



A health system's pilot experience with using social knowledge networking (SKN) technology to enable meaningful use of EHR medication reconciliation technology

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Abstract: Similar to issues faced in health systems across USA, AU Health, based in Augusta, Georgia, faced a scenario of low physician engagement in, and limited-use of its electronic health record (EHR) medication reconciliation (MedRec) technology, which translated to high rates of medication discrepancies and low accuracy of the patient's active medication list, during transitions of care. In fall 2016, a two-year grant was secured from the U.S. Agency for Healthcare Research and Quality (AHRQ), to pilot a Social Knowledge Networking (SKN) system pertaining to "EHR-MedRec", to enable AU Health to progress from "limited use" of EHR MedRec technology, to "meaningful use". The rationale behind an SKN system, is that it could provide a platform for inter-professional knowledge exchange on practice issues related to EHR MedRec, across diverse provider subgroups and care settings, to highlight adverse consequences of gaps in practice for patient safety, and emphasize the value of adhering to best-practices in EHR MedRec. This, in turn, is expected to increase provider engagement in addressing issues related to EHR MedRec, and promote inter-professional learning of best-practices, to create a foundation for practice change or improvement (e.g., meaningful use of EHR MedRec technology). This Case Report describes AU Health's experiences with this novel initiative to pilot an SKN system for enabling Meaningful Use of EHR MedRec technology. It also discusses lessons learned in regard to the potential of an SKN system to enable inter-professional learning and practice improvement in the context of EHR MedRec, which, in turn, helps identify strategies and practice implications for healthcare managers.

Keywords: Electronic health records (EHR); medication reconciliation (MedRec); social knowledge networks; meaningful use; inter-professional learning; transitions-of-care; patient safety; change implementation

Received: 14 December 2018; Accepted: 01 August 2019; Published: 03 September 2019.

doi: 10.21037/jhmhp.2019.08.01

View this article at: <http://dx.doi.org/10.21037/jhmhp.2019.08.01>

Introduction

Patient safety advocates have long promoted the use of Medication Reconciliation, to help prevent medication discrepancies and errors during transitions of care. Transitions of care (from outpatient to inpatient, and back to outpatient settings), are commonly experienced by patients with chronic conditions (e.g., heart disease, diabetes, and stroke). Medication reconciliation (MedRec)

refers to the formal process for creating a complete and accurate list of a patient's current medications during transitions of care. The process of MedRec involves: (I) developing a list of the patient's current medications; (II) developing a list of the medications to be prescribed; (III) comparing the medications on the two lists; (IV) making clinical decisions to update the medication list, based on the comparison; and (V) communicating the final updated

medication list to both the patient/family and the next providers of care (1,2).

The goal of MedRec is to reduce medication discrepancies and errors during care transitions, and provide an accurate active medication list to patients/families and their next providers of care, to promote patient safety and quality of care. Since 2005, Medication MedRec has been part of the Joint Commission's hospital accreditation program, and more recently, it has become part of the electronic health record (EHR) meaningful use requirements. Meaningful use (MU) of EHR MedRec technology refers to effective use of the EHR MedRec system by providers, to complete the MedRec process (outlined above), to reduce medication discrepancies and promote medication-list accuracy, during care transitions (3,4). Given the heightened risk of medication errors during transitions of care, the meaningful use of EHR MedRec technology has potential to significantly improve patient care quality & safety, reduce healthcare disparities, control costs, and engage patients/families in healthcare delivery.

Despite the regulatory impetus towards MU of EHR MedRec technology however, hospital adherence has continued to lag at a national level; and studies in turn, have ascribed this trend to low physician engagement in EHR MedRec, emanating from an absence of shared (collective) understanding among providers of (I) the responsibilities of each professional subgroup (e.g., hospitalist doctor *vs.* community doctor) in managing a patient's medication list, and (II) the value of MedRec as a clinical tool for promoting patient safety (5-10). Not surprisingly therefore, several recent studies have found that although federal vendors of EHR systems have been enhancing functionalities associated with MedRec over time, hospitals are continuing to use partially paper-based processes during care transitions (11-13). In other words, there is "limited use" of EHR MedRec technology in hospitals and health systems across USA, as opposed to "meaningful use" (14,15).

