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Drug shortages create a crisis — Act now or risk cancellations

Many ambulatory surgery programs are accustomed to using a specific size of vials for hydromorphone, but they have been forced by what is being described as the worst drug shortage ever to convert to vials twice the normal size due to a shortage of their customary vials.

"Once we start stocking in certain areas, people might be used to thinking that 2 mg is one vial," says **John J. Lewin III**, PharmD, MBA, BCPS, division director of critical care and surgery pharmacies and adjunct assistant professor for anesthesiology and critical care medicine, Division of Neurosciences Critical Care, at Johns Hopkins Medical Institutions, Baltimore, MD. Consequently, they have intended to give a 2 mg dose, but instead have administered the entire 4 mg vial, says Lewin, who says he is "intimately involved" with drug shortages.

With a different strength or vial size, and without "notifying staff that it is a different strength or different vial, without people paying attention, it's likely to lead to medication errors," Lewin says. Such incidents have been reported with morphine and hydromorphone, as well as epinephrine, he says.

Another error with alternatives has been include infusing Ativan at typical rate for propofol.[1] Side effects, such as postoperative nausea and vomiting (PONV) also have been reported with some alternate drugs.[1]

In a 2010 survey of 1,800 healthcare providers, about one in five respondents reported adverse patient outcomes during the past year because of drug shortages, according to the Institute for Safe Medication Practices

EXECUTIVE SUMMARY

The drug shortage in 2010 was reported to be the worst ever. Newly introduced legislation would mean Food and Drug Administration notification when a shortage is imminent.

- Avoid using a just-in-time inventory system.
- Stay up-to-date on shortages and alternatives. Educate staff on alternative medications or strengths that are used.
- Don't reuse vials designated as single-use only.

(ISMP)[2] More than one-third (35%) said their facility had experienced a near miss during the past year due to a shortage, and about one in four reported actual errors.

Such incidents are more likely now that there have been recent shortages of several critical drugs including propofol, succinylcholine, and epinephrine. Other drugs that are also in shortage include certain neuromuscular blocking agents, regional anesthetics, and various opioids.

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Recently it has been announced that sodium thiopental (Pentothal) will no longer be available in the United States, due to its sole manufacturer ceasing production of the drug. The move has "extremely troubled" the American Society of Anesthesiologists (ASA), according to a statement released by the organization.[3]

"Although its use has decreased in recent years due to the introduction of newer medications, such as propofol, sodium thiopental is still considered a first-line anesthetic in many cases including those involving geriatric, neurologic, cardiovascular and obstetric patients, for whom the side effects of other medications could lead to serious complications," the ASA said.

The ASHP drug summit identified more than 200 shortages in 2010, Lewin says.

A large percentages of the drugs experiencing a shortage are generic injectable drugs, says Lewin. "That has implications for anyone who does surgery, hospitals and outpatient surgery centers alike," he says.

And the situation isn't expected to improve in the short-term, according to the American Society of Health-System Pharmacists (ASHP). Respondents to the 2010 survey said drug shortages in the year 2010 had been the worst ever. *(To see the full results, go to www.ismp.org/Newsletters/acutecare/articles/20100923.asp.)* The respondents were most concerned about: an increasing number of medications in short supply, alternative drugs that weren't always available and sometimes were unfamiliar and/or less desirable, errors and poor patient outcomes associated with the shortage or alternative drugs/dosages, no advance warning about impending shortages, and the time required to address the drug shortage. Surgeries have been cancelled due to drug shortages, experts share.

"Overall, survey respondents conveyed a real sense of crisis and are clearly looking for support to reduce the organizational burden and potential patient harm associated with drug shortages," according to ASHP, which co-sponsored a drug summit in 2010.[4]

Manufacturing difficulties and global outsourcing have created a "perfect storm" for medication shortages, says **Erin R. Fox**, PharmD, manager of the Drug Information Service at the University of Utah Hospitals & Clinics and adjunct associate professor in the Department of Pharmacotherapy at the University of Utah College of Pharmacy, both in Salt Lake City.[5] Fox spoke at the Nov. 5,

RESOURCE

To report drug shortages, e-mail Drugshortages@fda.hhs.gov.

2010, drug summit held by ASHP, ASA, ISMP, and the American Society of Clinical Oncology.

The causes include the need to meet good manufacturing practices established by the FDA, says **Cynthia Reilly,** BS Pharm, director of the Practice Development Division at ASHP. "Often to meet those practices, they are halting production or taking production lines down," Reilly says. Market withdrawals are another cause, as was the case with propofol, she says. Even if other manufacturers are making a product, they might not have anticipated that their competitor would be withdrawing the product, Reilly says. "It's difficult for them to get up to speed," she says.

