Do Not Use Water Bottles for Humidifying Oxygen Therapy in Adults

What is this about?

Increasing evidence from around the world shows that water bottle humidification of oxygen therapy is not effective for adults. As a result of inadvertent misconnections that result in a disruption of oxygen flow, the Respiratory Health Section of the Medicine SCN and Health Professions Strategy & Practice co-developed the “Do not use pre-filled water bottles for humidification of oxygen for adults" Professional Practice Notice (with associated orientation toolkit).

Reports like the one below (from the province-wide system for patient safety reporting) prompted action on this issue:

“After being placed on oxygen, the patient continued to experience shortness of breath and low oxygen saturations. The patient’s son pointed out a strange noise that appeared to be coming from the oxygen flowmeter. On investigation, they discovered the water bottle was not correctly connected and oxygen was not flowing to the patient. The bottle was removed, proper connection was established, and patient condition improved.”

As a result of this work, AHS and Covenant Health have adopted the following direction:

- Using water bottles to humidify oxygen therapy provides no benefit to your adult patients and the risk of misconnection is high.
- Eliminating the use of water bottles for adult patients reduces the risk of misconnection and improves patient safety.
- AHS and Covenant Health no longer use water bottles for humidification of oxygen therapy for adults.

What are the results?

No new safety reports and no operational concerns have arisen related to this solution, since this change was made in early 2016. Confirmed by audits, pre-filled water bottles are not being purchased for adult patients.

For AHS and CH staff, the tools are on insite – Health Professions Strategy & Practice (HPSP) > Resources

For more information please contact: Respiratoryhealthsection@ahs.ca

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