



# Same-Day Surgery®

Covering Hospitals, Surgery Centers, and Offices for More than 30 Years



## IN THIS ISSUE

- If you're not prepared for malignant hyperthermia, your patient could die . . . . . cover
- MH cards spell out duties of each nurse . . . . . 96
- AORN updates its MH guideline. . . . . 98
- Hospitals: Are you ready for nationwide RAC rollout? . . . 98
- Selecting patients, tools for natural orifice surgery . . . 101
- **SDS Manager:** The OR is overdue for an overhaul . . 102
- Tips for handling contract renewals. . . . . 103

### Financial Disclosure:

Senior Managing Editor Joy Dickinson, Associate Publisher Coles McKagen, Board Member and Nurse Planner Kay Ball, and Board Member and Columnist Stephen W. Earnhart report no consultant, stockholder, speaker's bureau, research, or other financial relationships with companies having ties to this field of study. Consulting Editor Mark Mayo reports that he is an employee of Magna Health Systems and a consultant for DayOne Health. Steven Schweitzberg, MD, Physician Reviewer, discloses that he is on the speakers bureau for Stryker Corp. and Merck & Co., he is a medical advisor to Surgique, and he is a stockholder in Starion Instruments.

SEPTEMBER 2008

VOL. 32, NO. 9 • (pages 93-104)

## Is your staff prepared for MH? It's probably the key to saving lives

*Cause of death confirmed in FL case, draws attention to ASCs*

The cause of death in the case of a Florida teen having breast surgery has been confirmed as malignant hyperthermia (MH),<sup>1</sup> and the eyes of the nation have turned to outpatient surgery providers and their preparation to handle an MH episode.

In the recently released autopsy report, the Palm Beach County Medical Examiner's Office said Stephanie Kuleba, 18, died earlier this year of MH after she had an "idiosyncratic reaction to anesthesia."<sup>1</sup> She was having surgery to correct an inverted nipple and asymmetrical breasts. The surgeon and anesthesiologist are being accused by the family's attorney of not responding appropriately.<sup>2</sup> **(For more on the lawyers' accusations, see story, p. 95.)**

MH  
Response

The family has created an online memorial web site ([www.stephaniejudekuleba.org](http://www.stephaniejudekuleba.org)), which says, "We believe that something positive must come from the loss of Stephanie's life. Through our terrible experience, our

## EXECUTIVE SUMMARY

When a healthy Florida teenager died after developing malignant hyperthermia (MH) during an outpatient surgery case, it served as a wake-up call for providers to be prepared.

- If you administer agents known to trigger MH, stock a minimum of 36 vials of dantrolene sodium for injection.
- As directed in the updated guideline from the Association of periOperative Registered Nurses (AORN), ask patients and their families questions to help screen for susceptibility to MH.
- Hang posters with the toll-free hotline number and response steps. Hold walk-through drills using expired dantrolene. Use cards to assign a role to each responding nurse.

SDS NOW AVAILABLE ONLINE! [www.ahcmedia.com/online.html](http://www.ahcmedia.com/online.html) for access.  
For more information, call: (800) 688-2421.

family is determined to create awareness about MH as well as educate people surrounding choices regarding anesthetics and surgical settings. Much will be told regarding the voids and inadequacies of the current system regarding certain ambulatory surgical centers (ASC), and how physicians' decisions regarding profit are compromising patient safety."

That issue is receiving attention at the state level. In Arizona, the state medical board said earlier this year that physicians in office-based surgery centers no longer can use any drug that

could trigger MH.<sup>3</sup> (See list of drugs that could trigger MH from a national association, p. 97.)

For **Debra Merritt**, CRNA, MSN, the liaison from the American Association of Nurse Anesthetists to the Malignant Hyperthermia Association of the United States (MHAUS), the issue of preparing for MH is personal. Her husband, who is "MH-positive," had a reaction under anesthesia in 1984 but survived because his providers quickly diagnosed and treated it, she says. (See story on how to respond to a case of MH, p. 96.)

Today, Merritt touts the importance of being prepared for such episodes. "With anesthesia being provided in so many locations, being prepared is probably the key to saving someone's life," she says. When a provider says, "This is an MH case," your team members needs to know how to respond immediately because they've already participated in MH drills, she says. "It's not going to take just one or two people," Merritt points out.

At Ponte Vedra (FL) Plastic Surgery, expired dantrolene is used for walk-through drills so nurses have the opportunity to experience mixing up the medication, says **Kelly Wilson**, RN, surgery center administrator. Even the anesthesiologists have practiced mixing up the drug, she says. "Mixing is peace of mind, because it gets your hands on it and you know what it's like." To draw medication from a large vial takes a significant amount of work because it is so constituted, Wilson adds. (For information about cards the surgery centers has developed that define each nurse's role, see story, p. 96.)

MHAUS officials point out that expired dantrolene should be clearly marked, used for training purposes that doesn't include dosing to humans, and should be destroyed after the drills.

Consider these additional steps:

- **Have dantrolene on hand.**

A recently published article in the *The Wall Street Journal* (WSJ) says that as many as 1 in 3,000 might be genetically predisposed to MH under inhaled anesthesia.<sup>3</sup>

Dantrolene is the drug used to treat MH. Although dantrolene traditionally cost up to \$5,000, you might be able to obtain a generic form, approved late last summer, for about \$2,500, sources say. **Jeffrey Jacobs**, MD, an anesthesiologist at Cleveland Clinic in Weston, FL, says, "That's a small amount to pay, considering what you pay in equipment and insurance, and considering your profit margin." Also, you must consider the value of a patient's life, he adds.

Jacobs has heard of centers and offices that share

**Same-Day Surgery**® (ISSN 0190-5066) is published monthly by AHC Media LLC, 3525 Piedmont Road, Building Six, Suite 400, Atlanta, GA 30305. Telephone: (404) 262-7436. Periodicals Postage Paid at Atlanta, GA 30304 and at additional mailing offices.

**POSTMASTER:** Send address changes to **Same-Day Surgery**®, P.O. Box 740059, Atlanta, GA 30374.

### Subscriber Information

**Customer Service: (800) 688-2421 or fax (800) 284-3291, (customerservice@ahcmedia.com). Hours of operation: 8:30 a.m. to 6 p.m. Monday-Thursday; 8:30 a.m.-4:30 p.m. Friday.**

**Subscription rates:** U.S.A., one year (12 issues), \$495. Add \$17.95 for shipping & handling. Outside U.S.A., add \$30 per year, total prepaid in U.S. funds. Discounts are available for group subscriptions, multiple copies, site-licenses or electronic distribution. For pricing information, call Tria Kreutzer at 404-262-5482. Missing issues will be fulfilled by customer service free of charge when contacted within one month of the missing issue date. **Back issues**, when available, are \$83 each. (GST registration number R128870672.)

