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Misidentifying the Unidentified – John Doe and the EHR

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The Case

Two male patients of similar age arrived at the same time to the emergency department (ED) after sustaining falls. Both patients were triaged as major trauma patients and were evaluated by the full ED trauma response team. The two patients' identities were not known upon their arrival; therefore, both patients were initially registered under "Doe" names and assigned medical record numbers. Because Patient 1's injuries were more severe, he was urgently admitted to the hospital by the trauma surgeon and quickly sent to the operating room. Soon thereafter, the "Doe" name assignments were transitioned to their actual names. Their actual names were also similar, although the medical record numbers were clearly different.

Patient 1, who was the more critical of the two patients, was mistakenly booked for emergent trauma surgery under Patient 2's name. Patient 1 (the correct patient for trauma surgery) was taken to the Operating Room for his surgery but arrived with no identification band, which was still in process of getting made. He arrived accompanied by a cooler of blood, having received blood in the Emergency Department and with more left to give as part of the massive transfusion protocol that had been correctly ordered for him. The Operating Room nursing staff expressed concern because the name on the massive transfusion protocol order (Patient 1's "Doe" name) did not match the name they had been given by the ED nurse (Patient 2's "Doe" name). Multiple phone calls ensued between the operating room nursing staff and the emergency department, the blood bank, the surgeons and, ultimately the OR nurse was able to confirm the correct identity and name of the patient. The OR nurse then looked Patient 1 up by his real name in the hospital system and found a medical record for him. Patient 1's surgery then took place as planned, though he did not survive his hospitalization.

Meanwhile, Patient 2 was in the emergency department receiving care, but the care team had difficulty charting his care because the electronic health record indicated he had been transferred to the operating room.

The Commentary

by Christopher F. Janowak, MD, FACS, and Lauren M. Janowak, RN, BSN, CCRN

The above case-vignette of “mistaken identity” occurs all too commonly in modern medicine and can have dire consequences. The need for unique temporary aliases for unidentified patients, or John Does, is encountered in a variety of clinical situations ranging from cardiopulmonary arrest, to drug overdose and trauma. The largest study of a consecutive series of John Does [(1)] concluded that alias use is highly associated with critical illness and high mortality rates. Numerous errors can occur in the context of John Does and patients can become disassociated from laboratory studies, radiographic imaging and blood banking if they are not uniquely identified.

In the era of physical charts, John Doe-related confusion would end at the level of the chart. With paper charting, the focus of mitigating confusion was directed at creating unique identifiers [(2,3,4)], either directly associated with a physical patient or via physical identifiers attached to a study or sample. However, with the advent of the electronic health record (EHR) and complex, dissociated hospital systems far removed from the patients’ direct caregivers, new avenues for erroneously linking the wrong data to the wrong patient have been opened.

In both cases, at least two types of errors related to the EHR were involved: organizational errors and juxtaposition errors.

Organizational error [(5)] results in the loss of patient continuity during movement from ward to ward. That two (or more) patients lacking identification can arrive at about the same time underscores the need for a flexible naming system that can rapidly create unique names linked to a medical record number. These names need to be simple, humanly recognizable as temporary, and will work best on a rotation to prevent the same name from being used frequently. One example is for the "forename" to be an obvious descriptor and gender followed by the “last name” using the phonetic alphabet according to the stage of the current name cycle and a date. For example, an unknown male patient admitted on the 24th of April at the start of a new name cycle would be known as "unknown male Alpha 24/4".[(6)] In this case scenario, the patients apparently changed identities in the EHR and effectively became “new” patients in the eyes of the EHR and the staff. To avoid such organizational errors, continuity of care should be maintained by someone who sees the patient in both environments, which was presumably the surgeon in Case 1.

Juxtaposition errors, i.e. errors that result from the mismatch of the EHR interface and context [(7)], are process errors. In this case, when the John Does’ identities became known, the temporary IDs were quickly switched to the true IDs, but the timing for such corrections can range from 30 minute to 23 hours [(8)]. In the best-case scenario, the records would be seamlessly merged in the EHR; however, accidental linkage to the wrong ID can set off a chain of events. And while labs and diagnostics that are erroneously linked to the wrong patient can lead to secondary or tertiary errors such as wrong treatments based on

interpreting wrong information, blood banking errors—a concern in this case—are more direct and dangerous because transfusion in the critically injured patient is time-sensitive. (Interestingly, in the unpublished sub-analysis work on medication errors, we found that John Doe patients had fewer medication errors than other injured patients [9], possibly because the additional steps required with those patients reduced errors leading to harm by introducing layers of checks into the process.)

For Patient 1, valuable time was lost discovering and communicating the identity error, while the patient continued to bleed. In this scenario, the blood banking and transfusion checks ultimately shed light on the identification issue – although it almost certainly caused significant confusion and delayed care. Unfortunately, the mere merging of charts and changing of identities in this era of the EHR can produce confusion, especially at the level of the most immediate caregivers (bedside nurses) and those placing orders (resident physicians) [10]. This confusion is fertile ground for producing error. To head off juxtaposition errors, some hospitals have policies that mandate patients with temporary aliases keep that identity for the duration of that hospitalization.

Concerns about accurate identification and the "unintended" consequences of Doe use stretch back to the 1980s [2,3,4]. Today, John Doe naming and identity policies vary by locality and are often institutionally dependent upon the historical or anticipated volume of Doe patients encountered. Unfortunately, until a different form of identification or national patient identifiers are used, the consequences of Doe use in the era of the EHR will continue to focus on catching, as opposed to preventing, errors.

Take Home/Teaching Points

- When a John Doe's identity becomes known and the temporary ID is switched to the true ID, extreme caution is needed to ensure accidental linkage to the wrong ID does not occur.
- Some hospitals have policies that mandate patients with temporary aliases keep that identity for the duration of that hospitalization.
- The temporary-to-true ID changeover has potential to be error-prone. Given the risk for errors, hospitals may want to consider system or process-based controls to mitigate this risk. One option might include a two-person checklist done at the bedside.

Christopher F. Janowak, MD, FACS

Division of Trauma and Critical Care Surgery

Department of Surgery

University of Cincinnati

Lauren M. Janowak, RN, BSN, CCRN

College of Nursing

University of Cincinnati

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