In fall 2016, a two-year grant was secured from the U.S. Agency for Healthcare Research and Quality (AHRQ), to pilot a Social Knowledge Networking (SKN) system pertaining to Electronic Health Record (EHR) Medication Reconciliation (MedRec), at the Augusta University Health System, AU Health. The theoretical rationale for introducing an SKN system on EHR MedRec (which emanates from complex systems and social network theories), is that it could provide a platform for inter-professional knowledge exchange on practice issues related to EHR MedRec, across diverse provider subgroups and

care settings, to highlight adverse consequences of gaps in practice for patient safety (e.g., not using the electronic medication history function resulted in an error in recording dosage upon admission, which, in turn, resulted in adverse event for the patient). This, in turn, is expected to increase physician engagement in addressing issues related to EHR MedRec; and promote inter-professional learning of best practices related to EHR MedRec (e.g., using the electronic medication history to generate the current medication list during each encounter), to provide a foundation for practice change, e.g., meaningful use of EHR MedRec technology (16-27).

This Case Report describes AU Health's experiences with this novel initiative to pilot an SKN system for enabling Meaningful Use of EHR MedRec technology. It also discusses lessons learned in regard to the potential of an SKN system to enable inter-professional learning and practice improvement in the context of EHR MedRec, which, in turn, helps identify strategies and practice implications for healthcare managers.

Case presentation

The Augusta University (AU) Health System, AU Health, is a health care network offering comprehensive primary, specialty and subspecialty care in the region. Facilities include a 478-bed AU Medical Center, more than 80 outpatient practice sites, a Critical Care Center housing a regional trauma center, and a 154-bed Children's Hospital. The health system averages approximately 21,000 inpatient discharges and 90,000 emergency room visits per year. Medicare and Medicaid together account for over 50% of the patient care revenues. In 2016, AU Health faced challenges with the use and implementation of its EHR MedRec system (which is powered by Cerner Inc., a federally certified EHR vendor). Although MedRec was often marked as "complete" on the EHR, before patient discharge from the hospital, AU Health leadership estimated the patient's active medication list to be inaccurate (with discrepancies between patient's home and hospital medication lists in regard to drugs, dosages, and frequencies), for a majority of discharged cases. Importantly, there was consensus among administrators, that the EHR MedRec system was not being used effectively to communicate changes in the patient's active medication list across the provider continuum and to patients/families. This challenge, in turn, was ascribed to the general reluctance of physicians to discontinue medications that they did not

originally order from the active medication list, which in turn, led to not only medication discrepancies during care transitions, but also to frustrations associated with inaccurate and incomplete medication lists, among patients and providers across the continuum.

In summary, AU Health faced a scenario that was reflective of national concerns (across USA) related to use and implementation of EHR MedRec technology in hospitals & health systems, i.e., low physician engagement, translating to limited-use of EHR MedRec technology. In fall 2016, a two-year grant was secured from AHRQ, to pilot an SKN system on EHR MedRec, for the purpose of enabling AU Health to progress from “limited use” of EHR MedRec Technology, to “meaningful use.” The rationale was that an SKN system would enable inter-professional knowledge exchange on practice issues related to EHR MedRec, across diverse provider subgroups and settings-of-care, which, in turn, was expected to increase provider engagement, promote inter-professional learning of best-practices, and provide a foundation for practice change or improvement (i.e., Meaningful Use of EHR MedRec technology) (16-27).

The pilot implementation of the SKN system on EHR MedRec, was conducted over a one-year period at AU Health, i.e., April 1, 2017-to-March 31, 2018 (Q2 2017-Q1 2018) among diverse provider subgroups and care settings, i.e., physicians, nurses, and pharmacists based in outpatient and inpatient medicine settings. The system was comprised of several components:

- ❖ SKN Reporting Tool: an online form that allowed participating providers (SKN Users) to report practice issues related to EHR MedRec (e.g., challenges in obtaining complete information at admission for compiling the patient’s current medication list). The form allowed users to provide a brief description of the issue and indicate the care settings and patient conditions it applies to.
- ❖ SKN Discussion Tool (Microsoft Yammer): an online platform separate from the SKN Reporting Tool, to enable moderated discussions on issues related to EHR MedRec. Microsoft Yammer is an example of an enterprise SKN system. Our pilot project used the basic version of Yammer, which was available to AU as part of its Office 365 package.
- ❖ SKN Lunch-and-Learn Sessions: a total of 5 SKN Lunch-and-Learn sessions were held over the one-year SKN period, for participants to meet and discuss lessons learned from exchanges on SKN Yammer.