**Photocopying:** No part of this newsletter may be reproduced in any form or incorporated into any information retrieval system without the written permission of the copyright owner. For reprint permission, please contact AHC Media LLC. Address: P.O. Box 740056, Atlanta, GA 30374. Telephone: (800) 688-2421, ext. 5491. Fax: (800) 284-3291 Web: <http://www.ahcmedia.com>.

AHC Media LLC is accredited as a provider of continuing nursing education by the American Nurses Credentialing Center's Commission on Accreditation.

This activity has been approved for 16.5 nursing contact hours using a 60-minute contact hour.

Provider approved by the California Board of Registered Nursing, Provider #14749, for 16.5 Contact Hours.

AHC Media LLC is accredited by the Accreditation Council for Continuing Medical Education to provide continuing medical education for physicians.

AHC Media LLC designates this educational activity for a maximum of 20 *AMA PRA Category 1 Credits*™. Physicians should only claim credit commensurate with the extent of their participation in the activity.

This activity is intended for outpatient surgeons, surgery center managers, and other clinicians. It is in effect for 24 months after the date of publication.

Opinions expressed are not necessarily those of this publication. Mention of products or services does not constitute endorsement. Clinical, legal, tax, and other comments are offered for general guidance only; professional counsel should be sought for specific situations.

Associate Publisher: **Coles McKagen** (404) 262-5420  
([coles.mckagen@ahcmedia.com](mailto:coles.mckagen@ahcmedia.com)).

Senior Managing Editor: **Joy Daugherty Dickinson** (229) 551-9195  
([joy.dickinson@ahcmedia.com](mailto:joy.dickinson@ahcmedia.com)).

Senior Production Editor: **Nancy McCreary**.

Copyright © 2008 by AHC Media LLC. **Same-Day Surgery**® is a registered trademark of AHC Media LLC. The trademark **Same-Day Surgery**® is used herein under license. All rights reserved.



### Editorial Questions

Questions or comments?  
Call **Joy Daugherty Dickinson**  
at (229) 551-9195.

## RESOURCES

- **The Malignant Hyperthermia Association of the United States (MHAUS)** has the following resources:
  - *Ambulatory Surgery Center MH Procedure Manual*. MHAUS says this resource could cut your response time by 50%. The cost is \$265 including shipping and handling. Go to [www.mhaus.org](http://www.mhaus.org) and click on “place order.” Under “browse by category,” click on “MH Procedure Manuals with Video.”
  - A free poster describing how to perform emergency therapy to treat MH is available at [medical.mhaus.org/PubData/PDFs/treatmentposter.pdf](http://medical.mhaus.org/PubData/PDFs/treatmentposter.pdf).
  - The MH Emergency Hotline is (800) MH HYPER [(800) 644-9737] in the United States and Canada. Outside those areas, call 001-1-315-464-7079.
  - At press time, MHAUS was in the final stages of a report regarding the needs of surgery centers regarding MH and transfer of care. The organization plans to develop the report into an educational format by fall 2008.
- **The Ambulatory Surgery Center Association** has an article on malignant hyperthermia posted at [ascassociation.org/hyperthermiaarticle.pdf](http://ascassociation.org/hyperthermiaarticle.pdf).

doses of dantrolene. However, providers should consider what’s right for the patient, he says. “All it takes is one crisis, and not being prepared, to cause a catastrophe,” Jacobs says. Having dantrolene available is part of the cost of doing business, he maintains. “It’s just like the electric bills and plumbing,” he says. “It needs to be there.”

The Ponte Vedra center has a shelf designated for MH supplies, Wilson says. In addition to the dantrolene, that shelf includes an extra Foley catheter and an extra nasogastric tube, she says.

- **Educate your staff.**

Don’t assume that your staff, even those who came from the emergency department, have been educated about MH, Wilson says.

Ponte Vedra includes MH education as part of new employee training, she says. Additionally, Wilson has included information about MH in the staff’s monthly newsletter, which goes to everyone, including the receptionist. That staff member is likely to receive questions from patients about the center’s MH preparation, due to the publicity of the Kuleba case, she says.

“It seems incomprehensible that a health

young teen can go in for surgery and not come out, and it can happen anywhere,” Wilson warns. Patients such as Kuleba are American Society of Anesthesiologists (ASA) Class 1 patients, she points out. “You don’t see it coming, so you need to be prepared,” Wilson says.

## References

1. Sarmiento G. Autopsy confirms Boca Raton cheerleader died of rare genetic ailment. *The Palm Beach Post*; May 30, 2008. Accessed at [www.palmbeachpost.com/localnews/content/south/epaper/2008/05/30/0530bocacheerleader.html?cxntlid=inform\\_sr](http://www.palmbeachpost.com/localnews/content/south/epaper/2008/05/30/0530bocacheerleader.html?cxntlid=inform_sr).
2. DeNardo C. West Boca High cheerleader got fraction of drug needed, lawyer charges. *The Palm Beach Post*; April 1, 2008. Accessed at [www.palmbeachpost.com/search/content/south/epaper/2008/04/01/m1a\\_kuleba\\_0401.html](http://www.palmbeachpost.com/search/content/south/epaper/2008/04/01/m1a_kuleba_0401.html).
3. Landro L. A fresh focus on a rare risk of anesthesia. *The Wall Street Journal*; April 30, 2008:D1. Accessed at [online.wsj.com/public/article/SB120950929636954247-aKUNgvm706DgS6OMTbuMm0hP\\_UY\\_20080530.html?mod=tff\\_main\\_tff\\_top](http://online.wsj.com/public/article/SB120950929636954247-aKUNgvm706DgS6OMTbuMm0hP_UY_20080530.html?mod=tff_main_tff_top). ■

## Details of fatality that occurred from MH

The report by the Palm Beach County Medical Examiner’s Office regarding Florida teen Stephanie Kuleba, who died earlier this year of malignant hyperthermia (MH), doesn’t answer all of the questions surrounding her death.

Kuleba was having surgery to correct an inverted nipple and asymmetrical breasts when she developed MH, according to a media report.<sup>1</sup> The autopsy report doesn’t say whether the plastic surgeon and anesthesiologist provided Kuleba with a sufficient amount of dantrolene or whether it was administered quickly enough. The Kulebas’ family attorney has said she should have received seven vials as an initial dose, the media report says. On medical records, one doctor noted she received one vial of the antidote, and the other doctor wrote that she received two. It’s not known at what time the drug was administered or whether there was enough dantrolene available at the facility. According to the attorney, the surgery began at 8:05 a.m. Paramedics were called at 9:45 a.m., and they eventually administered an epinephrine shot, records show. That

**MH  
Response**

shot should have been given by her doctors as soon as Kuleba's heart stopped beating, the attorney maintains.

The family's lawyer said in a media report that several other factors could have contributed to the death.<sup>2</sup> The anesthesia wasn't stopped until 10 minutes after Kuleba began to show signs of MH, he said. When her temperature rose to dangerous levels, doctors should have pumped cold saline into her bladder, stomach, and other organs to lower her body temperature, he said. Instead, they placed ice on her body, he said. When her heart stopped beating, doctors should have given her a shot of epinephrine, which clinics are required to keep on hand, he said.

