

"fedramp-test-2024-questions-lara_sutherland: jenkins-awards.practicegreenhealth.org - Create Sheets Pull Request for Probo-870"



Greening the OR

Introduction

Between 20 and 30% of a hospital's waste stream may be generated in just one department-- Surgical Services. Greening the OR™ is a Practice Greenhealth program focused on providing concentrated sustainability support and assistance to a department that generates a significant portion of the hospital's environmental footprint. The Greening the OR™ program aims to improve worker and patient safety, increase efficiency, and reduce cost while concurrently reducing waste, energy and environmental impact. Practice Greenhealth is looking forward to learning about your programs in this important department.

1.* Does your facility have a sustainability champion in the OR?

- Yes
- No

This question is asked "new" each year, as champions come and go. Practice Greenhealth wants to understand who was leading or influencing the OR work over the course of the past year.

Contact Information:

| |
|---|
| <p>1.a*</p> <p>Name of sustainability champion or leader in the OR:</p> <input style="width: 90%; height: 20px;" type="text"/> |
| <p>1.b</p> <p>Title of sustainability champion or leader in the OR:</p> <input style="width: 90%; height: 20px;" type="text"/> |
| <p>1.c</p> <p>Email of sustainability champion or leader in the OR:</p> <input style="width: 90%; height: 20px;" type="text"/> |

Waste Segregation & Management

Proper waste management is critical to any successful environmental stewardship program, but it is especially important within the **operating room**. **The OR can account for 30% of a facility's overall waste and more than half of its regulated medical waste.** There are strategies to reduce the amount of waste generated by the OR, but it's also important for facilities to ensure that the waste is being properly segregated to maximize **recycling** and reduce cost. Please use this section to highlight the waste segregation strategies implemented by the surgical department.

You may leave a requested data point blank, but please **do not enter zeros. Enter savings as a positive number.**

2.* Please select which processes the facility has in place to reduce and divert waste in the **operating room**:

- Diverts **pre-incision (prior to case)** waste from **regulated medical waste stream** into solid waste or recycling stream
- Segregates non-infectious solid waste from the regulated medical waste stream **during the procedure**
- Segregates non-infectious solid waste from the regulated medical waste stream **after the procedure**
- Recycles clinical/medical plastics in the OR

Note: If the organization is not focusing on waste segregation education, please leave this question blank.

2.a* Please select all clinical/**medical plastics** being **recycled in the operating room**:

- Basins, pitchers, bowls and medicine cups
- Blister packs/shrink wrap
- Blue wrap
- Corrugated respiratory tubing
- Disposable clean suction canisters
- Irrigation bottles (Sterile saline and water bottles)
- IV bags, tubing and outer plastic wrap

- Light handle covers
- Medication vials and caps
- Overwraps
- Oxygen tubing
- Peel pouches
- Perfusion tubing
- Respiratory face masks
- Rigid inserts
- Skin prep solution bottles
- Syringe casings
- Trays
- Tyvek
- Urinals/bedpans
- Other

2.a.a* Please describe **other** plastics being recycled in the OR in 2023:

2.b* Is the facility **tracking** the weight of **medical plastics** recycled specifically from the OR?

- Yes
- No

2.b.a* What is the weight of **medical plastics** (in tons) recycled in 2023 in the OR?

3.* Does the facility utilize a fluid management system that **does not use** disposable suction canisters as a means of collecting and disposing fluid medical waste (i.e., mobile cart, reusable canister systems, or direct-to-drain system)?

- Yes
- No

3.a* Please briefly describe the fluid medical waste disposal system being utilized:

3.b* Is this system being utilized for fluid management in more than 75% of ORs or for a majority of cases?

- Yes
- No

Please share any associated **cost savings** in 2023 in **Table A**:

Table A. Fluid Management Avoided Waste and Cost Savings

| | |
|---|---|
| Avoided waste (tonnage) | 3.c* <div style="border: 1px solid black; height: 26px;"></div> |
| Avoided waste disposal fees from disposable canisters | 3.d* <div style="border: 1px solid black; height: 26px;"></div> |
| Avoided purchase cost of disposable canisters | 3.e* <div style="border: 1px solid black; height: 26px;"></div> |
| Avoided purchase cost of chemical solidifiers (if applicable) | 3.f* <div style="border: 1px solid black; height: 26px;"></div> |
| Other Benefits: (ie. staff safety, unnecessary purchase of PPE, red bags, labels, etc) | 3.g* <div style="border: 1px solid black; height: 26px;"></div> |
| Total Cost Savings: | 3.h 0 <div style="border: 1px solid black; height: 26px;"></div> |

Medical Device Reprocessing

Reprocessing of medical devices goes beyond the **operating room** and includes many other patient care areas. To simplify, Practice Greenhealth is asking all questions pertaining to single-use device (**SUD**) reprocessing on the Greening the OR page. Please enter all **SUD** reprocessing data below.

