The Quality Institute (QI) continues to work with each Cleveland Clinic Health System (CCHS) hospital to promote evidence-based care within a culture of safety and respect for the patients and community served. The QI accomplishes this mission by coordinating system-level quality improvement projects and by providing support and guidance to the individual hospital’s quality offices.

Oversight of the QI is provided by the Medical Operations Council (MOC), whose functions include: identifying opportunities for clinical and ancillary service integration; education and research; development and integration of community practices; development and implementation of clinical performance benchmarking; promoting best practice, efficiency, quality of care and process improvement; and providing a forum for sharing clinical protocols and practice guidelines.

The QI is responsible for the CCHS strategic performance improvement plan that includes three groups of initiatives: 1) clinical services, 2) patient safety and 3) patient satisfaction. These priority areas represent the three sides of the pyramid illustrated below; the scope of their application extends from the health system as a whole, represented as the base of the pyramid, all the way to the individual patient represented at the top.

The primary means of coordinating quality improvement projects is through the use of multispecialty teams. Teams are composed of representatives from every health system acute-care hospital and include physicians and staff from nursing, pharmacy, laboratory medicine, and any other relevant specialty. Team goals are focused on improving quality and/or safety, hospital processes, or clinical decision making. Effectiveness is determined by establishing quantifiable performance goals and adopting meaningful performance measures.

The benefits of this approach have been numerous. The trans-

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CCHS Initiatives and Structure for Performance Measurement and Improvement

![Diagram](image-url)
parency regarding the team objectives has improved communication about projects and performance expectations, as well as the increased likelihood of broad acceptance of a project’s goals. Group accountability, synergy, and learning have been enhanced because representatives from each hospital have a voice in setting project priorities.

The quality improvement interventions are decentralized and developed by each hospital or affected unit. This local ownership provides a level of customization, creativity, appropriateness, and buy-in to interventions that could not otherwise be accomplished by applying a single generalized intervention solution.

Clinical Processes and Outcomes
The QI staffed 11 clinical quality improvement teams. Obstetrics, Breast Cancer, COPD, Colorectal Cancer, Percutaneous Coronary Intervention, and Medication and Therapeutics teams completed their projects. Congestive Heart Failure/Acute Myocardial Infarction, Diabetes, Stroke, Post Acute Care, Pediatric Asthma and Critical Care continued to meet. The Emergency Medicine and the Nursing Directors team was also assisted in their initiatives. Details on the activities and accomplishments of the active clinical quality improvement teams are described in this report.

Patient Safety
The CCHS patient safety team continued to focus on specific issues associated with patient identification: specimen labeling, surgery-related events and wrong-patient medication errors. Other priorities included meeting the Joint Commission’s national patient safety goals, assessing compliance with the National Quality Forum’s 30 safe practices (now adopted by The Leapfrog Group as its 4th Leap), and enhancing employee education and orientation related to patient safety. The third annual patient safety awareness week was held in June, with David Marx providing the keynote address at the kick-off continuing education program.

Patient Satisfaction
The CCHS patient satisfaction team focused its activities on preparing for the rollout of the service excellence program across the entire health system. Strategies for interpreting and acting upon patient survey data were shared. The team also prepared for the transition to the Picker survey instruments: defining the survey tools, educating others about the new surveys and accessing data on the NRC’s Web site.

Other Major Accomplishments
The Quality Institute continued to provide support to the CCHS Medical Operations Council. Other specific accomplishments included: generating utilization data for monthly review at Medical Operations Council meetings, participating in development of the community physician peer review program, exploring funding options for the Lipids Investigational Project in District Schools (LIPIDS) project, exploring the feasibility of launching a consulting business, presenting at national meetings, submitting manuscripts for publication, securing funding for device-related events program, inclusion on externally funded activities (use of the electronic medical record, organ donation), and conducting continuing education programs for team-related activities.

Purpose

To describe the population of heart failure and acute myocardial infarction patients treated at CCHS hospitals and existing practice patterns regarding their treatment.

To understand the infrastructure and data collection issues regarding system-wide quality improvement initiatives.

To assess the effectiveness of results achieved using physician teams to drive performance measurement and improvement activities.

Quality Institute Staff

Eric Hixson, MBA
Deborah Nadzam, PhD, RN

Measures—Focus

The use of angiotension converting enzyme inhibitor (ACEI) and beta-blockers for congestive heart failure.

The evaluation of cardiac performance for congestive heart failure.

