LSU School of Medicine

Quality Improvement and Patient Safety Forum

May 14, 2013

LSUHealthNewOrleans

Enhancing Quality Improvement for Patients (EQuIP) Program

Program

1:00 – 1:20 Keynote Presentation:
Performance Improvement Projects: Core Principles of Project Acceptability
Richard Tejedor, MD
Pulmonary/Critical Care and Chair, Research Review Committee, Interim LSU Public Hospital

1:20 – 1:30 A Quality Improvement Project to Improve Pain Management in Sickle Cell Vaso-Occlusive Crises
Dana LeBlanc, MD
Fellow, Pediatric Hematology/Oncology

1:30 – 1:40 Interim LSU Public Hospital Study 2012: Evaluating Adherence to Supportive Care Guidelines for Patients Admitted to ILH for Neutropenic Fever
Edgar Castillo, MD
Fellow, Hematology/Oncology

1:40 – 1:50 Postoperative Medication Compliance Before and After the Use of an Instruction Sheet in Patients Who Underwent Cataract Extraction Surgery
Stylianos Kandarakis, MD
Resident, Ophthalmology

1:50 – 2:00 Teaching Quality Improvement: A Needs Assessment for OB/GYN Resident Education
Stacey L. Holman, MD
Assistant Program Director, OB/GYN

2:00 – 4:00 *Poster Session (Lobby)*

EQuIP Posters

Autopsy Quality Assurance (AQuA) and Improvement: A Baseline Evaluation
Caroline Raasch Alquist, MD, PhD, Ellen Connor, PhD, Jorge Martinez, JD, MD and Robin McGoey, MD
Pathology

Changes in Patient and Resident Outcomes in a Dedicated Internal Medicine Resident Diabetes Continuity Clinic
Carrie Caruthers, MD, Catherine M. Hebert, MD, Betty Lo, MD, Lee Engel, MD, Karen Friday, MD and Jorge Martinez, JD, MD
Internal Medicine

Placental Protocol: Establishing a Systematic Review of Placental Pathology
Latoya Clark, MD, Jamie Sias, MD, Kellin Reynolds, MD, Andrew Jones, MD, Stacey Holman, MD and Asha Heard, MD
OB/GYN

Redesigning the Imaging Protocol Process: A Departmental Quality Improvement Initiative
Joshua Cooper, MD, John Sfondouris, MD, Aran Toshav, MD, Leonard Bok, MD, Raman Danrad, MD, Bahri Ustunsoz, MD, David Smith, MD, Michael Maristany, MD, Luis Serrano, MD, Roque Ferreyro, MD, Robert Karl, MD, Shirley Yodzis, MD, William Shaffer, MD, Joe Park, MD, Andrew Mai, MD, Paul Labiche, RT (CT), Raymond Navarro, RT (R), Joann Tierney, RT (R), Arthur LaPorte, MS, RT (R), Jadawn Darensbourg, AS, RT (R), Tamira Armwood,BS, MBA, Esther Guajardo, RN and Dana Brian, MPH
Radiology

Optimizing the Radiology-EPIC Interface: A Departmental Quality Improvement Initiative
Joshua Cooper, MD, Aran Toshav, MD and Sujan Katkuri, MBBS, MHA
Radiology

Decreasing Radiation Dose from CT Chest
Anshu Duggal, MD and Raman Danrad, MD
Radiology

Implementation of a Home Chemotherapy Log in a Pediatric Oncology Clinic
Matthew Fletcher, MD and Lolie Yu, MD
Pediatric Hematology/Oncology

Physical Therapy after Lower Limb Surgeries in Pediatric Patients
Sushant Ghate, MD and Stephen Heinrich, MD
Pediatric Orthopedics

An Evaluation of Follow-Up Protocols of Clinical Breast Findings in the LSUHSC Obstetrics & Gynecology Clinic
Christy Hartmann, MD
OB/GYN

