IHI Improvement Scholars Program in Collaboration with AIAMC

FINAL POSTERS
2014-15 CLASS

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IHI Improvement Scholars Program in Cooperation with AIAMC  
2014-15 Class

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Choosing Wisely: A Focus on Patient Safety Through Blood Product Stewardship

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Vision

To decrease both adverse patient outcomes and financial expenditure by decreasing overall number of blood transfusions administered.

Charter

Primary Aim: Decrease total units of blood product administered over a 6 month period

Secondary Aims:
- Decrease adverse patient reactions
- Decrease overall financial expenditure

Process Measures: Percent compliance with new guidelines

Balancing Measures: Staff and resident satisfaction with new guidelines-Assessment for perceived loss of autonomy as related to patient care decisions.

Background

- Blood product utilization can account for up to 10% of the cost of caring for internal medicine patients in the hospital.
- Each exposure to blood product increases the risk of an adverse patient reactions.
- Differences in clinical practice transfusion triggers suggests that varied blood management interventions are contributing to transfusions administered via parameters that fall outside best practice guidelines.
- Often transfusions that fall outside best practice do not necessarily improve patient outcomes, but are associated with increased patient morbidity/mortality as well as prolonging length of stay and increased costs of care.

Methods

Systems Based:

Multidisciplinary Task force

- Finalized standardized transfusion thresholds which have been incorporated into best practice guidelines
- Lab initiative to decrease iatrogenic anemia by:
  - Decreasing duplicate lab draws
  - Transition to small volume pediatric phlebotomy tubes
- Overlap with addition Choosing Wisely Project to decrease physician ordered daily labs.

Educational Directives:
- Launch Presentation at Grand Round Conference
- Online Module:
  - 70% of residents (80 total) have completed online module with pre/post-testing and 6 month re-testing
  - Available to Hospital Medicine Staff for voluntary completion
- Posters, mini presentations and pocket guide creation and distribution
- Nursing educational outreach and extension to include medical student champions of project

Electronic Medical Records:
- Creation and implementation of:
  - Anemia lab panel for early diagnosis/treatment
  - Lab decision support tool created and implemented to decrease duplicate lab draws
  - Submission of an EPIC ordering panel to enhance point of care decision making when ordering transfusions

Results

Barriers/Limitations

- Time is a huge barrier.
- Limited time for education due to busy and varied schedules.
- Academic and Ward commitments take focus from project and gaining back momentum can be difficult.
- Approval for changes to electronic medical records takes months and cannot be the corner stone of changes.
- Inability to correlate adherence to guidelines with decreased rates of adverse reactions.

Conclusions

- Multidisciplinary team work, educational initiatives and electronic data maximization can result in a decrease in total number of blood product administered and a resultant decrease in financial expenditure.
- Overall, this experience was challenging, frustrating, fun and exciting.
- I was exposed to a new style of thinking and problem solving and, as is the case with most change, did not always find it easy.
- Through learning the processes and theory behind performance improvement, I have become more open to the idea of trial by error.
- Letting go of my need for immediate perfection has taught me flexibility and resilience in the face of challenging situations and ultimately a new approach to problem solving in my day to day life.
- Next step—Attacking disparities of care in the sickle cell population!

Success Factors and Lessons Learned

Lessons Learned:
- Cultural change takes time but passion is contagious
- Cannot rely on Electronic medical record changes alone to reach your performance improvement goals.

Project Successes
- Interventions can easily be applied throughout other departments and our community hospitals.
- System wide standardized guidelines and EMR improvements are permanent changes that will assist with long term survival of project.
- Educational initiative can be easily repeated
- Multidisciplinary task force created to share ideas and improve communication throughout our system

Unexpected Wins
- Voluntary recruitment of residents and medical students to project!!!
- Increased learner involvement through role modeling alone!
- 90% of Hospital Medicine Staff were happy with the changes.

Bibliography


The AHA Foundation Choosing Wisely Campaign: What hospitals need to know. Society of Hospital Medicine. 2014.
Improving Interdisciplinary Team Effectiveness By Team Training

**Background**

- Christiana Care Health System’s Medicine Service Line has geographically cohered patients to have unit based hospitalists in some patient care units. These hospitalists are members of a unit interdisciplinary team that rounds together as a unified team every weekday morning. The process flow for Inter Disciplinary Rounds (IDR) was developed by an IDR task force (Figure 1).
- Observations of the IDR process has demonstrated variable adherence to the agreed upon processes. There was a subsequent decision to re-engineer the IDR intervention by agreeing upon aims of IDR and focusing on IDR as a mechanism to reduce hospital unit length of stay (LOS).