Team Members

Michael Hanna, MD
Co-chair
Hillcrest Hospital

David Taylor, MD
Co-chair
The Cleveland Clinic

Corinne Bott-Silverman, MD
The Cleveland Clinic

Sorin Brener, MD
The Cleveland Clinic

Reginald Dickerson, MD
Huron Hospital

Michael Kalus, MD
South Pointe Hospital

Wael Khoury, MD
Marymount Hospital

Marvin Koppelson, MD
Euclid Hospital

Praful Maroo, MD
Fairview Hospital

Mark Pace, DO
South Pointe Hospital

Frank Pamela, MD
Hillcrest Hospital

Mohammed Zahra, MD
Lutheran Hospital

Heart Failure: CCHS ACE Inhibitor at Discharge

Heart Failure: CCHS LVEF Assessment

Heart Failure: CCHS Patient Education
Correction of anemia with IV iron in ambulatory heart failure patients.

The efficiency of providing thrombolytic medication and PTCA to eligible acute myocardial infarction patients.

Hospital mortality of acute myocardial infarction patients.

Accomplishments

Completed a transition from performance improvement measures previously developed by the committee to an expanded set of standardized national measures sponsored by JCAHO and supported by participation in the

Continued
Maryland Hospital Association Core Measures registry.
- Initiated tailored action plans at each hospital to address opportunities for improvement in national standardized core measures.
- Concluded the pilot project assessing beta-blocker use in systolic heart failure after hospitalization. Findings indicate that 58.5% of patients were discharged on a beta-blocker with an additional 13% initiated on the medication by 3 months after discharge.
- Participated in the development of outpatient Heart Failure Centers at Euclid, Huron, Lakewood, Marymount, and South Pointe hospitals. Centers were already established at CCF, Fairview and Hillcrest hospitals.
- Expanded the project to treat heart failure patients with concomitant anemia with IV iron or Procrit in an outpatient setting to include Euclid, Huron, and South Pointe hospitals in addition to Hillcrest. The Hillcrest Heart Failure Center continues to expand enrollment and has resulted in improved hemoglobin in 83.9% of patients with a significant overall increase in the mean difference from
Acute Myocardial Infarction: CCHS Beta-Blocker at Discharge

Hematocrit improved in 87.4% of patients with a significant overall increase in the mean difference from baseline of 3.7 (2.1 to 5.3). Target Hct > 40 was achieved by 20.7% (95% CI 20.0% to 41.4%) of patients. Creatinine improved in 42.5% of patients and 29.9% (CI 12.7% to 30.7%) of patients requiring oral diuretics had their dosages reduced. The number of hospitalizations declined from 74 to 52 (p = 0.001) with a decline in the mean length of stay (ALOS) from 6.9 to 4.7 days.

Acute Myocardial Infarction: CCHS ACE Inhibitor at Discharge (HF 2nd Dx)

Hospitals continue their programs focused on specific issues regarding length of stay for heart failure. CCHS has seen a 14.5% (5,058 vs. 5,914) increase in the number of heart failure discharges and a 1.4% increase in mean length of stay (5.2 vs. 5.3; target – 3.8).
CCHS Critical Care Directors Team

**Purpose**

To standardize the measurement of key processes and outcomes.

Two critical care units continued to use Project Impact during 2003 to highlight strengths and to improve processes of care within their own facilities including ventilator management, appropriateness of ICU admission, complication prevention, and reducing mortality risk.

This team also provided support to the funded study related to organ donation, described below.

**Organ Donation Quality Improvement Project**

**Purpose**

To evaluate a hospital development strategy to increase organ and tissue donation rates in a multi-hospital health system.

More specifically, this evaluation focuses on assessing the effectiveness of a comprehensive hospital development strategy utilizing institutional structures and resources, existing organ donor protocols, quality indices, and large-scale organizational change methodologies.

**Consortium Members**

Cleveland Clinic Health System
Cleveland Clinic Transplant Center
LifeBanc of Ohio
Penn State University

**Grant Support**

Grant No. 1H39 OT 00069-01 from the Health Resources and Services Administration’s Division of Transplantation (HRSA/DoT)

**Accomplishments**

- Developed, refined, and contextualized Transtheoretical Model of Change (TTM) survey measures for the Cleveland Clinic Health System; stage-matched letters for individual change; and stage-matched interventions.
- Refined the survey sampling plan and recruitment protocol; constructed the survey sample employee database; arranged for survey distribution and collection within CCHS and selected control hospitals.
- Opened enrollment and completed the baseline employee survey and initial round of stage-matched quality improvement interventions.
- Refined existing process maps to define the organ donation process (ODP).
- Finalized processes for distribution of data from the local organ procurement organization (LifeBanc of Ohio) to evaluate the ODP; constructed databases to manage the data and perform data analysis; and initiated the development of performance measures.
- Incorporated the rate of referral into the CCHS Quality Indicator Report.
Diabetes Team

**Purpose**
To identify opportunities, suggest improvements and devise metrics to document the enhancement of care of adult patients with diabetes who are cared for at any CCHS facility or by any physicians or other providers affiliated with CCHS.

