

The Q-Net™ Monthly

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What's News

The Society of Gastroenterology Nurses and Associates (SGNA) and The American Society for Gastrointestinal Endoscopy (ASGE) recommend that facilities performing gastrointestinal (GI) endoscopy have in place an effective quality assurance program, to ensure GI endoscopes are properly reprocessed. Annual competency testing, for which the quiz provided in this newsletter's issue can be used, is an important component of this recommended quality assurance program.

Editor-in-Chief

All of the articles published in this newsletter are written by: **Lawrence F. Muscarella, Ph.D.**, Chief, Infection Control at Custom Ultrasonics, Inc. Ivyland, PA.

What is 'Q-Net'?

Q-Net is a technology-assessment, Internet-based network of questions and answers. Its newsletter is *The Q-Net™ Monthly*.

The main goal of **Q-Net** is to encourage the infection control, endoscopy, and OR communities not only to ask good questions but also to demand well referenced responses.

Q-Net addresses the needs of both the health care provider whose goal is to provide the best care possible and the patient who deserves affordable quality health care.

Annual quiz, 2007

❖ This issue provides a challenging **annual quiz** that requires reviewing and studying all of the articles published in this newsletter in 2006.

❖ This quiz focuses on the following topics: push enteroscopy, the safe and proper use of Cidex OPA, and double standards in guidelines.

❖ As part of an effective quality assurance program, this quiz may be used for **annual competency testing** and for continuing education units, or **CEUs**.

PART 1A. Endoscopic shuffling, Part 2. Discussed in the January-February, 2006, issue.

1. What is "push enteroscopy": (A) A procedure that advances a long, narrow endoscope into the upper gastrointestinal (GI) tract to examine the distal portion of the small bowel. (B) A procedure that advances a short, wide endoscope into the lower GI tract to examine the first third of the colon. (C) A procedure that

advances a long, narrow endoscope into the upper GI tract to examine the proximal small bowel. (D) None of the above.

2. Which of the following is an example of "endoscopic shuffling": (A) Use of a colonoscope in the upper GI tract. (B) Use of a push enteroscope in the colon. (C) Use of a gastroscope in the lower GI tract. (D) All of the above.

3. Endoscopic shuffling is controversial because it raises questions about all of the following except: (A) The standard of care. (B) Patient expectations. (C) The use of Cidex OPA. (D) Infection control and hygiene. (E) The endoscope's intended use. (F) All of the above.

4. Which of the following is false: (A) Endoscopic shuffling can be performed safely. (B) Endoscopic shuffling cannot be performed safely, even by a

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This Quiz's Answer Key

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Write your answers on the lines provided on p. 12, where the answer key is also provided.

➔ **REPROCESSING RIGID LARYNGOSCOPES:** On April 30, 2007, the California State Department of Health Services issued a safety notice entitled "Inadequate reprocessing of semicritical instruments: Recommendations for reprocessing of rigid laryngoscopes." This important safety notice can be read at: http://www.myendosite.com/states/AFL_07-09.pdf

trained GI endoscopist. (C) Facilities without a push enteroscope in inventory may practice endoscopic shuffling. (D) Recurrent acute or chronic bleeding in the GI tract for which no source has been identified by routine radiologic and endoscopic examination is defined as ‘obscure bleeding.’

5. **All of the following might explain why a medical facility may not have a push enteroscope in inventory except:** (A) Push enteroscopes are expensive. (B) Push enteroscopes are used infrequently. (C) The facility has safely performed push enteroscopy using a colonoscope. (D) Compared to a colonoscope, a push enteroscope can improve diagnostic yields and decrease the risk of misdiagnosis when used in the upper GI tract. (E) A and B. (F) None of the above.

6. **Which of the following is false:** (A) The interchangeable use of a GI endoscope to perform in sequence both upper and lower GI endoscopy on a patient saves time, money, and is recommended. (B) Any GI endoscope subject to endoscopic shuffling should be clearly marked or labeled. (C) The primary consideration for endoscope shuffling is reportedly to compensate for limited endoscope availability. (D) Endoscopic shuffling is not consistent with the endoscope’s intended use and labeling. (E) None of the above.

PART 1B. Review of a FDA-CDC Health Advisory.
Discussed in the January-February, 2006, issue.