**Theory**

- The conceptual theory (Figure 2) for improvement is that improving team effectiveness improves team efficiency, thereby unit efficiency. We believe that this will contribute to a decrease in length of stay over time.
- Domains of discussion that are hypothesized to be related to LOS reduction and team member’s responsible for it:
  - Define goals of hospitalization- attending physician
  - Predict date of discharge- attending physician
  - Assign tasks to progress plan of care and discharge- team
- We estimated the attribution effect of improving teams effectiveness on reduction of length of stay using a LOS driver diagram (Figure 3).

**Project Charter and scope**

- **Aim:** To improve team communication during daily interdisciplinary rounds (IDR) on a step down unit (JD) and a medicine unit (MD), specifically a 15% improvement in the number of times task assignment to team members, closed loop communication, discharge date prediction, and discharge goals discussion for 15%.
- **Scope:** Improving IDR team effectiveness in an effort to improve LOS at Christiana Hospital on a general medicine unit and a step down unit by team training using customized Team STEPPS curriculum (Team Strategies and Tools to Enhance Performance and Patient Safety).

**Methods**

- **Understanding the baseline**
  - Over 100 IDR rounds (1 round=1 patient discussion) were videotaped to obtain baseline evaluations of team communication.
  - IDR evaluated by modified TeamSTEPPS observation tool to allow applicability to IDR process flow.
- **Team education strategy**
  - The project team applied the principles of TeamSTEPPS to IDR and tested several unit based team training methods before incorporating them into education strategy:
    - Class room and workshop setting for a unit based team in two sessions.
    - Exclusive physician (Hospitalist) training as team leaders in IDR
    - Unit based (in situ) video and direct observation debriefs- Direct observation and video tape evaluation also served as feedback, training and data collection tools for measurement. IDR observation tool utilized for debriefing and training (Figure 4).

**Results**

- **Figures**
  - Figure 4 – IDR observation tool to the right
  - Figure 2 - Conceptual model for improvement
  - Figure 3 LOS Driver Diagram
  - Figure 4 IDR process flow
  - Fig. 5 Medical Unit IDR team evaluations
  - Fig. 6 Stepdown Unit IDR team evaluations
  - Fig. 7 Medical Unit LOS
  - Fig. 8 Medical Unit Pre-post LOS
  - Fig. 9 Stepdown Unit LOS
  - Fig. 10 Stepdown Unit Pre-post LOS Adjusted

**Discussion and next steps**

- **Team training improved the communication domains of delegation of tasks and discharge date on both units, while communication about goals of care improved only on the medical patient care unit (Figure 5).**
- Overall, post intervention LOS appears to be less variable and slightly lower in the step down unit during study period (Figure 10) While the LOS in the medicine unit appears to be slightly higher (Figure 8). The statistical and operational significance of LOS changes needs to be tracked over time.
- Next steps: We are currently training unit leaders (Nurse manager and Medical Director) in using IDR observation tool and debriefing techniques to maintain the gains from this project. Project team will continue quarterly observations and debriefing and will continue to support IDR teams with Team STEPPS classroom training as needed for new members of the IDR team.

**Conclusions**

- Overall, team training appears to be effective for improving team communication in IDR in the short term.
- LOS changes have to be further analyzed and monitored over time but there appears to be some promise.
- Sustaining the short term gains in team effectiveness will be key to assess impact of team effectiveness over time.

**Barriers Encountered/Limitations**

- Finding protected time for all the team members to train was a challenge.
- So, a decision was made to train as many individuals as possible and expand the training as able.
- Defining LOS for the study was also difficult due to many existing operational and research definitions. But with feedback from service line leaders, we were able to come to a consensus on definitions.

**Success factors/Lessons learned**

- Unit leadership and IDR team buy in was very important for the gains due to the intervention.
- Project support and mentorship was crucial to the project.
- Conceptual understanding of problems and interventions is vital to performance improvement. Understanding attribution effect of interventions allows for realistic expectations when targeting complex metrics such as length of stay.