Enhancing Efficiency and Staff Education in LSU OB/Gyn Clinic
Ashley M. Hirsch, MD, Natasha Goss, MD, Kira Clement, MD, Amanda Thomas, MD, Aisha Sarkar, MD, Valerie Williams, MD and Danny Barnhill, MD
OB/GYN

Use of Electronic Medical Records and Order Entry System to Boost Stroke Core Measures Compliance
Faraz Khursheed, MD, Frank Williams, MD, Daisy Borroto, MD, Frank Torres-Delgado, MD, Lionel Branch, MD and Jody Zanca, RN
Neurology

Does Prior Chronic Aspirin Therapy Affect Stroke Mortality and Severity of Sequelae?
Saurabh Lalan, MD, George Oganisyan, MD, Christopher Edwards, MD and Gelasio Baras Silva, MD
Neurology

Implementation of Protocol to Decrease Perioperative Transfusion Rates at ILH
Brett Larson, MD, Nicole Pino, MD, Christy Hartmann, MD, Jessica Jones, MD, Megan Bina, MD, Traci Iwamoto, MD, Felton Winfield, MD and Sarah Yockey, MD
OB/GYN

Implementation of Pre-Hospital Electrocardiogram (ECG) Transmission to Reduce Medical-Contact-to-Balloon Times and Improve Diagnostic Accuracy in Patients with ST-elevation Myocardial Infarction
Eli Levine, MD, Neeraj Jain, MD and Murtuza Ali, MD
Interventional Cardiology

Just What the Doctor Ordered: Improving Medication Compliance through Affordable ED Prescribing Habits
Leslie McDuff Lindley, MD, Rachel Breaux, MD, Brent Jones, MD and Jairo Ulloa, MD
Emergency Medicine

Money Doesn't Grow on Trees: Lowering the Cost of Unnecessary Testing in the Emergency Department
Leslie McDuff Lindley, MD, Lydia Richards, MD, Scott Mackey, MD and John Sanders, MD
Emergency Medicine

Enhancing Educational Resources in Clinic Setting to Provide Patients with Knowledge
Tara Morse, MD, Gina Washington, MD, Ilsa Leon, MD, Jennifer Mury, MD, David Goodyear, MD, Florencia Polite, MD and Jaime Alleyn, MD
OB/GYN

Assessing the Outpatient Clinic Experience in Pediatric Hematology/Oncology at Children's Hospital
Jennifer Mullinax, MD and Maria Velez, MD
Pediatric Hematology/Oncology

A "Knee'd" for Simulation in Medicine Clinic
Camille Thelin, MD, Melissa Spera, MD, Paul Thien, MD, Ashley Walker, Lee Engel, MD, Catherine Hebert, MD, Jorge Martinez, JD, MD and Diana Thien, MD
Internal Medicine

Quality Improvement in Epilepsy Clinic
Brian W. Peterson, MD and Nicole Villemarette-Pittman, PhD
Clinical Neurophysiology

Patient Satisfaction with Hurricane Plan Given to Hematology-Oncology Patients at Children's Hospital in New Orleans
Chittalsinh Raulji, MD, Renee Gardner, MD and Maria Velez, MD
Pediatric Hematology/Oncology

Routine versus Electronic Data Collection of Multiple Sclerosis Patients
Wael Richeh, MD, Daisy Borrotto, MD and Jesus Lovera, MD
Neurology

Methods to Decrease Anemia in Pregnancy Prior to Delivery
Amanda Lemoine, MD, Laura Webb, MD, Anna Rybka, MD, Adriana Luciano, MD, Kimberly Hodge, MD, Delaura Patel, MD, Robert Maupin, MD and Ann Chau, MD
Ob/GYN

Radiology Contrast Reaction Documentation: Standardization of Documentation in Transitioning to Electronic Health Records (EHR)
William Shaffer, MD, Mary Maher, BA, Dennis Lindfors, MD and Michael Maristany, MD
Radiology

Reducing Radiation Dose for Chest CT Examinations: A Quality Improvement Project in a Complex State-Run University Radiology Department
Aran Toshav, MD, John Yang, MD, Joe Park, MD, Andrew Mai, MD, Anshu Duggal, MD and Leonard Bok, MD
Radiology