1. **The respiratory specimens of 5 patients are found to be contaminated with *Mycobacterium tuberculosis*. Only one of these patients displays clinical evidence of tuberculosis, and the same bronchoscope was used to collect all of the specimens. Which of the following is true:** (A) Patient-to-patient disease transmission is suspected. (B) This cluster likely describes a pseudo-outbreak. (C) This cluster likely describes both a true and pseudo outbreak. (D) Contamination of the bronchoscope with *M. tuberculosis* is suspected. (E) B and D. (F) None of the above.

Topics discussed in this newsletter in 2006

- ◆ **“Endoscopic shuffling (Part 2),” and Review of a FDA-CDC Health Advisory: Jan-Feb 2006**
- ◆ **Annual quiz covering topics published in this newsletter in 2005: Mar-Apr 2006**
- ◆ **“Double standards”: May-Jun 2006**
- ◆ **Cidex OPA—The content of and differences between its 3 different labels: Jul-Aug 2006**
- ◆ **Cidex OPA—A discussion: Sep-Oct 2006**
- ◆ **Cidex OPA—Recommendations for its safe and proper use: Nov-Dec 2006**

2. **The respiratory specimens of 7 patients are found to be contaminated with *Mycobacterium avium-intracellulare* (MAI). None of these patients displays clinical evidence of infection. Which of the following is false:** (A) Patient-to-patient disease transmission is not suspected. (B) This cluster likely describes a pseudo-outbreak. (C) MAI is the causative agent of pulmonary tuberculosis. (D) MAI is an atypical mycobacterium. (E) None of the above.

3. **The respiratory specimens of 18 patients are found to be contaminated with *Pseudomonas aeruginosa*. Only three of these patients display symptoms of infection of this bacterium. Which of the following is true:** (A) This cluster likely describes both a true and pseudo-outbreak. (B) The pseudo outbreak associated with this cluster may be due to patient-to-patient disease transmission. (C) The source of this cluster’s *P. aeruginosa* could be the environment (e.g., the rinse water used to reprocess the bronchoscopes used on these patients). (D) A and C. (E) B and C.

PART 2. “Double standards.” Discussed in the May-June, 2006, issue.

1. **The topics discussed in this newsletter’s issue include each of the following except:** (A) The different characteristics of tuberculocidal and atypical mycobacteria. (B) Monitoring the rinse water used during endoscope reprocessing. (C) The potential for filtered rinse water used during endoscope reprocessing to be contaminated despite being labeled as “sterile” or “bacteria-free.” (D) Monitoring steam autoclaves using biological indicators. (E) The importance of endoscope drying after completion of every reprocessing cycle.

2. **Which of the following is false:** (A) Reports indicate that wet endoscopes are associated with an increased risk of morbidity and mortality. (B) Infection-control guidelines should be written around and to accommodate the labeling of medical devices. (C) Drying bronchoscopes is important to prevent true and pseudo outbreaks. (D) Water or moisture on the wrapping of an instrument set creates doubt about the set’s sterility. (E) None of the above.

3. **The “double standard” discussed in this newsletter’s issue refers to which of the following:** (A) That atypical mycobacteria are usually associated with pseudo infections, while viruses are ordinarily associated with true infections. (B) That the risk of nosocomial infection during bronchoscopy is reported to be higher than during GI endoscopy. (C) That some organizations conclude that wet or moist wrapped instrument sets are potentially contaminated but consider wet endoscopes potentially “sterile.” (D) That pseudo-outbreaks are more commonly associated with bronchoscopy than GI endoscopy. (E) That bronchoscopes have been reported to transmit tuberculosis but not viruses.

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➔ This annual quiz and all of the other articles published in this newsletter are written by **Lawrence F. Muscarella, Ph.D.**, Custom Ultrasonics, Inc. To subscribe to this newsletter, visit: www.myendosite.com

PART 3. Cidex OPA—What's in its labeling?
Discussed in the July-August, 2006, issue.

