Building an Electronic Bridge between Hospital and PCMH Care Teams

**Challenge:** Reducing preventable readmissions and improving post-discharge care for OVMC’s patient-centered medical home (PCMH) patients.

**Targets:** PCMH team care managers are the targeted end-users of an automated email notification about patients whose medical home is Olive View-UCLA Medical Center and who receive emergency department (ED) and/or inpatient (IP) treatment at OVMC.

**Highlights:** An automated email notification from the hospital alerts the PCMH care manager that a PCMH patient is currently in OVMC’s ED or has been admitted to OVMC. Another email alerts the care manager when the patient is discharged from the ED or IP setting and includes the discharge summary. OVMC is testing this approach in a randomized, controlled trial, with patients randomly assigned to a group receiving the experimental intervention or a control group receiving standard procedures.

**Anticipated Impacts:** Prioritized patient access to primary care after ED use or IP admission; more effective discharge planning, resulting in decreased length of stay; increased patient satisfaction; fewer hospital readmissions; cost savings.

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CCI and the Safety Net Innovation Challenge

Through its Safety Net Innovation Challenge (SNIC) program, the Center for Care Innovations (CCI) provides funding to California’s health care safety net in partnership with Blue Shield of California Foundation. The SNIC program is designed to promote a culture of innovation and develop breakthrough solutions to transform health care. Starting in 2012, 12 organizations received funding to investigate breakthrough solutions through a Rapid Cycle Innovation process. Eight of these grantees received continuing support through the implementation phase. The safety net organizations are developing and launching innovations in one of three focus areas:

- Including the patient as a core member of the care team
- Improving primary care access
- Improving care transitions from hospital to primary care

The SNIC grantees formed Innovation Teams that are working their way through a four-stage innovation process, supported by regular coaching from an innovation expert and access to a multitude of resources and online tools.
The Innovation Challenge

Located at the north end of the San Fernando Valley, Olive View-UCLA Medical Center is a Los Angeles County Department of Health Services (LAC DHS) hospital with two adult PCMHs that serves a large, ethnically-diverse population, most of whom are indigent and coping with multiple chronic conditions. With no mechanism in place to alert primary care teams when a patient visits the ED or is hospitalized, some patients were not receiving timely primary follow-up care after discharge, increasing the risk of avoidable and costly readmissions. Mark Richman, MD, who practices both emergency and primary care medicine at OVMC, saw this problem first-hand when he discovered during clinic visits that some of his primary care patients had been hospitalized without his knowledge, and with no indication in the PCMH medical record. He concluded “there had to be a better way.”

Richman likens some discharged patients to lost travelers, confronted with a language they don’t understand (their diagnosis), no map (information about next steps), and no reservations (follow-up appointment), all of which cause confusion and stress that can have medical consequences. The innovation team’s goal is to fill this care transition gap and help patients navigate their care.

“It is also notable that Dr. Richman was recently trained as an Innovation Catalyst in the 2013 Innovation Catalyst pilot. With funding from the Blue Shield of California Foundation, the Center for Care Innovations (CCI) and The Innovation Consultancy at Kaiser Permanente partnered to launch the Innovation Catalyst Program. Innovation Catalysts are trained to apply innovation and design skills to projects and lead change efforts within their organizations. Says Dr. Richman, “The Catalyst program gave structure and process to a natural tendency [of mine]. I benefitted a lot personally & professionally from the process.”

–Mark Richman, Physician Innovator, OVMC

“The PCMH can only help patients navigate post-discharge care if they know about discharged patients.”
The Innovation Journey

Noting that no “expectation of communication” existed between hospital case managers (responsible for coordinating post-discharge care) and primary care managers, the innovation team focused on bridging this critical gap. With funding from CCI and the Blue Shield of California Foundation, they set out to develop an automated email notification protocol that alerts the PCMH when a patient visits the ED or is admitted and discharged from the hospital. The care managers could then take responsibility for post-discharge care, allowing case managers to direct attention to other duties.

They began by observing existing care transition processes and using the design firm gravitytank’s mobile research app dScout to understand various stakeholders’ perspectives on the problem. A key step was identifying which end-user in the PCMH should receive the emailed notice and be responsible for routing the information to the rest of the care team. This turned out to be the care managers. A journey map helped the innovation team understand the work load and “pain points” of these pivotal care team members, so they could design a solution meeting their needs. Says Dr. Richman, “Understanding that while patients are the ultimate beneficiaries of this program, care managers were the true users, and designing a solution for them, was powerful.” And he adds, “I like to find the reason for problems. [The CCI innovation process] taught me a structured way to do this and involve stakeholders. It made me a more mature problem-solver.”

Inviting a wide range of colleagues into the
innovation process exposed the innovation team members to multiple perspectives and enabled them to draw more stakeholders into the innovation culture and thus make it more sustainable. One means was a centrally-located bulletin board to collect “outside the box” ideas. Staff were invited to provide feedback on the following questions: (1) What would the ideal care transitions process look like? (2) Who would be contacted? (3) What information would be received and how would it be communicated? and (4) What do you like and dislike about current care transitions? Other strategies included mapping key stakeholders and conducting focus groups. Of the entire process, Dr. Richman says, “We’re now at a point where the innovation mentality is becoming embedded in how we do things.”

The Solution

The interviews and focus groups with ED physicians, inpatient physicians, clinic primary care providers (PCPs), case managers, care managers, and clinic nurse supervisors revealed that notification by automated email was the preferred method. The alert email is automatically triggered by admission-discharge-triage (ADT) transactions. As the staff responsible for post-ED/post-IP care coordination, care managers receive email alerts. PCPs are notified by care managers for complex or confusing cases requiring their input, but otherwise are not notified by email of every ED or inpatient visit. Care managers obtain the following information in the notification emails: patient identifiers, insurance status, medical home location, PCP name, recent and future primary and specialty care appointments, and discharge summaries.

Based on this extensive feedback, the innovation team, collaborating with OVMC’s IT division, developed the automated Care
Event Alert Monitoring System, which standardizes a communication link between emergency and hospital care and care managers that triggers follow-up care and provides information on the rescue care event, the patient’s clinical history, and the discharge summary. Patients are contacted by the PCMH within one week of discharge to schedule a follow-up appointment, with special attention paid to patients who have had multiple ED visits or inpatient admissions.

What’s Next?

The LAC DHS innovation team launched a randomized, controlled trial in mid-April after setting up the information technology, training staff, and receiving IRB approval. The innovation will be rolled out gradually to partner sites for further testing, with the goal of involving a total of some 5,000 patients in the intervention group. Data collection and analysis will take place over a two-year period. The core team will collaborate with IT staff, a research advisor, external evaluators from Claremont Graduate University, and consultants from each pilot site.

Their measures of success include user adoption; increased patient satisfaction; reduced ED re-visits, readmissions, and lengths of stay; and sustainability. The long-term goal for the project is to scale-up to create a regional safety net notification system.

“This process has good potential for spread because it moves the obligation for contact with the patient toward the medical home, where it should reside.”

–Mark Richman, Physician Innovator, OVMC

About the Center for Care Innovations

CCI – the Center for Care Innovations is a vital source of ideas, best practices, and funding for California’s health care safety net. By bringing people and resources together, we accelerate innovations for healthy people and healthy communities.

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