



## IMPROVING INPATIENT DOCTOR-PATIENT COMMUNICATION

A major reason why patients complain about their hospital care stems from poor provider-patient communication. Patients who do not understand what is happening to them and have difficulty contacting their specialist team during their admission, are likely to feel dissatisfied with their hospital experience, even if the clinical intervention provided was appropriate.

Engaging patients by ensuring their concerns are heard and that they are fully informed about their management plan – ie, what to expect during their admission, the findings from tests/interventions, and the plan for discharge - is empowering. Patients feel part of the medical decision-making process, and their satisfaction and trust in their providers is enhanced. People who feel respected and involved in their care have a better hospital experience and are less likely to complain, even when mistakes or unexpected adverse outcomes occur.

## Electronic risk assessment tools to engage patients in shared decision-making

Example: Q-guide (QPID Health) at Massachusetts General Hospital (MGH), Boston – Q-guide is a cloud-based procedure decision support app that works on top of providers' electronic medical record systems. It was developed at MGH to address the problem of too much data that is too hard to find. Q-guide has been piloted by 150 clinicians at MGH in the pre-operative decision-making process for over 1100 high cost, high use, cardiovascular and orthopaedic surgery such as hip and knee replacements. The Q-guide app applies nationally approved guidelines-based criteria to each patient's individual profile (uploaded from the electronic patient record), and calculates whether the procedure is appropriate for that patient, giving a recommended management approach. Clinicians can choose to use or ignore the recommendation but it is designed to be factored into their decision-making. Q-guide also promotes patient engagement by generating customised consent forms that incorporate the patient's unique risk score for the procedure – to be discussed with the patient in the decision-making/consent process.

See http://www.qpidhealth.com/solutions/q-guide/

## Inpatient iPad use to help patients understand their inpatient care process

"Making patients knowledgeable, giving them the tools for self-assessment and setting expectations that they participate in their care is the model for managing health care in this country and bending the cost and quality curve" - Dr David J. Cook (Mayo Clinic anaesthetist, leading the myCare Discovery Project Team)

## Examples:

**Boston Children's Hospital 'MyPassport'** - MyPassport was created in response to a 3 year study on patient satisfaction at the hospital, which showed that the main reasons for dissatisfaction were patients feeling unfamiliar with the medical information they were receiving, and difficulty understanding who was part of their care team and how best to communicate with them. What started as a paper booklet - that identified every care team member by photo, recorded test results and summaries, detailed the next day's plan and information about discharge, and included space for patients to write down questions for their providers, has since been turned into an iPad app given the positive response to the paper version. Patients could curate their information in one place, understand the roles of the people who rotated in and out of their rooms, track their treatments and learn what their lab results meant. Overall, patients and families who used MyPassport reported better understanding and fewer instances of miscommunication. Families felt part of the medical decision-making process and the research team found it improved coordination of care. The mobile app version of MyPassport has just been piloted at Boston Children's Hospital, and preliminary survey data indicate that 90 percent of participants to date find it easier to get their child's health information. The app automatically pulls patient data from electronic medical records, including real-time lab reults, and displays it in a consumer-friendly, meaningful way; improving on the time-consuming manual updating required of the paper booklet version. The care team enters a list of goals for each patient —such as standing or walking—to help determine when the patient is ready for discharge. During their hospital stay, the patient and family can track their progress and feel more in control. Also included is an instant-message-like function that allows patients to ask questions when providers are not in the room, and for providers to answer remotely via the app, if not in person. MyPassport is seen as a new opportunity to deliver real-time, personalized health information to patients and their families, to help them proactively engage with their care team to get their questions answered, and feel more prepared to leave the hospital, armed with home care instructions.

Mayo Clinic's myCare app for surgical patients – Mayo Clinic has been piloting the use of a patient education, self-assessment and reporting iPad app on the cardiac surgical ward, aimed at helping patients and their families feel more informed and in control of the pre and post surgical process, as partners with the care team – creating a patient-sided driver to successful recovery.

The app was designed by a team of Mayo clinicians in response to focus groups findings that many patients and their families were poorly informed about what would happen during their hospitalisation or what they could expect on any given day. The "myCare" app gives patients access to their personalised plan of care on an iPad - clearly communicating what is happening each day, what to expect during the admission, and what a normal recovery looks like. Each day's care plan is organised into 4 sections – "Clinical milestones"; "Gaining Strength"; "Education"; and "Planning my recovery". Patients are given "To Do" lists to involve them in documenting and tracking their own recovery progress. This includes direct patient input of self-assessed pain levels throughout the day by touching a visual analogue pain scale on the iPad, and self-reported mobilisation. MyCare also integrates remote monitoring of activity using FitBit trackers – allowing patients to see if they are meeting their targets. Clinicians are presented with a real-time "individual recovery dashboard" of progress - showing aggregated data of the patient's use of the education, recovery planning and self-assessment tools, and whether they are meeting recovery expectations. Built in algorithms alert providers at an early stage, to timely intervention if pain or activity measures are trending in the wrong direction or threshold levels are hit. This enables, for example, a physiotherapist to initiate immediate therapy if a patient is not meeting mobility expectations, without ever involving a physician. The targeted, rapid mobilisation of resources to identified need (from direct patient data input) has been has been credited as an important factor in reducing hospital length of stay in patients using the program, and may allow for more cost-effective or appropriate use of personnel resources, by focusing staff on those patients with more need.





Importantly, the app also includes modules focused on preparing for patients' needs after they leave hospital – identifying and solving the who, how and when problems, such as driving limitations or other support needed for daily activities. These conversations often fly under the radar of physicians who typically focus on the specifics of surgical recovery.

The myCare pilot study, involved 149 cardiac surgery patients between February - November 2012. Average age was 69yrs (range 52 to 85 yrs). The iPad care model received over 90% patient and family satisfaction rate. 80% of patients felt "very comfortable" using the program after a day or two. Patients reported the iPad "provided a more confident 'going home' feeling" and family members reported it helped them understand each day what was expected, relieving the high anxiety of wondering if things were going normally, and enabling them to assist the patient to improve. Patients completed 98 percent of the 1418 self-assessments presented to them on the iPad, and 85 percent of their educational modules. There was no discernible link between age and engagement - the oldest patients were, on average, just as engaged with the iPad tools as the youngest.

Once privacy and security issues associated with moving the myCare app data outside the hospital firewalls are resolved, Mayo plans to extend the iPad program to 30 days post-discharge, to help prevent readmissions. The two year plan is then to apply the model to at-home chronic condition care, configuring the app with remote monitoring devices for obese or diabetic patients for example.

See http://consumerehealthengagement.squarespace.com/consumerehealthengagement/2013/2/5/mayo-pilots-mycare-ipad-app-for-cardiac-surgery-support-enga.html?printerFriendly=true; and http://mobihealthnews.com/28015/mayos-ipad-study-had-98-percent-engagement-among-seniors/. The full Mayo study is due to be published in May 2014.