Advance invitations to these sessions were sent to all SKN participants.

- ❖ SKN Periodic Email Updates: approximately 15 periodic progress update emails were sent by the Principal Investigator (PI) to all SKN participants, over the one-year SKN period.

There were two types of participants in the SKN system:

- (I) SKN moderators: included a group of 5 senior administrators who played a key role in moderating discussions on issues related to EHR MedRec among participants (SKN Users) over the one-year SKN period. The 5 SKN moderators included the Chief Medical Officer (CMO), Chief Medical Information Officer (CMIO), two hospitalist chiefs, and the Principal Investigator (PI). A key responsibility of SKN Moderators was to bring issues related to EHR MedRec reported by individual SKN Users on the SKN Reporting Tool, for discussion by all SKN Users on Yammer. As such, a majority of threads-of-discussion on Yammer began with an issue-report (problem statement) brought to Yammer by SKN Moderators. Another responsibility of SKN Moderators was to proactively initiate discussions on topics relevant to EHR MedRec (e.g., best practices identified in the literature), and bring lessons learned from the SKN system, for discussion at regular health system meetings, including the Hospital Quality Council.
- (II) SKN users: included 50 practitioners, i.e., physicians, nurses, and pharmacists based in outpatient and inpatient medicine services at AU Health, who agreed to participate in the SKN system. Key responsibilities of SKN Users were to (I) report issues related to EHR MedRec on the SKN Reporting Tool on an ongoing basis; (II) participate in moderated discussions on SKN Yammer, over the one-year period; and (III) share lessons learned from their ongoing participation on the SKN, with colleagues in the health system. However, SKN Users were not allowed to initiate new threads-of-discussion directly on SKN Yammer. This ability was restricted to SKN Moderators, to enable coordinated discussions of issues related to EHR MedRec on the SKN system.

Participant recruitment to the SKN system, began after the project received IRB approval from Augusta University. All practitioners in three professional subgroups, i.e.,

