

Do Not Use Pre-filled Water Bottles for Humidification of Oxygen for Adults Project

What is this project about?

Increasing evidence from around the world shows that pre-filled 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 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 system) 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, it was discovered that the pre-filled 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 the project, AHS has adopted the following provincial direction:

- Use of pre-filled water bottles to humidify supplemental oxygen therapy provides no benefit to the patient and the risk of misconnection is high.
- Eliminating the use of these pre-filled water bottles for adult patients reduces the risk of misconnection and improves patient safety.
- AHS no longer uses pre-filled water bottles for humidification of oxygen therapy for adults.

What are the results?

Since this change in early 2016, there have been zero safety reports related to this issue and no operational concerns related to this solution. Audits confirm that pre-filled water bottles are no longer being purchased or used for adult patients.

For more information on this project, contact respiratoryhealth.scn@ahs.ca

For AHS staff, please visit insite – Health Professions Strategy & Practice (HPSP) > Resources

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