Using Physician and Nurse Partnerships to Facilitate Quality-Focused Care

October 21, 2011
Third Annual Summit on Quality
Timothy Williamson, MD
Carol Cleek, RN
The University of Kansas Hospital
Objectives

• Describe a successful model for engaging physician and nursing leaders in the achievement of quality goals
• Identify effective tools that support physician and nursing engagement in quality
Goal

• Review our fundamental strategies

• Examples of successes
  – Formal structures
    • Medical Director Partnerships
    • Standing Committees
  – Ad hoc examples
    • Safety Teams

• Lessons learned
Five Star Performance Goals

- **Service:** Patient satisfaction at or above the 95th percentile for both Press-Ganey & HCAHPS
- **Quality:** Achieve best performer status for mortality index when compared with all UHC hospitals
- **People:** Attract, develop, and retain the best people to accomplish the hospital’s goals
- **Cost:** Achieve expense management performance equal to or better than budget and have an operating margin at the "A Rated" hospitals average
- **Growth:** Ensure appropriate growth in support of the organization's strategic plan
Key Initiatives

- Mortality Reduction
- Response Teams
- Blood Management
- Infection Reduction
- Medication Management
- Throughput
- VTE
- EMR Management
Primary Methods

• Medical Director Partnerships

• Standing Committees
  – Mortality Review
  – Performance Improvement Committees

• Ad Hoc Work Teams
  – VTE
  – Sepsis
  – Respiratory Failure
History of the Partnerships

• “Previously”
  • Few, random selected Medical Directors
  • No Hospital Director--No Partnership
  • Few expectations, little accountability
  • Compensation to Departments

• 1997-1998
  • Medical Director (physician) partnered with Hospital Director (Nurse Manager, Department Head)
  • Huge menu of possible partnership functions
  • Accountability based on Medical Director log and self-described work product

• Increased engagement; limited results
Reorganization of Partnerships

2005

• **Goals**
  - Increase effectiveness of partnership
  - Improve Hospital administrative support
  - Enhance accountability of partnership

• **Methodology**
  - Develop small number of focused goals/partnership
  - Evaluate work product (performance) relative to outcomes of specific goals
  - Compensation directly to physician

• **Ongoing engagement; more extensive results**
Continuing Refinement: 2006-Current

The Structure

Stronger engagement; results linked to evidence-based medicine/organizational priorities

Hospital CEO

Sr. Hospital-Sr. Medical Director Partnership

Clinical Chair

Unit Based

Dept Based

Program Based

Other

Appointment
Reappointment
Review

Progress Review
Coaching
Monitoring
Evaluation
Characterization of Partnerships

- **Unit-Based Partnerships**
  - MICU, SICU, CTS ICU, Pediatric ICU, Burn Unit, Neonatal ICU, Pediatrics, Family Practice

- **Department-Based Partnerships**
  - Radiology, GI/Endoscopy, Pathology, Respiratory Therapy, Pharmacy, Operating Room, Lab

- **Programmatic-Based Partnerships**
  - Transplantation, Stroke, Clinical Nutrition, Pain Management, Wound/Skin Care, Palliative Care, Trauma, Stem Cell, Liver Txplt, Infection Control

- **“Other”**
  - Clinical Information System Implementation, Utilization Review, Clinical Products, Rapid Response Teams
Partnership Goal Setting

• Specific goals developed early in fiscal year
• Partnership goals coordinated with Hospital strategic plan & 5 Star Performance Goals
  – Aligned with unit/department goals
  – Identified through benchmarking, evidence-based medicine
  – Linked to other hospital initiatives
  – Shared goals & projects when applicable
• Reviewed with Sr. Hospital & Medical Director
Partnership Work Process

• Weekly
  • Individual partnership meetings to discuss on-going work, completion of projects
  • Supported by data, research, evidence-based medicine, cross-functional interaction

• Monthly
  • Sharing Luncheon to highlight specific partnership reports and organizational updates/priorities

• Semi-annual
  • Review of results, identification of successes/challenges/needs/opportunities for collaboration

• Annual
  • Partnership results review
Partnership Accountability

• Medical Director
  – Contract signature(s)
  – Monthly logs of hours worked
  – Compensation after logs received

• Hospital Director
  – Part of job description/performance goals
  – Linked to management incentive program

• Year-end summary of work product(s) by every partnership

• Year-end evaluation of partnership effectiveness by the partners

• Year-end review of all partnerships with the CEO
Partnership Support Structures

• Decision Support
  – Real-time, actionable data linked to key programs and to organizational and partnership objectives

• Human resources
  – Staff capable of consulting on Performance Improvement, Organizational Development, Best Practice Identification, etc.