Sometimes providers don't know there is a shortage until the product doesn't show up, Reilly says. "They order it the day before. They open the tote, and it's not available," Reilly says. "It presents a definitely level of challenge, staying on top of those things." When you place an order, ask for verification that it is available, sources advise.

Drug shortages can have a significant impact on patient safety and the quality of care for patients having surgery or a procedure involving sedation or anesthesia, says **Arnold J. Berry,** MD, vice president of scientific affairs at the ASA. "The shortages also have the potential to result in canceled or delayed medical treatments and procedures, as well as complications from having to use a substitute medication while the drug is in shortage," Berry says. The ASA has taken action with the Food and Drug Administration (FDA). "Last year, ASA was able to help alleviate the propofol shortage by working closely with the FDA to allow the importation of the European formulation of the drug, which resulted in greater availability for patients having outpatient surgery and diagnostic procedures such as colonoscopies," Berry says.

However, drug shortages can return at any time, sources say. The frustrations over the drug shortages have led to a "constant disaster mindset" with providers asking themselves, "How can I take care of my patients if I don't have the drugs I need?" Fox says.[5] (*For information on newly introduced legislation, see story, right. For what you should do and not do to prepare for future shortages, see stories on p. 36.)*

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Legislation may offer long-term solution

Potential solutions to ongoing drug shortages are being addressed. Recommendations to help address current shortages and prevent future ones were developed at a 2010 drug summit sponsored by the American Society of Health-System Pharmacists and other groups. (To view the report from the summit, go to http://www.ashp.org/drugshortages/summitreport.) And now, legislation has been introduced.

The "Preserving Access to Life-Saving Medications Act" (S. 296), introduced by Sens. Amy Klobuchar (D-MN) and Bob Casey (D-PA), would require prescription drug manufacturers to give early notification to the Food and Drug Administration (FDA) of any incident that would likely result in a drug shortage.

"The number of drugs in critically short supply is increasing at an alarming rate and threatens the quality of care in hospitals and clinics nationwide," said letters of support to Klobuchar and Casey sent by the AHA, ASA, ASHP, American Society of Clinical Oncology, and the Institute for Safe Medication Practices. "Many of these drugs play a critical role in life-saving treatments, including cancer therapies, widely used anesthetics, antimicrobials and pain medications. In many cases, therapeutic alternatives are not available or carry increased risk of severe side effects and drug-to-drug interactions. The potential harm to patient safety is of paramount concern."

Currently, manufacturers are not required

except under very rare circumstances, to notify the FDA of when they'll stop making a product and when they'll be short, said **John J. Lewin III**, PharmD, MBA, BCPS, division director of critical care and surgery pharmacies and adjunct assistant professor for anesthesiology and critical care medicine, Division of Neurosciences Critical Care, at Johns Hopkins Medical Institutions, Baltimore, MD. Manufacturers often are reluctant to share such information, Lewin says. In fact, the no. 1 reason for drug shortages is "reason unknown," he says. Such a system makes it difficult for outpatient surgery managers to prepare in advance, Lewin says.

If the FDA administrators knew that a shortage was forthcoming, they could look in the files of the Office of Generic Drugs to see if other companies have a patent pending. "They could expedite that process," Lewin says. ■

Propofol in short supply? What you should *not* do

The shortage of drugs such as propofol, labeled as "single use only," might lead some providers to reuse the vials. Don't do it, experts warn.

"Serious patient outbreaks of infections have been linked to improper handling of propofol," says **Arnold J. Berry**, MD, vice president of scientific affairs at the American Society of Anesthesiologists (ASA).

The product is basically preservative-free, sources say. Each container should be used for only one patient, and use strict aseptic technique, advises Berry.

Under sterile conditions in a special room with air flow controlled with a hood, it would be acceptable for a pharmacist to split medications that come in multi-dose vials into several syringes for later use, Berry says. "The drugs would have to be used within a specified time to ensure the drug's potency and sterility," he says. "This information is often available from manufacturers or other sources." However, this practice would not be acceptable for propofol because of its unique characteristic that support bacterial growth, Berry says. The Food and Drug Administration (FDA) and ASA do not recommend dividing larger volumes of propofol into multiple syringes, he says.

Expect questions from your patients regarding propofol, says **Cynthia Reilly**, BS Pharm, director of the Practice Development Division at the American Society of Health-System Pharmacists. "We've encouraged, if you're having procedure, to ask, `Is this vial being used only on me?" Reilly says. ■

Take steps now to prepare for future drug shortages

One of the most important steps you can take to prepare your program for future drug shortages is to education. The Institute for Safe Medication Practices (ISMP) encourages you to identify a key person or team to stay up to date on shortages.[1]

Typically pharmacy purchasing agents are the first to know about a shortage, ISMP says. If the purchasing agent isn't a pharmacist, have the purchasing agent work closely with a pharmacist to evaluate the impact of the shortage and come up with solutions, the agency says.

