In May, the California Department of Public Health (CDPH) fined nine California hospitals for noncompliance which was likely to cause serious injury or death. One of these hospitals was fined for leaving a surgical lap band (sponge) inside a patient’s abdomen after a Cesarean section, causing analysis.

Below is the "5-Why" Cause Map of this incident. The patient safety goal was impacted because of the risk of death or serious injury. Why? An intestinal obstruction. Why? A lap tape was retained in the patient's abdomen. Why? The lap tape was not removed before the incision was closed. Why? The sponge count was performed incorrectly.

As a response to this incident, the hospital updated its procedures and re-trained its staff. Frequent audits of surgeries were also implemented. Since the changes were updated, there have been no cases of objects retained after surgery.

Based on the changes to procedure made by this facility, as well as the recommendations from The Journal of Family Practice and the Annals of Surgery, we can put together a sample procedure for sponge counts during an operative procedure as shown below.

In our sample procedure, a sponge count is required before the surgical site is opened, each time sponges are added to the surgical field, an incision or body cavity is closed, and if a scrub or circulating nurse is replaced (such as at a shift change). Once the procedure is complete, a sponge count, as well exploration of the surgical area is performed before skin closure. In addition, if the procedure indicates a high risk for retained sponge (examples are shown below), a radiograph of the surgical area is taken. Because only sponges with radio-opaque markers are used, this creates another layer of assurance.

The procedure shown above may be more comprehensive than the sponge counting procedure used in some facilities. As such, it requires more time, dedication and resources. Is it really worth it? The effort required to implement changes to a procedure have to be balanced with the risk of what the procedure attempts to prevent. In this case, the sponge count procedure attempts to reduce the risk of object retention after surgery. The risks of retaining an object after surgery include severe injury, possibly even death. The retention of surgical sponges is a fairly common surgical complication, estimated to occur once for every thousand to five thousand surgeries. Additionally, the financial and legal consequences for a facility and operating team for a retained foreign object can be severe. Each organization must consider its own risks and available resources while determining the appropriate level of effort for a procedure. However, because of the high level of risk of a retained foreign object, the procedure in this case should involve significant effort.

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