**Team Members**
- **Tom Ebner, DO**
  Co-chair
  South Pointe Hospital
- **Sethu Reddy, MD**
  Co-chair
  The Cleveland Clinic
- **Sue Cotey, RN, CDE**
  Huron Hospital
- **Kevin Cummins, MD, PhD**
  Euclid Hospital
- **Elaine Harper, CDE**
  Lakewood Hospital
- **Richard Koletsky, MD**
  Huron Hospital
- **Mark Lang, MD**
  Marymount Hospital
- **Luis Llerena, MD**
  Fairview Hospital
- **Nancy McBride, MD**
  Lakewood Hospital
- **Adi Mehta, MD**
  The Cleveland Clinic
- **Daniel Mendolovic, MD**
  Marymount Hospital
- **Jay Morrow, MD**
  Hillcrest Hospital
- **Rajesh Sharma, MD**
  Lutheran Hospital
- **Harris Taylor, MD**
  Lutheran Hospital

**Quality Institute Staff**
- **Anthony Warmuth, BS, CPHQ**
  (2003)
- **Deborah Nadzam, PhD, RN**

**Accomplishments**
- CCHS Diabetes team monitored insulin ADE prevalence. Protocols for ordering sliding scale insulin have been piloted and implemented at all CCHS hospitals to improve the safety and effectiveness of diabetes management.
- Pilot of a “dial a dose” insulin delivery device that improves the speed and accuracy of insulin administration and should facilitate diabetes and insulin teaching in the inpatient setting is ongoing at CCF.
- All CCHS hospitals have implemented a sliding scale insulin protocol, based on common elements.
- CCHS-wide continuing education programs were held in 2003 and 2004, focusing on strategies for improving care of the diabetic patient.
- CCHS diabetes nurse educators supported development of inpatient “Nurse Champions” at CCHS hospitals. Nurse champions serve as unit-level experts in diabetes care and education.
- CCHS diabetes nurse educators convened to standardize patient education material for use in the outpatient settings.

### Insulin Errors – Percent of Total Reported Errors

**Insulin Errors by Category of Severity**

**Error Category Definitions**
- **Categories C and D.** Errors reaching the patient, but did not result in harm. Could have increased the need for more frequent monitoring.
- **Categories E and F.** Errors reaching the patient and caused temporary harm. May have resulted in the need for additional medications or prolonged hospitalization.
Pediatric Asthma Team

**Purpose**

1. To evaluate the feasibility of implementing a pediatric asthma screening and treatment program in collaboration with Northeast Ohio school districts.

**Team Members**

- **Tom Kallstrom, RT**  
  Chair, Fairview Hospital
- **Mary Bossard, RT**  
  The Cleveland Clinic
- **Marites Castro-Solitaria**  
  Euclid Hospital
- **Kathy Fedor, RN**  
  The Cleveland Clinic
- **Nina Fielden, RN**  
  The Cleveland Clinic
- **Ronald Gambino, RN**  
  Euclid Hospital
- **Mort Goldman, PharmD**  
  The Cleveland Clinic
- **Martin Hellman, MD**  
  South Pointe Hospital
- **Lorena Hewitt, RT**  
  Hillcrest Hospital
- **Jeffrey Jinks**  
  Hillcrest Hospital
- **Karen Kahl, RT**  
  Marymount Hospital
- **Lucy Kester, RT**  
  The Cleveland Clinic
- **Kathleen Kock, MD**  
  Lakewood Hospital
- **Doug Laher, RT**  
  Lutheran Hospital
- **Jeff Leonard, RT**  
  South Pointe Hospital
- **Mary Ann Marsal, RT**  
  Lakewood Hospital
- **Rebecca Meredith, RT**  
  The Cleveland Clinic
- **Loretta Pierce, RN**  
  The Children’s Hospital for Rehabilitation

**The Cleveland Clinic**

- **Rosalind Strickland**
- **Marianne Sumego, MD**
- **Dan Sutton, RT**
- **Leslie Svoboda, RT**
- **Michael Wasovich, RPh**

**The Quality Institute Staff**

- **Eric Hixson, MBA**
- **Deborah Nadzam, PhD, RN**
- **P. Mardi Atkins, RN, MPA**

**Accomplishments**

1. Designed and executed asthma needs assessments in selected, volunteer elementary and middle schools.
2. Coordinated and implemented the program at one elementary and one middle school after successful coordination and approval by CCHS hospitals, school administration, and teachers, with referral to their own caregiver if positive screen for asthma.
3. Transferred oversight and ongoing support of the initiative from the QI to the CCHS Pediatrics Team. Additional work is planned to obtain and analyze pre- and post-screening academic performance data for newly identified asthma-tics, attendance and early dismissal data from schools, and emergency department utilization for pediatric asthma attacks to determine if interventions have resulted in improved asthma management.

**Pediatric Asthma Prevalence (based on project screenings data*)**

- **Middle School**  
  278 children screened  
  17% prevalence
- **Elementary School**  
  93 children screened  
  20% prevalence

66 newly identified pediatric asthma cases (371 screened)

*Asthma suspected if FEV1<80% and at least one positive response on ACAAI questionnaire.