Also, be on the alert for signs that a shortage is coming, such as orders that are not fully filled and specific drug strengths that are more difficult to purchase, ISMP advises. Additionally, you can learn about drug shortages through social media, professional groups, professional listserves and discussion groups, wholesalers, and purchasing groups, ISMP says.

Be proactive in finding equally good, therapeutic alternatives, says **John J. Lewin III**, PharmD, MBA, BCPS, division director of critical care and surgery pharmacies and adjunct assistant professor for anesthesiology and critical care medicine, Division of Neurosciences Critical Care, Johns Hopkins Medical Institutions, Baltimore. Consider these other suggestions:

• **Track shortages.**

Two web sites are available to educate yourself about drug shortages: the American Society of Health-System Pharmacists (www.ashp.org/shortages) and the Food and Drug Administration (www.fda.gov/Drugs/DrugSafety/DrugShortages).

Consider listing the seven or so drugs you use the most, and review the web sites to see if there are any shortages, says **Cynthia Reilly**, BS Pharm, director of the Practice Development Division at the American Society of Health-System Pharmacists.

Additionally, establish a drug shortage network with other local healthcare providers, ISMP advises.[1] Such local collaborative networks can allow you to share information, share emergency

supplies, and coordinate patients transfers when alternative drugs aren't suitable, the agency says.

• Avoid a just-in-time inventory system for medications.

Inventory practices is a primary area that can mitigate the impact of drug shortages, Reilly says. Know what medications you have on hand, compared to your caseload and scheduling, she says.

"If you work a just-in-time inventory system, that leaves little cushion if there is no product available," Reilly cautions.

On the flip side, don't hoard products, she says. "Then you end up with some centers having large amounts, and in others patients have no access," Reilly says. Additionally, you run the risk of expiring the shelf life of your medication and being forced to waste it, which can be a significant expense, sources point out. *(For more information on what to do during a shortage, see story, below.)*

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Don't panic — Take action during shortage

The Institute for Safe Medication Practices (ISMP) makes the following suggestions:

• When you find out there is an impending or actual shortage:

— Ask the manufacturer for details, including how long the shortage will last and directions or ordering drugs on allocation or for emergencies.

— Assess your inventory. Estimate how long the supply will last.

— Research the drugs that are experiencing a shortage. What are the clinically appropriate uses, lowest optimal dose, and strategies to cut drug waste and inappropriate or unnecessary prescriptions?

— Look at previous drug use evaluations (DUEs) or consider performing a DUE to determine how the drug is used in your facility.

— Early, find potential alternatives. Create and use a standard, formal process for identifying and approving alternatives. You will need an expedited approval process when the standard process is not quick enough. Find alternatives from the literature, professional web sites, listserves, prescribers, and other local/regional providers (for consistency among prescribers who work at several sites).

— Decisions about alternatives should be made with medical, nursing, and pharmacy staff.

• Develop guidelines.

— Develop an education plan and, when appropriate, guidelines for use of alternative drugs.

— Develop temporary therapeutic guidelines that reduce waste and tailor the drug's use to priority patients for whom the alternative drug might not be safe, effective, or desirable.

— You might be able to obtain guidance from government agencies (e.g., Centers for Disease Control and Prevention, departments of health), medical/professional organizations (e.g., Anesthesia Patient Safety Foundation), and specialty groups.

— Determine how long the drug will be available to priority patients.

— Conduct a failure analysis.

— Assess the potential hazard to patients and your facility. Conduct a mini failure mode and effects analysis (FMEA) to identify changes needed to processes and potential misuses of alternatives.

— Determine how to manage the risk of serious errors and adverse reactions to alternative drugs, and take action. Consider how alternatives could affect prescribing practices, storage, final preparation (including directions for admixing), drug administration procedures, and technology (e.g., electronic prescribing, bar-coding systems, automated dispensing cabinets, and smart pump libraries).

• Make changes to support safe use of alternatives.

— When possible, have pharmacy prepare and dispense alternatives in the most ready-to-use form.

— Address any sound and look-alike issues with an alternative drug's name and packaging. Determine if additional safety checks, alerts, and/or patient monitoring are required when prescribing, preparing, dispensing, and administering alternatives.

• Have ongoing communication with staff.

— Share information about the shortage, causes, and expected duration (if known); current drug availability; temporary therapeutic guidelines, including use limitations for the shortage drug; alternatives and how they will be supplied; dosing, preparation, and administration guidelines for alternates; error potential with alternatives and

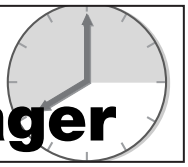
how to reduce risk; and additional patient monitoring and safety steps that might be required. Consider offering a report that includes this information and updating it daily. Use the staff meetings, newsletters, e-mail, web site, Intranet, posters/charts, and/or alerts in electronic systems to communicate.

