

Surgeon tests antibiotic device at Memorial Hospital

FDA approves trial of tool aimed at increasing amount, speed of delivery

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SANTA ROSA – Plastic surgeon Barry Silberg recently received Food and Drug Administration approval to begin testing a new method of dispensing antibiotics that increases the effectiveness of the drug while better preventing infection during surgery.

Surgeons use antibiotics to prevent infection during and after surgery, but before they have only been able to deliver the medicine either through the veins, muscle or the mouth. When it is dispensed through the traditional methods, the medicine has to travel through the entire body and only a small portion actually makes it to the intended site.

“As it is now, when antibiotics are administered during or before surgery, it is always done intravenously,” Dr. Silberg said. “But really only a very minuscule amount makes it to the affected site.”

Dr. Silberg’s method uses a device he invented call the Silberg Tissue Preparation System that inserts the antibiotic directly into the soft tissue of the affected site. During preliminary trials last year, antibiotic concentration at the damaged area was more than 80 times stronger than previous trials using traditional methods of application.

Dr. Silberg said surgeons haven’t used this method before because they had no way of diffusing the drug into the tissue, which he does though ultrasonic microstreaming. Pads emitting ultrasound waves are rubbed on top of the skin where the antibiotics are applied and effectively dispersed.

The plastic surgeon recently received FDA approval to test the method and he is currently in the process of fundraising for the trial. Santa Rosa Memorial Hospital approved the tests March 13 and he has a year to raise funds and finish testing.

Dr. Silberg and a board of directors started the Santa Rosa Antibiotics Effectiveness Project nonprofit, which will help raise the needed \$100,000 for the project.

Board members of the nonprofit include licensed and certified general and cardiothoracic surgeon Dr. Joseph Cohn of Santa Rosa, licensed and certified general surgeon Dr. James Harwood also of Santa Rosa and Dr. Paul Tiffany, a senior lecturer at the University of California, Berkeley.

Dr. Silberg’s machine is priced at about \$10,000 and surgeons will also be able to reduce the amount of antibiotics used during surgery. Antibiotics are needed when tissue is exposed to bacteria in the air. The drugs are used

to prevent infection and decrease recovery time.

The clinical trials at Memorial Hospital will test 20 tummy-tuck patients. Ten will receive antibiotics through the veins and the other half will be administered using Dr. Silberg’s method. Doctors will measure the concentration of antibiotics in the affected tissue of both patients and compare the effectiveness of each.

For more information about the study or how to participate, visit antibioticresearch.org or call 707-282-5591.

For more information about the Silberg Tissue Preparation System visit www.lipoperfection.com.



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