**Education Contacts at the Two Pilot Project Schools**

- **Students**  
  650
- **Teachers**  
  50
- **Parents**  
  25
Post-Acute Care Team

**Purpose**
To identify improvement opportunities related to efficient and effective flow of patients between acute care and post-acute care settings, as well as within post-acute care settings.

**Team Members**
Debra Albert, RN  
Co-chair  
Euclid Hospital

Richard Shonk, MD, PhD  
Co-Chair  
CCHS Western Region

T. Declan Walsh, MD  
Co-chair  
The Cleveland Clinic

Cheryl Adams  
The Cleveland Clinic

Janet Baker  
The Cleveland Clinic

Karen Fagnilli  
Hillcrest Hospital

Pamela Gill  
Euclid Hospital

Robert Palmer, MD  
The Cleveland Clinic

Candy Sanson, LISW  
Lakewood Hospital

Jon Straffon  
Cleveland Clinic Home Care

Joan Szabo, MSW  
CCHS Eastern Region

Brian Tilow  
Lakewood Hospital

George Topalsky, MD  
Marymount Hospital

Barb Volk  
CCHS Hospice

Darlene Zakrajsek  
The Cleveland Clinic

All staff members from The Quality Institute are involved.

**Accomplishments**
- Completed the evaluation of common discharge disposition codes used throughout the health system and submitted recommendations for consolidation and standardization.
- Completed a review of programs for the management of geriatric patients and others with special post-acute care needs.
- Presented recommendations for expansion of existing programs to CCHS Medical Operations Council for adoption and support, with several communication lines highlighted as critical points for improving patient care and coordination (see Figure A below).
- Completed the review of electronic systems to standardize and improve case management and post-acute referral. The findings and recommendations were submitted and approved for implementation by both CCHS Medical Operations Council and the Executive Council (see Figures B and C for current and planned discharge information process).
- Completed implementation of the Extended Care Information Network (ECIN) at CCF and initiated implementation at Hillcrest, Lakewood, Huron, and Euclid. Implementation at Fairview, Lutheran, Marymount, and South Pointe will occur in Q1-2005.

*Continued*
Post-Acute Care Team
Continued

- Designed and initiated a study of the effectiveness of ECIN to improve organizational efficiency and throughput, quality of care, and patient safety. This pre-post study is under way at CCF, Lakewood, Huron and Euclid.
- Developed a proposal for partnering with CCHS and community-based skilled nursing facilities (SNFs) in a joint emphasis on quality improvement at both the hospital and SNF. The focus of this collaboration would include brainstorming priority areas for improvement; follow-up dialog regarding improvement interventions; medical education programs; and ideally, jointly developed treatment guidelines to optimize quality of care in both settings. Activities are planned to coincide with the implementation of the ECIN system at all CCHS hospitals.
Stroke Team

**Purpose**
- To assess the care provided to stroke patients and identify variance across CCHS hospitals.
- To identify processes of stroke care with opportunity for improvement.
- To identify and benchmark stroke care performance measures.
- To implement a CCHS stroke quality improvement plan for selected processes and performance measures.

**Team Members**
- **Anthony Furlan, MD**
  Chair
  The Cleveland Clinic
- **Brad Borden, MD**
  Marymount Hospital
- **Romeo Craciun, MD**
  Marymount Hospital
- **Arthur Dick, MD**
  Lakewood Hospital
- **Richard Frires, MD**
  Huron Hospital
- **Irene Katzan, MD**
  The Cleveland Clinic
- **Jonathon Kline, MD**
  South Pointe Hospital
- **Thomas Masaryk, MD**
  The Cleveland Clinic
- **Michael Mervart, MD**
  Lakewood Hospital
- **Bruce Morgenstern, MD**
  Euclid Hospital
- **David Pelini, MD**
  Fairview Hospital
- **The Quality Institute Staff**
  Eric Hixson, MBA
  Deborah Nadzam, PhD, RN

**Measures–Focus**
- The use of IV-tPA for treatment of acute ischemic stroke.
- Screening to identify deep vein thrombosis (DVT) complications and reduce their incidence.
- Improved overall stroke management.

**Accomplishments**
- The CCHS Stroke team was awarded the 2003 "Champions for Quality Award" sponsored by the CCHS Medical Operations Council. Lakewood Hospital was individually identified as the health system best performer.

*Continued*
**Stroke Team**  
*Continued*

The CCHS Stroke team was awarded the 2003 “Ernest A. Codman Award for Quality Improvement” in the health system accreditation category sponsored by the Joint Commission on Accreditation of Healthcare Organization (JCAHO) for the project “Optimizing IV tPA Use for Ischemic Stroke: A Physician-Led Health System Initiative.” The project demonstrated that compared to baseline, CCHS increased the rate of IV tPA utilization from 1.8% to 2.7% of ischemic strokes; decreased the frequency of hemorrhagic complications by more than half, from 13.4% to 6.4%; and reduced protocol deviations by almost half, from 33% to 17%. CCHS also received a letter of commendation from Ohio Governor Bob Taft for our performance in the stroke project.

