Prevent the Vent® - The Right Thing to Do!

HSCN National Healthcare Supply Chain Conference

May 15, 2018
During surgery, 95% of used inhalation anesthetic is vented into the atmosphere.
The Problem with Vented Anesthetic Gases

**Environmentally Damaging**
- Almost 4,000 x worse than CO2
- Direct OH&S hazard; requires dedicated ventilation system; discharged unabated from hospitals’ rooftop
- Toxic, persistent & 7x heavier than air, linger at ground level
- Potential liability issues and class action law suits

**Costly & Inefficient**
- Valuable essential medical gases

**Risk of Shortage**
- No Canadian production
### Global Problem

<table>
<thead>
<tr>
<th>Anesthetic</th>
<th>Weight vs Air</th>
<th>GWP$_{20-yr}^*$</th>
<th>GWP$_{100-yr}^{**}$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Desflurane</td>
<td>582%</td>
<td>3714</td>
<td>989</td>
</tr>
<tr>
<td>Isoflurane</td>
<td>639%</td>
<td>1401</td>
<td>350</td>
</tr>
<tr>
<td>Sevoflurane</td>
<td>693%</td>
<td>349</td>
<td>345</td>
</tr>
</tbody>
</table>

- Weight based on molecular weight compared to 28.86 for Air as mixture of N$_2$ and O$_2$
- Global Warming Potential (GWP) compared to CO$_2$ as baseline GWP of 1

= Major environmental, legal and human health concerns

** : Federal Register, Vol. 78, No. 230, Part VI, Environmental Protection Agency, 2013; 71949:Table A-1
Given that an average hospital’s annual emission of inhalation anesthetic equates to roughly 400 cars...

This can be offset by,

125,000 + Trees

Or by using,

Deltasorb® • Centralsorb
ANESTHETIC COLLECTION SERVICE
Technology Key Benefits:

- Waste anesthetic gases safely captured prior to exhaust outdoors
- Immediate and measurable carbon footprint reduction
- Daily air quality improvement for local neighborhood
- Leadership showcase - Accreditation score benefits
- Cradle-to-cradle® life cycle stewardship
- Simple integration / easy management
Current Status – **Cradle to Cradle® Stewardship**

- Validated technology & processes; Canadian Global Innovation
- Health Canada’s licensed facility (DEL)
Thank you!

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