Thoracic Epidural Survey
Sanyo Tsai, MD
Anesthesiology

EQuIP Abstracts

Making Home Exercise Programs Available for Patients
Jacques Courseault, MD, Jan Morello, MD, Aaron Karlin, MD and Stephen Kishner, MD
PM&R

Objective: To increase the availability of home exercise programs for patients.
Justification: Some of the most common musculoskeletal complaints seen by physiatrists include pain located in the back, knee, and shoulder. The importance of including a home exercise program in a clinician's treatment plan has evidence-based support. In 2009, a study showed that over a period of 14 years, complaints of chronic low back pain increased by 6.3%, across all ages, gender, and race. A prospective study published in 2013, looked at patients who suffered from non-specific low back pain for greater than three months and randomized the patients into lumbar stabilization exercise group and lumbar dynamic strengthening group. Both groups of exercise treated patients had significant strengthening of the lumbar extensors and reduction in low back pain. Treatment for low back pain with exercise has demonstrated effectiveness in decreasing pain and improving function in adults. Further research showed that exercise programs also decreased the recurrence rate of low back pain. NHANES III data showed that more than 4.3 million older adults in the U.S. are functionally impacted by symptomatic knee osteoarthritis. Simple quadriceps strengthening exercises done as part of a home exercise routine have been shown to significantly decrease pain associated with osteoarthritis. A study published in 2013, evaluated the outcome of patients with full thickness rotator cuff tears that were treated with either occupational therapy or home-based exercises using a booklet for guidance. There were no significant differences between the groups with reference to pain, range of motion, or maximal peak force. Furthermore, shoulder impingement, a common cause of shoulder pain, treated with a simple and easy to perform exercise program was shown to improve function and relieve pain. Some of the most common musculoskeletal complaints can be effectively treated with a structured exercise program. To date, it can take many months for a patient to see a therapist for treatment. In order to meet this rising demand, the Section of Physical Medicine and Rehabilitation developed LSUHEP.org, a website in which clinicians can print out home exercise programs that can be given to patients. Home exercise programs can be performed while awaiting a therapy appointment, and in some cases, may be all that is needed to relieve minor musculoskeletal disorders.
Methods: LSUHEP.org was published and made available for LSU and public access. The number of page views was recorded from September 2012 to March 2012 with website software. The number of monthly page views was averaged over a 7 month period.
Results: LSUHEP.org averages 260 page views per month averaged over 7 months.
Conclusion: Research supports the use of home exercise programs in treating many common musculoskeletal diagnoses. The availability of an online resource for physicians to access will increase the rate of home exercise program prescription and aid patient care.

Quality Improvement of Blood Ordering Practices at Interim LSU Public Hospital

Michael LeRoy, MD and James Barbeau, MD
Pathology

The crossmatching of blood for patients prior to elective surgical procedures is common practice, especially when the surgery is expected to be complicated or the patient has comorbidities making intraoperative transfusion likely. Unfortunately, many physicians order the Type & Cross in a perfunctory manner rather than tailoring their order according to the likelihood of needing RBCs during surgery. Crossmatched blood is removed from the hospital inventory for three days or until transfused. Therefore, unnecessary crossmatching of blood can lead to inventory problems as well as increase hospital operating costs. The crossmatched-to-transfused ratio (CT ratio) is one indicator that can be used to better understand the blood ordering practices of a particular institution and to evaluate whether a particular surgical service is crossmatching blood excessively and/or unnecessarily for any given elective procedure. Over a 6 month period from January 2010 to June 2010, transfusion data from all elective procedures performed at Interim LSU Public Hospital were gathered and the CT ratio, as well as the average number of units crossmatched and transfused per procedure, were calculated and organized by surgical service. It was found that 11 out of 12 services were performing elective procedures with CT ratios much greater than the desired CT ratio of 2.0 or less, signifying excessive crossmatching of blood. For procedures in which a crossmatch is routinely ordered but blood is rarely transfused, we propose that a Type & Hold would be a more appropriate order. In that scenario, the blood bank would perform an antibody screen, and crossmatch in advance of surgery only if unexpected alloantibodies were identified in the patient's serum, which is an uncommon event. We expect the observations made from this data to aid in the formulation of a maximum blood order schedule for surgery (MBOSS) which is a list of commonly performed elective surgeries with the maximum number of units of blood to be crossmatched preoperatively, or for which only a Type & Hold should be ordered. The data following the anticipated implementation of the MBOSS as hospital policy will then be compared to past data in order to demonstrate a reduction in unnecessary crossmatching of blood at this institution.