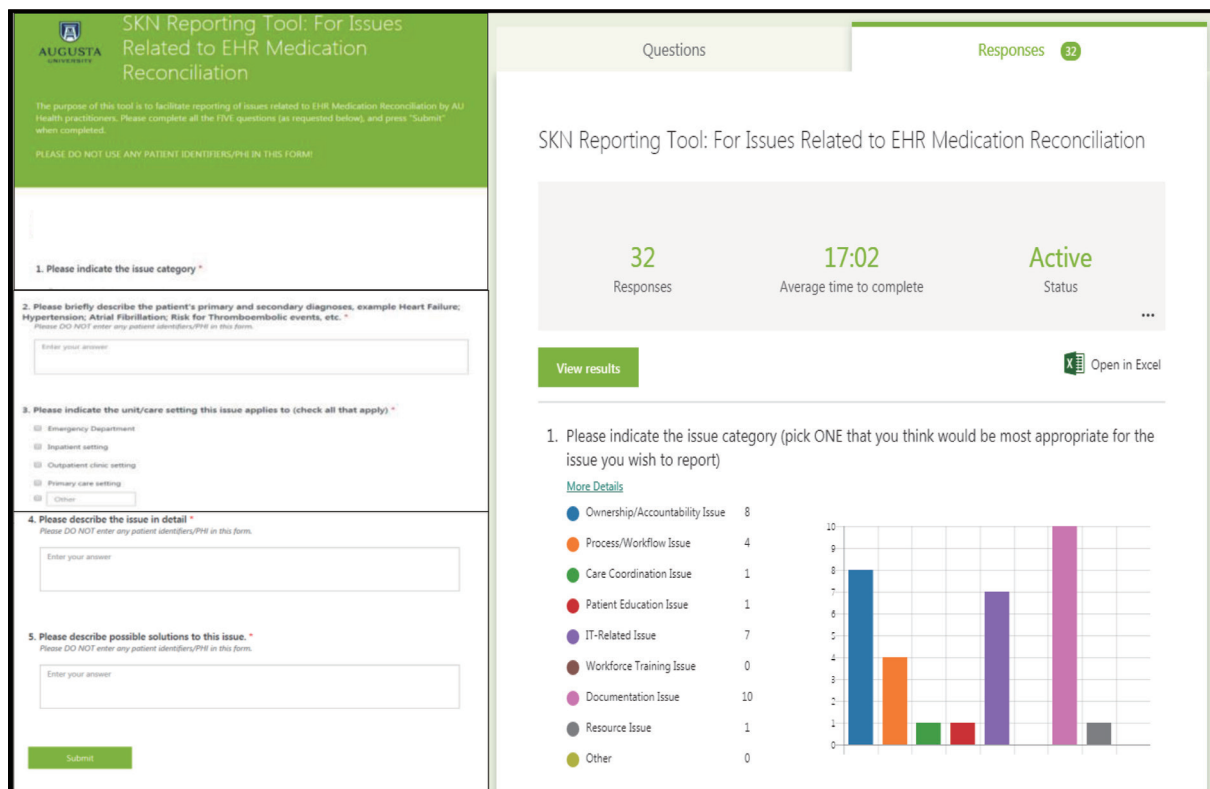


Figure 1 Screenshot of SKN Reporting Tool.

physicians, nurses, and pharmacists, within five inpatient and outpatient medicine service lines at AU Health, including Cardiology, Internal Medicine, Family Medicine, Emergency Medicine, and Hospitalist service lines, were approached by the PI for recruitment using the IRB-approved informed consent process. Cardiology was the only medicine subspecialty included in the project. A total of 50 practitioners were recruited to participate as SKN Users, including 15 physicians, 15 nurses, and 20 pharmacists, from outpatient and inpatient medicine settings. All participating physicians from Cardiology, Internal Medicine, and Family Medicine, practiced in both inpatient and outpatient settings. Only Hospitalists were exclusively inpatient practitioners.

Participants received a detailed orientation to the SKN system, prior to its launch, including steps for accessing the SKN Reporting Tool and SKN Yammer, both of which were made available to participants through separate links within the EHR at AU Health. Both tools were also accessible through the enterprise employee web portal and through mobile devices. Additionally, Yammer was downloadable as an App. *Figure 1* provides a web screenshot

of the SKN Reporting Tool; *Figure 2* provides a web screenshot of SKN Yammer; and *Figure 3* provides web screenshots of participants' access to both tools via both the EHR system and the AU employee enterprise web portal.

Of the 50 practitioners who signed up to be SKN Users, 25 were active users of SKN Yammer, with 10 or more posts over the one-year SKN period. Active users of Yammer came from all professional subgroups and care settings represented on the SKN, including 8 physicians, 8 nurses, and 9 pharmacists. Additionally, 3 of the 5 SKN Moderators (including the CMO, CMIO, and PI), each posted 40 or more messages on Yammer.

Over the one-year SKN period there were a total of 485 posted communications on Yammer, divided into 62 threads-of-discussion. Of these, 45 threads had 3 or more posts; among which, 12 threads had 10 or more posts; of which 3 threads had 25 or more posts, including 1 thread with 45 posts. There were a total of 32 issues related to EHR MedRec reported on the SKN Reporting Tool, over the one-year period. Of the 45 threads with 3 or more posts, 32 began with issues (problem statements) reported on the SKN Reporting Tool, brought in to Yammer by SKN

