ORIGINAL ARTICLE

2008 Lawrence Patient Safety Award

Ohio Safety Action Teams

Cindy Ebner, RN, MSN, CPHRM, FASHRM

Abstract

Ambulatory care presents many challenges for implementing a risk management and patient safety program. In addressing a perceived problem about inadequate response to reports in the Kaiser Permanente Ohio Region, interdepartmental Safety Action Teams (SATs) were created and activated in 2005-6.

The Kaiser Permanente (KP) Ohio Region includes various locations widely separated through northeast Ohio. Team Lead Registered Nurses, Managers, and Directors are responsible for primary care, specialty care, and other services that are located across the Region rather than in one building. Physicians and allied health professionals practice in more than one location. Practice variations in affiliated hospitals with which the Ohio Permanente Medical Group (OPMG) contracts—only some of which have OPMG Hospitalists—add to the challenges.

To improve the process, the SATs mapped the current process and ran Plan-Do-Study-Act cycles to test the new process prior to implementation. Nineteen SATs have been implemented since inception and eleven are completed. In a post-SAT survey, participants showed they knew more about building a reliable process, their job satisfaction increased, patient safety was improved, and the gains were sustained. The plan to continue SATs is felt to have a solid future and is readily transferable to other areas and facilities.

Introduction

Ambulatory care presents many challenges for implementing a risk management and patient safety program. A random sample of employees throughout the Kaiser Permanente (KP) Ohio Region revealed that staff had become discouraged and no longer reported incidents or issues because of a perceived lack of response, either in the form of feedback or of action to address issues. In response to this and because the KP Ohio Region includes various locations widely separated throughout northeast Ohio, a Safety Action Team (SAT) (See sidebar: Glossary of abbreviations) program was developed. At that time, the Ohio Region did not have an active performance improvement mechanism and the Risk Management Patient Safety (RMPS) committee was composed of staff and managers without the authority to implement change. Additionally, in 2006, an annual employee satisfaction survey (People Pulse) indicated that only 71% of staff felt encouraged to speak up about errors.

Safety Action Teams: Construction and Implementation

In 2005-2006, to address these challenges, several building blocks were put into place to create the foundation for an RMPS program. The program's goal is to do the right thing right the first time, which is consistent with the Region's strategic plan. A strategy was created to establish a culture of safety and to build a highly reliable organization. The six most important activities were: 1) to create a *just culture* using David Marx's Just Culture Model and Just Culture Algorithm[1,2] in collaboration with human resources; 2) to implement an anonymous electronic incident reporting system; 3) to restructure the RMPS committee with department chiefs and managers who can review critical events and trends and drive improvement; 4) to bring safety to the forefront through education, executive walkarounds, senior leadership support, and safety fairs; 5) to implement SATs to improve systems and processes by engaging frontline staff, managers, and leadership who touch the system/process; and 6) to build relationships through fostering collaborations between departments on the SATs, Quality Resource Management Committees and RMPS committee.

Glossary of Abbreviations

SAT – Safety Action Team
RMPS – Risk Management Patient Safety
PIPS – Performance Improvement and Patient Safety
QRPS – Quality and Risk and Patient Safety
PIPPRO – Performance Improvement and Provider and Practitioner Review and Oversight
PDSA – Plan-Do-Act-Study cycle
ASC – Ambulatory Surgery Center
PAR – Preadmission Requisition

Cindy Ebner, RN, MSN, CPHRM, FASHRM, is Director of Risk Management and Population Care Management for Kaiser Foundation Health Plan in Cleveland, OH. E-mail: cindy.ebner@kp.org.

Methodology

The SATs began in the third quarter of 2006 and were designed to engage frontline staff, physicians, and leadership to improve the systems and processes. Issues are identified as noted in Table 1. The goals were to make the processes error free, to eliminate waste, to decrease steps, and to standardize where applicable, thus creating processes that are highly reliable and decrease costs and resource utilization. SATs are composed of frontline staff, managers, directors, and executives of each department the issue touches. A Performance Improvement and Patient Safety (PIPS) Department (Table 2) staff member leads and facilitates the team and records the team's progress. PIPS Department includes staff from the Quality and Risk and Patient Safety Department (QRPS).