**Bibliography**

**Charter**

**Aim:** Within the next 7 months (August 2014-February 2015) we plan to:
- Increase residents participation in Find It, Fix It projects by 100% from baseline of 15% to 30%.
- Increase resident participation in projects that focused on patient care, safety, and experience by 50% from baseline of 10% to 15%.
- Increase the total number of completed Find It, Fix It projects by 50% from baseline of 22 to 33.

**Measures:**
- **Outcome Measures**
  - Residents participating in a project reports as % of total number of residents (122)
  - Number of completed Find It, Fix It projects per month
  - Number of residents who submitted an idea card for the first time
  - Number of residents who involved in a Find It, Fix It project for the first time
  - Number of ongoing projects

**Process Measures**
- Number of residents who submitted an idea card for the first time
- Number of new projects

**Changes:**
- Increase program directors involvement
- Mentor residents in selected projects

**Background**
- Riverside Methodist Hospital is a large community hospital with 122 residents in 5 residencies (Internal Medicine, Family Medicine, General Surgery, OB/GYN, and Transitional Year).
- Our institutional quality improvement/patient safety (QI/PS) initiatives rarely involved residents.
- There is little education or participation in QI/PS at the GME level.
- As part of AIAMC NI IV: Achieving Mastery of CLER, we developed a “Find It, Fix It” kaizen project to engage our residents in QI/PS.
- Kaizen is a bottom-up continuous improvement process with the use of visual boards.

**Methods**
- Residents are encouraged to submit “idea cards” when they identify opportunities for improvement.
- Residents select the idea and work on the project.
- They learn QI hands-on using PDSA cycles.
- The C-suite, GME staff and faculty meet weekly to review the central board and help residents with problem solving, networking, and resource deployment.
- “Find It, Fix It” projects are classified into 4 categories: Patient Care/Safety, Patient Experience, Work-life, and Throughput.
- The interim results in July 2014 showed that our resident participation in FIFI projects was not moving toward target level.

**Outcome Measures**
- **Resident Participation in Find It, Fix It Projects**
- **Resident Participation in Project with Visual Patient Care/Quality Process**
- **Impact of Completed Projects**
- Number of Projects
  - Projects that led to improvement in patient care quality
  - Projects that led to equipment/storage improvement
  - Projects that led to improvement in education/training
  - Projects accepted for national presentations (as of 2/2015)

**Success Factors and Lessons Learned**
- Our improvement strategies have increased our resident participation in FIFI projects and patient-focused projects to 19% and 13% respectively.
- Most program directors require their residents to participate in QI activities.
- Providing residents protected time increased their involvement in QI.
- Mentoring works. Quality and success of the resident’s project improved.
- QI work creates opportunities for scholarly activity: Posters/presentation at three national conferences as of 2/2015
- Unexpected wins:
  - Development of QI rotations in FM and IM programs
  - Outpatient faculty-led initiatives outside of Find It, Fix It

**Barriers Encountered/Limitations**
- While resident participation in FIFI projects improved, number of idea card submission and new projects decreased.
- Refocus on improving idea card submission would help to ensure the pipeline for good projects.
- Many patient-focused projects take longer than 7 months to complete.
- Time constraints remain a major barrier for residents to be actively involved in QI.
- Recognize and manage project fatigue early.
- Continuous evaluation and improvement of the Find It, Fix It Initiative is important.

**Conclusions**
- Find It, Fix It has successfully created an infrastructure for residents to participate in QI.
- The Find It, Fix It infrastructure provides residents the resources and opportunities to advance their level of engagement from onlooker to QI champion.
- Scope of Find It, Fix It requires significant time, effort, and expertise.
- Building faculty capacity to teach/mentor residents in QI/PS would help sustain this project.
- Find It, Fix It has meaningfully contributed to building a culture of QI in GME.

**Bibliography**
- AIAMC NI IV Find It, Fix It Planning Committee includes: Ben Bring DO, Miriam Chan PharmD, Tom Harmon MD, Michael Kasten MD, Matt Kunar DO, Kimberly Morton MD, Jim O’Brien MD, Jennifer Stubbs MBA, Sheri Southworth RN, Sara Sukalich MD
Sepsis in the Emergency Department: Improving Early Recognition and Treatment

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CHARTER
AIM
We plan to decrease mortality from severe sepsis and septic shock to <18% within nine months.