Both doctors have defended their actions and said the situation was handled appropriately.<sup>1</sup> They say Kuleba received the dantrolene dose needed once they consulted with the hotline for the Malignant Hyperthermia Association of the United States. (See **hotline number in article, below right.**)

## References

1. Sarmiento G. Autopsy confirms Boca Raton cheerleader died of rare genetic ailment. *The Palm Beach Post*; May 30, 2008. Accessed at [www.palmbeachpost.com/localnews/content/south/epaper/2008/05/30/0530bocacheerleader.html?cxntlid=inform\\_sr](http://www.palmbeachpost.com/localnews/content/south/epaper/2008/05/30/0530bocacheerleader.html?cxntlid=inform_sr).

2. DeNardo C. West Boca High cheerleader got fraction of drug needed, lawyer charges. *The Palm Beach Post*; April 1, 2008. Accessed at [www.palmbeachpost.com/search/content/south/epaper/2008/04/01/m1a\\_kuleba\\_0401.html](http://www.palmbeachpost.com/search/content/south/epaper/2008/04/01/m1a_kuleba_0401.html). ■

## Response steps to an MH crisis

When your patient develops malignant hyperthermia (MH), take these steps, providers suggest:

- **Differentiate between signs and symptoms, and rule out other causes.**

The symptoms and signs of MH can be confused with many more common issues and problems, says **Jeffrey Jacobs, MD**, an anesthesiologist at Cleveland Clinic in Weston, FL. You have to

quickly rule out other causes, he says.

"With nonspecific signs and symptoms, and the patient is not getting better with normal intervention, and they have received triggering agents, that's when you start to believe you might be in an

MH crisis," Jacobs says.

- **Respond quickly.**

Keep the poster describing how to perform emergency therapy to treat MH (see **resource box, p. 95**) and the toll-free number of the Malignant Hyperthermia Association of the United States (MHAUS) by the crash cart and the dantrolene supply, sources suggest.

Follow the changes in the patient to determine right away whether MH is the cause, warns **Debra Merritt, CRNA, MSN**, liaison from the American Association of Nurse Anesthetists to the (MHAUS). "It can take off and become lethal very quickly," she warns.

Jacobs agrees. "When you accept it's MH, the body already has a head start on it, going into a hypermetabolic state," he says.

- **Administer dantrolene.**

The typical starting dose of dantrolene is 2.5 mg per kg, according to Jacobs. "For a 160-pound person, that's about six or seven bottles of dantrolene," he says.

Keep in mind that the resuscitation effort takes several people, Jacobs says. "You need one person to devote themselves to mixing, another to administer it, and another to take care of the patients' blood pressure and IV access." (**One facility developed cards to explain each person's role. See story, below.**)

Administer dantrolene until the signs and symptoms of hypermetabolism are under control, Merritt says. "The heart rate is decreasing, the end-tidal CO<sub>2</sub> is decreasing, and the temperature is decreasing," she says. "You're stabilizing the patient." [Protocol from MHAUS is available with the online issue of *Same-Day Surgery* at [www.ahcpub.com](http://www.ahcpub.com). For assistance, contact customer service at [customerservice@ahcmedia.com](mailto:customerservice@ahcmedia.com) or (800) 688-2421.] ■

## Cards spell out duties of 4 nurses

At Ponte Vedra Plastic Surgery, cards were developed to explain the role of each of four nurses who handle malignant hyperthermia (MH) resuscitation.

Because the facility has rotating staff depending on which surgeon is operating, the cards allow whoever is in the OR to

**MH  
Response**

**MH  
Response**

quickly address the crisis, says **Kelly Wilson**, RN, surgery center administrator. There is a card for a cooling nurse, a medication nurse (who prepares, administers, and records the medications), a circulation nurse, and a dantrolene nurse.

“We would have every possible medical staff report to the area, so we would hopefully have more than the four assigned, but the four would be considered leaders for their assigned duties,” Wilson says. The extra personnel who report initially are assigned to help mix and administer dantrolene.

Because it is a freestanding surgery center, the staff members would begin treatment and continue treatment as long as necessary, but as quickly as possible they would transfer the patient to the local hospital, Wilson says. “We do not have a lab on site, so you don’t see that on our form,” she says.

The cards include the hotline number for the Malignant Hyperthermia Association of the United States, which is (800) MH HYPER [(800) 644-9737] in the United States and Canada. *[Editor’s note: A copy of the cards is available with the online issue of Same-Day Surgery. If you need help accessing your online issue, contact customer service at (800) 688-2421 or customerservice@ahcmedia.com.]* ■

## What is required by accrediting groups?

The Joint Commission says that “emergency medications and other interventions can help mitigate the impact of a [malignant hyperthermia

### MH Response

(MH)] episode, but only if the needed materials are readily available and staff is adequately trained.” Specifically, The Joint Commission requires:

- Emergency medications and/or supplies, if any, are consistently available, controlled, and secured.
- The organization provides initial orientation.
- Staff and licensed independent practitioners, as appropriate, can describe or demonstrate their roles and responsibilities relative to safety.
- Staff competence to perform job responsibilities is assessed, demonstrated, and maintained.
- The organization responds to life-threatening emergencies according to organization policy and procedure.
- Operative or other procedures and/or the

## Potential Malignant Hyperthermia Triggering Agents

- Chloroform (trichloromethane, methyltrichloride)
- Halothane
- Enflurane
- Isoflurane
- Desflurane
- Sevoflurane
- Methoxyflurane
- Trichloroethylene
- Xenon
- Succinylcholine

Source: Malignant Hyperthermia Association of the United States, Sherburne, NY.

administration of moderate or deep sedation or anesthesia are planned.

The Accreditation Association for Ambulatory Health Care (AAAHC) says written protocols and emergency equipment and drugs for the treatment of MH are maintained and readily available, if the organization administers agents known to trigger malignant hyperthermia. (See **list, above.**) AAAHC also requires that malignant hyperthermia drills are performed at least yearly.

The association says providers should stock a minimum of 36 vials of dantrolene sodium for injection, if they administer agents known to trigger MH. If potent volatile agents are not used, and succinylcholine is available for resuscitation, a minimum of 36 vials of dantrolene should be available.