All CCHS physicians and staff have 24/7 access to CCF stroke neurologists, neurosurgeons, and neuroradiology with the implementation of designated on-call pagers.

Opportunities for community hospital participation in clinical trials have expanded by posting ongoing clinical trials information, eligibility criteria, and contact information on the CCF Neurology Web page.

All CCHS hospitals continue to be represented and serve as active participants in Cleveland’s Operation Stroke coalition activities including professional education, performance improvement, and public awareness.

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**Stroke: CCHS Warfarin at Disch for 2nd Dx Afib (Eligible)**

<table>
<thead>
<tr>
<th>Quarter</th>
<th>2003</th>
<th>2004</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q1</td>
<td>100.0%</td>
<td>88.9%</td>
</tr>
<tr>
<td>Q2</td>
<td>100.0%</td>
<td>100.0%</td>
</tr>
<tr>
<td>Q3</td>
<td>100.0%</td>
<td>100.0%</td>
</tr>
<tr>
<td>Q4</td>
<td></td>
<td>87.5%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>83.3%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>100.0%</td>
</tr>
</tbody>
</table>

**Stroke: CCHS Cholesterol-red. Meds at Disch for LDL ≥100 mg/dL**

<table>
<thead>
<tr>
<th>Quarter</th>
<th>2003</th>
<th>2004</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q1</td>
<td>76.7%</td>
<td>77.3%</td>
</tr>
<tr>
<td>Q2</td>
<td>74.4%</td>
<td>74.4%</td>
</tr>
<tr>
<td>Q3</td>
<td>78.0%</td>
<td>74.5%</td>
</tr>
<tr>
<td>Q4</td>
<td>85.1%</td>
<td>83.9%</td>
</tr>
<tr>
<td></td>
<td>83.3%</td>
<td>83.9%</td>
</tr>
</tbody>
</table>

**Stroke: CCHS Documented Dysphagia Screening Prior to Oral Intake**

<table>
<thead>
<tr>
<th>Quarter</th>
<th>2003</th>
<th>2004</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q1</td>
<td>62.2%</td>
<td>41.9%</td>
</tr>
<tr>
<td>Q2</td>
<td>46.1%</td>
<td>42.3%</td>
</tr>
<tr>
<td>Q3</td>
<td>49.0%</td>
<td>44.4%</td>
</tr>
<tr>
<td>Q4</td>
<td>45.4%</td>
<td>56.4%</td>
</tr>
</tbody>
</table>
Patient Safety Program

**Purpose**
- To set priorities and provide oversight to the hospital and regions.
- To implement interventions for each of the seven strategies.

**Team Members**

Debra Albert, RN  
Euclid Hospital

Martha Bauschka, RN  
Fairview Hospital

Joanne Carmical  
Huron Hospital

Marcia Grenig, RN  
Marymount Hospital

Sharon Kimball, RN  
The Children’s Hospital at The Cleveland Clinic

Stuart Kline  
The Cleveland Clinic

Barbara Lasko, RN  
Huron Hospital

Judy Malasky  
CCHS Eastern Region – Risk Management

Ronald Mortus, RPh, MBA  
CCHS Eastern Region – Pharmacy

Doris O’Reilly-Dillon, RN  
CCHS Eastern Region – Risk Management

Mary Osburn  
Lakewood Hospital

Fran Paschall, RN  
Lakewood Hospital

Loretta Pierce, RN  
Cleveland Clinic Children’s Hospital for Rehabilitation

Joan Prezioso  
Hillcrest Hospital

Dorothy Reagan, RN  
CCHS Home Care Services

Carol Santalucia  
The Cleveland Clinic

Janet Serkey, RN, JD  
The Cleveland Clinic

Sue Shirey  
Hillcrest Hospital

Richard Shonk, MD, PhD  
Co-Chair (2005)  
Medical Operations Liaison

Scott Strong, MD  
The Cleveland Clinic

Paul Suchy  
South Pointe Hospital

Kathy Sweeny, RN  
CCHS Western Region – Risk Management

George Thomas, DO  
Marymount Hospital

Michael Waggoner, MD  
CCHS Eastern Region – Quality Management

Anthony Warmuth, MPA  
Euclid Hospital

Lynne Woicevoich, RN  
CCHS Eastern Region – Quality Management

Deborah Nadzam, PhD, RN  
The Cleveland Clinic Health System

P. Mardi Atkins, RN, MPA  
The Cleveland Clinic Health System

**Measures-Focus**

The team continues to focus on ensuring the implementation of protocols to prevent medical errors related to patient identification.