Resident Quality Improvement Project 2012

William Mullen, MD
Radiology

Problem: Evaluate resident lecture room to improve learning environment and participation.
Study: Resident lecture room and meeting room was incompatible for teaching large groups of residents with multi staff participation. The lecture room projector failed to project images at a diagnostic quality, and was audible to the point of disrupting staff's hearing and speech. The room was also consumed by excessive furniture making it too small to accommodate multiple staff. The computer was directly in front of the doorway making it difficult to enter the room once people were seated.
Do: Excess furniture including a large conference room table was removed from the room. Furniture along the back wall of the room was moved to the front where it no longer consumed seating space. Smaller tables were brought in and aligned on the far wall in a structured fashion. The computer was moved to the far wall where it no longer obstructed the entrance. Seating was placed along the back wall along the entrance for staff and individuals entering the room late. The projector and large stand were removed, and a DICOM quality projector was mounted by a floating ceiling mount in a central location.
Assessment: Resident learning and comfort has been improved. Staff participation has increased, and overall flow of interactive learning has improved. A survey submitted through survey monkey had a 100% response rate with 100% agreeing that the conference room is now used efficiently.

Incorporating Board Review Sessions into the Thursday Lecture Series for Pediatric Hematology/Oncology Fellows

Jennifer Mullinax, MD and Maria Velez, MD
Pediatric Hematology/Oncology

Introduction: Residency and fellowship programs require in-training exams on a biannual basis in order to monitor the progress of the residents and fellows in their specific disciplines.

Hypothesis: Instituting board review sessions will improve in-training exam scores for Pediatric Hematology/Oncology fellows at Children's Hospital.

Method: Board review sessions will be held on a once monthly basis using PREP Pediatric Hematology-Oncology with board-style vignettes and multiple choice answers. Questions are chosen based upon American Board of Pediatrics' content specifications for hematology-oncology. Questions are answered as a group and provided critiques and explanations are then discussed.

Anticipated Outcome: This board review session will increase the fellows' knowledge of pediatric hematology/oncology and improve test-taking strategies. This will result in higher in-training exam scores and lead to improved patient care.

LSUHSC EMG Clinic Quality Improvement Project

Ikechukwu Obih, MD, Shahbuddin Mukardamwala, MD and Divya Singhal, MD
Clinical Neurophysiology

Background: During the academic year 2011-2012, it was noted that the EMG Clinic on Monday afternoons at Interim LSU Hospital (ILH) – Indigent Clinic had a high no-show rate for NCV and EMG studies. The Clinical Neurophysiology Fellows and Supervising Neurology Faculty are the primary providers of NCV and EMG studies in this clinic. The EMG-track Clinical Neurophysiology Fellows designed their Quality Improvement (QI) project to address this problem. The EMG-track Fellows hypothesized that an increase in patient awareness coupled with an increase in referrals to EMG Clinic would decrease the rate of no-shows for NCV and EMG studies.

Methods: Starting in August, 2012, EMG-track Fellows or EMG techs called scheduled patients several days prior to their appointment to remind them of their appointment and give them the opportunity to cancel and reschedule if necessary. Patient contact was the target but voice mails were left if that was the only option. Some contact information proved to be outdated and no patient contact or voice mail message was possible. The Fellows also spoke with LSUHSC Neurology Residents to convey the importance of utilizing nerve conduction and electromyography studies for diagnosis and management of sensory disturbances and weakness in the hopes of increasing the number of referrals to EMG Clinic. Residents were instructed to use the proper referral forms for the EMG Clinic in order to avoid scheduling mistakes.