• **Proactively monitor adverse events.**

— Use error and adverse event reporting systems as well as a hotline, chart review, focus group meetings, and/or discussions during pharmacy rounds to learn about hazardous conditions, near misses, and adverse events.

Source: Institute for Safe Medication Practices. "Weathering the Storm: managing the drug shortage crisis." ISMP Medication Safety Alert — Acute Care edition. Oct. 7, 2010. ■

Same-Day Surgery Manager



My best tips and tricks for your surgery program

By **Stephen W. Earnhart**, MS
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Caffeine. You know how you feel when you are one cup of coffee over the line? Everything is jumbled and irritating, and you just want to lash out at someone! What an uncomfortable feeling that is, for you and for those around you (as I have been told…). We see it with the surgeons, staff, anesthesia, front desk staff — seemingly everyone is wired just a bit too tight.

Solution: Swap out your lounge coffee with half-caff coffee. It has half the normal caffeine, but you cannot tell the difference in taste. I know from first-hand experience. Try it.

Consider these other solutions to some of your most common problems:

• **Rude staff.**

You and I know you want only the best customer service for your patients. But how do you know your staff is being helpful to patients or just tolerating them? Increasingly it seems as if those patient satisfaction surveys are coming back with things such as, "The front desk staff was rude and didn't care" or "No one addressed my problem when I called about …" You cannot please all the people all the time. However! Most of the time, these complaints are legitimate. I have seen it myself.

Solution: Secret shoppers. For the price of a movie ticket, you can ask your family members or neighbors to pose as a patient calling into your facility with a question that is confusing at best. Find out how your staff responds. Have them come into the center and ask questions directly to the staff. Sometimes that cute and perky receptionist is not all she is cracked up to be. Nothing hurts your reputation faster than surly staff. Another tip: Let the staff know that you are going to be doing this, *and then don't do it*! Just knowing the next patient might be a secret shopper can go a long way!

• **Uninformed staff.**

Patients are savvy. Thanks to the internet, they are much more educated today that ever. They understand the lingo and know what NPO means. Does your staff? At a recent audit of a large hospital system last month, we discovered how much the "front of the house" (registration, billing, patient intake, etc.) do not understand common jargon for surgery.

Solution: Test them! Your clinical staff can get a "bye" on this exercise since it is understood that they know it, but chances are that others do not. Make up a list of common surgical phrases, and make a game of it. Distribute it to the front-of-the-house personnel, and see how they do. Use works like: PACU, NPO, EOB, DOB, and anything else you want to add. Give movie tickets for the highest score.

• **Storage space.**

No one will ever have enough storage space. It makes no difference how large your department or center is. You will not have enough.

Solution: Rent an inexpensive storage locker. They are everywhere and great for getting those Christmas trees and other items that are seasonal out of your center and out from under your feet.

• **Waiting room blues.**

We are all accustomed to being entertained when we wait in lines or waiting rooms, so why not in surgery? Yeah, I know, you have TVs, but those are so…90s.

Solution: Put Wi-Fi in the waiting room, and post signs letting people know you have it. Most patients carry devices that can connect online. I noticed almost half of the waiting room I was in last week had iPads. Name the actual Wi-Fi connection something cool such as "Because-We-Care." (Yes, you can label it anything. Get your IT staff to set it up.) Save yourself some hassle and don't "password it." If you must, put the password right on the sign that says you have it.

• **What's that smell?**

Does your center or department stink? Surprise: Most do! You can't smell it because you're accustomed to it. Trust me. Many places have an odor.

Solution: When your secret shoppers come in, get an honest smell test from them. Some smells you cannot get rid of, so wise staff put in those little glass bottles you can buy with scents in them. Good idea. The one I was in, however, used vanilla as the scent. It made me so hungry I would have eaten anything I saw! Not good if you are NPO.

[Earnhart & Associates is a consulting firm specializing in all aspects of outpatient surgery development and management. Contact Earnhart at 13492 Research Blvd., Suite 120-258, Austin, TX 78750-2254. E-mail: searnhart@earnhart.com. Web: www.earnhart.com. Twitter: SurgeryInc.] ■

Video cameras shine as your best detective

Reduce crime inside and outside

Some health care facilities are finding that video cameras inside and outside the facility are allowing them to reduce crime and maintain security staffing even as the facility grows.

CoxHealth in Springfield, MO, has installed more than 100 network cameras from Axis Communications (www.axis.com) at its hospital and parking garages. The cameras were installed in exterior areas, interior entries, exits, facilities areas, waiting areas, and at medication dispensaries. The cameras are monitored live by security staff.