4.* Has the facility implemented a **medical device reprocessing** program with an FDA-approved third party reprocessor?

Yes

Please indicate which elements of a **medical device reprocessing** program your facility engages in (Table B below):

Table B1. Collection/Purchase of Reprocessed Devices

| Device Type | Please indicate if the facility collects and/or purchases the reprocessed medical devices below: |
|-------------------------------------|--|
| Arthroscopic wands and shavers | 4.a* Select an option... <input type="checkbox"/> |
| Bits/burs/blades | 4.b* Select an option... <input type="checkbox"/> |
| Catheter introducer sheaths | 4.c* Select an option... <input type="checkbox"/> |
| Chisels | 4.d* Select an option... <input type="checkbox"/> |
| Cold biopsy forceps | 4.e* Select an option... <input type="checkbox"/> |
| DVT sleeves/Sequential compression | 4.f* Select an option... <input type="checkbox"/> |
| ECG leads and cables | 4.g* Select an option... <input type="checkbox"/> |
| EKG cables and lead wires | 4.h* Select an option... <input type="checkbox"/> |
| EP cables | 4.i* Select an option... <input type="checkbox"/> |
| EP catheters | 4.j* Select an option... <input type="checkbox"/> |
| EP diagnostic catheters | 4.k* Select an option... <input type="checkbox"/> |
| External fixation devices | 4.l* Select an option... <input type="checkbox"/> |
| Fall alarms | 4.m* Select an option... <input type="checkbox"/> |
| Hot biopsy forceps | 4.n* Select an option... <input type="checkbox"/> |
| ICE catheter | 4.o* Select an option... <input type="checkbox"/> |
| Lateral transfer device (Hovermatt) | 4.p* |

| | |
|--|---|
| | Select an option...  |
| Laparoscopic dissectors | 4.q* Select an option...  |
| Laparoscopic graspers | 4.r* Select an option...  |
| Laparoscopic needle drivers/suture passers | 4.s* Select an option...  |
| Laparoscopic scissors/scissor tips | 4.t* Select an option...  |
| Ligasure sealers/dividers | 4.u* Select an option...  |
| Multiclip appliers | 4.v* Select an option...  |
| Pneumatic tourniquet cuffs | 4.w* Select an option...  |
| Pulse oximetry probes and sensors | 4.x* Select an option...  |
| Reamers | 4.y* Select an option...  |
| Trocars | 4.z* Select an option...  |
| Ultrasonic scalpels | 4.aa* Select an option...  |
| Ultrasound catheters | 4.ab* Select an option...  |

| | |
|---|------------------------------------|
| Total reprocessed device types out of 28 | |
| 4.ac 0 <input type="text"/> | Device types collected only |
| 4.ad 0 <input type="text"/> | Device types purchased only |
| 4.ae 0 <input type="text"/> | Device types collected & purchased |

Practice Greenhealth would like to capture the purchasing power of the health care sector through the dollars spent on reprocessed devices. In the table below, please enter the **total avoided waste** in pounds (Lbs) and the total dollars **spent** on purchasing FDA-approved reprocessed medical devices in 2023.

Table B2. SUD Reprocessing Collection Data

| | |
|---|--------------------------------------|
| SUD Reprocessing Collection Savings | Total |
| Weight of devices collected (in pounds, Lbs) | 4.af* <input type="text"/> |

| | |
|---|------------------|
| Weight of devices collected, converted to tonnage | 4.ag 0 |
| Avoided waste disposal costs | 4.ah* |
| Total \$ spent on purchase of reprocessed devices in 2023 | 4.ai* |
| Total \$ <u>saved</u> through medical device reprocessing program in 2023. | 4.aj* |

Table B3. Medical Device Reprocessing Metrics

| | |
|---|------------------|
| Pounds of reprocessed devices collected per OR procedure: | 4.ak 0 |
| Pounds of reprocessed devices collected per OR: | 4.al 0 |
| Dollars saved on reprocessed devices per OR procedure | 4.am 0 |
| Dollars saved on reprocessed devices per OR | 4.an 0 |

4.ao* Please attach any related **reprocessing policies** in place at the facility or system level.