Results: From August 2011 through June 2012 the no-show rate was 27% (16/60; 11 months of data). After implementing the call reminders and Resident education in August 2012, the no-show rate from August 2012-March 2013 decreased to 23% (14/61; 9 months of data). The overall number of referrals increased after the August 2012 intervention as 61 patients were referred over a 9-month period compared to 60 patients referred over an 11-month period in the year prior to the intervention. Patients did attend their scheduled appointments more frequently or ask to reschedule if the original appointment was missed after the interventions were applied compared to the academic year prior to the interventions.

Discussion: Results showed that there was a 4% improvement in the EMG Clinic no-show rate for the 9 months measured after intervention. There was also an increase in the number of referrals as EMG Clinic had an average of 6.78 patients scheduled per month in the 9 months post-intervention compared to an average of 5.45 patients per month in the 11 months pre-intervention. Post-project review identified the need to request up-to-date contact information on all patients being scheduled for appointments. The no-show rate at EMG Clinic will continue to be monitored and other ways to reduce no-shows will continue to be examined.

Acknowledgements: The authors would like to thank the following for their help in the design, implementation and interpretation of this quality improvement project and its results: Sheryl Walgamotte, Terry Ware, Nicole Villemarette-Pittman, PhD, and the LSUHSC Neurology Residents.

Predictors Affecting Outpatient Appointment Attendance at Children's Hospital New Orleans Child Neurology Clinic

Rashmi Rajendra, MD and Jeremy Toler, MD
Child Neurology

Summary: The current waiting list for an appointment with child neurology is approximately 4-6 months. Thus, it is important to minimize the "no-show" rate in the child neurology clinic. The goal of this QI project is to evaluate which patients are more likely to attend their clinic appointments versus those who cancel or fail to show.
Hypothesis: Patients who are referred as new encounters are less likely to attend their clinic appointment than those who are a hospital or routine patient follow-up. Additionally the duration between making the appointment and the date of appointment affects the compliance.
Dates of project: 9/1/2012 – 6/30/2013
Methods: Information from the child neurology clinic scheduling system will be acquired. The data to be collected include: date of birth, type of clinic, funding source, reason for appointment, characterization of appointment as new encounter versus follow-up, referring physician, duration between the scheduling of appointment and date of appointment, and if the appointment was canceled or the patient failed to show.
Projected Outcome: Data analysis will focus on identifying the predictors affecting patient attendance to previously scheduled appointments. The project goal is to improve scheduling protocol, allowing for increased attendance and a reduction in the length of time between initial referral and date of appointments.
Findings: Data collection is ongoing. From September 1 to December 15, there were 161 patients who failed to attend appointments. Initial encounters referred by primary care providers may comprise the largest no- show group. Appointments were made approximately 3-4 months prior to scheduled appointments for most patients. Preliminary results indicate that the two most common reasons for referral are seizures and headaches. Referral physician does not appear to be a predictor of no-show status. Further data analysis will examine other comparable demographics among patients.

Departmental Directory Revision Project

David Smith, MD and Raman Danrad, MD
Radiology

Problem: Evaluate radiology department telephone directory to improve intradepartmental communication.
Study: The radiology departmental telephone directory had not been updated for years. Some listed phone numbers were no longer used; telephones no longer served work areas suggested by the directory; and hardcopies of the directory had become cluttered with confusing hand-written corrections. A poll of six radiologists who used the directory showed that 83.33% (5 of 6) found the directory confusing.
Do: Considering the updated arrangement of reading rooms, the directory was revised to include these changes. The format was simplified, and additional important contact information was added. Multiple copies of the new directory were distributed around the department and to other important work areas (for instance, the ED and Urgent Care doctors' areas). A post-update survey of radiologists showed that 100% (6 of 6) found the new directory to be clearer and aided their attempts to contact whom they intended.
Act: Intradepartmental communication has been improved. It is now straightforward and easy to contact the desired radiologist.

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