

Patient safety

JCAHO's answers on marking the site

What do we need to do about surgical site marking? Questions have arisen as the Joint Commission on Accreditation of Healthcare Organizations begins checking compliance with its National Safety Goal for surgical site verification, which went into effect in January.

OR Manager asked the Joint Commission to respond to some frequently asked questions. The responses were given by Richard Croteau, MD, a general surgeon by background who is JCAHO's

executive director for strategic initiatives. The questions were compiled by Richard Cuming, RN, MSN, CNOR, CPAN, a perioperative clinical nurse specialist, from the most frequent questions posted on Periop, a listserv for perioperative nurses.

In hospital surveys so far this year, the Joint Commission has found 8% noncompliance with surgical site marking. The biggest issue—physician buy-in.

"This represents a behavioral change, which is always difficult," Dr Croteau says. "There is more and more acceptance of marking for laterality but less for general procedures."

He stressed two basic principles behind surgical site verification:

- **Standardization.** Safety for patients is improved by standardizing processes as much as possible. Mistakes are less likely if procedures are performed the same way every time. The more exceptions there are

How are we doing?

Hospitals not in compliance with the Joint Commission's surgical site marking requirement in 638 surveys between Jan 1 and March 30:

- Announced surveys: 8%
- Unannounced surveys: 27%

to a process, the greater the likelihood of an error.

- **Redundancy.** Errors are less likely if the surgical site is verified in more than one way. That is why the Joint Commission's National Patient Safety Goal for surgical site verification requires three steps:

1. preoperative verification, such as through a checklist
2. a process for surgical site marking
3. a time-out in the OR before the procedure begins.

Why doesn't the Joint Commission give a specific set of rules for surgical site marking?

"This is a no-win situation for us," Dr Croteau responds. "We have one set of folks who say, 'Please tell us specifically what to do.' Then we have another group who says, 'Just tell us what you want us to accomplish, and let us figure out how to do it.' We are trying to strike a balance."

Q.How does the Joint Commission recommend marking right side, possible left side procedures (eg, hernias)?

Dr Croteau. We don't have a specific requirement when there is uncertainty regarding the extent of the surgery or when there will be multiple incisions. Even though we do not have a specific

requirement, our advice is to make sure that at least the primary anticipated site is marked. This serves at least to identify the anatomic nature of the procedure and, very importantly, the patient.

Marking the site is an important factor in identifying the patient. In over 240 in-depth analyses we have done of wrong surgery, 13% of the cases involved surgery performed on the wrong patient.

A lot of organizations are adopting a policy of "no mark, no surgery." That means that if a patient arrives in the OR without the site being marked, they put an automatic hold on the surgery while they address why the site was not marked. This allows time for an explanation to see if something was missed.

Q.What would happen if a surveyor during a chart review finds that a site wasn't marked?

Dr Croteau. There is no specific documentation requirement for site marking. The surveyor might ask whether you document surgical site marking and if so how. But the surveyor cannot say you must have specific documentation on surgical site marking.

Q.The Joint Commission's definition of procedures to be marked excludes those done through a natural body orifice. But I've heard the Joint Commission expects that ears will be marked. Is this true? If so, aren't ears considered natural body orifices?

Dr Croteau. You could argue that the external ear channel is an orifice, and thus the ear does not have to be marked. But if you are doing a unilateral procedure on the ear, such as insertion of a tympanostomy tube, why not mark the ear rather than say you won't



Time-out tip

OR staff of the Nebraska Health System, Omaha, found a simple way to remind surgical teams to do a “time-out” in the OR before a case to confirm the correct patient, procedure, and surgical site.

“The staff came up with a great and inexpensive idea,” says Joyce Soule, RN, manager of surgical services.

Here’s the process:

- The words Time-Out are printed in large letters (24 pt) on bright yellow paper. This is printed about 16 times on one side of the paper and cut in strips 4 inches by 1 1/2 inches.
- A yellow strip is placed in every instrument set that has a knife handle in it. The strips are sterilized in the set with the count sheet.
- When setting up for the case, the scrub nurse lays the yellow strip over or beside the knife on the Mayo tray. This reminds everyone at the field to call time-out before the surgeon is handed the knife.
- Any team member can call the time-out. It doesn’t have to be the circulating nurse. But the circulating nurse is responsible for documenting that the time-out is done.

“It has been working great,” says Soule. Just seeing the bright yellow paper is enough to make the team stop for the time-out. She believes the yellow strips will only be needed for a few months until everyone is used to the new practice.

—Judith M. Mathias, RN, MA

mark it because of a Joint Commission technicality?

Keep in mind that when we establish a requirement, it doesn’t mean an organization can’t do more than that if it believes that is appropriate for its patients. Thus, even though the ear can be considered a natural body orifice, your organization might decide it is appropriate to have a policy to mark ears.

Q.*We have heard the Joint Commission expects teeth to be marked. Again, isn’t this an exception because it involves a natural body orifice?*

Dr Croteau. We have been working with the American Dental Association (ADA) for a resolution of this issue, and we will soon be publishing an answer on our web site. (Go to www.jcaho. Look under Top Spots, then National Patient Safety Goals and FAQs.)

We will say that teeth will be treated as being within a natural body orifice. We won’t require the actual marking of teeth. But we will expect that either the dental radiograph or the dental chart with the appropriate tooth or teeth marked will be available in the OR to be checked before surgery.

Though we agree with the ADA that it probably would be a good idea to mark teeth to be operated on, there is not a practical way to accomplish this. Permanent markers have been tested, but the mark doesn’t stay on. Some have suggested marking teeth with a dental burr, but that could be dangerous if the tooth is fragile.