The American Association for Accreditation of Ambulatory Surgery Facilities (AAAASF) says the malignant hyperthermia algorithm from the Malignant Hyperthermia Association of the United States (MHAUS) must be available on the emergency cart if potential malignant hyperthermia triggering agents are ever used or are present in the facility. (See **list, above.**) Additionally, the organization requires:

- at least 1,000 ml (intravenous bag or similar container) of preservative free H<sub>2</sub>O diluent for dantrolene;
- at least four 50 cc ampules of NaHCO<sub>3</sub>;
- at least 12 vials of dantrolene;
- an additional 24 vials of dantrolene and diluent stored in the facility, or a written agreement with another source that will provide 24 vials of dantrolene and diluent within 15 minutes. ■

# AORN updates guideline on malignant hyperthermia

The Association of periOperative Registered Nurses (AORN) has updated its "Malignant Hyperthermia Guideline," which is published in the *Perioperative Standards and Recommended Practices, 2008 Edition*. Updates to the guideline include new information on the complete plan of

## MH Response

care for a malignant hyperthermia (MH) patient, beginning with preoperative nursing care. According to the guideline, the perioperative nurse should ask patients and their families questions to help screen for susceptibility to MH, such as

- Have you or a family member experienced a high fever while under anesthesia?
- Has anyone in your family died unexpectedly in the operating room?

# RACs gear up for nationwide expansion

*AHA isn't satisfied with proposed changes*

The final report on the three-year recovery audit contractor (RAC) demonstration project for hospitals shows that the Centers for Medicare & Medicaid Services (CMS) has made "a lot of important changes," says **Don May**, vice president of policy for the American Hospital Association (AHA).

## RAC Demo Project

"There are still changes that we'll continue to push for, that need to be made when the project is rolled out permanently," he says. The Medicare Prescription Drug, Improvement, and Modernization Act of 2003

required a demonstration program using RACs to detect and correct improper payments in the Medicare fee-for-service (FFS) program. The demonstration program operated in New York, Massachusetts, Florida, South Carolina, and California, and it ended on March 27, 2008.

At press time, CMS said it planned to begin implementing the RAC permanent program this summer for hospitals in a few states. [A map with the expansion schedule for the permanent RAC project is available with the online issue of

- Have you or anyone in your family experienced sunstroke, heat stroke, or exercise-induced muscle breakdown resulting in hospitalization?

AORN's updated guideline includes tools perioperative professionals need to be prepared for a MH crisis, including:

- a list of MH triggering and nontriggering agents;
- a dosage chart for dantrolene sodium and other medications used to treat MH;
- a guide to physiology of MH;
- a sample MH crisis checklist;
- OR team roles during an MH crisis, including circulating RN and anesthesia care provider;
- suggested contents for an MH cart;
- outcome management of MH through application of the Perioperative Nursing Data Set.

The price of the 2008 publication is \$79.95 for AORN members and \$159.95 for nonmembers. The shipping and handling cost is \$5.95. To purchase the book, visit [aornbookstore.org](http://aornbookstore.org) or call (800) 755-2676. ■

*Same-Day Surgery at [www.ahcmedia.com](http://www.ahcmedia.com). For assistance, contact customer service at [customer.service@ahcmedia.com](mailto:customer.service@ahcmedia.com) or (800) 688-2421.] CMS is required to have the nationwide program implemented by Jan. 10, 2010. In the meantime, the Medicare Recovery Audit Contractor Program Moratorium Act (H.R. 4105), introduced by Reps. Lois Capps (D-CA) and Devin Nunes (R-CA), would place a one-year moratorium on the RAC program. This bill has been referred to committee. Several congressmen have asked for a report from the General Accounting Office (GAO) once the program is rolled out nationally.*

According to CMS' final report on the demonstration program, RACs recouped \$992.7 million in overpayments to providers, while \$37.8 million in underpayments were repaid to providers as of

## EXECUTIVE SUMMARY

The Medicare program has issued its final report on the three-year recovery audit contractor (RAC) demonstration project and, at press time, was planning to roll out the national program for hospitals.

- Several changes have been made to the program, but the American Hospital Association says they aren't enough.
- Be familiar with the reasons for overpayments and underpayments.
- Perform self-audits.

March 27. Of the overpayments, 4% were from outpatient hospital providers. The report detailed changes that will be made to the permanent program. (See partial list, below right.)

In South Carolina, 32 hospitals and health systems have sued the Department of Health and Human Services and CMS for what they claim is illegal recouping of \$30 million in Medicare payments in the RAC project.<sup>1</sup> The lawsuit says the Medicare Modernization Act precludes agencies from recouping what they allege is overpayments prior to the second level of appeal. The suit seeks payback of recouped payments with interest until the second stage of appeals is complete.

Here are the additional changes the AHA would like to see in the final RAC program:

- **Reduce the look-back period for medical records.** May would like to see this period reduced to 12 months. "That's the standards that other contractors are held to," he says. Older claims should be reviewed only if there is "good cause," May says, "but we want to make sure they indeed have good cause to open an older claim."

- **Create a contingency-free form of payment.** In the demonstration project, the RACs are paid a contingency fee by CMS. "We don't think it's the best way to do it in terms of the program integrity in the Medicare project," May says. "It led to aggressive behavior by the RACs." Instead, they should be paid a contract fee, he says.

- **Add protections for RAC review of medical necessity.** There is a lot of subjectivity when looking at the medical necessity of care, May says. "The contingency fee here will lead them almost always to deny anything in a gray zone," he says. Typically, the denials are for "big-dollar items," May says.

At a minimum, the medical necessity review needs to be delayed, he says. "There are thousands of appeals in the queue right now," he says. Many are for medically necessity review, May says. "Until they work through the process, and it's a 12-24 month process, there needs to be a delay in looking at medical necessity," he says.

- **A centralized tracking platform needs to be created.** A centralized electronic tracking platform can help hospitals, as well as CMS and all contractors, track denials and appeals, May says. While CMS officials have told RACs that they need to develop a web-based tool to track medical record requests and denials by 2010, organizations need to be able to track appeals, he says. "It doesn't end when the denial happens."

In the meantime, what should hospitals do to prepare for the national rollout? "You need to form

a team, with billing, medical records, coding, physicians, and nursing, to be able to tackle this issue," May says.

Also, consider conducting some self-audits, May advises. "Look at some of those areas identified as problem areas in the RAC report," he says. (See story, p. 100.) Determine if you have any vulnerability in those areas, May suggests. If so, self-disclose this information to the fiscal intermediaries and pay the money back, he says. "It's much better to see that than for the RAC find it and get 20%-25% of that." (Editor's note: For a copy of the final CMS report, go to [www.cms.hhs.gov/RAC/Downloads/RAC\\_Demonstration\\_Evaluation\\_Report.pdf](http://www.cms.hhs.gov/RAC/Downloads/RAC_Demonstration_Evaluation_Report.pdf). For more information on the RAC program, go to [www.aha.org/aha/issues/RAC/index.html](http://www.aha.org/aha/issues/RAC/index.html). To obtain a list of audit tools, click on RACTrac and then scroll down to RAC Audit Tool Vendors.)

## Reference

1. Hospitals sue HHS over RAC demonstration process. *AHA News Now*; July 11, 2008. ■

# CMS makes changes to permanent program

Several changes were made to improve the Recovery audit contractor (RAC) permanent program for hospitals, including:

- All new issues a RAC wants to pursue for overpayments must be validated by the Centers for Medicare & Medicaid Services (CMS) or an independent RAC validation contractor, and upcoming issues must be shared with providers.