MEASURES
- Overall Mortality
- Compliance with lactic acid measurement and blood cultures
- Timing to first antibiotic, Volume of crystalloid within 3 hours

CHANGES
- Standardize order set, adopt clinical pathway, implement screening tool, feedback to providers, visual reminders of SIRS/Sepsis

BACKGROUND
Severe sepsis and septic shock are common causes of morbidity and mortality in the US. Mortality within this population varies widely, though many studies have demonstrated a mortality of approximately 30% overall. Sepsis is also expensive, with an annual national cost of $16.7 billion. In light of the mortality, morbidity, and economics, it is in the best interest of patients to identify and implement best practices in order to mitigate these risks. Based on the best available evidence, the following are recommended practices for the care of severe sepsis and septic shock:
- Measurement of lactic acid to determine tissue perfusion status
- Obtain blood cultures before antibiotics
- Administer broad-spectrum antibiotics within 1 hour of recognition
- Administer 30mL/kg of crystalloid

MATERIALS/METHODS
Conemaugh Memorial Medical Center chartered a sepsis team with the goal of reducing sepsis-related morbidity and mortality. A multidisciplinary team was formed in early 2014 to address this goal. The Emergency Department group is composed of nurses, residents and a faculty champion. The team meets monthly and is using the Model for Improvement to learn and promote change.

DISCUSSION
What made project successful?
- Performance Excellence and Quality Division support
- Coaching from IHI
- Standardizing the order set
- Lactate “panic” value

What are you most satisfied with?
- While slow, we are seeing evidence of improvement
- The resident team members have become change agents

BARRIERS ENCOUNTERED
What could you have done differently?
- Institute weekly data queries instead of monthly
- Collect time to antibiotics instead of binary decision

Opportunities for improvement?
- Improve the access to data
- Implement the above recommendations
- Unexpected challenges (and solutions)?
  - Hospital purchased at the beginning of project; this resulted in a change in priorities of key personnel (department leadership)

CONCLUSION
- Change is a slow process; consistency beats intensity
- It is very difficult to change practice patterns
- Overall experience — I learned so much and highly recommend it to any faculty interested in quality improvement

Was it a transformative/worthwhile experience?
- Yes. The culture that the IHI models is exemplary and serves as a model example of leading change and the application of quality theory to healthcare

BIBLIOGRAPHY
**Background**

- Preventable harm related to healthcare has been defined as a major public health problem.
- Safety events are significantly underreported in incident report systems, particularly by physicians.

**Specific Aim**

Increase resident and faculty reporting of safety and quality events on pediatric services by 50% (from a baseline of 4% of total reports to 6% of total reports) over a 9 month period.

**Methods**

- We used the model for improvement and serial Plan, Do, Study, Act (PDSA) cycles to test changes that we predicted would improve physician recognition and reporting of events.
- A driver diagram was used to inform measure development and change strategy.

**PDSA cycle summary**

1) Baseline Data (Apr 2014)
   - Established reporting goal based on data year to date
2) Safety Rounds Test (May-June 2014)
   - Faculty development on incorporating safety topics into rounds with
     - Text-message reminders to incorporate topics on Inpatient, PICU, and NICU
3) Supervisor Test (Jun 2014)
   - Pediatric inpatient rotation with goals and objectives that incorporate patient safety responsibilities in workflow
4) Supervisor Implementation (July 2014)
   - “Super” rotation included in 2014
5) Supervisor Refinement (Aug-Oct 2014)
   - Children’s Hospital Safety Rounds attendance and feedback to teaching team
6) GME Feedback Board (Nov 2014)
   - Data display in GME workroom to aid feedback on projects and event reports
7) Aim Revision (Dec 2014)
   - “Sustain physician reporting of safety and quality events at 15% of total event reports in the Children’s Hospital from Jan-June 2015”
8) “Qi on the Fly” (Jan 2015)
   - Patient safety curriculum, resources, and sample questions for rounds emailed to faculty every 2 weeks
   - Text-message reminders to incorporate topics on rounds on inpatient, PICU, Heme-Onc

**Results**

**Outcome Measures**

- Percentage physician-entered reports in the Children’s Hospital’s electronic event reporting system
- Monthly root cause investigations/analyses carried out in Children’s Hospital with number of residents involved in response team

**Process Measures**

- Percentage residents answering “yes” to survey question “Was patient safety or quality of care a teaching topic on your service this week (examples: patient safety rounds, faculty-led discussion of quality improvement efforts in their practice, etc.)?”