Waste Reduction in the OR

Identifying opportunities to eliminate unnecessary waste from the **operating room** waste stream can help facilities reduce upfront purchasing costs as well as avoid waste disposal costs, and reduces the amount of waste requiring disinfection/treatment. Please highlight any strategies or projects the facility has utilized to reduce the amount of waste leaving the OR, including reducing unnecessary supplies, better inventory tracking, using reusable or reprocessable equipment, and more.

- 5.*** Does the facility **reformulate custom procedure packs**--removing supplies not typically used--to reduce purchase and disposal fees for excess supplies, and decrease the environmental impact of manufacture and disposal of those supplies?
- Yes
 No

Please fill in **Table C**. Please enter the number of **types** of kits the facility uses (e.g., 32 different types of custom kits, of which, 28 types were reviewed).

Table C. OR Kit/Custom OR Procedure Pack Reformulation Waste and Supply Savings

| | |
|---|-----------------|
| Total number of custom OR procedure pack types | 5.a* |
| Number of pack types reviewed | 5.b* |
| Percent of OR custom pack types reviewed | 5.c 0 |
| Optional: | |
| Avoided purchase cost of unnecessary supplies | 5.d* |

| | |
|--|------------------------|
| Avoided waste disposal savings (\$) | 5.e* |
| | <input type="text"/> |
| Other savings | 5.f* |
| | <input type="text"/> |
| Total savings | 5.g |
| | 0 <input type="text"/> |

6.* How often does the facility review **custom procedure packs** (not preference cards)?

- Every two years
- Annually
- Bi-annually
- Quarterly
- Monthly
- Other

6.a* Please describe other frequency:

7.* Does the organization have a process in place to regularly compare, review, and **update surgeon preference cards** for the same type of procedure?

- Yes
- No

7.a* Please describe the process in place to regularly compare, review and update surgeon preference cards for the same type of procedure:

8.* Does the facility purchase and use **reusable surgical items** where environmentally and clinically preferable?

8.a* Please indicate any reusable surgical items utilized in the OR a **majority (or >75%) of the time**.

--*Note: ***Do not** include single-use reprocessed devices for this question - only items specifically labeled by the FDA as 'reusable' medical devices.

- Anesthesia circuits
- Back table covers
- Blood pressure cuffs
- Cautery handles and cords
- Corner protectors
- Cubicle curtains
- Isolation gowns
- EKG/ECG leads and cables
- Endotracheal Tubes (ETT)
- Grounding pads
- Laryngeal Mask Airways (LMA)
- Laryngoscope blades/handles
- Light handles
- Mayo stand covers
- Patient belonging bags
- Patient linens (gowns, sheets, bath blankets, pillow cases)
- Patient positioning devices
- Patient transfer devices
- Patient warming devices
- Pneumatic compression tourniquets
- Pulse oximetry sensors
- Sterilization wrap
- Surgical staplers

- Suction canisters
- Surgical attire (including scrubs, jackets, hats/caps, shoes)
- Surgical drapes
- Surgical gowns
- Surgical towels
- Safety belts
- Surgical basins, pitchers and medicine cups
- Trocars
- Velcro straps
- Visitor jump suits
- Other

8.a.a* Please describe other reusable devices:

8.b Out of 34 possible product categories, the facility reuses items in this many categories:

1

8.c* Provide any additional commentary on reusables in the OR:

Table D. Savings from Reusable Linens in the OR

| | |
|---|---|
| If tracked, please indicate tons of reusable linens used in the OR: | 8.d* <div style="border: 1px solid black; height: 20px;"></div> |
| If tracked, please indicate any cost savings from reusable linens in the OR: | 8.e* <div style="border: 1px solid black; height: 20px;"></div> |
| This is the facility's pounds of reusable linens per OR procedure: | 8.f 0 <div style="border: 1px solid black; height: 20px;"></div> |

9.* Does the facility utilize **reusable sterilization containers** for surgical instrumentation and reduction of disposable sterile wrap?