When an issue arises, it is presented to the RMPS Committee who determines if a SAT is warranted. Members of the SAT follow the process detailed in the following example of the images-to-operating-room process. The average time to complete a SAT is five to seven months. Department managers are responsible for incorporating the new processes into department policies and procedures, communicating regularly on team progress, involving staff in Plan-Do-Study-Act (PDSA) cycles, soliciting feedback from physicians and staff, and monitoring the process after implementation.

Table 1. Methods through which issues for referral to Safety Action Teams are identified

Executive patient safety walkarounds
Incident reports
Peer-review cases
Staff and physician referrals
Customer complaints
Consumer Assessment of Healthcare Providers and Systems surveys (patient satisfaction)
Various committees
Lawsuits and demand for payment
Employer group complaints

Table 2. Performance Improvement and Patient Safety Department team

Kerry Dease, RN, BSN, Regional Patient Safety Lead
Justine Wells, RN, BSN, CPHRM, Clinical Risk Manager
Sharon Zahtilla, RN, BSN, Quality Consultant
Bonnie Lackey, RN, Quality Consultant
Virginia Mooney, RN, BSN, Quality Consultant

Safety Action Team Example: The Images-to-Operating-Room Process

An example to best illustrate using a SAT was the one formed to improve transferring KP radiologic images to affiliated hospital operating rooms (ORs) in a timely fashion prior to surgery.

Identifying the Problem

A surgeon referred this issue to the RMPS Committee, insisting that scans were rarely in the OR prior to scheduled surgery, which led to cancellations, delays, repeated scans, and surgeries performed without scans. Upon investigation, it was discovered that the process had a long history of challenges, which had led to several workarounds being developed, which included patients being responsible for the delivery of their own scans, physicians bringing the films, scans being reprinted by the file room, the use of STAT courier services, and repeated scans. All of these led to increased costs and delays for the affiliated hospital, for KP, and for the patient (Table 3).

A SAT was assembled (Table 4). PIPS Department staff and the courier manager visited each department involved to map the current process. Microsoft Office Visio Professional 2003 (Redmond, WA) process mapping software was used to identify issues and sent to the SAT for review and revision.

Defining the Goals

At an initial teleconference, the findings were discussed and goals and possible metrics were outlined. The group-defined goal was to get the images to the OR 24 hours prior to each surgery. Possible metrics included monitoring the number of STAT courier deliveries.

Developing a Solution

The process map developed clearly showed how departments interact and where challenges arise. The map removed hierarchies, allowing participants to feel comfortable voicing their opinions, and created opportunities to build relationships between departments and staff. After mapping the process, one of the surgeons pointed out that surgeons were not completing the Preadmission Requisition (PAR). This set the tone for sharing and collaboration. If key decisions are made at a higher level, it avoids the trickle down effect to the lowest level of staff who is blamed when the process fails. In this case, the file room clerks were blamed by hospitals and surgeons when scans weren't in the OR as expected. Because the surgeon identified this problem, made obvious from the process map, it removed barriers and the reluctance to be forthright.

Surgeons suggested creating templates of the scans consistently necessary for particular surgeries, which

The process map developed clearly showed how departments interact and where challenges arise.

were then developed by the ASC Medical Director and other Department Chiefs. The OR Manager and schedulers collaborated with the affiliated hospitals to obtain OR schedules and to brainstorm efficient file room notification for additional scheduled surgeries.

Implementing and Refining

One team surgeon attended a Surgery Department meeting to share the SAT goals and to explain the need to complete the PAR. The surgeon explained the importance of the project and its potential benefits. To build trust and to address concerns raised by physicians, a safety net was created in which the file room sent a text page to the physician the night before surgery verifying the scans were at the hospital. This was extremely successful and within one month was no longer necessary. Any surgeon not completing the PAR was contacted by the ASC Medical Director and persuaded to try the process. Two surgeons preferred to review their scans the day before surgery in their offices and an accommodation was developed for them.