**Balancing Measures**

- Trend toward an increase in overall number of events reported (not statistically significant) and no significant change in categories of events reported

**Observations/Next Steps**

- Incorporating patient safety discussions and event reporting into teaching team workflow can increase physician event reporting.
- Our work has been associated with increased measures of communication around events on rounds and safety culture as well as increased numbers of residents participating in Root Cause Analyses (RCAs).
- Additional cycles are planned to test spread of the “Super” model to other clinical settings and improve the process for resident involvement in RCAs.
Improving Influenza Vaccination Rate in a Small Internal Medicine Residency Program Clinic

Emily Mullen, MD, Cone Health Internal Medicine Residency, Greensboro, NC

Aim: The aim of our project is to improve the rate of seasonal influenza vaccination from 66% to >85% for our chronic obstructive pulmonary disease population by March, 2015.

Measures: Percent vaccination rates for COPD patients;
Percent of patients with COPD also diagnosed with influenza or pneumonia

Changes: Letter reminders regarding flu clinics; flu clinics expanded to multiple months; Change in nursing workflow to document outside vaccination

Background

Influenza is a serious disease which can lead to hospitalization, infection related complications and sometimes death, especially in patients with chronic obstructive lung disease (COPD). Within our community, our Medical Group (Cone Health Medical Group) and Accountable Care Organization (Triad Healthcare Network) are actively targeting opportunities to improve the outpatient care and decrease inpatient utilization for the COPD population of the region. Vaccination rates are a large part of that endeavor. With vaccination, the goal is to decrease rates of influenza transmission as well as decrease hospitalizations. One recent evaluation of the 2013/2014 flu season revealed the CDC estimated that the influenza vaccination prevented about 7.2 million illnesses and about 90,000 hospitalizations associated with influenza.1

Project Scope

Our project focused on the Internal Medicine Clinic’s COPD population (206 patients) at Moses Cone Hospital.

Results

Graph 1: Total percentage of patients from the cohort vaccinated by week

Graph 2: Weekly Vaccination Rates for COPD Patients

Graph 3: Pneumonia and Influenza Rates

Discussion

• Influenza vaccination rate only improved slightly from previous year; 66% -> 71%
  • This change could be related to seasonal variability
  • There was no change in pneumonia or flu rates between the two flu seasons
  • Possibly related to size of cohort
  • Lessons learned include
    • Need for improved communication options with our patients – correct addresses/phone #s
    • Provider (MD/Nurse) variation in discussion re: benefits/risks of flu vaccination

Barriers & Limitations

• Barriers
  • Quality Improvement fatigue from clinic staff
  • Appropriate communication tool to advertise Influenza clinic
  • Opportunities for further improvement
    • Decreasing variation among providers
    • Improving patient education
  • Unexpected challenges
    • Flu vaccine success rate during this influenza season
    • Solution: Discuss the continued viability of the vaccine against certain strains with patients

Conclusions

• Quality Improvement Science is easily adaptable and can lead to improvement in clinical practice in a small resident led clinic
  • Though results were not as robust as hoped, the lessons learning from this year will be invaluable as new quality endeavors are started in the Internal Medicine Clinic at Moses Cone Hospital.

Bibliography

Aim: To improve participation in voluntary formal patient safety event reporting in resident physicians.

Measures: The number of patient safety event reports filed by residents physicians in comparison to baseline period, tracked by resident specialty and post graduate training year.

Changes: Remove self reported barriers to voluntary patient safety event reporting including lack of knowledge regarding reporting process and tools utilized in reporting.

Background

Through recent participation in a CLER site visit, it was realized that resident physicians relied heavily on an informal patient safety event reporting process via their attending physician and program director. Although this was found to be effective in addressing concerns at the point of care, it left out key learning for fellow residents and students, other caregivers, and the institution as a whole, as well as did not allow for proper review by our risk management, patient safety, and performance improvement teams. When researching why physicians did not participate in the formal event reporting process, it is apparent that there were barriers to the process that needed to be removed in order to make it more accessible. To the right, you will see the barriers that physician’s most often incur (Evans, 2006).

