Urine Out | | | | | | | | | | | | |
| Electrolytes | | | | | | | | | | | | |
| Creatinine | | | | | | | | | | | | |
| Proteinuria | | | | | | | | | | | | |

**Output**

| Total Out | | | | | | | | | | | | |
| Total in | | | | | | | | | | | | |

**ICU Daily Rounding Checklist**

- Can sedation be reduced?
- Can analgesia be reduced?
- Is delirium being assessed, addressed and prevented?
- Spontaneous awakening trial and/or Spontaneous breathing trial candidate?
- Total fluid balance goal reviewed? And targeting: ________ (12h) (24h)
- Is the patient at goals for lung protective ventilation?
- Head of bed elevation (30 degrees)
- Skin breakdown assessment (prevention)
- Is enteral nutrition at goal?
- Is blood glucose at goal?
- Deep venous thrombosis prophylaxis?
- Gastric ulcer prophylaxis?
- Can Antibiotics be narrowed or discontinued?
- Early mobility candidate and physical therapy consulted?
- Is foley catheter needed?
- Is central venous/arterial catheter needed?
- Has the family been updated?
- Are the patient's goals of care and code status current?
Opencriticalcare.org/suggested-trainings

**Suggested COVID19 Trainings**

This page compiles training materials suggested by our team of global collaborators. Choose a topic to see a list of trainings that can be sorted by level of learner and language.

- Infection Prevention Control & PPE
- Supplemental O2 & Respiratory Care
- COVID19 Therapeutics & Diagnostics
- Clinical assessment & triage
- Facility charting tools
- Provider Well-Being

Learn more →
Free Courses

Welcome to OpenCriticalCare.org's course platform. Contact us if you would like to integrate one of these courses into your institutional training program.

Click here to login or create a free account

BASIC FOR COVID COURSE
Designed for healthcare providers who will provide care for COVID19 patients requiring mechanical ventilation.
(By BASIC)

BASIC LR FOR SARI COURSE
Training on Severe Acute Respiratory Infections (SARI) for providers in low-resource (LR) settings.
(By BASIC and MSF)

LIFEBOX PPE COURSE
A new training module on personal protective equipment.
(By Lifebox)
OpenCriticalCare.org

Tool & trainings

The hub for critical care education tools

OpenCriticalCare.org

tablerocovid19.org/
covid19treatmentguidelines.org/
covidprotocols.org

Guidelines

Clinical Protocols

COVIDProtocols v2.0

Search protocols
Check out the COVID-19 Guidelines Dashboard! (New Updates Weekly!) A color-coded visual summary of major guideline recommendations for all kinds of therapeutics and practices on a single page! (Permanent link on the top bar)

Want faster access to COVIDProtocols on Mobile? Add us to your homescreen!

Looking for the Brigham and Women's version? It's still there! Click the “BWH Protocols” button in the right corner.

Looking for the Spanish version? Chapters 1-10 are available in Spanish, click on ES at the top of the page.
Anaesthesia Tutorial of the Week directly accessible here: https://resources.wfsahq.org/anaesthesia-tutorial-of-the-week/

CME/CPD Available in select countries
If you didn't find what you're looking for in our FAQ, Resource Library, or elsewhere on the site, please send your questions or comments and we will respond as soon as possible. We do not accept patient-specific questions, personal health information or urgent clinical questions. You may also submit general inquiries using the form below.
What can your partners and teams find @OCC...

- The latest **guidelines**
- Current **protocols**
- Vetted respiratory care training **courses**
- **Ventilator reference** material and **visual aids**
- **Answers to questions** about oxygen supply and delivery devices
- **Live Chat**
- **Free access to UpToDate** for qualifying providers

Open Critical Care.org

Questions or comments to: michael.lipnick@ucsf.edu

Acknowledgements and Gratitude