- Yes
- No

Please fill in Table E. (E.g., the facility used 6250 total instrument trays in 2023; of those, 4688 instrument trays were sterilized in reusable containers for a total of 75% trays in reusable sterilization containers)

Table E. Savings from Reusable Sterilization Containers in the OR

| | |
|--|---|
| Total number of instrument trays used | 9.a* <div style="border: 1px solid black; height: 20px;"></div> |
| Number of instrument trays used in reusable sterilization containers | 9.b* <div style="border: 1px solid black; height: 20px;"></div> |
| Percent of instrument trays utilizing reusable sterilization containers | 9.c 0 <div style="border: 1px solid black; height: 20px;"></div> |
| Total (\$) spent on disposable bluewrap in 2022 | 9.d <div style="border: 1px solid black; height: 20px;"></div> |
| Total (\$) spent on disposable bluewrap in 2023 | 9.e <div style="border: 1px solid black; height: 20px;"></div> |
| Percent change in spend on disposable bluewrap | 9.f 0 <div style="border: 1px solid black; height: 20px;"></div> |

| | |
|---|--------------------------------------|
| Optional: | |
| Avoided purchase cost (\$ saved) of bluewrap | 9.g* <input type="text"/> |
| Avoided waste disposal (tonnage) | 9.h* <input type="text"/> |
| Avoided waste disposal fees | 9.i* <input type="text"/> |
| Other comments or savings | 9.j* <input type="text"/> |
| Total savings | 9.k 0 <input type="text"/> |

10.* Please describe any other innovative source reduction, reuse, or procurement strategies that reduce the environmental impact of the OR.

Energy Management

The **operating room** is a significant user of energy, with high demand from life-saving medical equipment, high air change per hour requirements, lighting, and more. As a result, strategies to reduce energy consumption in the **operating room** can derive considerable cost and energy savings. Please highlight any energy efficiency projects or strategies in the **operating room** in the section below.

ASHRAE 170 requires a certain number of air changes per hour to ensure patient safety and reduce the risk of surgical site infections in the OR. Some facilities assume that more air exchanges (exceeding code) equals better patient safety despite little clinical evidence to support it.

For more information on HVAC Setback Programs for the **Operating Room**, please see the American Society for Healthcare Engineering's **OR HVAC Setback Monograph**.

11.* Has the facility **programmed the HVAC system to reduce air changes per hour** (HVAC setback) when the ORs are **unoccupied** to reduce energy consumption?

- Yes
- No

11.a* What mechanism(s) does the facility use to control HVAC setback?

- Occupancy sensors
- Mushroom button
- Scheduling system
- Building Automation System
- Other

11.a.a* Please describe other mechanisms used for control of HVAC setback:

Table F1. HVAC Setback in the OR

| | |
|--|--|
| How many ORs have implemented an HVAC setback program? | 11.b* <input type="text"/> |
| Operating Rooms (ORs): | 11.c 0 <input type="text"/> From your Facility Profile. |
| Your facility utilizes HVAC setback in this percent of your ORs, based on above information: | 11.d 0 <input type="text"/> |

| | |
|---|---|
| What is the rate of air exchanges per hour (ACH) during normal hours/when the OR is occupied ? | 11.e* <input type="text"/> |
| What is the rate of air exchanges per hour (ACH) during unoccupied/setback mode ? | 11.f* <input type="text"/> Note: This number should be less than the ACH during occupied mode (above). |
| Percent reduction in air exchange rate (occupied to unoccupied) | 11.g 0 <input type="text"/> |

11.h* Has the facility **tracked** associated energy reduction and cost savings from the HVAC setback program?

- Yes
- No

Please indicate energy and cost savings in Table F2.

Table F2. HVAC Setback in the OR Savings

| | |
|--|--|
| Energy Savings (kWh) | 11.h.a* <input type="text"/> |
| Energy Cost Savings (\$) | 11.h.b* <input type="text"/> |
| Other Benefits (i.e., durable medical equipment life, maintenance, etc.) | 11.h.c* <input type="text"/> |

12.* Does the facility utilize **LED surgical lighting**?

- Yes
- No

Table G1. LED Surgical Lighting in the OR

| | |
|---|---------------------------------------|
| How many ORs are equipped with LED surgical lighting? | 12.a* <input type="text"/> |
| Operating Rooms (ORs): | 12.b 0 <input type="text"/> |
| Your facility utilizes LED surgical lighting in this percent of your ORs, based on above information: | 12.c 0 <input type="text"/> |

12.d* Has the facility tracked **avoided energy use, avoided supply cost, or avoided labor costs** associated with unnecessary bulb changes?