**Specimen Labeling – Blood**

Improved tracking of events began in March 2004, which explains the sharp rise. Improved actions to address specimen-labeling issues accounts for the subsequent downward trend.
Patient Safety Program

Continued

Accomplishments

- Quarterly report created for medication errors and other patient safety measures (wristband present, compliance with appropriate order abbreviations, correct lab specimen labeling, falls with injury); distributed to CCHS Patient Safety Team members.
- CCHS Patient Safety team sponsored the 3rd Annual Patient Safety Week with keynote speaker David Marx, Esq., presenting “Patient Safety and the ‘Just’ Culture.” Poster presentations were made by each hospital.
- Assessed CCHS hospitals’ compliance with the National Quality Forum’s 30 safe practices (also adopted by The Leapfrog Group as its 4th ‘leap’).
- Patient safety video implemented at CCF and South Pointe. Filming scheduled for all other hospitals.
- Application for John Eisenberg Patient Safety Award submitted.
- Received $5,000 grant from the FDA / MedSun project to develop a plan to improve the reporting of medical device failures or problems.

Surgical Site Monitoring

The table below includes the elements to ensure the correct patient receives the correct procedure. All CCHS hospitals protocols contain these elements.

<table>
<thead>
<tr>
<th>Required Elements</th>
<th>Process</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-operative Verification: this phase should be completed before the patient is taken from the hospital or staging area</td>
<td>1. Review patient information 2. Obtain missing information 3. Correct discrepancies 4. Include the patient</td>
</tr>
<tr>
<td>Site Marking: to be done on procedures involving right/left (extremities, eyes) or multiple structures (toes, fingers)</td>
<td>1. Marked by surgeon or designated member of team 2. Verified with patient 3. Mark visible after draping</td>
</tr>
<tr>
<td>Time Out: conducted immediately prior to beginning of procedure</td>
<td>1. Verbal communication between members of the team 2. Verify - correct patient, type of procedure, and site verification</td>
</tr>
</tbody>
</table>

Safe Medical Device Reporting Process

A subcommittee of the Patient Safety Team has been working this year to develop a CCHS process for the reporting of medical device failures. The purpose of the new process is to continue to improve the efficiency and effectiveness of reporting medical device failures. The following flow chart demonstrates the new CCHS process.
Medication Systems Team

**Purpose**
To identify opportunities, suggest improvements and devise metrics to reduce errors and increase the efficiency associated with the provision of medications to patients.

**Team Members**
- Lou Barone, RPh
  - Co-chair
  - The Cleveland Clinic
- June Carmean, RN
  - Lutheran Hospital
- Barbara Chema, RN
  - Cleveland Clinic Children’s Hospital for Rehabilitation
- Martha Duffy, RN
  - Hillcrest Hospital
- Sue Dunson, RN
  - Fairview Hospital
- Glen Ferendanes, RPh
  - Euclid Hospital
- David Gragg, RPh
  - The Cleveland Clinic
- Michael Jakubecz, RPh
  - Hillcrest Hospital
- Jeff Klopp, RPh
  - Lutheran Hospital
- Jack Lemanowicz, RPh
  - Marymount Hospital
- Ronald Mortus, RPH, MBA, FASHP
  - CCHS Eastern Region
- John Remchick, RPh
  - Lakewood Hospital
- Rita Sebes, RN
  - Lakewood Hospital
- Ed Soeder, RPh
  - South Pointe Hospital
- Pat Vogel, RN
  - South Pointe Hospital
- Anthony Warmuth
  - Euclid Hospital
- Don Zabriskie, RPh
  - Fairview Hospital

**Quality Institute Staff**
- P. Mardi Atkins RN, MPA
  - Co-Chair
- Deborah Nadzam, PhD, RN

**Measures-Focus**
1. Eliminate unapproved abbreviations from medication orders
2. Identify causal factors associated with wrong patient medication errors
3. Decrease insulin errors
4. Decrease heparin errors

**Accomplishments**
- Compared CCHS top 10 drug classes involved in medication errors with the MedMaRx database, although the order was different, the same drug classes were found in both lists. This helped the team to make the decision to focus on insulin and heparin, which were in the top five of both lists.
- Conducted prevalence studies for insulin and heparin. Individual hospitals implemented standardized protocols for both insulin and heparin. Follow-up insulin prevalence study to be conducted fourth quarter, 2004.
- Revised and updated unapproved abbreviation chart. (See Figure 1)

**Figure 1.** Unapproved abbreviation chart provided to CCHS sites.
Skin Care Team

**Purpose**
- To develop and implement a standardized, evidence-based approach to pressure ulcer prevention and treatment protocols across the health system.
- To develop and implement an education program for RN, LPN and nurses aides related to skin care for the health system hospitals.
- To standardize and eliminate (where possible) duplicate skin care products across the health system based on evidence-based practice.
- To initiate a plan for determining annual prevalence of pressure ulcers and the tracking of incidence across the health system.