- A web page will allow providers to look up the status of medical record reviews.

- A RAC cannot perform any automated or complex reviews in excess of 10 medical records without CMS approval.

- CMS has changed the look-back period from four years to only three years and established a maximum look-back date of Oct. 1, 2007.

- CMS will establish a uniform "sliding-scale" limit for medical record requests across all RACs. Thus, the limit will be higher for large facilities and lower for small providers.

- CMS has required each RAC to hire a physician medical director to oversee the medical record review process.

**RAC  
Demo  
Project**

- By 2010, CMS will require the new, permanent RACs to maintain a web page to display the status of all medical record requests.

- CMS has issued instructions to the RACs requiring that they consistently document their “good cause” for reviewing a claim.

- CMS will not contract with separate Medicare secondary payer RACs. ■

## Details of payments that were under, over

Recovery audit contractors (RACs) have returned \$693.6 million to Medicare.

This number includes appeals overturned through March 27, 2008. However, some appeals are pending. Providers have 120 days to appeal from the date of the claim adjustment. As of March 27, 2008, providers had chosen to appeal 14% of the RAC decisions. Of all the

### RAC Demo Project

RAC overpayment determinations, only 4.6% were overturned on appeal.

The breakdown of overpayments is:

- 40% were medically unnecessary, \$391.3 million;
- 35% were incorrectly coded, \$331.8 million;
- 8% were no/insufficient documentation, \$74.3 million;
- 17% were other reasons, \$160.2 million. Other reasons include basing claim payments on outdated fee schedules, or paying the provider twice because duplicate claims were submitted.

For hospital outpatient errors, the top error was excessive/multiple units (79% of errors). There was \$6.5 million collected (less cases overturned on appeal) for medically unnecessary Neulasta. The collections involved 558 claims in New York and Florida.

By establishing strong internal controls, hospitals can use these findings to train coders, physicians, medical record staff, and others to help minimize future improper payments, according to the Centers for Medicare & Medicaid Services.

For hospital outpatient services, the underpayments included:

- Drug codes (incorrectly coded). \$ 1.1 million refunded. 1,084 claims with underpayments. Location: New York.
- Oxaliplatin (incorrectly coded). \$614,269

refunded. 346 claims with underpayments. Location: New York.

- Darbopoetin (incorrectly coded). \$260,176 refunded. 726 claims with underpayments. Location: New York. ■

## How do RACS identify that payments are wrong?

The two primary ways through which recovery audit contractors (RACs) identify overpayments and underpayments are automated review and complex review.

Automated review occurs when an RAC makes a claim determination *without a human review* of the medical record.

RACs use proprietary software that is designed to detect certain types of errors. To make a coverage or coding denial using automated review, there must be certainty that the service is not covered or is incorrectly coded. Second, there must be a written Medicare policy, Medicare article, or Medicare-sanctioned coding guideline supporting the decision. For example, an automated review could identify when a provider is billing for more units than allowed on one day for a service such as colonoscopy. The RAC may use automated review when making other types of determinations (for example, duplicate claims and pricing mistakes) when there is certainty that an underpayment or overpayment exists, even if written policies don't exist.

Complex review occurs when an RAC makes a claim determination *using human review* of the medical record. Complex review is used when there is a high probability that a service is not covered or where no Medicare policy, Medicare article, or Medicare-sanctioned coding guideline exists. The RAC will need copies of medical records to provide support for its decisions. Most of the focus of complex reviews has been medical necessity determinations.

Complex reviews for which no written Medicare policy/articles/coding guidelines exist are referred to as “individual claims determinations.” The RAC must use appropriate medical literature and apply appropriate clinical judgment. The RAC's contractor medical director (CMD) must be involved in actively examining the evidence used in making individual claims decisions. ■

### RAC Demo Project

# How to select patients for natural orifice surgery

*(Editor's note: This month's issue includes the second part of a two-part series on natural orifice surgery. In this month's issue, we explore patient selection, physician skills, and tools in development. Last month, we gave you an overview of the current status of the surgery.)*

Selection of patients for natural orifice surgery does not differ greatly from selection of patients for any minimally invasive surgery but, because the procedure is still in the research stage, there are a few precautions surgeons should take, suggests **Marc Bessler**, MD, director of laparoscopic surgery and director of Obesity Center, New York Presbyterian Hospital at Columbia University, New York City.

"I perform the procedure through the vagina, so I will not offer the procedure to a patient who has a previous pelvic or upper abdominal surgery," he says. As more information is gathered on the procedure during clinical trials, the need for this precaution and the effect of scarring from previous surgeries may be determined not to affect the outcome, he explains. Also, Bessler won't perform this procedure if the gallbladder is inflamed or if the patient is not in good general health.

Natural orifice surgery also may provide an option for patients for whom abdominal or laparoscopic surgery represents increased risks, says **Christopher J. Gostout**, MD, FASGE, professor of medicine and director of endoscopic research and development at the Mayo Clinic in Rochester, MN.

"[Natural orifice surgery] may have a more specific role in obese individuals for whom laparoscopic and open surgery is less desirable," Gostout says. The ability to avoid incisions and the reduce need for anesthesia will be beneficial to this group of patients, he says.

Flexible endoscopes and laparoscopic tools that can be used through the scopes for cutting, suturing, and extracting organs do exist, but instruments are in development that are specific to natural orifice procedures and that can increase the range of procedures performed, Gostout says.

"New instruments are needed and are being developed," he says. It is a major area of awareness within the Natural Orifice Surgery Consortium for Assessment and Research (NOSCAR) Joint

Committee and the working groups that meet annually during the Natural Orifice Transluminal Endoscopic Surgery (NOTES) conference, Gostout says. NOSCAR is a working group of expert laparoscopic surgeons from the Society of American Gastrointestinal and Endoscopic Surgeons (SAGES) and a group of expert interventional endoscopists representing the American Society for Gastrointestinal Endoscopy (ASGE). *(Editor's note: For information on research and current developments related to the surgery, go to [www.noscar.org](http://www.noscar.org). The web site includes white papers, resources, conference information, and updates on the procedure.)*

Physicians and device manufacturers are working collaboratively to develop specific flexible tools that are compatible with a flexible endoscope, Gostout points out. Natural orifice surgical devices will have to duplicate the functions of current laparoscopic tools, he says.

Tools specifically for natural orifice surgery will have to be longer and miniaturized, Gostout explains.

"The basic functions will include tissue grasping, cutting, and suturing, or its equivalent," he says. "Additionally, specialized ports and overtubes in varying lengths will be needed to maintain access to the abdominal cavity and prevent soiling or contamination." ■

## What to look for in physicians

### *Skills needed for natural orifice cases*

Outpatient surgery programs will have to look for physicians with a combination of skills before granting privileges for natural orifice surgery, says **Marc Bessler**, MD, director of laparoscopic surgery and director of Obesity Center, New York Presbyterian Hospital at Columbia University, New York City.

