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## STAR TREK-STYLE SCANNER LOOKS FOR CLOTS

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by Ali Gorman, R.N., Healthcheck reporter; Dawn Heefner, HealthCheck Producer

PHILADELPHIA, PA.; August 31, 2008 -- Move over Dr. McCoy. Scientists from Drexel University, and a biotech start-up company are bringing us closer to the Star Trek picture of the medical Tricorder.

The next "big thing" in emergency medicine could be a device small enough to fit in your hand. It was created right in Philadelphia, from technology we use every day.

For nearly a decade, scientists in a Drexel University lab have been at work developing the Infrascanner.

In the blink of an eye, this handheld scanner goes to work, checking for signs of a head injury.

Kurtulus Izzetegou, a graduate researcher at Drexel University, says, "It really takes just 5 seconds."

It uses light in the near-infrared frequency - the same type used by a TV remote control - to penetrate about 2 inches deep.

The light passes easily through healthy areas, but where a dangerous blood clot has stopped the blood flow, the light can't go through.

That shows up in red on the handheld monitor that goes with the Infrascanner. The device compares readings from both sides of the brain, and if they don't match, alerts doctors to areas needing more investigation.

In the past, patients couldn't be screened for clots till they got to a hospital with a CT scan machine.

But with the Infrascanner, EMTs can do it at the scene of an accident, or in an ambulance.

That may make it easier to treat patients faster, within "the Golden Hour." That's the time-frame doctors say gives patients the best chances for recovery.

Inventors also believe it will be invaluable at the bedside of trauma patients, to track their progress, and pick up signs of complications.

Eileen Maloney Wilensky, MSN, is leading a team testing the Infrascanner at the Hospital of the University of Pennsylvania. So far it has screened 800 patients coming into the emergency room.

Wilensky and her colleagues say Infrascanner's ease of use and portability are huge plusses.

She said enthusiastically, "This at least puts the technology in the hands of the provider, and the quickest responder at the bedside, or in the field."

Marine Commander Luis Becerra heard about Infrascanner from a news report. He was so excited about its potential he got special permission to use the device during a deployment at a trauma center in Iraq.

Commander Becerra, who has used the scanner 100 times, told Action News via satellite, "My corpsmen have used this device. People with no medical training have used it. We haven't had a false positive with the device."

He went on, "People who had been positive with this scanner, when they went to the next level of care with the CT scan, the hematoma (blood clot) was there."

He predicts it will someday be as available as defibrillators are in arenas and shopping malls.

Commander Becerra plans to present his findings on Infrascanner to a meeting of emergency medical specialists.

Infrascanners won't replace CT scans in hospitals, but researchers feel they will be invaluable additions.

The device is already being used in other countries. The Food and Drug Administration could approve its use here later this year.

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