Materials/Methods

Simple interventions to remove nationally self reported barriers began with an overall one hour educational program on patient safety event reporting, how that related to the Highly Reliable Organization (HRO) journey, and what the resident physician’s role is in the process. Following this, each residency program received specific instruction on the institutional policy for patient safety event reporting, including what should be reported, how to report, and where to locate the tools needed.

Results

This project was the first step in a continuous patient safety focused journey in our graduate medical education training programs. With barriers removed and the foundations for event reporting in place, we can move forward with further cycles of improvement including electronic reporting, daily safety checks, and organizational learning. This is also embedding a culture of quality improvement into the programs, as the resident physician is often eager to work with the institution to impact improvements from the events they are involved in.

Barriers Encountered/Limitations

Barriers: Disconnecting the voluntary event reporting process from peer review, as it was the perception that participating in the event reporting process had the potential to be punitive.

Opportunities: Implement a feedback mechanism and organizational learning component to voluntary patient safety event reporting to prevent further occurrences.

Unexpected challenges: Ability to impact change from numerous event reports filed.

Conclusions

This project had wins on multiple levels, as not only did it increase overall voluntary participation in patient safety event reporting with little resource allocation, but it opened the door to increased discussions around patient safety as a whole. We are now using this as a foundation for daily discussions based around patient safety, as well as a platform to generate quality improvement project ideas and resident engagement.

Success Factors and Lessons Learned(Discussion)

Top 5 self-perceived barriers to incident reporting for doctors

1. No feedback on incident follow-up (67.7%)
2. Form too long; lack of time (54.2%)
3. Incident seemed “trivial” (51.2%)
4. Ward was busy, forgot to report (47.3%)
5. Not sure who is responsible to make report (27.9%)

Bibliography

[Evans, 2006]
STANDARDIZING THE RESIDENT-RESIDENT HANDOFF PROCESS

Catherine Hackett Renner, PhD, Douglas B. Dorner, MD, William J. Yost, MD
UnityPoint Health Des Moines, Des Moines, Iowa

Charter

Final Evaluation Question: Assessed by Program Director (Yost)

- “In my opinion, this resident is competent to independently and without direct supervision perform patient handoffs as part of transition of care.”

Cycle 1: Observe Internal Medicine handoff process
Cycle 2: Review handoff process and identify inconsistencies
Cycle 3: Review the inconsistencies with residents and provide a tool (ADOPT) to assist in checking all information is included
Cycle 4: Reassess process within Internal Medicine. Status: currently collecting data
Cycle 5: Apply process to Pediatrics and Family Medicine residency programs. Status: currently collecting data

Materials/Methods

- The proposed project was designed to develop a core set of patient-centric information, combined with a set of standardized procedures, that will ensure a successful resident-to-resident handoff within Internal Medicine
- Using the Resident Handoff Evaluation Form developed by Internal Medicine, various elements of the handoff process were assessed. A final global question “Resident is competent to independently and without direct supervision perform patient handoffs as part of the transition of care” was used as the main outcome measure.
- Implemented the mnemonic ADOPT to guide residents on elements to include in the handoff process

Background

- Patient handoffs are common in patient care
- The patient handoff process is not typically formalized therefore the consistency of information varies greatly
- Recent research has found only 8% of medical schools provide formal training in handoffs
- Nationally, handoff miscommunications are a leading cause of medical errors and adverse events
- A structured resident-resident handoff process would result in improved communications
- A structured approach will also allow the institution to assess resident competency in the handover process

Materials/Methods Cont.

- Project Coordinator (Renner) attended Internal Medicine resident handoffs
- Handoffs occur at 6:30a and 5:00p M-F in a specified conference room
- Handoff must be face to face and must use the instrument provided by the program

Results

- Number of Residents Evaluated as Ready or Not Ready for Independent Handoff
- Competent for Independent Handoff
- Not Competent for Independent Handoff

Results Cont.