"It takes basic skills with a flexible endoscope and with the use of laparoscopic tools," he says.

The Natural Orifice Surgery Consortium for Assessment and Research (NOSCAR) Joint Committee is working to identify the parameters for appropriate training for physicians, says **Christopher J. Gostout**, MD, FASGE, professor of medicine and director of endoscopic research and development at the Mayo Clinic in Rochester, MN. They advocate the team approach to natural

orifice surgery, which blends the talents of the endoscopist and surgeon to achieve results, he says.

“Over time, however, new training programs and residencies will emerge, combining the specialized endoscopic and surgical skills needed to perform [natural orifice surgery],” Gostout adds. ■

## Same-Day Surgery Manager



## Separating inpatient and outpatient ORs

By **Stephen W. Earnhart, MS**  
CEO  
Earnhart & Associates  
Austin, TX

The company Starbucks made a significant business decision a few months ago. Their board decided that they needed to focus on what they thought they did best: Operate as a specialty coffee store. They gave up many of the more restaurant type of services they previously offered and are focusing on their core business and managing their growth, even to the point of downsizing the number of stores. I applaud that vision. Gutsy move.

A trend is developing in our workplace that is just as gutsy for health care executives: the separation of inpatient operating rooms from outpatient. The concept is not new; we have been doing this for years. What is new is the fact that many mainstream health care systems are now climbing onboard. We have several hospitals within the same health system that have made the plunge.

What is happening is beyond the “two classes” of patients that have operated in the past. There is a complete physical and operational separation of outpatient from inpatient services. Often the two are on different floors or even different buildings.

Both departments have their own staff. They have separate directors/administrators. They both function under the licensure of the sponsoring hospital, and point of services is under the same Medicare provider number.

There is no joint venture ownership from

outside surgeons, but the existing surgeons play a significant role in the structure and management of the outpatient center. Their role is key to the success of the separation. Much of our interaction is spent with the (new) staff and the users of the operating rooms.

As you would expect, not all embrace this vision. There are surgeons who will reject the new center and choose instead to own equity in a freestanding venture. However, most surgeons have embraced the concept. They often are eager to join the “advisory board” established as a conduit for surgeon input into a wide range of operational and managerial functions by the management team.

There is clearly resistance from existing surgical department staff, especially those involved with management and operations. The operating room environment has long been dominated by strong personalities, egos, and protectionism. It’s hard to blame them; a significant chunk of business is being carved out of their domain. Their feelings need to be recognized and respected. I, too, would not welcome this change, if truth be told.

However, the operating room environment is overdue for an overhaul. Frequently hospitals function around the convenience of their staff and/or patients and not anesthesia and the surgeons. Cost control is difficult with many hospital management information systems (MIS), and management of those costs is now a requirement. A lower cost provider of surgical services no longer needs to be the corner surgery center.

There is another factor driving hospital leaders to respond not only to their own need to control costs, but the need for separate inpatient and outpatient operating room environments. It is the reality that many surgeons cannot become investors in new or existing surgery centers. The cost of building new centers has almost tripled over the past several years. That, coupled with the inability of surgeons to obtain a loan to buy into these centers, is making it so difficult that many no longer are trying.

While this often is not a popular internal change for many established health care providers, I believe we will see only an increase in systems adopting this concept. (*Earnhart & Associates is an ambulatory surgery consulting firm specializing in all aspects of outpatient surgery development and management. Contact Earnhart at 1000 Westbank Drive, Suite 5B, Austin, TX 78746. E-mail: searnhart@earnhart.com. Web: www.earnhart.com.*) ■

## How to handle contract renewals

*(Editor's note: In the second part of a two-part series on contract negotiations, we give you tips for handling contract renewals, and we tell you how to identify the best potential contracts. In last month's issue, we told you what to do when your contract is up for renewal.)*

**K**ee track of contract renewal dates, and be proactive in asking for rate increases, suggests **Brien Fausone**, MA, MBA, administrator of the Michigan Endoscopy Center in Farmington Hills.

Put renewal dates on your calendar, sources suggest.

"Many of our contracts don't have a specific term, but they describe a 60-day period in which the facility or the payer can terminate the contract," Fausone says. "This means that we have to be proactive and go back to the payer every two or three years to renegotiate." Payers never call him to say they would like to increase his rate of reimbursement, he adds with a laugh.

When you do renegotiate a contract, be prepared with data that show how your costs have increased, suggests Fausone. The consumer price index related to medical costs in your area, cost-of-living increases, and your own actual cost increases all are good ammunition for your renegotiation efforts, he says.

Managing multiple contracts can be a challenging task, so designating one person to track, manage, and negotiate contracts can be instrumental for success, says **Sharon Holfeld**, contract manager for Physicians Endoscopy, a Doylestown, PA-based ASC development and management company. No matter who handles the negotiations, make sure the person is not afraid to ask for changes, she says.

"You might ask for 20% and get 10%, or you might ask for 5% and get 2.5%, but that is better than not asking at all," Holfeld says. "I've never been laughed at for anything I've requested." ■

## Look at your patients to ID potential contracts

**I**dentifying the best payers with whom to contract in your area can be done by researching local employers, but another way is to pay attention to what insurance cards you see from your patients.

"When we start seeing more patients coming to us with an insurance company for which we are an out-of-network provider, we contact the company about negotiating a contract," says **Brien Fausone**, MA, MBA, administrator of the Michigan Endoscopy Center in Farmington Hills.

Some patients might have just started as new patients for the physicians practicing at the center, while others may be longtime patients who have changed insurance carriers, he says. A new physician to the practice or a physician's new relationship with a local employer or a primary care physician also might create a stream of patients with noncontract insurance payers, Fausone says.

### ***Will you get reasonable rates?***

Not all overtures to local insurance plans pay off, he points out. Some plans don't offer reasonable rates when approached, Fausone adds.

### **CNE/CME instructions**

**P**hysicians and nurses participate in this CNE/CME program by reading the issue, using the references for research, and studying the questions. Participants should select what they believe to be the correct answers, then refer to the answers listed in the answer key to test their knowledge. To clarify confusion on any questions answered incorrectly, consult the source material. After completing this semester's activity with the **December** issue, you must complete the evaluation form provided and return it in the reply envelope to receive a certificate of completion. When your evaluation is received, a certificate will be mailed to you. ■

### ***COMING IN FUTURE MONTHS***

■ Controversy: Wearing scrubs outside your facility

■ What medications should patients hold on day of surgery?

■ Tips on improving efficiency in your program

■ A tool for implementing National Patient Safety Goals

If a physician has a relationship with the payer or has patients covered by the payer, Fausone notifies the physician of the unsuccessful effort to contract with the payer. "We suggest that the physician perform procedures for this patient at the hospital," he adds.