Q.*JCAHO has excluded procedures on the genitalia from the marking requirement. What about procedures involving one testicle? Shouldn’t these be marked?*

Dr Croteau. We haven’t specifically excluded the genitalia from marking. With testicles, it would be appropriate to mark the site.

Q.*Isn’t it a double standard to require that the abdomen must be marked for a total abdominal hysterectomy yet not require the site to be marked if the uterus is to be removed vaginally?*

Dr Croteau. It is a matter of practicality. Overall, the point is that we are trying to get organizations to standardize their procedures for site marking. But there are certain circumstances that require an exception for valid reasons.

Q.*Why do we need to mark every site? This is only one step in a larger verification process. Site marking should be reserved for procedures involving laterality so there is no question about which side is being done.*

Dr Croteau. The primary reason is that marking the site is one of several strategies for ensuring the correct procedure is being done on the correct patient. As mentioned earlier, our in-depth review of 240 wrong surgery cases has found 13% involved surgery on the wrong patient.

In the National Patient Safety Goals, we recommended the three steps for eliminating wrong site, wrong patient, and wrong procedure operations. This includes preoperative verification and a time-out in the OR, in addition to marking the site.

The purpose is to build redundancy into the process. If you do all three steps, your chances of eliminating wrong surgery are good. If you don’t do all three of the steps, your chance of eliminating the problem is reduced. We have seen cases in which two of these strategies were used, and the wrong surgery still was performed. For cases in which you don’t mark the site, the risk of wrong surgery is higher.

Q.*How, specifically, does the JCAHO want us to mark patients when side is not an issue?*

Dr Croteau. Our two expectations are:

- The patient will participate whenever possible.
- The mark will be visible in the OR after the patient is prepped and draped.

Beyond that, we don’t say what type of mark to use. That is up to each organization. It can be a line where the incision will be; a mark adjacent to the site; the surgeons’ initials, as recommended by the American Academy of Orthopaedic Surgeons; or a “yes.” Our preference is that you keep it simple. Writing a word can open up the possibility of misunderstanding. For example, there are surgeons who have the initials NO.

Q.*What is the definition of an invasive procedure that occurs outside of the OR? Saying procedures that are of “more than minimal risk” is too vague and does not provide needed guidance to hospitals.*

Dr Croteau. We have explicitly stated that venipuncture, routine peripheral IVs, and NG tubes and Foley catheter

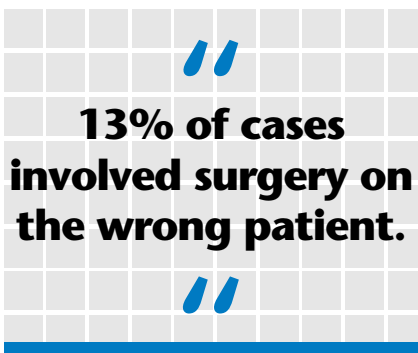
insertions do not require marking. But most other procedures will be marked.

We will, however, be posting a statement on our web site to say there will be an exemption to site marking for procedures, such as those performed at the bedside, where the practitioner is in continuous attendance from the time the decision is made to perform the procedure through the consent process until the procedure is performed. But if the practitioner leaves at any time, such as when the nurse is setting up for the procedure, the site must be marked. An example is insertion of a chest tube for a pneumothorax. We have several cases in our database where the practitioner left for a time, and the chest tube was inserted on the wrong side. That's a life-threatening situation.

Q.How does marking an abdomen really help make sure that the correct procedure is done? Obviously, many different procedures are done through abdominal incisions or abdominal ports. If there are five patients in the preoperative area, and they are all having different abdominal procedures, how do the new JCAHO requirements help me to keep these patients safe?

Dr Croteau. That is one reason why surgical site marking alone is not sufficient. That is why we insist on redundancy in the process through the three steps. We believe that these three steps together give the best assurance that the right procedure will be done on the right patient.

Q.How does JCAHO justify its requirement to mark cesarean sections? C-sections



are done in only one area of the hospital, and it's pretty obvious what the procedure will be.

Dr Croteau. There have been C-sections done on women who should not have had a C-section. In some cases, the wrong patient gets taken to the OR. Again, it's a correct-patient issue.

Q.How do we mark multiple sites that may or may not be entered during a procedure? For instance, some cardiologists require both sides of the groin to be prepped prior to a cardiac cath procedure. They may choose either or both for catheter insertion.

Also, in laparoscopic abdominal procedures, several incisions are made for scope insertion, although the exact location of the scope insertion may be determined only at the beginning of the procedure.

Dr Croteau. This is similar to the hernia situation in the first question. Marking of the primary site is what we expect. In a cardiac catheterization, typically, the cardiologist will know the likely location for a particular patient ahead of time. Failing that, cardiologists

tend to have a routine in which they will start, say, at the left groin and proceed from there. The primary anticipated site is what should be marked.

For laparoscopic surgery, although there are several incisions, we say you should just mark the site where the laparoscope is to be inserted.

As always, when clinical conditions indicate, you do what is right for the patient. Obviously, the practitioner would not operate at a site just because that site is marked when it turns out that another site is preferable for clinical reasons. Please understand we are doing this to improve safety, not to interfere with safety.

Q.What was the incidence of wrong procedures that occurred before the implementation of surgical site verification in 2001 and the number of incidents since? Did the original intent of surgical site verification meet its goal?

Dr Croteau. That is an unanswerable question. We would love to have the data on that, but we don't. No one knows what the true incidence of wrong surgery is, so there is no way to measure the effect of surgical site verification. Reporting of incidents has gone up, but that doesn't mean wrong surgery is happening more. A lot of it is heightened awareness. ♦

—Pat Patterson

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