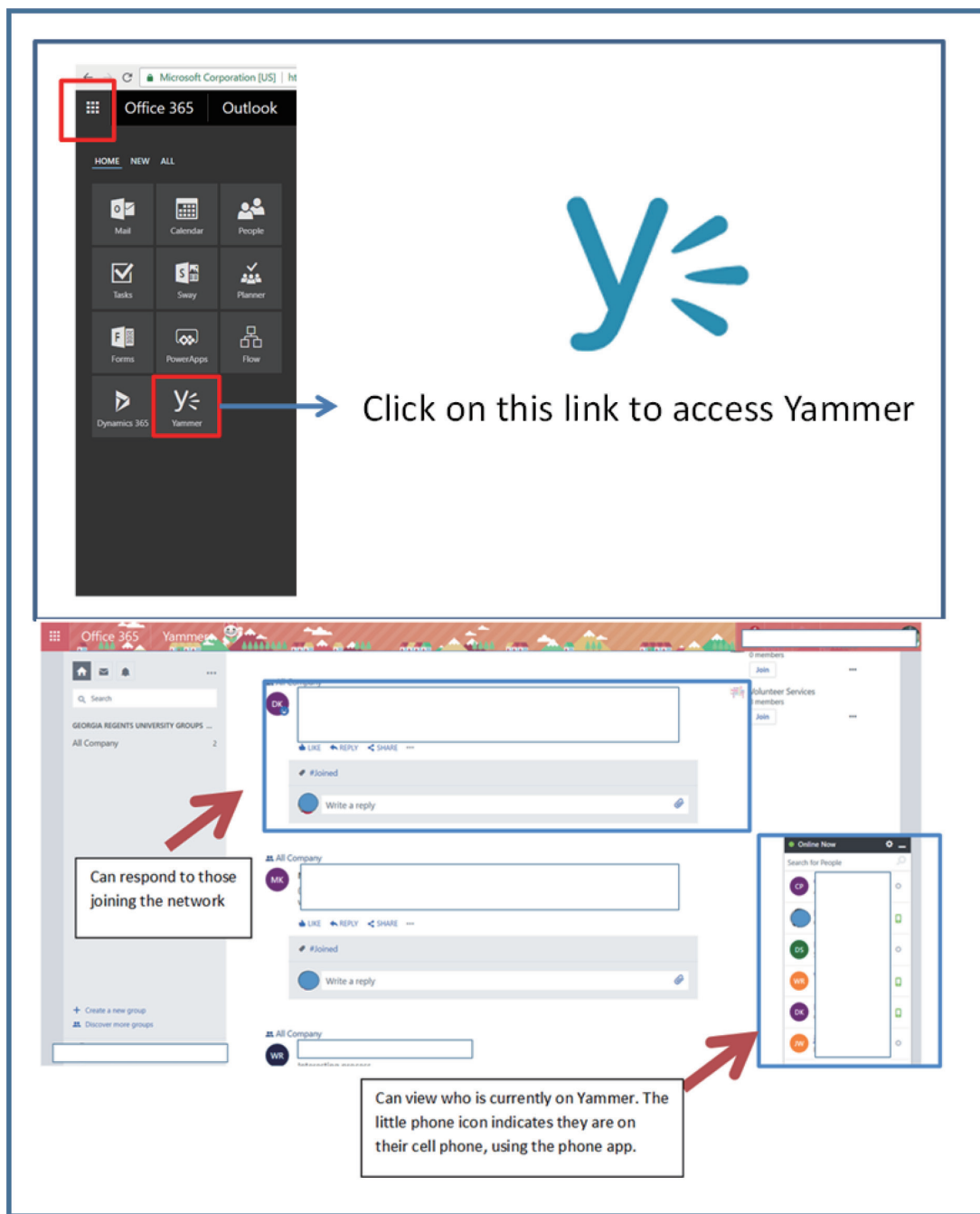


Figure 2 Screenshot of SKN Yammer.

Moderators. As such, all issues related to EHR MedRec that were reported on the SKN Reporting Tool, were used to launch threads-of-discussion on Yammer. All threads-of-discussion on Yammer, were open and available to all SKN Users, without restriction. Yammer recorded the name, date, and time associated with each posting.

Thematic analysis of the content of inter-professional knowledge exchange on Yammer, over the one-year period, revealed six broad themes that were repeated across several threads-of-discussion, in the chronological order outlined below (28-30).

- (I) Problem statements;



Figure 3 Screenshots of participant access to SKN Tools (circle). In the first (top) screenshot in the above figure, the patient name on the EHR front page is a mock (test) name, and not a real patient's name.

- (II) Problem-solving statements (“The How-To”);
- (III) IT System Education (“The What”);
- (IV) Best-practice assertions (“The Why”);
- (V) Culture change assertions (“The Way-To”);
- (VI) Collective learning (“Aha”) moments.