In several cases, the cameras have helped prevent crimes or caught a criminal after an incident occurred, according to **Joe Rushing**, director of public safety and security. As examples, Rushing lists car break-ins, thefts of patient items within the facility, narcotic thefts, and internal thefts of employees. "The cameras help us maintain safety for staff, visitors, and patients," he says.

The cameras helped recover a set of wedding rings that a patient thought was stolen, Rushing says. "With the help of cameras, we determined that a family member had taken them home and forgot to tell other family members," he says.

The cameras would be particularly useful in a crisis situation where a large amount of square footage had to be monitored, says **Matt Lackrone**, president at Netwatch (www.Netwatchip.com), a camera vendor in Springfield, which installed the cameras.

The cameras proved helpful in a recent situation at the ambulatory surgery center building when some equipment was damaged. "The cameras were able to tell us what happened," Lackrone says. The video footage indicated who was in the equipment room and when they were there, he says. "We were able to put the pieces of the puzzle back together," Lackrone says. The conclusion was that an outside contractor had inadvertently damaged the equipment, and that contractor took responsibility for the damage, he says. "Without the cameras, it would have been impossible to know what happened and why the equipment went down," Lackrone says.

The cameras have an additional advantage in that they help the hospital track the need for additional parking by employees and visitors, he says.

Rushing says, "We've used [the cameras] not daily, but hourly, for a lot of uses." For example, the health system has been able to maintain the same size security staff, even as they have added several thousand more square feet to the facility.

The films are not on the internet or the in-house intranet, he says. "We have our own servers in our area that are secured," Rushing says. Signs posted near external doors alert those entering that they might be videotaped.

When adding a camera system, research your vendor by performing a thorough background check, Rushing advises. "Find a vendor that is reputable and that you can allow into your organization," he says. The vendors will have access to sensitive areas of your facility, Rushing points out, so you must have a trusting relationship. "Once you have that, you can work together for a good outcome," he says. ■

Pressure builds for mandated flu shots

More health care workers responded to this season's push for influenza vaccination by rolling up their sleeves and getting the vaccine. By mid-November, 56% reported having gotten the vaccine and 7% said they definitely planned to get the vaccine, according to a web-based survey conducted for the Centers for Disease Control and Prevention. About 68% of hospital employees had received the vaccine, and another 5% said they definitely intended to be vaccinated, for a total of 73%.

But while that vaccination level was similar to 2009 and higher than rates that hovered near 40% in recent years, it wasn't enough to stem the call for mandatory programs, particularly within the infection control community. (*See "APIC Calls for Mandatory Annual Flu Immunization of Healthcare Workers,"* Same-Day Surgery Weekly Alert*, Feb. 10, 2011.)* Unions and occupational medicine physicians continued to press for voluntary programs as the best way to boost vaccination.

Although some healthcare providers have been able to get vaccination rates above 80%, it requires such an intense focus and strong leadership involvement that a facility must create an expectation that all employees will be vaccinated, says **William Schaffner**, MD, an infectious disease expert who is chairman of the Department of Preventive Medicine at Vanderbilt University in Nashville, TN. Most facilities, however, can't reach that level, he says.

"[The survey] affirms my notion that the era of voluntary compliance is over. I think influenza immunization for all health care workers ought to be mandatory," Schaffner says. "We have been promoting health care workers immunization in a very intense way for 10 years. We have seen the national proportion of health care workers inch up, but we're not making great progress. The thing that seems to get health care workers almost completely immunized is a mandatory policy."

However, **Melanie Swift**, MD, medical director of the Vanderbilt Occupational Health Clinic at Vanderbilt University in Nashville, TN, remains unconvinced about the merits of mandatory vaccination. In fact, studies have failed to demonstrate the benefits of vaccination on patient outcomes, even in long-term care settings, she says. "Employer-mandated vaccinations are fraught with logical, ethical, and administrative pitfalls and constitute a false sense of security even though they may create the impression of strong action," Swift said. She shared her opinion in recent comments to the Department of Health and Human Services on its draft Flu Action Plan from the American College of Occupational and Environmental Medicine (ACOEM). Swift is vice chair of ACOEM's Medical Center Occupational Health section.

Resources spent on vaccination programs "should not drain resources from other important programs to protect the health of workers," she cautioned.

Ironically, the most persuasive message to send to health care workers may be one of self- interest. According to the CDC survey, 85% of health care workers received the flu vaccine because they didn't want to get the flu. About 58% said they wanted to protect their family and friends. Transmission to patients was a concern for just 38% of health care workers, according to the survey, which is unpublished.

How high can you go?

One thing is clear: The pressure continues to grow for providers to improve health care worker immunization rates.