• Leadership and Management
  – Senior Hospital Director, Senior Medical Director, Hospital Executive Engagement, Board Engagement
The Model

Big Dot

Drivers

Process/Project

Measures

THE STRATEGIC QUALITY PLAN

STRUCTURES & ACCOUNTABILITY
Medical Director Responsibilities: Medical Management

- Oversees the quality of patient care
- Responsible for triage of patients and development of admission and discharge criteria
- Develops critical pathways, algorithms, or protocols applicable to unit, service, or department.
- Develops and implements appropriate quality improvement standards.
- Monitors and reports variance to Chair, Quality Control Council, Hospital Authority Medical Staff and Hospital Authority.
- Develops opportunities for cost reduction, as well as an action plan for their development.
- Resolves conflicts among team members, patients, families and other medical staff
Medical Director Responsibilities:

Leadership

- Monitors compliance with medical staff bylaws and other applicable standards.
- Works with partnership team to formulate budget and meet operating expenses and develop capital equipment needs, prioritization and acquisition.
- Assumes responsibility for adherence to and compliance with regulatory and accreditation agencies as TJC, ACS etc including preparation for and participation in relevant surveys.
- Participates in planning with the Hospital Authority management team.
- Assists Hospital Director in development and implementation of an orientation plan for students, residents, and peers who work on the service.
- Assists Hospital Director on methods of evaluation, monitoring and improvement of patient and physician satisfaction on the unit, service or department.
Medical Director Responsibilities: Communication

- Promotes the mission and values of University of Kansas Hospital Authority

- Communicates effectively with organization leadership, medical and hospital staff, internal and external referring physicians, and other community providers.

- Communicates with other departments and partnerships to ensure patient’s needs are met.
# MEDICAL DIRECTOR ACTIVITY LOG

**Partnership:**

**Month:**

**2011**

**Time Record:** Complete all fields using the legend below

<table>
<thead>
<tr>
<th>Date</th>
<th>Function (Legend)</th>
<th>Participants</th>
<th>Detailed Description of Service Provided</th>
<th>Total Time Spent on Function</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tbody>
</table>

**Total Hours for the Month**

**Attestation:**

I, the above noted physician attest that the hours shown above as "time spent on function" were actually worked by me. Also, the hours shown are for services consistent with those required of me in the Agreement.

**Physician's Signature:**

---

**Legend**

Function & Abbreviation:

- Meeting with: Mtg/w
- Meeting Prep: Mtg Prep
- Meeting Follow-Up: Mtg Fol
- Policy Review / Order Set: PR/Os
- Chart Review: Cht Rev
- Presentation: Pres
- Program Dev & Growth: Prg Dev
- Capitalized (O2 only): Cap

Function

- Utilization Review: Util Rev
- Supervision: Sup
- Teaching: Tch
- Quality Control: QC
- Best Practice Search: BP
- Data Review: Data
- Other (explain): O
Example of outcomes

• Unit-Based Partnership
  – NICU – Survival rate of 98% as compared to 95% with Vermont Oxford benchmark for small, younger babies.

• Department-Based Partnership
  – Drug Utilization program resulted in over $900K savings in one year.

• Program-Based Partnership
  – BMT worked to $143K on drugs for auto BMT with non-Hodgkins lymphoma and $172K on drugs for acute leukemia
  – $1.46M savings in blood utilization program

• “Other” Partnership
  – Core doc physicians were instrumental in various stages of the O2 install in hospital, now expanding to clinics
Standing Committees

- Engagement of Key Leaders
- Priority Focus Areas
  - Mortality Reviews
  - Service Lines
    - Maternal Child
    - Neurosciences
    - Trauma/Burn
    - Critical Care
Standing Committees

- **Structure and Process**
  - Physician/Nurse leaders
  - Quality & Performance Improvement
  - Systems Issues
  - Data Driven
Outcome Examples of Standing Committees

• Burn – successful Burn Center re-verification process for pediatrics and adults

• Critical Care – standardized, consistent protocols for sedation management, delirium management and ventilator weaning across 9 critical care areas.

• Neurosciences – re-verification as a primary stroke center; achieved Level 3 Epilepsy Center designation.
Mortality Review
Ad Hoc

- Identified need
- Hospital and physician champions
- Quality, Safety or Systems Focused
  - EMR development
  - VTE Committee
  - Post op Respiratory Failure
  - AHRQ Safety Committees
VTE/PE Committee