An example of a practice issue related to EHR MedRec, for which inter-professional discussions progressed through the full spectrum of themes from “problem statements” to “collective learning (aha) moments”, was the “*Importation of External Rx History during Patient Encounters*”, which

pertained to the broader theme of improving communication related to the patient's active medication list, across the continuum of providers. *Figure S1* provides additional information related to the dynamics of inter-professional knowledge exchange on the SKN system, pertaining to the topic of "External Rx History Import."

"External Rx History Import" refers to the importation of the patient's medication history filled at their pharmacy, by the provider (at the start of the patient encounter), by activating the Rx History button on the EHR, which, in turn, would access the Surescripts system to pull the patient's Rx history. Surescripts is an IT company that supports e-prescription, the electronic transmission of prescriptions between healthcare organizations (HCOs) and pharmacies. According to the US DHHS, in 2014, 96% of US pharmacies used the Surescripts network (31). At AU Health, it was determined that 90% of patients fill their prescriptions at pharmacies that participate in the Surescripts system.

Discussions related to External Rx History Import began with a problem statement from an Emergency Department (ED) Nurse in regard to the challenge of obtaining the correct medication history from the patient upon arrival, to formulate the current medication list for reconciliation. In response, an outpatient nurse suggested use of the "External Rx History Import", functionality within the EHR, for obtaining a current medication list for reconciliation. However, this suggestion was initially met with resistance. For example, the ED nurse argued that the External Rx History was not completely accurate, and therefore could not be trusted, and another provider, a Cardiology physician argued that relying on the External Rx History when the patient does not have all the 'pill bottles', could create errors. These disagreements were met with problem-solving statements from other providers. For example, a hospitalist physician argued that even if an electronic list of medications cannot be fully trusted, it could provide a starting point for discussing with patients what they are actually taking. Such statements were then followed by *IT* system education, e.g., clarifications related to the External Rx History functionality on the EHR by the CMIO/SKN Moderator, which in turn, was followed by best-practice assertions from pharmacists, i.e., articulations of the benefits of adhering to and consequences of not adhering to the best practice of External Rx History Import. For example, a pharmacist argued that importing "External Rx History", preferably as close to admission as possible, is essential since it includes "over 90% of what actually occurred in the community." While there may be some gaps, the External Rx History

would at least allow providers to know what the patient has been prescribed and help them question why they are not taking certain medications. The CMO/SKN Moderator then helped to reinforce these best practice assertions, by providing examples of recent cases where dosing errors could have been averted if the External Rx History option had been used. Another pharmacist then put forth a culture change assertion, urging participants to not allow "perfection to become the enemy of the good", arguing that, when prescribers do not act to reconcile a medication owing to insufficient information, they are making a decision to "do nothing." The CMO/SKN Moderator helped to reinforce this message by arguing that ED patients and hospital-to-hospital transfers have little ability to provide medication history, making the importation of External Rx History, all the more important. These discussions in turn, culminated in a collective learning (aha) moment summarized by the PI/SKN Moderator, in that, "incremental efforts to improve the accuracy of the current medication list, by leveraging the External Rx History Import function, could go a long way in reducing medication discrepancies during care transitions." The second SKN Lunch-and-Learn session (held in July 2017), provided an opportunity for SKN Moderators to meet face-to-face with several SKN Users, to summarize lessons learned from Yammer on the topic of External Rx History Import; and reinforce the collective learning (aha) moments on this topic.

The aforementioned inter-professional learning dynamics in turn, coincided with a distinct improvement trend in the "*Proportion of External Rx History Import*" among Congestive Heart Failure (CHF) patient encounters in the 5 participating medicine service lines at AU Health, during and beyond the SKN period. This measure may be regarded as a "measure of meaningful use (MU) of EHR MedRec", or a measure of best practice in EHR MedRec, because a higher proportion, reflects better use of the EHR system by providers, to obtain a current medication list, for reconciling with new prescriptions, to improve medication-list accuracy, during transitions of care. A detailed description of the trend in this measure of MU of EHR MedRec technology, before and after the one-year SKN period, among the participating medicine service lines, is provided in a previously published article (32). This open-access publication, available in full-text through this link <https://doi.org/10.2147/JHL.S198951>, is a comprehensive qualitative research paper that emanated from the "SKN project" at AU Health, i.e., the same initiative that provided the basis for this Case Report. In addition to providing a detailed graphical depiction and

narrative discussion of the trend in the measure of MU of EHR MedRec technology mentioned above, this previous publication includes substantive contextual detail related to the SKN Project that could serve as a useful supplement to the information contained in this Case Report, for interested readers.