Biweekly one-hour SAT teleconferences—to develop

Table 3. Improving the process for delivering images to the Operating Room project summary

Safety Action Team	Goal	Improvements	Time to complete project	Metrics	Results
Challenge: Images were often not available at the time of surgery in our contracted facilities. There were multiple failure modes in the system that led to workarounds and an inefficient and unreliable process. This led to delayed or cancelled surgeries, repeat x-rays, additional copies of images produced, STAT courier deliveries, and dissatisfaction from everyone involved in the process.	Delivery of images to the hospital 24 hours prior to surgery for 100% of scheduled cases. **Team Members:** Medical Director and Manager ASC; KP file room staff and manager; three contracted hospital file room staff and managers and OR managers; courier manager and staff; three KP surgeons; KP OR schedulers; system telephone operators	1. All surgeons must fill out the PAR delineating the films and/or reports requested 2. PARs are sent to the file room by OR schedulers with schedule 3. Template developed by surgeons for standard films needed per type of surgery 4. Blue index card with specific information required by hospital to get the film to the OR put in front of film jacket 5. Daily schedule obtained from contracted facilities to identify add-ons and sent to file room 6. Courier delivery schedule changed 7. File room calls hospitals prior day to verify films are there	Start Date: 11/06 Completion Date: 3/07[a]	1. Number of STAT courier deliveries on scheduled surgeries. 2. Number of times films not in OR on time.	1. Not tracked until 3Q07. No STAT courier deliveries to date. 2. Five times since project completed (one because a physician did not fill out PAR, three because staff distraction occurred on same day with same person; one because the image was not the right one: the physician did not want the default view but another view.
Cost Savings and Benefits					
Cost avoidance: soft dollars	**Capacity**	**Dollars saved: hard savings**	**Time saved**	**Patient benefits**	**Other departments affected**
Average cost per lawsuit: $350,000 Surgeon turnover because of job dissatisfaction File room turnover because of job dissatisfaction Damage to KP's reputation	Increased surgeries scheduled in hospital OR because of avoidance of delays and cancellations Increased productivity for file room staff	1. Processing additional films -$1.05/film[b] 2. $25.17 per minute for delays in the OR[b] 3. Number of additional x-rays taken at hospitals x $500[b] 4. STAT courier delivery from contracted company -$12/delivery[b]	• Minutes to recopy x-rays • No additional courier deliveries • No delays in surgery because of missing images	• Surgeries take place on time • No additional radiation exposure • Surgeon has necessary information to perform surgery • Expenses involved in delays or cancellations for surgery • Potentially avoid complications because of performing surgery without images	Radiology does STAT films at contracted facilities OR has to delay or cancel surgeries at contracted facilities Contracted couriers doing STAT deliveries to hospitals

[a] Original process completed and extended to contracted referral office visits at Cleveland Clinic Foundation. Pink index card created for their specific needs. Designated delivery and pick up places and delivery times changed to improve reliability.
[b] Unable to quantify volumes since it was not tracked before implementation of this project. According to the surgeons, missing films happened frequently.
ASC = Ambulatory Surgery Center ; KP = Kaiser Permanente; OR = operating room; PAR = Preadmission Requisition

Table 4. Safety Action Team participants
Affiliated hospital personnel
Operating Room personnel
File Room staff
Kaiser Permanente Ohio personnel
Courier manager and staff
Ambulatory Surgery Center manager
Operating Room schedulers
Radiology file room staff and manager
Radiology Director
Medical Director of the Ambulatory Surgery Center
Surgeons

actions with a completion goal based on the findings from previous meetings—continued until the project was completed. For example, the electronic routing form was confusing because it listed the information to return the scan to KP. The courier manager and the PIPS staff worked with each hospital file room to determine how to best organize the information needed to get the scan to the OR on time. A surgeon suggested using an index card on the front of the file jacket with the required information—a simple and elegant solution. The PDSA cycle was completed to determine the potential success of this solution; the evaluated process was implemented.