1. **Which of the following is false:** (A) Cidex OPA contains glutaraldehyde. (B) Cidex OPA is not activated or buffered before use. (C) Cidex OPA is rapidly tuberculocidal. (D) The concentration of Cidex OPA must be monitored.
2. **How many different labels have been associated with Cidex OPA since 1999?** (A) 2 labels. (B) 1 label. (C) 3 labels. (D) None (a trick question). (E) 4 labels. (F) 5 labels.
3. **Each of the following is discussed on Cidex OPA's label except:** (A) The soaking time and temperature required to achieve high-level disinfection. (B) Cidex OPA's shelf life. (C) The caution to avoid exposure to Cidex OPA's vapors. (D) The soaking time and temperature required to achieve intermediate-level disinfection. (E) Water rinsing instructions.
4. **Cidex OPA is indicated for reprocessing all of the following types of semi-critical instruments except:** (A) transesophageal echocardiography (TEE) probes (B) cataract surgical instruments (C) GI endoscopes (D) bronchoscopes (E) None of the above.
5. **Which of the following is false:** (A) Cidex OPA's first label (1999) contraindicates its use for reprocessing cystoscopes used to treat patients with a history of bladder cancer. (B) Cidex OPA's second label (2003), unlike its first label, includes a dual immersion time and temperature claim—one for manual reprocessing and one for reprocessing instruments using an automated endoscope reprocessor (AER). (C) The immersion time to achieve high-level disinfection during manual reprocessing is shorter than during automated reprocessing. (D) The immersion temperature to achieve high-level disinfection during automated reprocessing is higher than during manual reprocessing. (E) A and C. (F) B and D.
6. **Which one of the following is included in Cidex OPA's current label (2004, 2006) but not in any of its previous labels:** (A) A contraindication for reprocessing urological instrumentation (e.g., cystoscopes) used to treat patients with a history of bladder cancer. (B) An immersion time and temperature for automated reprocessing. (C) The importance of discarding the solution of Cidex OPA if precipitates of insoluble salts, due to its contact and mixing with hard water, are identified. (D) The importance of rinsing the instrument three times with water after immersion in Cidex OPA.

7. **Cidex OPA is labeled to achieve high-level disinfection during manual reprocessing at what immersion time and temperature?** (A) 12 minutes at 25° C (B) 5 minutes at 20° C (C) 5 minutes at 25° C (D) 12 minutes at 20° C

8. **Cidex OPA is labeled to achieve high-level disinfection during automated reprocessing at what immersion time and temperature?** (A) 12 minutes at 25° C. (B) 5 minutes at 20° C. (C) 5 minutes at 25° C. (D) 12 minutes at 20° C.

PART 4. Cidex OPA—A discussion. Discussed in the September-October, 2006, issue.

1. **Each of the following topics is addressed in this newsletter's issue except:** (A) The use of Cidex OPA to reprocess laparoscopes. (B) Reprocessing TEE probes. (C) The importance of water rinsing. (D) The lack of a "sterilization" claim on Cidex OPA's labeling. (E) A and B.
2. **Cidex OPA's labeling provides which of the following water-rinsing instructions following chemical immersion:** (A) Two rinses each of which immerses the instrument in a minimum of 3 gallons of fresh water for a duration of at least 1 minute. (B) Three rinses each of which immerses the instrument in a minimum of 2 gallons of fresh water for a duration of at least 1 minute. (C) One rinse that immerses the instrument in a minimum of 2 gallons of fresh water for a duration of at least 3 minutes. (D) None of the above.
3. **Which of the following about TEE probes is false:** (A) A TEE probe is used non-invasively to provide clear ultrasound images of the heart. (B) Immersion of the TEE probe in Cidex OPA for longer than an hour may result in irritation and staining of the patient's mouth during the procedure. (C) Ineffective water rinsing of TEE probes may also result in patient injury. (D) Immersion of a TEE probe in

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In addition to **push enteroscopy, double standards, and the safe and proper use of Cidex OPA**, the following topics have been discussed in recent issues of this newsletter:

- ✓ *Risk of infection during rigid laryngoscopy*
- ✓ *Risk of infection during flexible laryngoscopy*
- ✓ *Inconsistencies in published guidelines*
- ✓ *Toxic anterior segment syndrome (TASS)*
- ✓ *Differences between true, pseudo outbreaks*
- ✓ *Risk of infection during GI endoscopy*
- ✓ *Risk of infection during bronchoscopy*
- ✓ *Details of a bronchoscope recall*

Cidex OPA during manual reprocessing requires a soaking time and temperature of 5 minutes at 20° C.

