Supplement to: Graham HR, Bagayana SM, Bakare AA, et al. Improving hospital oxygen systems for COVID-19 in low-resource settings: lessons from the field. Glob Health Sci Pract. 2020;8(4). https://doi.org/10.9745/GHSP-D-20-00224

### Weekly Equipment Checklist

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To keep the Oxygen Concentrator, Pulse Oximeter, and other equipment functioning effectively please <u>perform these basic checks every week</u>, and <u>record on the Checklist</u>. If there are any problems, report them to the Engineer Responsible within 24 hours.

- **1. Turn the Concentrator on.** If the concentrator has no power supply, an alarm should sound. If it does not, replace the battery (or inform the responsible technician).
- 2. Turn the Concentrator flowmeter to 5LPM.
- **3. Does the Oxygen Concentration indicator (yellow light) turn OFF after a few minutes?** If it stays on, the concentrator is not producing adequate oxygen and needs referral to the Engineer Responsible.
- **4.** Check the tubing connections of the Concentrator and Flowmeter assembly. Tighten loose connections, and if there are cracks or leaks inform the Engineer Responsible.
- **5.** Submerge the nasal prongs in water and adjust the flow rate on the Flowmeter Assembly (Sureflow). If bubbles are not produced appropriately at flow rates of 0.5-2.0 LPM, contact the Engineer Responsible.

  Repeat for every flowmeter. (You can now turn the concentrator off)
- 6. Clean the concentrator body, check for damage, and record the hours of use.
- 7. Remove the external filter and replace with a clean, dry filter. Wash the old filter and allow to dry.
- **8.** Check the Lifebox Pulse Oximeter on your finger, and check that each of the probes are working. If any are not working, contact the Engineer Responsible.



## Weekly Equipment Checklist

## Hospital:\_\_\_\_\_

## **Equipment Serial Numbers**

• Insert the serial numbers for all Oxygen Project equipment below and the date it was received.

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Contact:

Engineer Responsible:

Contact:

#### **Oxygen Concentrators**

Date received	Concentrator Serial Number				

# Oximeter Probes

Date received	Probe Serial Number

#### **Pulse Oximeters**

Date received	Oximeter Serial Number

Weekly Equipment Checklist
January – March 2017

Hospital:
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Complete this <u>EVERY WEEK</u>. Check every item of equipment. Indicate correct function of all equipment with  $\checkmark$ , and any problems with \*. Describe problems identified and action taken (including equipment serial number).

			Concer	trators		Oxim	eters		
Checklist item ->		123	45	6	7	8	3)	Document problems identified and action taken (include equipment serial number)	
Week starting	Date	Alarms	Flow	Hours	Filter	Oximeter	Probes	Problems & Actions	Sign
E.g.	20/12/09	$\checkmark$	<b>√</b>	4	<b>√</b>	<b>√</b>	×	Probe #1234567 broken, contacted Engineer for replacement.	HG
2/1/17									
9/1/17									
16/1/17									
23/1/17									
30/1/17									
6/2/17									
13/2/1									
20/2/17									
27/2/17									
6/3/17									
13/3/17									
20/3/17									
27/3/17									

Weekly	Equipment	Check	list
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Hospital:
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April - June 2017

Complete this <u>EVERY WEEK</u>. Check every item of equipment. Indicate correct function of all equipment with  $\checkmark$ , and any problems with \*. Describe problems identified and action taken (including equipment serial number).

			Concer	trators		Oxim	eters		
Checklist item ->		123	45	6	7	8	3)	Document problems identified and action taken (include equipment serial number)	
Week starting	Date	Alarms	Flow	Hours	Filter	Oximeter	Probes	Problems & Actions	Sign
E.g.	20/12/09	<b>√</b>	<b>√</b>	4	<b>√</b>	<b>√</b>	×	Probe #1234567 broken, contacted Engineer for replacement.	HG
3/4/17									
10/4/17									
17/4/17									
24/4/17									
1/5/17									
8/5/17									
15/5/17									
22/5/17									
29/5/17									
5/6/17									
12/6/17									
19/6/17									
26/6/17									

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July - September 2017

Complete this <u>EVERY WEEK</u>. Check every item of equipment. Indicate correct function of all equipment with  $\checkmark$ , and any problems with \*. Describe problems identified and action taken (including equipment serial number).

		Concentrators				Oximeters			
Checklist item ->		123	45	6	7	8		Document problems identified and action taken (include equipment serial number)	
Week starting	Date	Alarms	Flow	Hours	Filter	Oximeter	Probes	Problems & Actions	Sign
E.g.	20/12/09	<b>√</b>	<b>√</b>	4	<b>√</b>	<b>√</b>	×	Probe #1234567 broken, contacted Engineer for replacement.	HG
3/7/17									
10/7/17									
17/7/17									
24/7/17									
31/7/17									
7/8/17									
14/8/17									
21/8/17									
28/8/17									
4/9/17									
11/9/17									
18/9/17									
25/9/17									

Weekly Equipment (	Checl	klist
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Hospital:
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October - December 2017

Complete this <u>EVERY WEEK</u>. Check every item of equipment. Indicate correct function of all equipment with  $\checkmark$ , and any problems with  $\stackrel{\bigstar}{\sim}$ . Describe problems identified and action taken (including equipment serial number).

		Concentrators				Oximeters			
Checklist item ->		023	45	6	7	8		Document problems identified and action taken (include equipment serial number)	
Week starting	Date	Alarms	Flow	Hours	Filter	Oximeter	Probes	Problems & Actions	Sign
E.g.	20/12/09	✓	<b>√</b>	4	<b>√</b>	✓	×	Probe #1234567 broken, contacted Engineer for replacement.	HG
2/10/17									
9/10/17									
16/10/17									
23/10/17									
30/10/17									
6/11/17									
13/11/17									
20/11/17									
27/11/17									
4/12/17									
11/12/17									
18/12/17									
25/12/17									