- Yes
- No

Please fill in Table G2.

Table G2. LED Surgical Lighting Savings in the OR

| Type of Savings | Savings |
|----------------------|--|
| Energy Savings (kWh) | 12.d.a* <input type="text"/> |
| Energy Savings (\$) | 12.d.b* <input type="text"/> |
| Other Considerations | 12.d.c* <input type="text"/> |

13.* Does the facility set back or turn down ambient lighting to reduce energy consumption when the OR is unoccupied and not in use?

- Yes
- No

13.a* What mechanism(s) does the facility use to control ambient lighting setback?

- Staff behavior
- Occupancy sensors
- Scheduling system
- Building Automation System
- Other

13.a.a* Please describe other ambient lighting setback control:

14.* Has the facility implemented any other initiatives to reduce energy use in the OR?

- Yes
- No

14.a* Please describe any other energy-savings strategies implemented in the surgical department.

15.* Has the facility implemented a **surgical smoke evacuation system** to reduce staff and patient exposure to surgical smoke aerosols, gases and particulate matter during surgery?

- Yes
- No

For more information on Surgical Smoke Evacuation in the Operating Room, please see the Association for periOperative Registered Nurses' (AORN) Management of Surgical Smoke resource.

15.a* Please describe surgical smoke evacuation system:

16.* Has the facility implemented any other strategies to reduce exposure to **chemicals of concern** in the OR?

- Yes
- No

16.a* Please describe strategies to reduce exposure to **chemicals of concern**:

Anesthesia Use

Leading hospitals are re-evaluating the anesthesia care regime for environmental stewardship opportunities that align with patient safety and/or cost reduction. As a **Scope 1 greenhouse gas** (GHG), choice and management of anesthetic gases is important to the facility's overall GHG emissions and climate impact. The volatile anesthetic agents used for patient care in an **operating room** or procedural setting are often vented directly into outside air. Even intravenous anesthetic agents have an impact on the environment and must be incinerated rather than contaminate land and water supply. And with severe drug shortages, it is even more critical to be sure the facility is carefully managing their use. Tracking and evaluating the use of the different anesthetic agents that are both clinically effective and environmentally preferable is indicative of culture change within the clinical practice.

17.* Has the facility provided or held education on the **environmental impacts of inhaled anesthetics** and reduction strategies for surgical staff?

- Yes
- No

*Please note: this question is asking about education specific to environmental impacts and global warming potentials of anesthetic gases and not required annual environmental safety education compliance.

17.a* Please describe anesthesia education efforts.

17.b* Or please attach example(s) of anesthesia education efforts.

18.* Does the facility purchase or does in-house pharmacy prepare **pre-filled syringes** (not including boxed bristojets) to minimize waste of unneeded pharmaceuticals?

- Yes
 No

18.a* Please select all **pre-filled syringe types** purchased or prepared:

- Atropine
 Calcium chloride
 Ephedrine
 Epinephrine
 Ketamine
 Lidocaine
 Phenylephrine
 Succinylcholine
 Propofol
 Other

18.a.a* Please describe any other **pre-filled anesthetic syringes** being used:

19.* Does the facility purchase the **smallest pharmaceutical vials possible** to minimize pharmaceutical wastage?

- Yes
 No

19.a* Please describe how the facility minimizes pharmaceutical wastage in the OR:

20.* Does the facility utilize a **supplemental waste anesthetic gas capture system** to prevent waste anesthetic gases from venting to the outside air?

- Yes
 No
 Don't know

Exposure to waste anesthetic gases (WAGs) can have health and safety impacts on staff. All anesthesia machines are connected to a waste anesthetic gas (WAG) scavenging system to protect employee health, which pulls the exhaled air and WAGs from the patient's breathing circuit, up through the central vacuum system and vents these gases off the hospital roof. This question is referring to **new, supplemental "capture" technologies** that collect these WAGs at the point of generation to reclaim and recycle these gases, preventing the off-gassing of these emissions from the hospital. If uncertain what system your hospital is using, please select **Don't know**.

20.a* Please describe the supplemental waste anesthetic gas capture system and its results:

21.* Has the facility removed desflurane from its formulary/general use?