- Project was successful due to residency Program Director support
- Finding the elements that contributed to the overall assessment helped guide areas that required additional attention
- A team approach was important in developing the project; individual effort was better at sustaining progress

Success Factors and Lessons Learned

- These data reflect one residency program
- Each program uses different evaluation methods therefore cross comparisons are limited

Conclusion

- This project identified how the separate components of the handoff process contributed to the overall assessment of whether residents were ready for independent handoffs
- We are able to drill down and address specific areas that affect readiness for independent handoff for each resident

Bibliography

- The resident is competent to independently and without direct supervision perform patient handoffs as part of transition of care. JAMA. 2013 Dec; 310(21): 2255-2262.
Health Literacy Education – Improving Patient Outcomes Through Provider Education

Liberman JS, Shenoy AK, Sullenberger L., Abshire G., Owens B.
Virginia Mason Medical Center – Seattle, Washington

Vision: To improve patient outcomes by increasing awareness and by implementing a curriculum to enhance patient-provider communication. These interventions must be sustainable in our current health care delivery model and assessed for impact on patient health outcomes.

Background
Health literacy is an essential concept in patient-centered medical care. It represents a combination of literacy skills with the ability to understand, process and engage in health care to further one’s own health and provide a sense of patient autonomy. Deficiency in this skill is a common problem, and the Institute of Medicine estimates that half the adult population in the United States, approximately ninety million people, have difficulty understanding and acting upon health information. The impact of poor health literacy is striking. Lower health literacy levels are associated with a nearly two-fold increase in mortality. Patients with limited health literacy often have difficulty with treatment adherence and are likely to misinterpret instructions such as medication labels. This, in turn, leads to progression of disease, subsequent hospitalizations, poor health outcomes and increased costs.

We choose to investigate the incidence of limited health literacy in a subset of the Virginia Mason Medical Center patient population in one of our primary care clinics.

Materials/Methods

Literacy Assessment - Members of the healthcare team (attending physicians, residents and nurse practitioners) were assessed as to their ability to accurately identify patients with deficiencies in healthcare literacy. We selected the Rapid Assessment of Adult Literacy in Medicine (REALM-R) as our Literacy assessment tool (Bass et al, 2003). Designated medical team members administered REALM-R surveys to patients, which were scored and kept anonymous and confidential. Providers were then asked two questions, 1) Have you met this patient before and 2) does this patient have a problem with health literacy. Answers provided by health care providers were then compared to the objective data provided by the REALM-R survey to assess provider identification of health literacy deficiency.

Development of Literacy Curriculum - A multi-disciplinary team was assembled in order to develop an educational intervention/curriculum using the ADDIE model and based from previously published literacy interventions. Our goal is to increase awareness of deficiencies in health literacy and to provide tools that providers can implement in their daily practice to help patients who may have deficiencies in health literacy. A series of videos highlighting individual stories from patients who experienced an inability to understand their own health care was created. These videos will be available through a website devoted to addressing the topic of health literacy and also provide further tools providers can use for further self-directed education in order to improve the patient-provider communication in their own practice.

Results

Preliminary data collection with the REALM-R tool was completed in a general internal medicine outpatient clinic. Participating providers included physicians and nurses in an integrated care management team. Following survey administration it was determined that 20% of patients with health literacy deficits were identified correctly by their providers. This will be compared to the rate of identification post identification.

Lessons Learned & Barriers

Interdisciplinary teamwork facilitates idea generation and new perspectives.
Large scale change is difficult and aligning with organizational goals facilitates change implementation.
Learning the challenges of taking ideas to implementation in a large organization.
Identifying a manageable scope is key to being able to implement improvements.

Barriers Encountered / Limitations
Time limitations in giving survey despite limited time needed to administer.
Our initial scope was not in line with our capabilities. We have had to re-scope our project multiple times in order to find a feasible target to address.
Data collection was very time consuming and difficult to maintain consistency.

Conclusions

Our provider teams have difficulty in consistently identifying those patients with health literacy deficiencies and this is consistent with national trends. Rather than focus on identifying those at risk, we are examining the benefit of assuming every patient may be at risk in their health literacy and target communication to alleviate and address this. We are disseminating tools that improve provider communication and our measure will be determining if provider perception of the scope of the problem has changed. Our goal is that by sharing the importance and impact of poor health literacy and providing tools to help with communication, we will improve health care outcomes.

Bibliography