Patient Matching: Putting All the Pieces Together

Thousands of times a day, VA providers communicate and exchange patient records with participating partner organizations to ensure the best possible clinical care. The ability to retrieve patient data from different systems is made possible by putting together all the puzzle pieces behind the scenes, allowing a VA patient's record to be match with their record in a community system.

The Veterans Health Information Exchange (VHIE) program relies on accurate patient data input by VA, Department of Defense (DoD), and Cerner systems to ensure that the Joint Health Information Exchange (Joint HIE) can successfully find matching patient records among these different systems. This process requires close partnership and communication between multiple program offices within VA and the DoD Defense Manpower Data Center (DMDC), which performs record matching services for the Joint HIE and hosts patient identity information like their name and date of birth. "Patient matching is foundational to health information exchange and requires on-going vigilance, especially with the complexity of the Joint HIE implementation" according to Dr. Anderson, VHIE Director.

Building the puzzle starts with how a patient's electronic information is entered and maintained in an authoritative system, which is crucial for successful matching. The proper spelling of a first name, use of a legal name instead of a nickname, capture of a middle name, initial, or even an apartment number may seem trivial, but for downstream patient matching, it can be the difference between a successful or failed match, which can affect a clinician's ability to retrieve a patient's heath record from an external health information system and provide proper care.

The next piece of the puzzle is sending patient electronic information to the Joint HIE patient registry so that it is available when a patient record request is made to a participating partner organization. When this occurs, the Joint HIE patient registry provides patient information to the partnering system for patient record matching. When a partnering system finds a match, the Joint HIE confirms the partner's match to ensure the health information retrieved is for the right patient. Although this sounds relatively simple, putting together the pieces for a successful match relies on complex algorithms, adherence to data standards, and the completeness of the information exchanged.

The VHIE Exchange Solutions Management (ESM) team Matching Work Group provides a forum for stakeholders and subject matter experts to address questions and discuss future

requirements. For example, this work group identified an opportunity to improve the matching process when a patient's Social Security Number (SSN) is not provided by a partnering system. As a result, a solution is expected to be deployed later this year at the DMDC.

The VHIE Exchange Partner Management (EPM) team encourages participating partner organizations to adhere to existing standards and supports adoption of more rigorous standards (e.g., Project US@ for addresses). Seemingly small improvements in standards compliance, such as using the letter "M" for male patients or the state abbreviation instead of spelling out the full state name, can make a huge difference. The most critical piece of the puzzle is for patients to keep their information up to date with all their care providers. A helpful tip for patients is that if they have a Common Access Card (CAC) or military identification (ID) card, the information should be the same in the VA system. If they do not match, the patient will need to update VA or DoD with their most current information to ensure systems remain synced.

As VHIE supports patient safety and VA's journey as a high reliability organization, the ESM team will continue to proactively bring together the puzzle pieces for successful, safe, and accurate patient matching.