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WHO-CED COVID19 Critical Topic Webinar: Oxygen Systems

| #  | Question   | Asker Name              |
|----|--|-------------------------|
| 1  | Comment  | Ismael Cordero          |
| 2  | Where will the recording be posted online?   | Anonymous Attendee      |
| 3  | can we get these presentations   | Bharatesh Shetty Shetty |
| 4  | How is the situation regarding the scale up production for oxygen system situation, from the manufacturer perspective?   | Hugues GAERTNER         |
| 5  | I have been reading about patients reporting to hospital with alarmingly low oxygen saturation levels, as low as 50%, called "silent hypoxia". Shouldn't COVID-19 screening involve pulse oximetry measurements rather than temperature measurement?   | Bill Gentles            |
| 6  | Ashenafi said Ethiopia and Nigeria are currently the only countries in Africa with a national oxygen policy roadmap. In the case of Nigeria, can Ashenafi please supply a point of contact for establishing wider discussions on this roadmap?   | Busola Oronti           |
| 7  | Adriana, that is not true nowadays, there are devices (concentrators) providing oxygen at pressure (55psi).  | JP BERLIOZ              |
| 8  | How can smaller countries access some support or guidance with maintaining oxygen concentrators if there are no specialist bio med engineers incountry   | Anonymous Attendee      |
| 9  | With regards to the model presented by Alejandra, which costs have been included in the tentative estimated budget (i.e. installations, training, warranty, etc.)? Thanks  | Francesco Ribolzi       |
| 10 | In the resource constrained setting especially in some african countries still many health centers lack access to reliable energy. To give high end medical care for COVID does energy solution using renewable source plays key role.   | Bharatesh Shetty Shetty |
| 11 | thank you for pointing out about pipelines pressures. I also suggest the use of pulse oximetry be approved as a screening paramater for covid19. needs to help since at the moment we are only preparing oxygen and ventilators for the emergency if it reaches ICU levels here in Kenya                           | Joseph Rugut            |
| 12 | Very few LMIC will have high pressure oxygen distribution system in place (pipped oxygen). This makes non-invasive or invasive ventilation nearly impossible to implement. Are there WHO-certified concentrators that have flow rates well >10 LPM?  | Damien Kirchoffer       |
| 13 | Are there studies showing efficacy of fingertip oximeters versus pulse oximeters   | Anonymous Attendee      |
| 14 | Hi, do we have a standard oxygen level to be supplied for a particular demography of a pateient  | Suraj Mali              |
| 15 | Also how will be oxygen level differ with inspiratory pressure set in the Bipap machine  | Suraj Mali              |
| 16 | Eg Canta 8 L which has CE  | Anonymous Attendee      |
| 17 | as MSF advisor, I received a lot of innovative technology to analyze. Can I submit this innovative technology instead of the primary manufacturer?   | Hugues GAERTNER         |
| 18 | As many countries CoViD is starting to reduce in propagation. Is there any Clinical Engineering plan for the second wave of CoViD-19 related to oxygen management?   | Jean Ngoie              |
| 19 | Is there a tool which will help the machine to set a particular oxygen level for a set of settings for BiPap machine. I am sorry but I did club the questions earlier  | Suraj Mali              |
| 20 | I have a question about the maintenance of oxygen concentrators. In many cases they fail because the zeolite cartridges need to be replaced. Can we develop a supply chain and a process for refilling zeolite cartridges, as replacemnt cartridges are very expensive and the supply chain for them is very slow. | Bill Gentles            |