- Yes
 No

21.a* Please describe the strategy used to remove desflurane from the formulary/general use:

22.* Please describe any additional work the facility has done to reduce the environmental impact of anesthesia:

23.* Please enter the **Baseline Year** the facility began tracking **greenhouse gas** emissions from purchased inhaled anesthetic gases.

*Note: Baseline Year should be the first year the facility enters complete anesthetic gas use data including Sevoflurane, Isoflurane, Desflurane and Nitrous Oxide (Table I: Volatile Anesthetics and Table J: Nitrous Oxide). Data entered in Table H should correspond accordingly to Table I and Table J.

Please list the **total number of general anesthesia cases and hours** performed at the facility (include all adults, pediatrics, OB/GYN, interventional radiology, ambulatory, off-floor, other) in baseline, previous and current year in Table H below.

New in 2024: If you already have general anesthesia data in the platform for baseline or previous year, it will sync automatically once you select a baseline year above. If this is your first year of tracking general anesthesia data, select the most recent year in the baseline year dropdown, and leave the previous year column blank. After you've filled out the current year column, the data from current year should then appear in the baseline year column as well. Do not enter zero.

Table H. General Anesthesia

| | Baseline year | Previous year | Current year |
|---------------------------------|-------------------------------------|------------------------------------|-------------------------------------|
| General anesthesia cases | <u>24.*</u> <input type="text"/> | <u>25.</u> <input type="text"/> | <u>26.*</u> <input type="text"/> |
| General anesthesia hours | <u>27.*</u> <input type="text"/> | <u>28.</u> <input type="text"/> | <u>29.*</u> <input type="text"/> |

Please indicate the **volume of volatile anesthetic agents purchased** by the facility in Table I below. Amounts can be entered as count of standard-size bottles and the system will convert it to total mLs, or anesthetics not in standard-size bottles can be entered as total mL by anesthetic type in the row labeled "mLs not in standard bottle sizes." Please ensure you do not double-count (e.g., if you enter the number of 100mL bottles of isoflurane--do not also enter total mLs for that same amount of isoflurane in the "mLs not in standard bottle sizes" row).

The information entered into this table will be used to calculate and populate the Scope I **greenhouse gas** emissions for waste anesthetic gases on the Climate page of this application.

Note: In order to calculate **greenhouse gas** emissions, applicants must provide data for ALL anesthetic types and respond **Yes** to the question asking if all anesthetic data has been provided.

Table I. Purchased Volatile Anesthetic Agents

| Volatile Anesthetic Agent | Number of Bottles Baseline Year | Number of Bottles Previous Year | Number of Bottles Current Year | MTCO2E Baseline | MTCO2E Previous | MTCO2E Current |
|---|--|--|--|--|---|---|
| Sevoflurane | | | | | | |
| 100 mL | <u>30.</u> <input type="text"/> | <u>31.</u> <input type="text"/> | <u>32.</u> <input type="text"/> | <u>33.</u> 0.00 <input type="text"/> | <u>34.</u> 0 <input type="text"/> | <u>35.</u> 0 <input type="text"/> |
| 250 mL | <u>36.</u> <input type="text"/> | <u>37.</u> <input type="text"/> | <u>38.</u> <input type="text"/> | <u>39.</u> 0 <input type="text"/> | <u>40.</u> 0 <input type="text"/> | <u>41.</u> 0 <input type="text"/> |
| mLs not in standard bottle sizes | Number of mLs Baseline Year | Number of mLs Previous Year | Number of mLs Current Year | MTCO2E Baseline | MTCO2E Previous | MTCO2E Current |
| 1 mL | <u>42.</u> <input type="text"/> | <u>43.</u> <input type="text"/> | <u>44.</u> <input type="text"/> | <u>45.</u> 0 <input type="text"/> | <u>46.</u> 0 <input type="text"/> | <u>47.</u> 0 <input type="text"/> |
| Total Sevoflurane: | <u>48.</u> Total mLs 0 <input type="text"/> | <u>49.</u> Total mLs 0 <input type="text"/> | <u>50.</u> Total mLs 0 <input type="text"/> | <u>51.</u> 0.00 <input type="text"/> | <u>52.</u> 0 <input type="text"/> | <u>53.</u> 0 <input type="text"/> |
| Isoflurane | | | | | | |
| 100 mL | <u>54.</u> <input type="text"/> | <u>55.</u> <input type="text"/> | <u>56.</u> <input type="text"/> | <u>57.</u> 0 <input type="text"/> | <u>58.</u> 0 <input type="text"/> | <u>59.</u> 0 <input type="text"/> |
| 250 mL | <u>60.</u> <input type="text"/> | <u>61.</u> <input type="text"/> | <u>62.</u> <input type="text"/> | <u>63.</u> 0.00 <input type="text"/> | <u>64.</u> 0 <input type="text"/> | <u>65.</u> 0 <input type="text"/> |
| mLs not in standard bottle sizes | Number of mLs Baseline Year | Number of mLs Previous Year | Number of mLs Current Year | MTCO2E Baseline | MTCO2E Previous | MTCO2E Current |
| 1 mL | <u>66.</u> <input type="text"/> | <u>67.</u> <input type="text"/> | <u>68.</u> <input type="text"/> | <u>69.</u> 0.00 <input type="text"/> | <u>70.</u> 0 <input type="text"/> | <u>71.</u> 0 <input type="text"/> |
| Total Isoflurane: | <u>72.</u> Total mLs <input type="text"/> | <u>73.</u> Total mLs <input type="text"/> | <u>74.</u> Total mLs <input type="text"/> | <u>75.</u> 0.00 <input type="text"/> | <u>76.</u> 0 <input type="text"/> | <u>77.</u> 0 <input type="text"/> |