In Iowa, hospital rates of healthcare worker influenza immunization are publicly reported, along with healthcare associated infections. A number of hospitals have adopted mandatory vaccination programs, and the state touted a 91% vaccination rate in 2009-2010.

Wisconsin opted to promote voluntary programs that require healthcare workers to sign a declination form if they don't want to be vaccinated. The state's median rate rose to 72%. About 40 hospitals reached the state's target of 80% or more. The state provided feedback to hospitals and nursing homes and offered recommendations to improve rates.

"We want health care workers to do this because it's the right thing, and so far, it's working," **Gwen Borlaug**, CIC, MPH, infection control epidemiologist with the Wisconsin Division of Public Health, said in a statement.

The Maryland Partnership for Prevention in Baltimore has been promoting healthcare worker influenza immunization for about six years, with an emphasis on education and making vaccinations free and convenient. The partnership offers a free online toolkit to assist hospitals and other

health care employers. (See www.immunizemaryland.org.)

Hospital vaccination rates range from a low of about 30% to 100%, says Tiffany Tate, MHS, executive director of the partnership. "We have been reluctant as an organization…to make that recommendation that [healthcare employers] should make it mandatory," she says. "But we do think people should really push for vaccinations and ask people to sign a declination form if they don't have the vaccine."

Meanwhile, the list of healthcare providers requiring influenza immunization continues to grow, says **Deborah Wexler**, MD, executive director of the Immunization Action Coalition in St. Paul, MN, which tracks mandatory programs on its "honor roll." (Those include institutions that allow declinations or exemptions for personal reasons.) "We need every health care worker who can be vaccinated to be vaccinated," says Wexler. "That's how we're going to optimally protect the patients we take care of." *(Editor's note: How did you do with the flu? A flu vaccination campaign assessment tool is inserted in this issue. For more information, see "NY mandates: HCWs get shots for the seasonal flu,"* Same-Day Surgery, *October 2009, p. 102, and "States and providers tackle influenza – Declination statements boost vaccinations,"* SDS, *December 2008, p. 128.)* ■

Use these benchmarks for 4 procedures

AAAHC offers clinical, non-clinical data

Six new reports issued by the AAAHC Institute for Quality Improvement (AAAHC Institute), a not-for-profit subsidiary of the Accreditation Association for Ambulatory Health Care (AAAHC), offer insights to enhance the quality and efficiency of some of the most common outpatient procedures. The reports range from addressing procedures that primarily affect the elderly (cataract surgery) to treatments for pain and mobility problems (low back injection, knee arthroscopy) and screening for one of the most common cancers (colonoscopy for colorectal cancer).

"An increasing proportion of all health care needs are met in outpatient settings, which makes it important to establish benchmarks and best practices for ambulatory services," said **Naomi Kuznets**, PhD, senior director and general manager of the AAAHC Institute. "Our reports illustrate that excellent ambulatory patient care doesn't depend on the volume of services offered or total spending. Rather, it reflects the ability to identify and adapt proven practice and procedural efficiencies, many of which are detailed in these reports. An important role of the institute is to call attention to practices that ambulatory health care professionals can use to improve care and provide a higher quality service to their patients."

The six new 2006 AAAHC Institute studies include:

• Four clinical studies: Cataract extraction with lens insertion, colonoscopy, knee arthroscopy with meniscectomy, and low back injection.

• Two non-clinical studies: Cataract extraction with lens insertion and colonoscopy.

Clinical reports include data such as pre-procedure, procedure and discharge time comparisons, operative techniques, complications, non-routine procedures, anesthesia, instrumentation and supplies, and patient outcomes. Non-clinical reports focus on factors such as type and ownership of facilities, staffing costs, billing and collections, supply management, annual spending, information technology, and patient satisfaction.

Procedure times are the only measures used for benchmarking because they reflect processes not dictated by clinical guidelines and are, for the most part, within the control of the organization. Note: In the results given, not every organization/patient answered every question. In most cases, patient outcomes are based on patient questionnaires administered in the days/week immediately following the procedures.

Highlights of the studies include:

• Cataract extraction with lens insertion.

With more than 95% performed in an ambulatory setting, cataract and lens operations are the no. 1 outpatient surgical procedure. Two new AAAHC Institute reports offer data from ambulatory centers on clinical (78 organizations participated) and non-clinical (20 participants) aspects of cataract surgery.

The AAAHC Institute has conducted a series of clinical studies on this procedure since 1999. Key 2010 clinical findings include:

— Procedure times. The median pre-procedure time (defined as patient check-in to start of the procedure) was 80 minutes overall (range 29 to 144 minutes). Practices followed by the organiza-

tions with the lowest pre-procedure times included additional staffing and standardized charting. The median discharge time (defined as end of the procedure until patient meets discharge criteria) was 24 minutes (range 3 to 47). Organizations with the shortest discharge times attributed their results to practices such as cross-training staff and standardizing instructions and paperwork.