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| 21 | dear sir we have done comparison of oxygen concentrator and ventilators specification can we share them   | Bharatesh Shetty Shetty         |
| 22 | Uganda also launched a National scale up Plan to increase access to oxygen Nationally, this was done with MOH in conjunction with CHAI, launched last pneumonia day.  | Sheillah Bagayana Mutetire      |
| 23 | How to decide on when and where (what type of healthcare settings) to use oxygen cylinders vs oxygen plant?   | Tashi Penjore                   |
| 24 | Thanks for this training, I am following in order to Catch up, ...Symon Mbakah, Association of Medical Engineering of Kenya (AMEK)  | Symon Mbakah                    |
| 25 | I think all this tool and presentation are great. However they lack some reality aspect about the availability of the O2 devices. I would like to share my feedback on what comes back from our field workers and have your point of view about the actual situation  | Hugues GAERTNER                 |
| 26 | I have few suggestions<br>1. The WHO together with IFMB & CE to develop a quick guideline on oxygen supply and distribution<br>2. There are more than 40,000 oxygen concentrators out of service in Africa / can manufacturers join hands to provide spares and training?<br>3. To ensure availability can we design together with manufacturers a high flow oxygen concentrator at low cost + the multiple outlet flow such as share flow one inlet : with 10 outlets ?  | Costica Uwitonze                |
| 27 | Very interesting webinar, congratulations to everybody. I found very interesting and useful the idea of validating domestic pulse oximeters with a healthy subject. Are you aware if there is a paper or publication describing the method with more detail? thanks!  | Francisco Caccavo               |
| 28 | I'm also interested in your comparison document. May I have a copy please?. My e-mail is vincent.mulunda.a.mulunda@gmail.com  | Vincent MULUNDA-A-MULUNDA       |
| 29 | Is very expensive an oxygen plant?, Because in Peru, need various oxygen plants for your shortage   | Abraham Rodrigo Alcoba Trujillo |
| 30 | Agree   | Edwin Gonzales                  |
| 31 | How can we get oxygen devices in use when all our orders have already 2-3 to 6 months leadtime from the manufacturer.   | Hugues GAERTNER                 |
| 32 | Ok, thank you for the answer.   | Abraham Rodrigo Alcoba Trujillo |
| 33 | PSA oxygen plants range from small (10 lpm) to large size (2000 lpm). This is recognized to be the most economical supply mode.   | JP BERLIOZ                      |
| 34 | I really see a big issue, especially in LMIC where Covid-19 has not hit yet, and where we cannot find any devices in the local market and where supply from HIC are slowed down and when manufacturers seemed to have reached their maximum production capacity. In the other hand, there is no news in the paper about oxygen devices issue, when ventilators are overloading the space. Thank Ashenafi to have highlighted this issue in your presentation  | Hugues GAERTNER                 |
| 35 | One comment about high flow oxygen delivery (one machine is capable of delivering oxygen as high as 80l/m) in normal patient wards (or normal wards upgraded to ICU setting) where the secondary oxygen pressure regulator there often limits the capability and requirement while the main oxygen supply source is sufficient. For those patients need high flow oxygen therapy in this setting, the ward oxygen secondary pressure stabilizing assembly needs to be adjusted or reconfigured to meet the requirement. | Zheng Kun                       |

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**Answer(s)**

live answered

live answered

Yes

yes, both recording and set of slides will be provided

I think manufacturers need to work in collaboration with national government , NGO, Private organization and it needs Holistic approach. But Having Revolving Fund in Place will help sustainable supply of Oxygen , Not only for COVID but also other Hospital services.

My answer is yes! Pulse oximetry is a very important diagnostic tool. However, there are potential patient cross-contamination, and it is sometimes difficult to purchase them given the high demand for them. They can be only "self-calibrated" by confirming high concentrations (98-100%) on one or more known healthy clinicians.

Yes. Nigeria and Ethiopia are the one that have issued NATIONAL OXYGEN SUPPLY ROADMAP POLICY. Which actually means different oxygen plants , different oxygen sources and improve their health supply system in Safe surgery, ICU and overall health system.

Dear Busola , Please contact the Health ministry of Nigeria.

Online support from vendors and including maintenance and training in the Contract agreement with the vendor helps.

Yes. That will be more innovative.

Please send us copies. Mine is ebsloane@gmail.com Thank you!

That is Great News from Uganda. Can you please share us if there is NATIONAL OXYGEN SUPPLY ROADMAP AS A POLICY ?

Firstly , It depends on the policy that the health service of the country has. Secondly both have their advantage and disadvantages , So the country need to do the analysis and comeup with the proper one based on their country analysis. Funding issue, Infrastructure issue, HR issue ?

Agree. Online support from manufacturer will help this time more than anyother day.

1. WHO is conducting the COVID19 device inventory (see page 1 link) to determine availability and needed distribution. 2. CED is willing to help address this maintenance issue with manufacturers. 3. Adriana has addressed through the WHO Innovation link on page 1 how to best address this possibility.

We are recommending Revolving fund for Long term Oxygen plant. The sale of oxygen from the oxygen plant will support the plant and will be needed to expand and scale up the oxygen supply system.

To be addressed through WHO Emergency Supply Chain Catalogue  
[https://www.who.int/publications-detail/emergency-global-supply-chain-system-\(covid-19\)-catalogue](https://www.who.int/publications-detail/emergency-global-supply-chain-system-(covid-19)-catalogue)