Transfer

The first phase of the project was completed in three months and a trial for the clinics was developed and tested in the Cleveland Clinic Foundation offices for consultations. The process was again successful and, with minor changes, was implemented.

Results

In addition to improving the process, this project built relationships with people in affiliated hospitals and KP shared the learnings about building reliable processes and performance improvement. The staff at hospitals readily participated, excited that KP was proactively addressing failed processes. Ultimately, the project will improve KP's reputation in the community through continued patient safety initiatives.

From a survey created and sent to all SAT participants feedback was obtained and used to identify areas for improvement. The response rate was 50% (n = 20) and of those who responded 100% agreed that they knew more about building a reliable process as a result; 97.4% agreed that it increased their job satisfaction; and 100% believed that patient safety was improved and the gains were sustained (Figure 1).

Discussion

Ambulatory care presents many challenges. The KP Ohio Region's Safety Action Team program has proved successful in addressing some of these. Following implementation of the program, participants agreed that patient safety was improved and they acknowledged that the gains made through the program were sustained. They also agreed that they knew more about building a reliable process and that the program increased their job satisfaction.

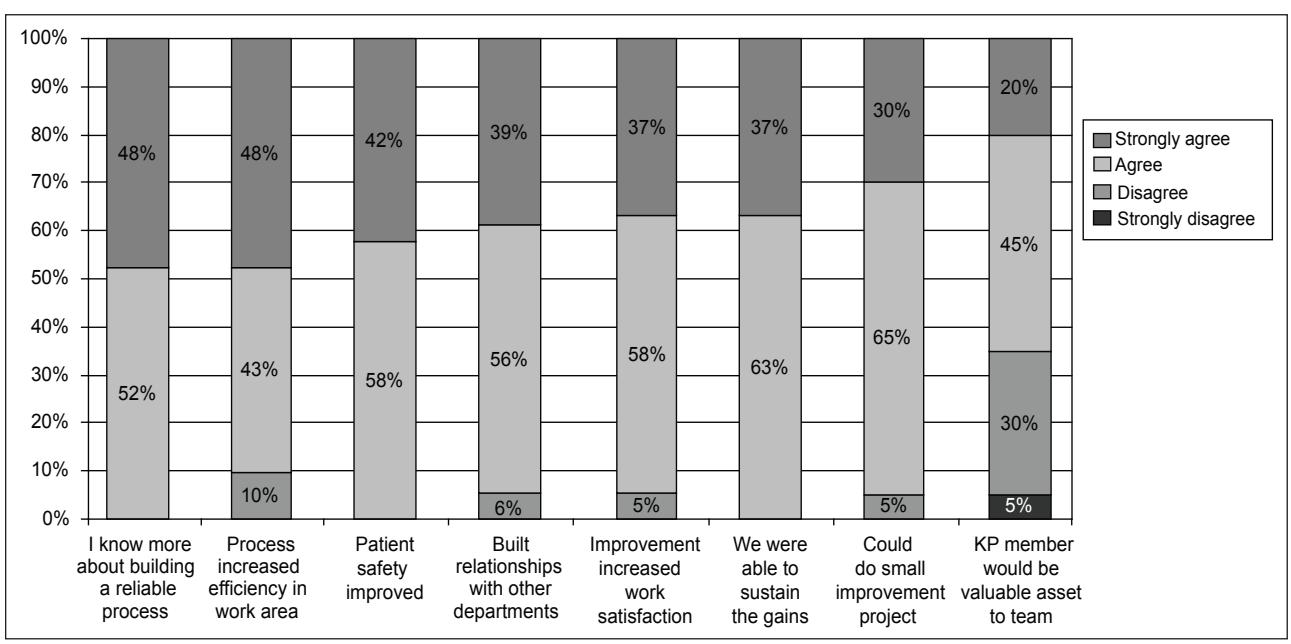

Figure 1. Safety Action Team Survey—Ohio Region; January, 2009

Table 5. Requirements for a Safety Action Team
Method to identify dysfunctional systems
Processes and referral system for process improvement
Quality, patient safety, and risk professionals trained in process improvement
One hour every two weeks for meetings
Teleconference line
Visio or other process map software
Adobe Acrobat Professional (San Jose, CA) to convert the Visio map to a readable format
Administrative assistant to set up initial meeting
Oversight committee to evaluate the progress of SATs and to assist with project barriers
Frontline staff, managers, administrators, and physicians willing to participate
Template for tracking team progress
E-mail communication system
Information Technology (IT) support for data and to assist on teams
Brainstorming tools

