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# Hospitals misleading patients about benefits of robotic surgery, study suggests

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An estimated four in 10 hospital websites in the United States publicize the use of robotic surgery, with the lion's share touting its clinical superiority despite a lack of scientific evidence that robotic surgery is any better than conventional operations, a new Johns Hopkins study finds.

The promotional materials, researchers report online in the *Journal for Healthcare Quality*, overestimate the benefits of surgical robots, largely ignore the risks and are strongly influenced by the product's manufacturer.

"The public regards a hospital's official website as an authoritative source of medical information in the voice of a physician," says Marty Makary, M.D., M.P.H., an associate professor of surgery at the Johns Hopkins University School of Medicine and the study's leader. "But in this case, hospitals have outsourced patient education content to the device manufacturer, allowing industry to make claims that are unsubstantiated by the literature. It's dishonest and it's misleading."

In the last four years, Makary says, the use of robotics to perform minimally invasive gynecological, heart and prostate surgeries and other types of common procedures has grown 400 percent. Proponents say robot-assisted operations use smaller incisions, are more precise and result in less pain and shorter hospital stays — claims the study's authors challenge as unsubstantiated. More hospitals are buying the expensive new equipment and many use aggressive advertising to lure patients who

want to be treated with what they think is the latest and greatest in medical technology, Makary notes.

But Makary says there are no randomized, controlled studies showing patient benefit in robotic surgery. "New doesn't always mean better," he says, adding that robotic surgeries take more time, keep patients under anesthesia longer and are more costly.

None of that is apparent in reading hospital websites that promote its use, he says. For example he points out that 33 percent of hospital websites that make robot claims say that the device yields better cancer outcomes — a notion he points out as misleading to a vulnerable cancer population seeking out the best care.

Makary and his colleagues analyzed 400 randomly selected websites from U.S. hospitals of 200 beds or more. Data were gathered on the presence and location of robotic surgery information on a website, the use of images or text provided by the manufacturer, and claims made about the performance of the robot.

Forty-one percent of the hospital websites reviewed described the availability and mechanics of robotic surgery, the study found. Of these, 37 percent presented the information on the homepage and 66 percent mentioned it within one click of the homepage. Manufacturer-provided materials were used on 73 percent of websites, while 33 percent directly linked to a manufacturer website.

When describing robotic surgery, the researchers found that 89 percent made a statement of clinical superiority over more conventional surgeries, the most common being less pain (85 percent), shorter recovery (86 percent), less scarring (80 percent) and less blood loss (78 percent). Thirty-two percent made a statement of improved cancer outcome. None mentioned any risks.

"This is a really scary trend," Makary says. "We're allowing industry to speak on behalf of hospitals and make unsubstantiated claims."

Makary says websites do not make clear how institutions or physicians arrived at their claims of the robot's superiority, or what kinds of comparisons are being made. "Was robotic surgery being compared to the standard of care, which is laparoscopic surgery," Makary asks, "or to 'open' surgery, which is an irrelevant comparison because robots are only used in cases when minimally invasive techniques are called for."

Makary says the use of manufacturer-provided images and text also raises serious conflict- of-interest questions. He says hospitals should police themselves in order not to misinform patients. Johns Hopkins Medicine, for example, forbids the use of industry-provided content on its websites.

"Hospitals need to be more conscientious of their role as trusted medical advisers and ensure that information provided on their websites represents the best available evidence," he says. "Otherwise, it's a violation of the public trust."

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