SUS-04: Percentage of patients with mean gas flow equal to, or less than 2L/min, during administration of halogenated hydrocarbons and or nitrous oxide.

* FGF will only be considered for those minutes between intubation and extubation that also have an inhaled agent running. Values within this range will be considered artifact and the minute will be included:
  - Nitrous Oxide Flows: <0.2L/min
  - Isoflurane Insp%: <0.3%
  - Sevoflurane Insp%: <0.4%
  - Desflurane Insp%: <1.2%
  - Nitrous Oxide Insp%: <20%

START:

Patient without an ETT or LMA? (determined by the Anesthesia Technique: General Phenotype)

Yes

Exclude

No

Patient with documentation of nitric oxide use?

Yes

Exclude

No

Case performed without halogenated hydrocarbons or nitrous oxide?

Yes

Exclude

No

Patient with maintenance period < 30 mins?

Yes

Exclude

No

>20% Fresh Gas Flow values manually documented?

Yes

Exclude

No

Mean FGF ≤ 2L/min when inspired halogenated hydrocarbons is > 0.2% or nitrous oxide FGF > 0.2L/min during maintenance period of anesthesia?!*

Flag

No

Yes

Pass
Measure Summary: Percentage of cases with mean fresh gas flow (FGF) < 2 L/min during administration of halogenated hydrocarbons and/or nitrous oxide.

Measure Start: All patients

- Exclude: ETT or LMA not placed (determined by anesthesia technique: General, value codes 0, 4, 5)

- Exclude: No nitric oxide use

- Exclude: No halogenated hydrocarbons or nitrous oxide administered between intubation and extubation < 30 mins

- Exclude: ETT or LMA not placed (determined by anesthesia technique: General, value codes 1, 2, 3, 6)

- Exclude: Patient with an ETT or LMA (determined by anesthesia technique: General, value codes: 1, 2, 3, 6)

Anesthesia Technique: General Descriptions

<table>
<thead>
<tr>
<th>Value Code</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-999</td>
<td>Invalid Value</td>
</tr>
<tr>
<td>0</td>
<td>No general, ETT or LMA not and no volatile medications or related anesthetics associated with the case.</td>
</tr>
<tr>
<td>1</td>
<td>There were ETT and LMA notes associated with this case.</td>
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<tr>
<td>2</td>
<td>There were at least one ETT note, with another general or ETT note associated with this case. There were no LMA notes.</td>
</tr>
<tr>
<td>3</td>
<td>There were at least one LMA note. There were no ETT notes.</td>
</tr>
<tr>
<td>4</td>
<td>There were related anesthetics associated with this case. There were not ETT or LMA notes.</td>
</tr>
<tr>
<td>5</td>
<td>There were neuraxial blocks associated with this case. There were no ETT or LMA notes.</td>
</tr>
<tr>
<td>6</td>
<td>There were both neuraxial blocks and related anesthetics associated with this case along with ambiguous general anesthetic notes.</td>
</tr>
</tbody>
</table>
**SUS-04: Percentage of cases with mean fresh gas flow (FGF) \(< 2\)L/min, during administration of halogenated hydrocarbons and/or nitrous oxide.**

**Measure Start:**
- Intubation: If not available, then
- Induction: If not available, then

**Measure End:**
- Latest LMA Removal Time: If not available, then
- Surgery End: If not available, then
- Patient Out of Room: If not available, then
- Anesthesia End

*Values for flows and gases will be assessed and considered artifact if inside the following ranges:
- Nitrous Oxide Flow: \( > 0.5 \)L/min
- Nitrous Oxide Trop %: \( > 20\% \)
- Isoflurane Trop %: \( > 0.3\% \)
- Sevoflurane Trop %: \( > 0.4\% \)
- Desflurane Trop %: \( > 1.5\% \)

To Calculate Mean FGF:
1. Determine which flow values to include by identifying minutes where FGF and non-artifact inhaled agent or nitrous oxide are documented.
2. Add all included FGF values and divide by the total number of included minutes.

**Diagram:**
- Start: All patients
- ETT or LMA placed determined by Anesthesia Technique: General
- Exclude
- Halogenated hydrocarbons or nitrous oxide administered: Exclude
- \(< 30\) mins of halogenated hydrocarbons and/or nitrous oxide administered between intubation and extubation: Exclude
- Nitric oxide use documented: Exclude
- \( \geq 20\% \) of FGF values manually entered during the case: Exclude
- Mean FGF \( \geq 2\)L/min when inspired halogenated hydrocarbons is \( > 0.2\% \) or nitrous oxide FGF \( > 0.2\)L during maintenance period: Pass
- Flag