**Team Members**
- Molly Sammon, RN  
  Chair, The Cleveland Clinic
- Beatrice Etzel, RN  
  Fairview Hospital
- Jane Folan, RN  
  Lutheran Hospital
- Laura Herbe, RN  
  Hillcrest Hospital
- Linda Lewicki, RN, PhD  
  The Cleveland Clinic
- Mary Montague, RN  
  Lakewood Hospital
- Linda Pasek, RN  
  South Pointe Hospital
- Jamie Smirz, RN  
  South Pointe Hospital
- Suellen Smith, RN  
  Marymount Hospital
- Kathy Tavernelli, RN  
  Cleveland Clinic Home Care
- Jan Traverso, RN  
  Huron Hospital
- Kathleen Wilhelm  
  Euclid Hospital

**Quality Institute Staff**
- P. Mardi Atkins RN, MPA

**Measures–Focus**
- To reduce the incidence and prevalence of hospital-acquired pressure ulcers.

**Accomplishments**
- Sponsored three education programs: wound care and pain management; managing hospitalized patient with pressure ulcer; and care of bariatric patient.
- Improved the assessment of pressure ulcers in hospitalized patients.
- The annual prevalence studies have provided the Skin Care Team with information on which to focus activities (see figure below). In 2001 a need for education in assessing pressure ulcers and using a common risk assessment tool was identified. In 2002 the Braden scale risk assessment tool was selected for all CCHS hospitals. Staff education and documentation tools were developed to assist with the implementation. Prevention and treatment protocols were developed.  
- 2003 – The treatment and prevention protocols were implemented. Work began on standardizing the type of products used in pressure ulcer treatment and prevention. The prevalence study demonstrated a decrease in the severity of the pressure ulcer. The 2004 CCHS skin prevalence study found over 50% of facility-acquired pressure ulcers were Stage I ulcers (the earliest stage) and 0% were Stage IV ulcers (the most severe stage).

Facility Acquired Pressure Ulcers by Stages

![Facility Acquired Pressure Ulcers by Stages](image)
Patient Satisfaction

**Purpose**
- To coordinate patient satisfaction activities and to serve as a forum for sharing best practices for CCHS.

**Team Members**
- Ann Biery
  - Fairview Hospital
- Alan Blaha
  - Lutheran Hospital
- Ellen Britz
  - Hillcrest Hospital
- Barbara Chema, RN
  - Cleveland Clinic Children's Hospital for Rehabilitation
- Teresa Craighead
  - Lakewood Hospital
- Matt Gaug
  - Marymount Hospital
- Lee Gibbs
  - Euclid Hospital
- Jim Haag
  - Euclid Hospital
- Jeff Knop
  - Huron Hospital
- Linda Lewicki
  - The Cleveland Clinic
- Laura Navin
  - CCHS Western Region
- Donna Owens
  - South Pointe Hospital
- Anastasia Unruh
  - The Cleveland Clinic
- Cindy Vunovich
  - Marymount Hospital

**Quality Institute Staff**
- P. Mardi Atkins RN, MPA
  - Chair
- Deborah Nadzam, PhD, RN

**Measures–Focus**
- Overall quality of care and services – all settings - % Excellent
- Would recommend facility – all settings - % Yes Definitely

**Accomplishments**
- Conducted training sessions on use of NRC website for members of CCHS hospitals measurement teams to increase use of patient satisfaction data.
- Successfully transitioned the health system from a patient satisfaction survey to a patient experience survey.
- Sponsored education sessions for each CCHS hospital with account representative from National Research Corporation regarding the patient experience survey tool. Over 400 managers and administrators attended these sessions.
- Conducted hands-on training for the revised patient satisfaction Web site, with data from the Picker survey tools.
- Transformed Cleveland Clinic outpatient departments from the AMGA survey tool to the Quality Data Management (QDM) survey process.

Overall Quality of Care and Services % Excellent, CCHS Inpatient, ED, Outpatient Surgery and Skilled Nursing
CCHS Medical Operations Council

The focus of the CCHS Medical Operations Council (MOC) continues to be medical staff issues, priority clinical quality improvement, patient safety and satisfaction, and organizational operations and capacity.

The Division of Managed Care updates the MOC concerning issues regarding managed care contracting and malpractice insurance coverage negotiated by the CCHS Physician’s Organization.

A proposal for improving physician peer review was approved by the MOC and Executive Council.

The MOC has overseen the activities of the CCHS Pediatrics team. The “Partnership Series” sponsors CME programs on advances in pediatric care available to all CCHS physicians and hospital staff. The Pediatric Emergency Network has been co-branded with The Children’s Hospital at The Cleveland Clinic, and Hillcrest and Fairview hospitals, with board-certified pediatric emergency medicine physicians at all three hospitals. The network facilitates coordination and transfer of patients; improved partnering for acute care medicine via telemedicine and info-sharing; and access to pediatric subspecialists.

