

<p>MODULE</p> <p>D</p>	<p><i>This module is directed toward workers in central processing (sterile processing, central supply/distribution) or others who use either ethylene oxide or hydrogen peroxide gas plasma to chemically sterilize medical devices, instruments or supplies.</i></p>
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1. During your career (including all jobs at this and other facilities), how long have you been chemically sterilizing medical instruments or supplies using ethylene oxide or hydrogen peroxide gas plasma?

 - Less than 6 months
 - At least 6 months but less than a year
 - 1-5 years
 - 6-10 years
 - 11-20 years
 - More than 20 years

2. When have you received formal training at this facility on the safe handling of chemical sterilants? **Please ✓ all that apply.**

 - During orientation for your current job or task
 - Once, but not at orientation
 - Periodically, but less than once per year
 - At least annually (i.e., one or more times every year)
 - Other (Please specify): _____
 - Never received training at this facility

3. Have you received any certification for sterile processing of medical instruments and supplies? **Please ✓ all that apply.**

 - Yes, by employer
 - Yes, by the Certification Board for Sterile Processing and Distribution (CBSPD) or formerly the NICHSPDP. This includes a CSPDT, CSPDS, CSIT, or CSPDM.
 - Yes, by another professional society
 - Yes, by a training provider, other than employer
 - Yes, by other (Please specify): _____
 - No

4. Have you seen a copy of the OSHA guidelines for workplace exposure to ethylene oxide at this facility?

 - Yes
 - No

5. Have you seen written policies or standard procedures at this facility for working with chemical sterilants?

 - Yes
 - No

6. At any time in the **past 7 calendar days**, did you sterilize medical instruments or supplies using ethylene oxide or hydrogen peroxide gas plasma?

- Yes
- No



skip to Question 36.

Questions 7-26 pertain to the use of ethylene oxide and questions 27-32 pertain to the use of hydrogen peroxide gas plasma for chemical sterilization of medical instruments or supplies.

7. At any time during the **past 7 calendar days**, did you sterilize medical instruments or supplies using ethylene oxide?

- Yes
- No



Skip to Question 27.

8. During the past 7 calendar days, in which of the following areas of this facility did you load or unload ethylene oxide sterilizers? **Please check all that apply.**

- a. Central processing/supply/distribution
- b. Outpatient surgery clinic
- c. Cardiac catheterization lab
- d. Dental clinic or lab
- e. Autopsy lab
- f. Some other location (Please specify):



8A. From the location(s) checked above, please write the **letter** (a, b, c, etc.) corresponding to the area where you most often loaded or unloaded ethylene oxide sterilizers during the past 7 calendar days.

Most often loaded or unloaded.....

9. During the **past 7 calendar days**, how many days did you sterilize medical instruments or supplies with a sterilizer using ethylene oxide as the sterilant?

Number of days.....
(Please write a number from 1-7)

10. During the past 7 calendar days, did you sterilize medical instruments or supplies using an **automated sterilizer** supplied by compressed-gas cylinders or single-dose cartridges of ethylene oxide?

- Yes
- No



Skip to Question 22.

11. During the past 7 calendar days, did you sterilize medical instruments or supplies using an automated ethylene oxide sterilizer **with in-chamber aeration** (i.e., load does **not** need to be transferred after sterilization to a separate aerator)? (*Check "Not applicable" if your facility does not have this type of ethylene oxide sterilizer.*)
- Yes, continue
 No
 Not applicable
- Skip to Question 17.**
-
12. How much time do you typically spend transferring a single load from an ethylene oxide sterilizer? (*Include only the time spent transferring instruments or supplies from the sterilizer.*)
- Less than 1 minute
 1-2 minutes
 3-4 minutes
 5-6 minutes
 More than 6 minutes
-
13. During the past 7 calendar days, what was the total number of loads you processed using an ethylene oxide sterilizer **with in-chamber aeration**?
- 1 load
 2-3 loads
 4-5 loads
 6-10 loads
 More than 10 loads
-
14. How does the number of loads you processed during the past 7 calendar days using an ethylene oxide sterilizer **with in-chamber aeration** compare with most weeks?
- Past 7 days were about normal
 Past 7 days were less than normal
 Past 7 days were greater than normal
-
15. Which best describes the location of the ethylene oxide cylinder(s) for the sterilizer **with in-chamber aeration** you used most often during the past 7 calendar days? **Please ✓ only one.**
- Gas cylinder is located in a **different room** than the sterilizer.
 Gas cylinder is located in the **same room** as the sterilizer loading area.
 Gas cylinder (cartridge) is located **inside the sterilizer** (i.e., requires the cartridge to be inside chamber with door closed before it is punctured).
 Other (Please specify): _____

16. Considering the sterilizer with **in-chamber aeration** you used most often during the past 7 calendar days:
- | | Yes | No | Don't Know |
|---|--------------------------|--------------------------|--------------------------|
| a. Was operational local exhaust ventilation provided above the door of the sterilizer? .. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b. Was a visual display of the ethylene oxide level (i.e., concentration of ethylene oxide in the room) present near the ethylene oxide sterilizer? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
17. During the past 7 calendar days, did you use an automated ethylene oxide sterilizer with a **separate** aeration chamber (i.e., load **needs** to be transferred after sterilization to a separate aerator)? *(Check "Not applicable" if your facility does not have this type of ethylene oxide sterilizer.)*
- Yes, continue
 No
 Not applicable
- Skip to Question 22.**
18. During the past 7 calendar days, how much time did you typically spend transferring a single load from a sterilizer to the aeration chamber? *(Include only the time spent transferring the load from the sterilizer to the aeration chamber.)*
- Less than 1 minute
 1-2 minutes
 3-4 minutes
 5-6 minutes
 More than 6 minutes
19. During the past 7 calendar days, what was the total number of loads transferred from the sterilizer to the aeration chamber?
- 1 load
 2-3 loads
 4-5 loads
 6-10 loads
 More than 10 loads
20. How does the number of loads you transferred from the sterilizer for aeration during the past 7 calendar days compare with most weeks?
- Past 7 days were about normal
 Past 7 days were less than normal
 Past 7 days were greater than normal

