

Smart bracelet uses RFID to bleep dirty hands

March 26 2013, by Nancy Owano



(Phys.org) —Hospital-skittish people are convinced they will leave the hospital far sicker than when they came in. While assured they are working on groundless fear, recent hospital-borne infections make them all the more fearful. Infections further weaken patients and have been attributed to over 98,000 deaths each year in the United States. The numbers are grim no matter how sliced. According to estimates, about one out of 20 hospitalized patients get an infection.

These infections are not inevitable; they can be resolved. Hand-washing, along with better sterilization practices of equipment and monitoring bacterial breeding spots, has become high on the list of focus areas for improvement. A company called IntelligentM is taking on the hand-washing initiative; they offer a technology solution in the form of a wristband to be worn by all [health workers](#).

The bands will buzz them in different ways so that they know when they are not, and when they are, washing their hands properly. The IntelligentM bracelet system consists of [RFID tags](#) and an [accelerometer](#) and can track the health care worker's whereabouts and if they are getting the hand-washing protocol right. Special tags are placed around the hospital, at key target areas, such as bathrooms, [patient rooms](#), and operating rooms. The bracelet is also designed to relay data through a connection at the end of each shift for those managing a total view of how each employee is doing.

As the company team explained, having a protocol in place is not enough without accurate monitoring. While the [World Health Organization](#) has developed a standard for [hand hygiene](#), individual, visual monitoring of compliance with the protocol has not been adequate; people tend to modify their hand-washing behavior according to who is watching. For better accuracy, the team said, their bracelet can continually monitor hand-washing 24 by 7, to record hand hygiene events.

The team behind IntelligentM are Seth Freedman, Dave Mullinix and Dr. Andrew Fine; the latter is a practicing neurosurgeon.

Their key pitch is that they are offering a data-driven hand hygiene compliance improvement solution for hospitals that are looking to significantly reduce healthcare-acquired infections and their associated costs.

Those costs are very high. Hospital-acquired infections cost the healthcare system in the U.S. \$30 billion a year. The company said that over 10 percent of the average hospital's operating budget was being spent fighting dangerous infections.

More information: www.intelligentm.com/

via [TechnologyReview](#)

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