Another option, sources say, is that the physician group could put pressure on the payer for better rates or for a combined rate for the facility, anesthesia, and the surgeon. ■

## CNE/CME questions

- **Identify** clinical, managerial, regulatory, or social issues relating to ambulatory surgery care.
  - **Describe** how current issues in ambulatory surgery affect clinical and management practices.
  - **Incorporate** practical solutions to ambulatory surgery issues and concerns into daily practices.
9. According to a recently published article in *The Wall Street Journal*, how many persons might be genetically predisposed to malignant hyperthermia under inhaled anesthesia?
    - A. As many as 1 in 10,000.
    - B. As many as 1 in 7,000.
    - C. As many as 1 in 5,000.
    - D. As many as 1 in 3,000.
  10. What's the typical starting dose of dantrolene, according to Jeffrey Jacobs, MD?
    - A. 1 mg per kg
    - B. 1.5 mg per kg
    - C. 2.5 mg per kg
    - D. 3 mg per kg
  11. In the recovery audit contracts (RAC) demonstration project, what was the No. 1 error for hospital outpatient services?
    - A. Excessive/multiple units.
    - B. Incorrect coding.
    - C. No/insufficient documentation.
    - D. Basing claim payments on outdated fee schedules.
  12. In the RAC project, can a claim determination be made without a human review?
    - A. No
    - B. Yes

**Answers: 9. D; 10. C; 11. A; 12. B.**

## EDITORIAL ADVISORY BOARD

Consulting Editor: **Mark Mayo**  
 Corporate Director of ASC Operations  
 Magna Health Systems  
 Chicago  
 Executive Director  
 Surgery Center Association of Illinois

**Kay Ball**  
 RN, MSA, CNOR, FAAN  
 Perioperative Consultant/  
 Educator, K&D Medical  
 Lewis Center, OH  
 E-mail: KayBall@aol.com

**Roger Pence**  
 President  
 FWI Healthcare  
 Edgerton, OH  
 E-mail: roger@  
 fwihealthcare.com

**Stephen W. Earnhart, MS**  
 President and CEO  
 Earnhart & Associates  
 Austin, TX  
 E-mail: searnhart@  
 earnhart.com

**Steven D. Schwaitzberg, MD**  
 Chief of Surgery  
 Cambridge (MA) Health  
 Alliance

**Ann Geier, RN, MS, CNOR**  
 CASC  
 Vice President of Operations  
 Ambulatory Surgical  
 Centers  
 of America  
 Mount Pleasant, SC

**Rebecca S. Twersky, MD**  
 Medical Director  
 Ambulatory Surgery Unit  
 Long Island College  
 Hospital  
 Brooklyn, NY  
 E-mail:  
 twersky@pipeline.com

### To reproduce any part of this newsletter for promotional purposes, please contact:

*Stephen Vance*

**Phone:** (800) 688-2421, ext. 5511

**Fax:** (800) 284-3291

**Email:** stephen.vance@ahcmedia.com

### To obtain information and pricing on group discounts, multiple copies, site-licenses, or electronic distribution please contact:

*Tria Kreutzer*

**Phone:** (800) 688-2421, ext. 5482

**Fax:** (800)-284-3291

**Email:** tria.kreutzer@ahcmedia.com

**Address:** AHC Media LLC  
 3525 Piedmont Road, Bldg. 6, Ste. 400  
 Atlanta, GA 30305 USA

### To reproduce any part of AHC newsletters for educational purposes, please contact:

*The Copyright Clearance Center for permission*

**Email:** info@copyright.com

**Website:** www.copyright.com

**Phone:** (978) 750-8400

**Fax:** (978) 646-8600

**Address:** Copyright Clearance Center  
 222 Rosewood Drive  
 Danvers, MA 01923 USA

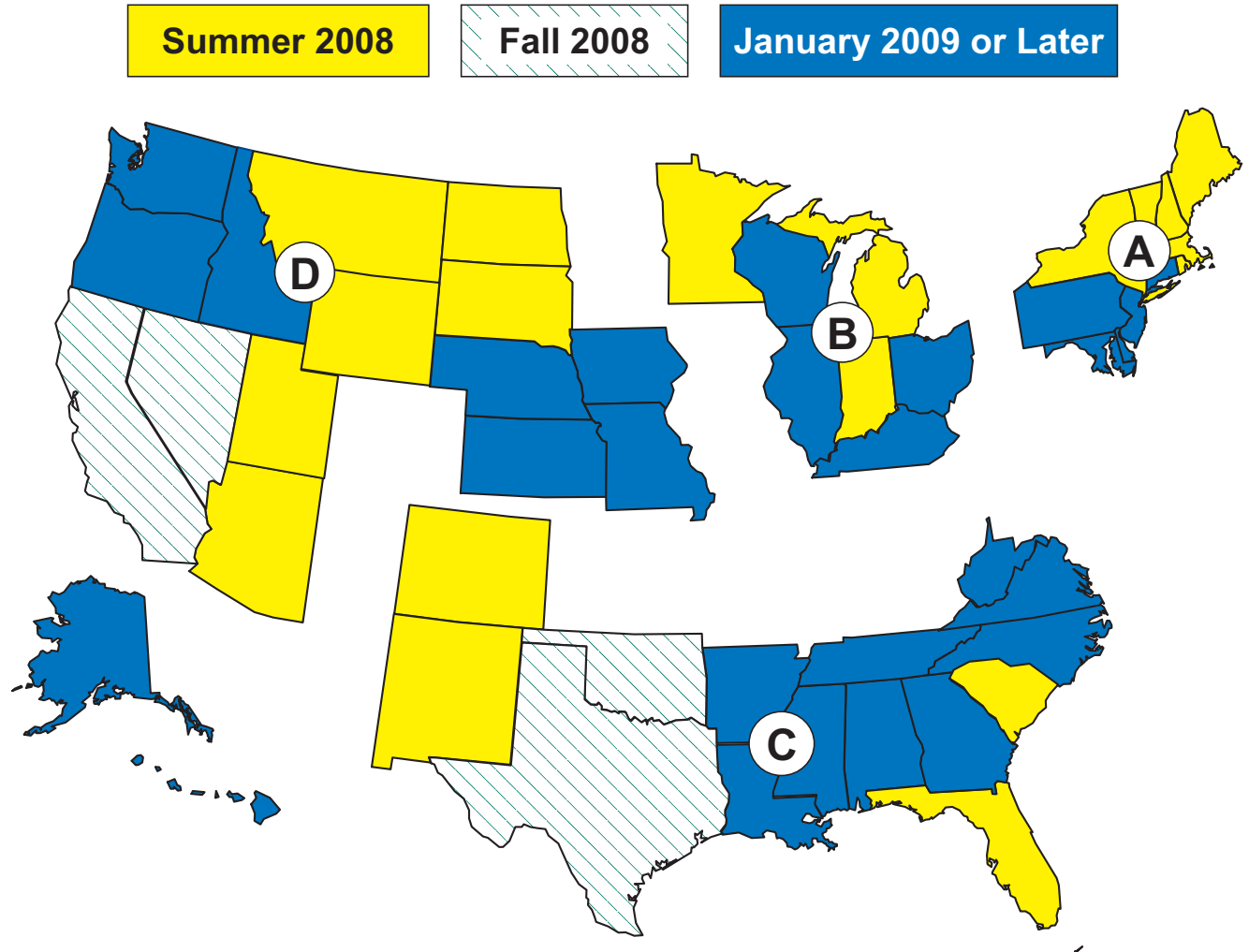
## Malignant Hyperthermia (MH) Emergency Response