Discussion

The health system's pilot experiences suggest that an SKN system could be a valuable tool for engaging providers to share knowledge on practice issues and promote inter-professional learning of best-practices, to create a foundation for practice change/improvement, i.e., EHR Meaningful Use. Importantly, the experience suggests that the SKN system enabled progress towards MU of EHR MedRec, by addressing the challenges of implementing EHR MedRec, in the correct sequence, i.e., by facilitating collective learning (or shared understanding) of the value of adhering to best-practices in EHR MedRec for patient safety (i.e., the "big picture"), before IT-training of providers to address socio-technical challenges of EHR implementation (e.g., reconciling differing system-views across provider subgroups).

The pilot experience also suggests that an SKN system may be a particularly valuable tool for institutions where practice change (e.g., MU of EHR technology) needs to occur with existing resources, through workflow changes; as opposed to new resource outlays, e.g., dedicated pharmacy techs in each and every unit within the health system. Additionally, the experience suggests that the health IT components of the SKN system, e.g., SKN Yammer and the non-health-IT components, e.g., SKN Lunch-and-Learn sessions, served to not only complement, but also reinforce each other, synergistically, to enable inter-professional learning, and provide a foundation for practice change (i.e., MU of EHR MedRec technology).

This suggests that the experiences with this SKN pilot effort, could provide a foundation for identifying strategies for the creation of "learning health systems," to enable successful change implementation in HCOs. For example, the experience provides insights into strategies for the design of effective knowledge sharing networks, for enabling inter-professional learning and practice change in HCOs. This is a significant contribution to healthcare management practice, particularly in the context of a growing body of literature that has argued for health IT initiatives to be evaluated using a "health system" lens,

i.e., from a broader perspective of achieving health system goals. In other words, hospital IT initiatives should be able to be integrated into existing health system functions, and complement health system goals, to avoid being perceived as silo or stand-alone solutions (33). This paper provides a meaningful example of a pilot hospital IT initiative that was integrated into a broader health system goal of developing a "learning health system", to enable Meaningful Use of EHR MedRec technology.

Conclusions

Overall, the health system's pilot experience suggests that an SKN system could be a valuable tool in enabling inter-professional learning to promote complex practice change (e.g., MU of EHR technology). Future research could help to evaluate the generalizability of experiences in this case, through large-scale controlled experiments to investigate causal relationships between SKN Use and Meaningful Use of EHR technology, across a wide variety of HCOs. These types of research endeavors, in turn, would help to generate a systematic evidence-base of strategies for promoting Meaningful Use of EHR technology, which, in turn, could be used to prompt federal EHR vendors to incorporate SKN features into EHR systems.

Acknowledgments

The authors wish to thank the senior leadership, staff, and clinicians at AU Health for their support and collaboration in conducting this project. We are also grateful to the Agency for Healthcare Research and Quality (AHRQ) for sponsoring this project.

Funding: This project was supported by grant number R21HS024335 from the Agency for Healthcare Research and Quality (AHRQ).

Footnote

Conflicts of Interest: All authors have completed the ICMJE uniform disclosure form (available at <http://dx.doi.org/10.21037/jhmhp.2019.08.01>). The authors have no conflicts of interest to declare.

Ethical Statement: The authors are accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved. All procedures

performed in studies involving human participants were in accordance with the Declaration of Helsinki (as revised in 2013). Written informed consent was obtained from the patient for publication of this manuscript and any accompanying images. This study was approved by the Institutional Review Board (IRB) Human Assurance Committee at Augusta University (No. 911182-3).

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doi: 10.21037/jhmhp.2019.08.01

Cite this article as: Rangachari P, Dellsperger KC, Rethemeyer RK. A health system's pilot experience with using social knowledge networking (SKN) technology to enable meaningful use of EHR medication reconciliation technology. *J Hosp Manag Health Policy* 2019;3:22.