The MOC has played a key role in establishing CCHS priorities regarding clinical quality improvement, improved patient safety, patient satisfaction, and hospital discharge and surgical volumes. Updates regarding performance and improvement action plans are regularly reviewed.

The MOC has also been successful in standardizing the purchase and use of orthopaedic and cardiac implants. A systematic review was performed of each CCHS hospital’s purchasing patterns, and the number of vendors supplying CCHS with products was reduced. The effects of these efforts will provide significant cost saving for CCHS hospitals without compromising quality of care.

Core Measures Support

The Quality Institute has facilitated participation in the JCAHO Core Measures initiative by contract management of CCHS’s third-party vendor and sponsoring user group education events. CCHS hospitals are also improving care of patients with pneumonia by monitoring a number of standardized measures of clinical performance.

Additional Accomplishments

Pneumonia: CCHS Pneumococcal Screen/Vacc

Pneumonia: CCHS Smoking Counsel (Adult)
Appointments and Committees

Nadzam DM
- National Quality Forum Implementation Advisory Group - Member
- National Quality Forum - Vice Chair Research and Quality Improvement Council
- User Group on Quality Improvement for the AHRQ’s Quality Indicators (QIs) - Member
- American Academy of Nursing – Fellow
- National Coordinating Council for Medication Error Reporting and Prevention – Member
- CCF World Class Service Measurement Committee – Chair
- Francis Payne-Bolton School of Nursing, Case Western Reserve University – Adjunct Faculty
- Breen School of Nursing, Ursuline College – Adjunct Faculty

Atkins PM
- CCF World Class Service Measurement Committee – Member
- Ohio Association for Healthcare Quality - Executive Board Member, Secretary
- National Quality Forum HC-AHPS Review Committee - Member

Warmuth AJ
- CCF World Class Service Standards Committee – Member
- CCHS Center for Quality Leadership – Faculty

Hixson ED
- CCF World Class Service Leadership Development Committee – Member

Contract Management
- Renewed Maryland Hospital Association’s Quality Indicator Project – CCHS clinical quality core measures
- Renewed National Research Corporation+Picker Group – CCHS patient satisfaction survey
- Renewed U.S. Pharmacopeia MedMarx – CCHS medication error reporting registry
- Renewed Society for Critical Care Medicine / Project Impact – Cleveland Clinic and Hillcrest Hospital critical care utilization and outcomes registry

Special Projects
- LIPIDS – Lipids Investigational Project in District Schools
- Pediatric asthma screening project in elementary and secondary school-age children
- ECIN Evaluation – Evaluation of the effectiveness of an electronic case management system

Sponsored Programs
- Challenges of Inpatient Diabetes Control: Useful Strategies, October 2004
- Enhancing Patient Safety Across the Cleveland Clinic Health System III, March 2004
- Care of the Bariatric Patient – Skin Care Team, June 2004
- Preventing Pressure Ulcers in the Hospitalized Patient, February 2004

Publications
- Nadzam, DM, Atkins, PM. Shades of Satisfaction (accepted for publication) Journal of Healthcare Quality.

Presentations


Haldeman DJ and Nadzam DM. Quality-Driven Health Care: A Win-Win Initiative for Consumers, Purchasers and Providers. Advanced Managed Care for Hospital and Health System Managed Care Professionals, New Orleans; May 2004.


Hixson ED. “Quality and Improving an Organization.” Health Services Research Symposium: Measuring and Improving the Quality of Health Care Services, Case Western Reserve University, March 2004.

Kay R, Bronson D, Nadzam D. World Class Service: It’s All About Leadership. AMGA Annual Conference, March 2004 (paper).

Hixson ED, Morris S, Davis S, Harrison AM. Weekend Admission and Risk of Mortality in a Pediatric Intensive Care Unit (PICU). 33rd Critical Care Congress, Society of Critical Care Medicine, February 2004 (poster).

Atkins PM, Warmuth AJ. Conducting a Prevalence Study to Discover Insulin and Heparin Adverse Drug Events, National Association Healthcare Quality Conference, Orlando, FL, September 2004 (poster).


**Grant Support**


FDA / CODA Phase I grant to design a process for improving the reporting of medical device failures.
CCHS Medical Operations Council Members

current and former

Robert Kay, MD
Chairman
The Cleveland Clinic

Babu Achanti, MD
Fairview Hospital

Dan Borison, MD
Hillcrest Hospital

David Bronson, MD
The Cleveland Clinic

Neal Chadwick, MD
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Kenneth Chapman, MD
Lakewood Hospital

A. Romeo Craciun, MD
Marymount Hospital

John Erkins, MD
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Richard Freeman, MD, PHD
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Fred Kesslar, MD
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