| | | | | | | |
|---|------------------------------------|------------------------------------|-----------------------------------|------------------------|------------------------|-----------------------|
| | 0 | 0 | 0 | | | |
| Desflurane | | | | | | |
| 240 mL | 78. | 79. | 80. | 81. | 82. | 83. |
| | | | | 0 | 0 | 0 |
| mLs not in standard bottle sizes | Number of mLs Baseline Year | Number of mLs Previous Year | Number of mLs Current Year | MTCO2E Baseline | MTCO2E Previous | MTCO2E Current |
| 1 mL | 84. | 85. | 86. | 87. | 88. | 89. |
| | | | | 0 | 0 | 0 |
| Total Desflurane: | 90. | 91. | 92. | 93. | 94. | 95. |
| Total mLs | Total mLs | Total mLs | Total mLs | | | |
| | 0 | 0 | 0 | 0 | 0 | 0 |
| Totals | 96. | 97. | 98. | 99. | 100. | 101. |
| Total mLs | Total mLs | Total mLs | Total mLs | 0.00 | 0 | 0 |
| | 0 | 0 | 0 | | | |

Please indicate the facility's **nitrous oxide usage** during this award cycle year in the Table I below. Nitrous oxide comes in gaseous form, compressed in a cylinder or tank. Institutions typically have two types of nitrous oxide cylinders: 1. Portable tank - in the US, this is a standard size E-cylinder that is attached to the back of every anesthesia machine. 2. Stationary tank - this is a very large cylinder from which the gas gets piped through the walls of the hospital and into the anesthesia machine. Enlist the help of the clinical engineering department, pharmacy, or the medical gas supplier. Typically, the medical gas supplier/ vendor can report the total pounds of nitrous oxide supplied to the facility annually. Nitrous oxide can be used in many departments outside the **operating room**. For the purposes of this application, please enter the facility's total usage here. This will be used in addition to the data supplied in Table I. to calculate the facility's Scope I **greenhouse gas** emissions from waste anesthetic gases on the Climate page.

Table J. Nitrous Oxide Purchase

| | Total pounds of Nitrous Oxide Baseline Year | Total pounds of Nitrous Oxide Previous Year | Total pounds of Nitrous Oxide Current Year | MTCO2e Nitrous Oxide Baseline Year | MTCO2e Nitrous Oxide Previous Year | MTCO2e Nitrous Oxide Current Year |
|--------------------------------|--|--|---|---|---|--|
| Nitrous Oxide Footprint | 102. | 103. | 104. | 105. | 106. | 107. |
| | | | | 0 | 0 | 0 |

Is the total annual purchasing volume for ALL anesthetic gases purchased and used by the organization (desflurane, sevoflurane, isoflurane and nitrous oxide) entered in Table I and Table J above? Note: in order to capture and report an accurate **Scope 1** GHG footprint from anesthetic gases, all gases used by the organization must be entered. **GHG totals for anesthetics will not be totaled or transferred to the Scope 1 GHG inventory on the Climate page unless these questions are answered yes.**

| | | |
|---|---|--|
| Baseline year all anesthetics are entered | Previous year all anesthetics are entered | Current year all anesthetics are entered |
| 108. | 109. | 110. |
| Select an option... ▾ | Select an option... ▾ | Select an option... ▾ |

Understanding if a facility's anesthetic gas profile is complete helps ensure accuracy for benchmarking.

