



Tagged Surgical Sponges Help Prevent Deadly Problem

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A new type of tagged surgical sponge has been created which should help prevent the deadly problem of surgeons accidentally leaving them inside patients after completing an operation. At the end of an operation, doctors or nurses can wave a wand over the patient, this wand detects any sponges that are left inside. The device uses radio-frequency identification.

A small study, carried out by Dr. A Macario and team at Stanford University, California, USA, found the device is effective for 100% of the time.

In the USA, in about 1 in every 10,000 operations that involve an open cavity, something is left behind in the patient - a total of 1,500 operations each year. This kind of mistake happens more often during emergency operations. Even though doctors and nurses carefully check before closing up the patient, the problem still persists, with over 60% of things left inside patients being sponges. Sponges left inside the patient can go unnoticed for along time, years and even decades - they can lead to serious and sometimes fatal infections.

Radio-frequency identification devices (RFID) are commonly used in retail outlets. They are also used for tagging pets. Recently, some pharmaceutical companies have been looking at this technology to help combat drug counterfeiting. Using this technology for surgical sponges was thought up by a nurse who patented the idea.

You can read about the study in the *Archives of Surgery*.

The study looked at how the new device worked for eight patients at Stanford University Medical Center. Some tagged and non-tagged sponges were 'hidden' inside the patient during an operation by one surgeon, who asked another surgeon to find them. A battery-operated wand, a type of detector, was used to find the tagged sponges. The tagged sponges were very easy to find, say the researchers, while the others were not.

The device detected all sponges correctly, in less than 3 second on average. There were no false-positive or false-negative results.

The study was funded by the National Institutes of Health and ClearCount Medical Solutions Inc. the makers of the device.

We do not know what effect a tagged sponge left inside a human may have. We know that tagging pets does not seem to harm them.

Initial Clinical Evaluation of a Handheld Device for Detecting Retained Surgical Gauze Sponges Using Radiofrequency Identification Technology

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