People, processes, health IT and accurate patient identification

Issue:

The patient identification process is ubiquitous in health care. It occurs every time a health care professional has a conversation with a patient and anytime information about a patient is recorded or accessed — from sign-in sheets to online scheduling systems to electronic health records (EHRs). Because this process is universal, it is fraught with risk for wrong-patient errors. Safe care begins with proper identification.

Wrong-patient errors can lead to providing treatment to the wrong patient, delays in treatment, and serious harm or death. Safe patient care requires accurate identification and the timely transfer of correct information, making it an area of continuous focus for patient safety efforts, as evidenced by the first National Patient Safety Goal: "Improve the accuracy of patient identification."

Health IT includes:

Electronic health records (EHRs)
Order entry
Scheduling systems
Integrated medical devices systems

Automatic identification and data capture (AIDC) technologies include:

Bar code
Biometric scanners
Radio-frequency identification (RFID)

Health information technology (IT) can provide ready access to relevant patient information across services, settings, and organizations. Health IT includes EHRs, order entry, scheduling systems, and integrated medical device systems such as those for diagnostic tests and results. Additional technology, such as bar code and biometric scanners, can assist with patient identification but, without thoughtful implementation, can add another layer of complexity to the patient identification process.

Common problems associated with health IT and patient identification include:
- Entering information into the wrong patient record (having multiple patient records open, side by side, or overlaying patient records).
- Untangling (i.e., separating) co-mingled patient information.
- Mistakenly creating duplicate charts.
- Assigning a test to the wrong patient.

These errors can lead to a calamity or errors, including incorrectly routed information, wrong results, delayed or inappropriate care, or misdiagnosis.

Achieving accurate patient identification

Accurate patient identification has three components:[1]
1. Accurate information gathering (also called "catching" or "capturing").
2. Accurate information matching.
3. Display of that information to enhance gathering and matching.

Each of these steps are accomplished using both human processes and technology. Accordingly, identification errors can be caused by both human and technology factors, including distractions, time constraints, fatigue, display issues, refresh times, down times, communication issues, use of aliases, non-distinct temporary names for newborns (e.g., Baby Boy or Baby Girl), and staff workarounds.

Safety actions to consider:

Technology alone cannot ensure accurate patient identification. The approach to this issue must be patient-centric, comprehensive, and systematic, considering not only the technology but also the people and their processes.[2] Staff must be supported with adequate training and reliable procedures. Involvement of vendors, organization leadership, providers, and frontline staff is essential. Accurate patient identification requires shared responsibility and involvement of all stakeholders.

Health care organizations can take the following recommended safety actions to help ensure that health care professionals use technology to support accurate patient identification:[1,3,4]
- Engage clinicians in developing the EHR configuration with the goal to limit distractions during the documentation process in order to prevent identification errors.

The Joint Commission.

- Utilize an active confirmation process to help match the patient and documentation. Verbal confirmation from the patient, entering the patient's initials, or matching a patient's photo in a dialogue box prior to confirming orders or after a period of inactivity are examples of methods for active confirmation. Two identifiers should always be utilized.
- Use a standardized process for patient identification and capturing patient information no matter where registration occurs. This information is then entered into electronic fields using standard, unique identifier conventions. Note: The National Institute of Standards and Technology (NIST) recommends NAME followed by name modifier (e.g., Jr., Sr., III), date with month written in first 3 or 4 letters (e.g., Jan—). Other suggestions include zip code, address, and historical addresses.[5]
- Use distinct methods of identification for newborns in the hospital.[6]
- Standardize the display of patient identifiers across various systems, from the registration system through to the EHR. Human factors engineers recommend that information be presented consistently and predictably. For example, ordering patient information the same way (i.e., "LAST NAME," "First Name," and "Middle Initial").
- Information required to accurately identify the patient is clearly displayed on the electronic display, wristbands, and printouts. Enhance distinguishing information on screens, printouts, and those areas that require interventions. This can include display of a color photo of the patient as part of the patient identifier or making patient names on adjacent lines in the EHR display visually distinct.
- If your organization uses automatic identification and data capture (AIDC) technologies — bar coding, biometric scanners, radio-frequency identification (RFID) — develop procedures to use these technologies to facilitate and enhance accurate patient identification. Train staff on these procedures.
- Implement monitoring systems to readily detect identification errors, such as regular inspection for patient identification errors and potential duplicate patient records. Some EHRs have an option to run reports listing potential duplicate patient records — highlighting records that contain very similar clinical or demographic information for patients with different names or vice-versa. The National Quality Forum (NQF)-endorsed "retract-and-reorder" algorithm can be used to measure the rate of erroneous orders due to patient ID errors (NQF #2723: Wrong Patient Retract and Reorder).[7]
- Include high-specificity alerts and notifications to facilitate proper identification, such as warning users when they attempt to create a record for a new patient whose first and last names are the same as another patient, or attempt to look up a patient and the search returns multiple patients with the same or similar names.

Resources:

1. ECRI Partnership for Health IT Patient Safety. "Health IT Safe Practices: Toolkit for the Safe Use of Health IT for Patient Identification." February 2017.
2. The Joint Commission. *Sentinel Event Alert* 54: "Safe use of health information technology." March 2015.
3. Abel L, et al. "Best practices for patient matching at patient registration." *Journal of the American Health Information Management Association.* 2016 Oct;87(10).
4. Office of the National Coordinator for Health Information Technology (ONC). "SAFER self-assessment guide: Patient identification." September 2016.
5. National Institute of Standards and Technology (NIST). "Technical Evaluation, Testing, and Validation of the Usability of Electronic Health Records: Empirically Based Use Cases for Validating Safety-Enhanced Usability and Guidelines for Standardization." 2015 Oct;p 36.
6. The Joint Commission. *R3 Report*: "Distinct newborn identification requirement," June 2018;17.
7. National Quality Forum (NQF). "Identification and prioritization of HIT patient safety measures: Final report." February 2016.
Note: This is not an all-inclusive list.