PART 5. Cidex OPA—Recommendations. Discussed in the November-December, 2006, issue.

1. **This newsletter’s issue recommends each of the following except:** (A) Use caution whenever the terminal water rinsing parameters of an automated reprocessor differ from the manual water rinsing instructions provided on Cidex OPA’s label. (B) Retain on file a copy of Cidex OPA’s most recent label. (C) Use Cidex OPA in a room or area where at least 2 exchanges per hour of filtered re-circulated air are achieved. (D) Before using Cidex OPA to reprocess a reusable instrument, confirm that the instrument is *semi-critical* and is constructed of materials compatible with Cidex OPA.

2. **This newsletter’s issue also recommends all of the following except:** (A) Repeat high-level disinfection of the instrument if the temperature of Cidex OPA drops below 20° C at any time during manual reprocessing. (B) Use only sterile water for rinsing *semi-critical* instruments. (C) Ensure that the reusable instrument is thoroughly pre-cleaned prior to manual or automated reprocessing using Cidex OPA. (D) Read the reusable instrument’s reprocessing instructions to determine whether disassembly of the instrument is necessary prior to reprocessing. (E) None of the above.

3. **Which of the following is false:** (A) Covering some types of reusable *semi-critical* instruments with a disposable sheath eliminates reprocessing. (B) Direct contact with Cidex OPA may stain exposed skin or clothing. (C) Cidex OPA is contraindicated for reprocessing instrumentation used to treat patients with a known sensitivity to Cidex OPA. (D) Wear personal protective equipment—including gloves, eye protection, and gowns—whenever using Cidex OPA or another high-level disinfectant or liquid sterilant to reprocess an instrument. (E) None of the above. ● *The End* LFM

Thank you for your interest in this newsletter. *I have addressed each issue and topic to the best of my ability. Respectfully, Lawrence F. Muscarella, Ph.D.*
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~ The Quiz’s Answer Key ~

Before beginning this quiz, cover up the inverted right-hand column, which provides the answer to each question. Write your answers in the provided left-hand column. A review of all of this newsletter’s issues published in 2006 will likely be necessary to score well.

<p>Part 1A.</p> <ul style="list-style-type: none"> • Answer 1: _____ • Answer 2: _____ • Answer 3: _____ • Answer 4: _____ • Answer 5: _____ • Answer 6: _____ <p>Part 1B.</p> <ul style="list-style-type: none"> • Answer 1: _____ • Answer 2: _____ • Answer 3: _____ <p>Part 2.</p> <ul style="list-style-type: none"> • Answer 1: _____ • Answer 2: _____ • Answer 3: _____ <p>Part 3.</p> <ul style="list-style-type: none"> • Answer 1: _____ • Answer 2: _____ • Answer 3: _____ • Answer 4: _____ • Answer 5: _____ • Answer 6: _____ • Answer 7: _____ • Answer 8: _____ <p>Part 4.</p> <ul style="list-style-type: none"> • Answer 1: _____ • Answer 2: _____ • Answer 3: _____ <p>Part 5.</p> <ul style="list-style-type: none"> • Answer 1: _____ • Answer 2: _____ • Answer 3: _____ 	<p>• Question 3: A</p> <p>• Question 2: B</p> <p>• Question 1: C</p> <p>Part 5.</p> <p>• Question 3: D</p> <p>• Question 2: B</p> <p>• Question 1: A</p> <p>Part 4.</p> <p>• Question 8: C</p> <p>• Question 7: D</p> <p>• Question 6: A</p> <p>• Question 5: E</p> <p>• Question 4: B</p> <p>• Question 3: D</p> <p>• Question 2: C</p> <p>• Question 1: A</p> <p>Part 3.</p> <p>• Question 3: C</p> <p>• Question 2: B</p> <p>• Question 1: A</p> <p>Part 2.</p> <p>• Question 3: D</p> <p>• Question 2: C</p> <p>• Question 1: E</p> <p>Part 1B.</p> <p>• Question 6: A</p> <p>• Question 5: D</p> <p>• Question 4: B</p> <p>• Question 3: C</p> <p>• Question 2: D</p> <p>• Question 1: C</p> <p>Part 1A.</p>
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➔ Contact the editor—editor@myendosite.com—for an explanation of the answer to any of this quiz’s 26 questions.

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