— Patient outcomes. Ninety-six percent of patients were able to schedule their procedures as soon as they wanted. Ninety-nine percent said they were comfortable before the procedure and after discharge. Ninety-five percent reported their vision was better post-surgery. Ninety-six percent returned to activities of daily living within one week of the procedure. Ninety-nine percent would recommend the procedure to friends or relatives with cataracts

— Supplies, staffing and costs (non-clinical findings). All but two organizations standardize their cataract surgery supplies. Seventy-five percent are members of purchasing groups. Overall costs per procedure range from $74 to $1,215, with a median of $303.50. The lens costs were factored into some figures. Ninety percent have information technology systems, primarily for billing (89%) and scheduling (89%). Twenty-two percent have electronic medical records.

Organizations with the lowest staffing costs attributed their success to a variety of factors, including cross training staff and pre-procedure preparation. Organizations with the lowest billing costs/collection times also cited a number of factors, including using online services, automated statements and patient education

• Colonoscopy.

Colorectal cancer screenings are the second-most frequently performed procedures in ambulatory care, with nearly 10 million performed annually; the AAAHC Institute has been studying this procedure since 2001. Key clinical findings from 69 organizations that participated in the 2010 AAAHC Institute clinical report include:

— Procedure times. The median pre-procedure time was 62 minutes (range 33 to 109). Organizations with the shortest times use processes such as preparing before the patient arrives and having enough staff to keep the patient moving through the procedure room.

The median discharge time was 30 minutes (range 20 to 81 minutes). Organizations with the shortest times attributed their results to the use of sedatives that allow patients to recover quickly, and attentive recovery room staff.

— Patient Outcomes. Ninety-seven percent of patients were able to schedule their procedures as soon as they wanted. Seventy-one percent reported little or no discomfort during the pre-procedure bowel preparation. Ninety-six percent reported little or no discomfort during the procedure. Ninety-nine percent said they would recommend the procedure to a friend.

— Supplies, staffing and costs (non-clinical results reported by 32 centers). Ninety-four percent of organizations standardize their colonoscopy supplies. Seventy-five percent are members of purchasing groups. Ninety-four percent have information technology systems, primarily for scheduling (97%) and billing (90%). Fifty-three percent have electronic medical records.

Overall costs per procedure range from $17 to $2,000 with a median of $293.50. Organizations with low costs attributed it to a variety of factors, such as efficient coordination with physicians' offices, streamlined registration, and patient education/communication.

• Knee arthroscopy with meniscectomy.

Virtually all knee arthroscopies are now performed in the ambulatory setting. A new AAAHC clinical study of knee arthroscopy with meniscectomy, the latest in a series conducted since 2000, includes results from 39 organizations. Among the findings:

— Procedure times. Median pre-procedure time was 91 minutes (range 56 to 138). Organizations with the shortest times attributed their results to careful scheduling and gathering patient information prior to the procedure.

Median discharge time was 73 minutes (range 37 to 123). Organizations with the shortest times attributed their results to factors such as short-acting anesthesia combined with local anesthetics and preparing patients to expect short discharge times.

— Patient outcomes. Ninety percent said they were able to schedule their procedures as soon as they wanted. Ninety-nine percent said they experienced little or no discomfort during the procedure. Ninety-six percent had begun walking (with or without crutches). Ninety-nine percent would recommend the procedure to a friend or relative.

• Low back injection.

More than 1.5 million low back injections (LBI) for the treatment of pain or mobility problems are conducted each year, and that number is expected to rise as the population ages. The 2010 study was the first survey of organizations performing LBI

conducted by the AAAHC Institute.

Findings include:

— Procedure times. Median pre-procedure time was 48 minutes (range 5 to 122). Organizations with the shortest times attributed their results to factors such as gathering patient information and preparing prior to the procedure.

Median discharge time was 29 minutes (range 2 to 74). Organizations with the shortest times attributed their results to rarely sedating patients for this type of procedure.

— Patient outcomes. Ninety-five percent said they were able to schedule the procedure within a reasonable period of time. Eighty-two percent were performing their usual daily activities. Seventy-eight percent indicated their pain had improved. Fifty-three percent had reduced their pain medications. *(For information on this study, see "Strategies to cut time for spinal injections — Save money by reducing OR time,"* Same-Day Surgery, *January 2011, p.10.)*

Organizations that participated in the AAAHC Institute studies were volunteers that had opted to participate in previous AAAHC Institute studies and/or were accredited by AAAHC. Organizations are invited to participate through the AAAHC Institute website and, when possible, through mailing to members of relevant specialty societies. Study results should not be used, nor were they designed, to assign "relative values" to processes and outcomes or to set reimbursement policies, AAAHC says. *(To order copies of the reports or for more information, visit the AAAHC Institute online at www.aaahciqi.org and select "order products.")* ■

BPS found to be a safe and effective option

Study targets therapeutic GI endoscopies

Researchers report that, compared with conventional sedation, balanced propofol sedation (BPS) using propofol with midazolam and meperidine provided higher provider satisfaction, better patient cooperation, and similar adverse event profiles in patients undergoing therapeutic endoscopic procedures.