Program Transferability

SATs can be implemented in any region for inpatient/ambulatory care and can be customized for smaller performance improvement projects. The Ohio Region is committed to working with any region or facility interested in implementing this process. Requirements for a SAT have been developed (Table 5).

Where We Are Now

In 2008, to each new committee we added KP nonemployee patients who participate in team activities, provide feedback, and drive some changes. For instance, patients and families in Oncology were interviewed for input regarding their experience in the Infusion Center for the Oncology SAT. Patients kept a time log to identify delays and inefficiencies in their treatment process. Patients and families were enthusiastic and willing to help us. An added benefit is that staff has the opportunity to interact with patients in a different relationship.

Improvements planned for 2009 include tracking the outcomes, costs, and benefits for each new team in the Performance Improvement record; working with unit-based teams with a scaled-down version of the SAT approach; educating department staff on how to use the process algorithms; incorporating *Webinars* or shared desktop for meetings; and developing a one-page monthly update for all department staff not involved in the program for feedback.

Conclusion

Since the inception of SATs, 19 teams have been implemented and 11 are completed. The teams run simultaneously and are led by different members of the PIPS team (Director, regional safety lead, and/or three quality consultants). All goals were met and the gains are sustained within each team. New workflows were developed and policies and procedures were changed where applicable. Staff and leaders in the department monitor the new process for 6-12 months. Any failures are investigated by the staff in collaboration with the PIPS team leader and adjustments to the process are made as appropriate. When issues are brought to the RMPS, they are investigated with consideration to the level of risk to patients before a project is undertaken. The Senior Quality Council receives quarterly SAT reports and all staff is updated quarterly per the PIPS Department newsletter.

Future plans are being made to offer assistance in improving processes for issues identified by affiliated clinicians. This will build collaboration, increase reliability, and further develop a culture of safety. This initiative will include education, alerts, recalls, implementation of The Joint Commission National Patient Safety Goals,[3] and creating a just culture. The overall goal will be to improve patient outcomes by making it easy for all of our clinicians to do the right thing right the first time. ❖

Disclosure Statement

The author(s) have no conflicts of interest to disclose.

Acknowledgments

The author would like to thank Ruth Langstraat, MD, Vice President of Health Systems Design and Performance for the Ohio Permanente Medical Group; Charles Zonfa, MD, Interim Physician Director of Risk and Safety for the Ohio Permanente Medical Group; Oksana Bender, Manager Analysis/Projects for Kaiser Permanente Ohio; Marcy Becker, Senior Consultant, National Market Research for Kaiser Permanente Ohio; and all staff, managers, and physicians who participated on the Safety Action Teams at Kaiser Permanente Ohio.

References

1. Marx D. The Just Culture Community: Patient safety and the "just culture" [monograph on the Internet]. Plano (TX): Outcome Engineering, LLC; 2007 [cited 2009 Feb 16]. Available from: www.health.state.ny.us/professionals/patients/patient_safety/conference/2007/docs/patient_safety_and_the_just_culture.pdf.
2. Marx D. Patient safety and the "Just Culture": A primer for health care executives [monograph on the Internet]. New York: Columbia University; 2001 Apr 17 [cited 2009 Feb 16]. Available from: http://dodpatientsafety.usuhs.mil/index.php?name=Downloads&req=getit&lid=724.
3. 2009 National Patient Safety Goals [Web page on the Internet]. Oakbrook Terrace (IL): The Joint Commission; 2009 [cited 2009 Feb 18]. Available from: www.jointcommission.org/PatientSafety/NationalPatientSafetyGoals/.