Circulating Nurse	Dantrolene Nurse	Medication Nurse	Cooling Nurse														
<p><b>Primary Duties:</b></p> <ul style="list-style-type: none"> <li>• <b>Call for all available help</b></li> <li>• Call 911 for transfer to hospital</li> <li>• Call/assign staff member to call HMAUS Hotline</li> <li>• Assist surgeon &amp; scrub tech to prepare patient for transfer</li> </ul> <p><b>Supplies Needed:</b></p> <ul style="list-style-type: none"> <li>• 2 large bore IVs (code cart)</li> <li>• Cold normal saline IV bag (cold saline in OR &amp; PACU fridges)</li> <li>• New circuit and soda absorbent (MH cart)</li> </ul> <p><b>Actions:</b></p> <ul style="list-style-type: none"> <li>• Start 2 large bore IVs</li> <li>• Discontinue Lactated Ringers and start cold normal saline</li> <li>• Assist anesthesia provider; change out breathing circuit &amp; soda lime absorbent</li> <li>• Assist in "closing" patient and preparing patient for transfer</li> </ul>	<p><b>Primary Duties:</b></p> <ul style="list-style-type: none"> <li>• Bring MH/crash cart</li> <li>• Mix and administer Dantrolene; gain as much help as possible to and administer Dantrolene quickly (<b>minimum of 2-4 people needed</b>)</li> </ul> <p><b>Supplies Needed:</b></p> <ul style="list-style-type: none"> <li>• Dantrolene Sodium (36 x 20 mg vials)</li> <li>• 2 liters preservative-free sterile water for reconstitution</li> <li>• 60 cc syringes &amp; spikes or 16 g needles (All of the above located on MH cart)</li> </ul> <p><b>Actions:</b></p> <ul style="list-style-type: none"> <li>• Mix Dantrolene - 20 mg vial + 60ml preservative-free sterile water</li> <li>• Administer Dantrolene (2.5 mg/kg) _____ kg x 2.5 mg = _____ mg <b>Given rapidly via large bore IV</b></li> <li>• This dose may be repeated up to four doses as symptoms persist</li> </ul> <p style="text-align: center;"><b>Quick Conversion</b></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Weight</th> <th>Initial Dose - rapid IV push</th> </tr> </thead> <tbody> <tr> <td>110lb = 50kg</td> <td>125mg 6.25 vials</td> </tr> <tr> <td>132lb = 60kg</td> <td>150mg 7.5 vials</td> </tr> <tr> <td>154lb = 70kg</td> <td>175mg 8.75 vials</td> </tr> <tr> <td>176lb = 80kg</td> <td>200mg 10 vials</td> </tr> <tr> <td>198lb = 90kg</td> <td>225mg 11.25 vials</td> </tr> <tr> <td>220lb = 100kg</td> <td>250mg 12.5 vials</td> </tr> </tbody> </table>	Weight	Initial Dose - rapid IV push	110lb = 50kg	125mg 6.25 vials	132lb = 60kg	150mg 7.5 vials	154lb = 70kg	175mg 8.75 vials	176lb = 80kg	200mg 10 vials	198lb = 90kg	225mg 11.25 vials	220lb = 100kg	250mg 12.5 vials	<p><b>Primary Duties:</b></p> <ul style="list-style-type: none"> <li>• Bring MH/crash cart</li> <li>• Mix and administer meds as directed</li> <li>• Assist anesthesia and record events</li> <li>• Record medications - second person only recording if available</li> </ul> <p><b>Supplies Needed:</b></p> <ul style="list-style-type: none"> <li>• Medications/syringes/needles</li> <li>• Sodium Bicarbonate (MH cart)</li> <li>• Lidocaine/Amioderone (code cart)</li> <li>• Calcium Chloride (MH cart)</li> <li>• Regular Insulin (OR refrigerator)</li> <li>• Dextrose 50% 50ml syringe (MH cart)</li> <li>• Lasix (code cart)</li> </ul> <p><b>Actions:</b></p> <ul style="list-style-type: none"> <li>• Prepare/administer/record medications</li> <li>• Sodium Bicarbonate - 1-2 mEq/kg _____ kg x 1 mEq = _____ mEq Bicarb Repeat as ordered</li> <li>• Dysrhythmias - Lidocaine/Amioderone DO NOT use Ca++ channel blocking agents</li> <li>• Calcium chloride - 10mg/kg _____ kg x 10 mg = _____ mg CaCl</li> <li>• Insulin/Glucose 10 units insulin + 50ml of 50% glucose</li> <li>• Lasix (furosemide) - 0.5-1mg/kg _____ kg x 0.5 mg = _____ mg Lasix</li> </ul>	<p><b>Primary Duties:</b></p> <ul style="list-style-type: none"> <li>• Bring cold saline and ice</li> <li>• Cool patient</li> <li>• Monitor patient temperature</li> </ul> <p>Bags of ice in lounge freezer Cold saline in OR &amp; PACU fridges</p> <p><b>Supplies Needed:</b></p> <ul style="list-style-type: none"> <li>• Ice, cold saline, plastic bags</li> <li>• Toomey syringes</li> </ul> <p><b>Insert:</b></p> <ul style="list-style-type: none"> <li>• Esophageal temperature probe</li> <li>• Nasogastric (NG) tube</li> <li>• 3-way Foley catheter</li> <li>• Rectal tube (large red rubber catheter)</li> </ul> <p><b>Actions:</b></p> <ul style="list-style-type: none"> <li>• Infuse cold saline IV</li> <li>• Ice packs to head/neck, axilla, groin &amp; under patient</li> <li>• Lavage stomach, bladder, rectum via NG, foley &amp; rectal catheter with cold saline</li> <li>• Lavage open cavities with cold saline</li> <li>• Monitor and record patient's temperature &amp; urinary output</li> </ul>
Weight	Initial Dose - rapid IV push																
110lb = 50kg	125mg 6.25 vials																
132lb = 60kg	150mg 7.5 vials																
154lb = 70kg	175mg 8.75 vials																
176lb = 80kg	200mg 10 vials																
198lb = 90kg	225mg 11.25 vials																
220lb = 100kg	250mg 12.5 vials																

**\*\*Medications cannot be administered without a physician's order**

Source: Ponte Vedra (FL) Plastic Surgery/Ponte Vedra Ambulatory Surgery Center.

# RAC Expansion Schedule



Source: Centers for Medicare & Medicaid Services. The Medicare Recovery Audit Contractor (RAC) Program: An Evaluation of the 3-Year Demonstration. June 2008.