Problem statements

- THREAD 1 began with the “problem statement” from an ED nurse *“Patients frequently arrive to the ED with no medication list and they don’t know the names of all or some of their medications The nurses typically attempt to put in what they know or have but it is incomplete a lot of the times....”* This concern was echoed by others. For example, a Cardiologist shared the following from an outpatient clinic perspective: *“Yesterday, I had a new patient who was on many medications but had neither the bottles nor a list. I cannot bill until meds are reconciled and yet this cannot be honestly done....”*

Problem-solving statements; spin-off problem statements; more problem-solving statements

- An outpatient nurse then put forth a “problem-solving statement” suggesting use of the External Rx History Import option, to obtain a current list of medications. *“We use the External Rx History option to populate the medication list when we have a NEW patient that does not bring their pill bottles. We have found this option to be helpful. Does ED have access to this system? It would at least give an idea of meds patient is taking and it does show last time med was refilled.”*
- This suggestion initially received dissension from participants who had originally reported the problem. For example, the ED nurse shared: *“Yes we have the external history option, but it isn’t as easy as one might think. You have to take the time to compare what is in the system to what is in the external history, and when they don’t match up, you have to ask the patient some are insinuating that they will “trust” the history in the system, but it could be inaccurate.”* The Cardiologist chimed in to say: *“Patients should bring in all home medications. I think importing the data in the absence of seeing the pill bottles creates errors.”*
- This was then followed by problem-solving statements from a Hospitalist: *“I think there are few of us who fully trust any electronic list of meds. Usually I use it as a template to start discussing with patients what they’re actually taking. Then once you have accurate medication lists the real question is compliance.”*

System education

- This was followed by “system education” from the CMIO/SKN Moderator. *“The External Med is an option on the Medication List page. Ext Med shows last refill and often the prescriber. MDs can use this function as well to convert medication to prescription to populate medication list.”*

Best-practice assertions and some dissension with focus on the ideal scenario

- Discussions progressed to “best practice assertions” from a pharmacist : *“Importing “External RX History” at some point in the patient encounter, preferably as close to admission as possible, is essential as it includes 90% plus of what actually occurred in the community. We all know there will be gaps (i.e. VA, cash paying, patient assistance medications, etc.). However, it will at least allow providers to know what the patient has been prescribed and could potentially question why they are not taking certain medications.”*
- Similarly, the CMO/SKN Moderator shared: *“I am reviewing a case. Had the provider checked the external history, a verbal miscommunication would not have resulted in a dosing error.”*
- Despite these assertions however, there was continuing disagreement with a focus on the ideal scenario: *“I think the only way to accurately reconcile medications is to see all the bottles the patient has.”* There were also comments on the need for dedicated resources: *“I think the only way the ED can make this work would be to have help from pharmacy techs dedicated to only this task.”*
- [NOTE: It would be relevant to note at this juncture, that AU Health has dedicated pharmacists and/or pharmacy techs in several outpatient and inpatient areas, but not in all departments].

Culture change assertions

- A pharmacist then put forth a “culture change assertion.” *“It is important not to let the perfect stand in the way of the good or better, I have seen prescribers simply ‘not act’ to reconcile a medication because there was insufficient information or they were not sure. Not acting is making a decision (to do nothing).”* The CMO/SKN Moderator then reinforced this message with some comments:
- *“Many ED patients and even Hosp. to Hosp. transfers have little ability to give a med. history. That is why External Rx is so important. While not perfect, it does give fills of prescriptions with fill dates, and we have seen events that would have been prevented if this was done.”*
- Regarding the issue of adding Pharmacy Techs to ED, the CMO/SKN Moderator commented: *“we would not be good stewards of our resources, unless we optimize the workflow and standardize it. Several of our clinics have already implemented these best practices and we need to spread them. Further role clarification is the key. Only after we do that would we know the resources needs. For example, a key process for our techs is to call pharmacies to obtain information. The best source even for them is the External Rx History since there is lag in obtaining information from many pharmacies that do not operate 24x7.”*

Collective learning moments

- The PI/SKN Moderator then posted the following in an effort to synthesize lessons learned: *“Our discussions suggest that incremental efforts to improve medication history with External Rx History Import, in the absence of dedicated resources, can go a long way in increasing accuracy of the medication list.”*

Figure S1 Dynamics of inter-professional knowledge exchange in Thread of Discussion Pertaining to External Rx History Import (THREAD 1).