21. Considering the sterilizer with a **separate aeration chamber** that you used most often during the past 7 calendar days:
- | | Yes | No | Don't Know |
|---|--------------------------|--------------------------|--------------------------|
| a. Was operational local exhaust ventilation provided above the door of the sterilizer? .. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b. Was a visual display of the ethylene oxide level (i.e., concentration of ethylene oxide in the room) present near the ethylene oxide sterilizer? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
22. During the past 7 calendar days, did you sterilize medical instruments or supplies with a **sterilizer that uses glass ampoules containing liquid ethylene oxide?** (*Check "Not applicable" if your facility does not have this type of ethylene oxide sterilizer.*)
- Yes, continue
 No
 Not applicable
 }
Skip to Question 27.
23. During the past 7 calendar days, what was the total number of loads you processed with a sterilizer that uses glass ampoules of liquid ethylene oxide?
- 1 load
 2-3 loads
 4-5 loads
 6-10 loads
 More than 10 loads
24. How does the number of loads you processed during the past 7 calendar days with a sterilizer that uses glass ampoules of liquid ethylene oxide compare with most weeks?
- Past 7 days were about normal
 Past 7 days were less than normal
 Past 7 days were greater than normal
25. When using sterilizers that use glass ampoules of liquid ethylene oxide during the past 7 calendar days, was the sterilizer you used most often located within an operating ventilated enclosure (hood)?
- Yes
 No
 Don't know
26. In regards to that same sterilizer, was a visual display of the ethylene oxide level (i.e., concentration of ethylene oxide in the room) present in the work area?
- Yes
 No
 Don't know

The following questions pertain to the use of hydrogen peroxide gas plasma (such as the STERRAD® system) for sterilizing medical instruments or supplies.

27. At any time during the **past 7 calendar days**, did you sterilize medical instruments or supplies using **hydrogen peroxide gas plasma** (such as the STERRAD® system)?
- Yes
 No  **Skip to Question 33.**
28. During the past 7 calendar days, how many days did you sterilize medical instruments or supplies using **hydrogen peroxide gas plasma**?
- Number of days.....
 (Please write a number from 1-7)
29. During the past 7 calendar days, how much time did you typically spend transferring a single load from a sterilizer using hydrogen peroxide gas plasma? (*Include only the time spent transferring instruments/supplies to or from the sterilizing machine*).
- Less than 1 minute
 1-2 minutes
 3-4 minutes
 5-6 minutes
 More than 6 minutes
30. During the past 7 calendar days, what was the total number of loads you sterilized using **hydrogen peroxide gas plasma**?
- 1 load
 2-3 loads
 4-5 loads
 6-10 loads
 More than 10 loads
31. How does the number of loads you sterilized using **hydrogen peroxide gas plasma** during the past 7 calendar days compare with most weeks?
- Past 7 days were about normal
 Past 7 days were less than normal
 Past 7 days were greater than normal

32. During the past week, in which of the following areas of this facility did you sterilize medical instruments or supplies using **hydrogen peroxide gas plasma**? Please **✓ all that apply**.
- a. Central processing/supply/distribution
 - b. Outpatient surgery clinic
 - c. Cardiac catheterization lab
 - d. Dental clinic or lab
 - e. Autopsy lab
 - f. Some other location (Please specify):

32A. From the location(s) checked above, please write the **letter** (a, b, c, etc.) corresponding to the area of this facility where you most often used a **hydrogen peroxide gas plasma** sterilizer during the past week.

Area most often used

The following questions pertain to the use of personal protective equipment (PPE) while chemically sterilizing medical instruments.

33. During the past week, did you wear **respiratory protection, not including a surgical mask**, while chemically sterilizing medical instruments?
- Always
 - Sometimes
 - Never

Skip to Question 35.

34. What type(s) of respirator(s) did you use? Please **✓ all that apply**.
- Half mask or full-face piece respirator with replaceable filters or cartridges
 - Powered air-purifying respirator (PAPR)
 - Supplied-air respirator
 - Don't know

During the past 7 calendar days, if you ALWAYS wore respiratory protection, not including a surgical mask, while chemically sterilizing medical instruments, skip to Question 36.

35. What were the reason(s) you did not always wear **respiratory protection**, not including a surgical mask, while chemically sterilizing medical instruments?
Please ✓ all that apply.

- 1. Potential for exposure to chemical sterilants is insignificant
- 2. Exposure to chemical sterilants is possible but the health hazard is insignificant
- 3. An engineering control (e.g., exhaust ventilation or an enclosure) is already being used
- 4. Not required by employer
- 5. Not provided by employer
- 6. Not standard practice
- 7. Too uncomfortable or difficult to use
- 8. Not readily or always available in work area
- 9. Other (Please specify): _____

35A. From the reason(s) checked above, please write the number (1, 2, 3, etc.) of the one **most important reason** you did not always wear **respiratory protection** while chemically sterilizing medical instruments

Most important reason

**You have now completed this module.
Thank you.**