This is the first prospective study of BPS in direct comparison with conventional sedation. The researchers say that this study provides further evidence to support the adoption of endoscopist-directed BPS for therapeutic endoscopy. The study appears in the February issue of GIE: *Gastrointestinal Endoscopy*, the monthly journal of the American Society for Gastrointestinal Endoscopy.

Balanced propofol sedation (BPS) combines small incremental doses of propofol with single induction doses of benzodiazepines and opioids under the direction of a physician that is not an anesthesiologist. Because BPS usually targets moderate sedation, adequate amnesia and analgesia can be achieved with concomitant administration of benzodiazepines and opioids.

Study lead author **Chang Kyun Lee**, MD, PhD, Kyung Hee University School of Medicine, Kyung Hee University Hospital, Seoul, Korea, said, "The present study was conducted to compare the safety and efficacy of BPS, propofol in combination with midazolam and meperidine, with conventional sedation, midazolam and meperidine, in patients undergoing therapeutic GI endoscopic procedures. We found that BPS provided higher health care provider satisfaction, better patient cooperation, and it had similar adverse event profiles to conventional sedation." ■

CNE/CME INSTRUCTIONS

Physicians 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 activity with the June issue, you must complete the evaluation form provided and return it in the reply envelope provided to receive a letter of credit. When your evaluation is received, a letter will be mailed to you.

COMING IN FUTURE MONTHS

- Aging surgeons: Are your patients at risk?
- Enforcement of bloodborne pathogens standard
- An easy way to reduce patients' anxiety, up satisfaction
- Use QA/PI data to boost care, safety, and staff morale

CNE/CME OBJECTIVES

- **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.

CNE/CME QUESTIONS

13. In a 2010 survey of 1,800 healthcare providers, how many respondents reported adverse patient outcomes during the past year because of drug shortages, according to the Institute for Safe Medication Practices?
A. About one in 20
B. about one in 10
C. About one in eight
D. About one in five

14. What is an effective way to address rude staff, according to Stephen W. Earnhart, MS, CEO of Earnhart & Associates?
A. Secret shoppers.
B. Buy lunch for the staff once a week.
C. Plan outings for the staff once a month.

15. How have video cameras benefited CoxHealth?
A. Prevent or identify criminals in car break-ins, thefts of patient items within the facility, narcotic thefts, and internal thefts of employees.
B. Helped recover a set of wedding rings that a family member had taken home for a patient.
C. Helped identify that an outside contractor had damaged equipment in the ambulatory surgery center.
D. All of the above

16. According to a survey by the Centers for Disease Control and Prevention, what is the number one reason that healthcare workers received the flu vaccine?
A. Because they didn't want to get the flu.
B. To protect their family and friends.
C. To avoid transmission to patients.

Answers: 13. D; 14. A; 15. D; 16. A

Post-Campaign Assessment Worksheet

Number of employees immunized:_____

How much vaccine did you purchase for your employees this year? _____ doses

Did you have enough vaccine?

□ Yes. Consider setting next year's immunization goal at 110% of this year.
□ No. Consider purchasing 20% more next year.

Which departments or disciplines had the least number of staff members getting the flu vaccination (e.g., physicians, nurses, housekeepers, maintenance workers, aides, dietary staff, etc.)?

What were some of the reasons/barriers cited by this department/discipline for not receiving the vaccine?

In the space below, brainstorm strategies to address these barriers.

Did you have a multidisciplinary strategic planning team?
□ Yes □ No

Methods used to administer vaccine:
□ Kick-off event
□ Stationary clinic
□ "Rolling cart" clinic
□ Other_____

Tools used for campaign promotion and staff education:
□ Flyers
□ Posters
□ E-mail
□ Employee newsletters
□ In-service training
□ Paycheck stuffers
□ Other_____

Incentives or rewards for staff who obtained immunization:
□ Departmental competition
□ Refreshments
□ Raffle
□ Games
□ Other_____

What were the methods used to track your immunization progress?

Evaluate your organization's immunization campaign.

□ What were the strengths?

□ What were the weaknesses?

Document adapted from Massachusetts Medical Society, Masspro, and the Massachusetts Department of Public Health