111. If entire total annual purchasing volume for all anesthetic gases cannot be entered, please explain why:

Table K. Dollars Spent on Anesthetic Gases Annually

| Anesthetic Agent | Dollars Spent Baseline Year | Dollars Spent Previous Year | Dollars Spent Current Year |
|------------------|------------------------------------|------------------------------------|-----------------------------------|
| Sevoflurane | 112. | 113. | 114. |
| | | | |
| Isoflurane | 115. | 116. | 117. |
| | | | |

| | | | |
|---------------|--|--|--|
| Desflurane | 118. <input type="text"/> | 119. <input type="text"/> | 120. <input type="text"/> |
| Nitrous Oxide | 121. <input type="text"/> | 122. <input type="text"/> | 123. <input type="text"/> |
| Total | 124.* 0 <input type="text"/> | 125.* 0 <input type="text"/> | 126.* 0 <input type="text"/> |

Scope I Greenhouse Gas Emissions from Purchased Anesthetic Gases

| Scope 1 GHG Emissions from Purchased Anesthetic Gases | Baseline Year Total MTCO2e | Previous Year Total MTCO2e | Current Year Total MTCO2e | Percent Reduction MTCO2e Baseline Year | Percent Reduction MTCO2e from Previous Year |
|---|--|--|--|--|---|
| Purchased volatile anesthetic agents | 127. 0 <input type="text"/> | 128. 0 <input type="text"/> | 129. 0 <input type="text"/> | 130. 0 <input type="text"/> | 131. 0 <input type="text"/> |
| Purchased nitrous oxide | 132. 0 <input type="text"/> | 133. 0 <input type="text"/> | 134. 0 <input type="text"/> | 135. 0 <input type="text"/> | 136. 0 <input type="text"/> |
| Total from all purchased inhaled anesthetics | 137.* 0 <input type="text"/> | 138.* 0 <input type="text"/> | 139.* 0 <input type="text"/> | 140. 0 <input type="text"/> | 141. 0 <input type="text"/> |

Please Note: Totals and percent change in this table will only appear if you have indicated above that the total annual purchasing volume for ALL anesthetic gases purchased and used by the organization (desflurane, sevoflurane, isoflurane and nitrous oxide) are entered in Table I and Table J above. If you only have partial data for a particular year (baseline, previous, or current), the percent change metrics may not calculate.

Normalized GHG emissions from anesthetic gases

| MTCO2e per OR | MTCO2e per General Anesthesia Case | MTCO2e per General Anesthesia Hour | MTCO2e per Surgical Procedure |
|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| 142. 0 <input type="text"/> | 143. 0 <input type="text"/> | 144. 0 <input type="text"/> | 145. 0 <input type="text"/> |

Use Practice Greenhealth's **Anesthetic Gas Toolkit** for additional information on calculating the **greenhouse gas** emissions from purchased anesthetics.

The American Society of Anesthesiologists provides guidance on Greening the OR for anesthesiologists in **Greening the Operating Room and Perioperative Arena: Environmental Sustainability for Anesthesia Practice**.

Greening the OR Total Savings

Greening the OR Total Savings

| Avoided Waste (tonnage) | Cost Savings (\$) | Energy Saved (kWh) |
|---------------------------------------|---------------------------------------|---------------------------------------|
| 146. 0 <input type="text"/> | 147. 0 <input type="text"/> | 148. 0 <input type="text"/> |

Other Greening the OR Program Successes

Please describe any other innovative Greening the OR programs or successes at the facility this past year (not mentioned above) that you would like to share in the spaces below. Please feel free to provide commentary and/or attach a file.

149.* GOR Success 1: Please describe

150.* Please attach any additional documentation (optional) for **GOR Success 1:**

This value must be a whole number.

151.* GOR Success 2: Please describe

152. * Please attach any additional documentation (optional) for **GOR** Success 2:

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⚠ This value must be a whole number.

⚠ This value must be a whole number.