Facial Imaging May Protect Patient Data, Safety

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WASHINGTON — Electronic bar codes and radiofrequency microchips are all the rage in medical error prevention, but one research team thinks avoiding mistakes may be as easy as snapping a photo.

Researchers with the MedStar Health network here are experimenting with facial-capture software that they believe could quickly and inexpensively help busy nurses and physicians avoid mistakes.

The software can pick human faces out of any photo image in less than a second. It's tied into a $120 Web camera mounted behind the nurse's triage desk, and anyone who approaches the desk automatically has his or her face captured. Nurses can permanently tie a patient's face to the corresponding electronic health record with one click.

Nurses "don't have to pick up a camera, they don't have to make them say cheese, they don't have to put them in a special location. All they have to do is click on the patient's face," Dr. Michael Gillam, director of the Medical Media Lab at MedStar, said at the annual symposium of the American Medical Informatics Association.

MedStar researchers already developed a state-of-the art electronic health record system allowing doctors and nurses to view patients' full charts at a glance. The system, known as Axyzzi, was snapped up by Microsoft Corp. in July.

Now Dr. Gillam's team is hoping that the facial photo capture system can help avoid errors by capitalizing on humans' natural penchant for recognizing faces.

"The problem with a bar code is that it's not human readable," Dr. Gillam said in an interview.

MedStar developers say their software could be used to tack the right face to any medication order, blood product, or device before it goes into a patient.

"Anyone can look and see that that blood doesn't match, because that's not the right person," Dr. Gillam said.

The Medical Media Lab tested the software prototype and found that it captured the smiling faces of all 22 racially diverse adults who approached a MedStar triage desk. But the system has yet to be put it into practice to see if it really enhances patient safety.

Dr. Gillam said the automatic system could be especially useful in overwhelmed emergency departments. "Suddenly 30 patients show up … at one time from a bus accident. You can imagine trying to take each picture," he said.

But as with most identity technology, privacy is a concern. After all, no one wants to have his or her face on permanent file simply for asking directions to the rest room.

Dr. Gillam said that although the system would photograph all comers, images are quickly erased if nurses don't attach them to a medical record. ■

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