Harnessing the potential of the EHR in support of I-PASS protocols can improve the resident care transition experience



Purpose

The aim of this effort was to explore how the native Electronic Health Record (EHR) assets could be leveraged to support the standardization, fidelity, and efficiency of verbal resident care transition sign out.

Background

The Natividad Medical Center (NMC) Family Medicine (FM) Residency is based in a high volume 170 bed public hospital

As the sole residency program at NMC, the FM residents provide the foundation of physician care across the spectrum of settings and specialties offered at the hospital

Resident led day/night care transitions involve 40-65 patients and 7 different care teams (Surgery, ICU, Pediatrics, Family Medicine, MedSurg I & 2, and Night Float)

Keeping track of and effectively translating the salient care issues during verbal care transitions in such a high volume setting was frequently noted as a source of resident anxiety and stress

Natividad Medical Center (NMC) uses MediTech as the EHR system

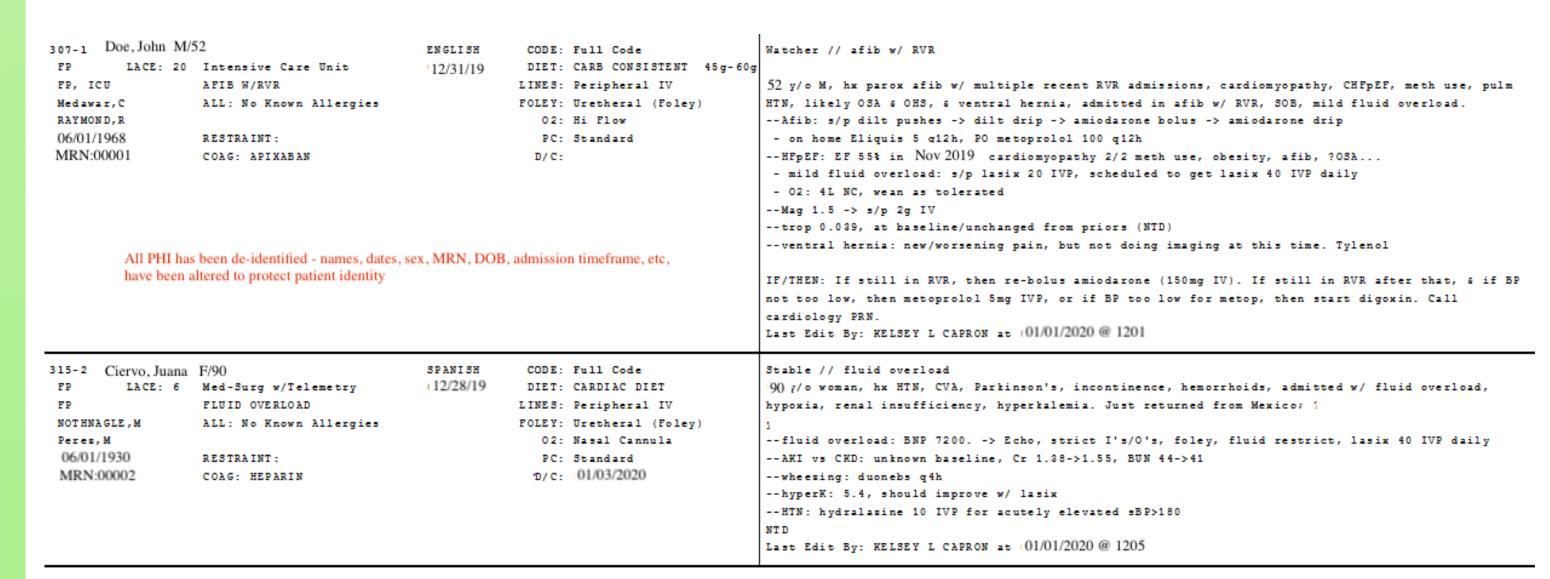
Based on the input of stake holders throughout the hospital ecosystem, a dedicated patient report was created within the EHR framework to automate the aggregation and presentation of relevant clinical information in a written format designed to complement the verbal I-PASS protocol in an effort to promote the standardization, fidelity, and efficiency of verbal care transitions

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Written Sign Out Document Example



The figure above provides an example of 2 patients (among 52 total) on the care transition document for a chosen day-to-night care transition.

The left column is automatically generated from the EMR and reflects the instantaneous state of the EHR database at time of printing.

The right column is generated by the responsible day team care provider and reflects salient clinical information to help orient the receiving provider. The provider generated information persists and is updated as needed.

During sign out, the receiving provider (Night Float in this case) has the written information in hand to reinforce the verbal sign out provided by the day team care provider

The receiving provider commonly makes notes directly on the printed document for use during the overnight shift



P	Patient Summary	 Summary statement Events leading up to admission Hospital course Ongoing assessment Plan
A	Action List	To do list Time line and ownership
S	Situation Awareness and Contingency Planning	Know what's going on Plan for what might happen
S	Synthesis by Receiver	 Receiver summarizes what was heard Asks questions Restates key action/to do items

Verbal sign out is modeled on the I-PASS protocol

Methods

Following a trial period, starting in summer of 2018 the NMC FM Residency adopted the integrated EMR written sign-out protocol described above in support of the verbal I-PASS protocol that was already in use by the FM residents.

Over the next 18 months resident competencies were periodically evaluated and scored by senior residents and faculty using standardized checklists (I-PASS Study Group Children's Hospital Boston 2011) in combination with Likert scale assessment.

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	2	3	4	5

Results

Significant improvement in hand-offs was reported in ACGME CLER Site Visits.

In 2017, prior implementation of the protocol, "none of the residents in the observed hand-offs employed a read-back technique."

In 2019 "the CLER team observed.... these hand- offs were consistent....using standardized written templates, contingency planning and synthesis by the receiver that included asking questions and confirming the plan of care."

The Faculty/R3 evaluations showed resident scores consistently above 4 on a Likert scale of I-5 (Never to Always) in verbal and written I-PASS protocols.

Qualitative comments included 'less stress', 'less worry about patients' whereas residents in 2017 reported more anxiety and concern over the safety of handoffs in which they participated.

Discussion

I-PASS is among the most utilized validated tools used by residents during care transition "hand-offs".

Despite its virtues, implementing the verbal I-PASS protocol consistently over a large patient census involving multiple stake-holders can be challenging.

To help address these challenges, we designed an approach to care transitions that leverages inherent strengths of the EHR, such as automation, patient tracking, and universal access to the same information, to promote more effective integration and standardization of written and verbal aspects of the I-PASS protocol during verbal hand-off

The resulting improvements in census management, quality, and efficiency have had a notable positive impact on resident views with regard to patient care, satisfaction, and well-being.

As a consequence these process improvements have been adopted as standard practice for care transitions across the spectrum of in-patient services covered by the residents (Medsurg / Family Medicine / ICU / Surgery / Pediatrics).