- **Liz Carlton, RN** Director: Quality, Safety & Regulatory Compliance
- **Jeff Beasley, DO** Assistant Professor General and Geriatric Medicine
- **Lauren Gray, RN** Nursing Informatics
- **Michael Moncure, MD** Associate Professor Trauma and Critical Care
- **Rashaad Chothia, MD** Internal Medicine Resident
- **Sneha Phadke, DO** Internal Medicine Resident
- **Chris Wittkopp**, Director Quality Outcomes, Public Reporting Organizational Improvement
- **Tim Williamson, MD** Associate Professor Pulmonary & Critical Care Medicine
- **Vishal Jain, MMBS** Internal Medicine Resident
- **Michelle Homan, DO** Internal Medicine Resident
- **Chad Fisher** RNFA Department of Orthopedic Surgery
- **Anup Kasi, MBBS** Internal Medicine Resident
- **Karthik Vamanan, MD** Assistant Professor Vascular Surgery
- **Heather Cunningham, MD** Internal Medicine Resident
- **Nancy Page RN** Quality Outcomes Coordinator Organizational Improvement
- **Theresa King, MD** Assistant Professor General and Geriatric Medicine
- **Randy McMillen, PharmD** Clinical Pharmacist
- **Samaneh Wilkinson, PharmD** Pharmacy Assistant Director
- **Sue Pingleton, MD** Joy McCann Professor of Women in Medicine and Science Director, Quality and Professional Development Continuing Medical Education
- **Mark Cunningham, MD** Associate Professor Pathology and Laboratory Medicine
- **Kim Sanders** - Manager Continuing Education
Interventions

• Chart Reviews N=285
• Video – all clinicians
  – [http://www.youtube.com/watch?v=D63KHVpdtPY](http://www.youtube.com/watch?v=D63KHVpdtPY)
• Presentations
• Data dissemination
  – Chairs
  – Managers
  – Interested parties
Interventions

• O2
  – Order Sets
    • Dosing
    • Timing
  – BPA
Interventions

• Nursing Priority Focus Area
  – Unit specific data
  – Learning Module
  • Nursing Leadership
  • QSI’s

• CME Event
  – 9/27/2011
  – Pre & Post Survey

Preventing VTE

Tuesday, September 27
12-1 p.m.
G013 School of Nursing

Course description: This program will focus on VTE risk stratification, known risk factors, and recommended guidelines for preventing VTE through case-based learning.

Speakers: Tim Williamson, MD; Michael Mancuso, MD, FACS; Samantha Wilkinsen, MS, PharmD; Jeffrey Beasley, DO

Panel discussion: Boxed lunches available for the first 100 to arrive.
### VTE PROPHYLAXIS ASSESSMENT

<table>
<thead>
<tr>
<th>Low Risk VTE Risk = 0.4%</th>
<th>Moderate Risk VTE Risk = 2-4%</th>
<th>High Risk VTE Risk = 4-8%</th>
<th>Very High Risk VTE Risk = 10-20%</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>One risk factor OR</strong></td>
<td><strong>Two risk factors OR</strong></td>
<td><strong>Three to four risk factors OR</strong></td>
<td><strong>Five risk factors OR</strong></td>
</tr>
<tr>
<td>Outpatient/minor surgery &lt; 40 yrs of age</td>
<td>Moderate/major surgery in patient 40-60 years of age</td>
<td>General moderate/major surgery in patients over 60 years of age</td>
<td>Elective major lower extremity arthroplasty (hip or knee)</td>
</tr>
<tr>
<td>Independently ambulatory medical patient with no other risk factors</td>
<td>Major gynecological surgery for benign disease with no additional risk factors</td>
<td>Major gynecological surgery for malignant disease</td>
<td>Non-elective hip, pelvic or other lower extremity orthopedic procedure</td>
</tr>
<tr>
<td>Risk factors and minor general surgery</td>
<td>Risk factors and general moderate/major surgery in patient &gt; 40 years of age</td>
<td>Acute spinal cord injury with paresis</td>
<td>Multiple major trauma</td>
</tr>
<tr>
<td>Risk factors and laparoscopic procedures</td>
<td>Risk factors and major gynecological surgery for benign diseases</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-surgical patients with high risk medical conditions such as: ischemic CVA with limited mobility, Central venous catheter with 2 or more risk factors, ICU admission with 2 or more risk factors</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### RECOMMENDED PROPHYLAXIS

<table>
<thead>
<tr>
<th>Low Risk</th>
<th>Moderate/High Risk</th>
<th>Very High Risk</th>
</tr>
</thead>
<tbody>
<tr>
<td>Early aggressive ambulation</td>
<td>Intermittent pneumatic compression devices (must be in use 2024 hours for effectiveness; usage alone is clearly inferior to chemical prophylaxis and should be reserved for patients who have contraindications to therapy) Early aggressive ambulation AND</td>
<td>Enoxaparin 40 mg SC Qday OR</td>
</tr>
<tr>
<td>Enoxaparin 40 mg SC Qday OR</td>
<td>Heparin 5,000 SC Q6 hours OR</td>
<td>Heparin 5,000 SC Q6 hours OR</td>
</tr>
<tr>
<td>Heparin 5000 units SC Q12 hours if &gt; 75 years of weight &lt; 50 kg</td>
<td>Fondaparinux 2.5 mg SC Qday OR</td>
<td>Warfarin INR 2-3</td>
</tr>
</tbody>
</table>

### *RISK FACTORS*

- Age: 40-60 years (1 risk factors)
- Age: 61-70 (2 risk factors)
- Age: > 70 (3 risk factors)
- Recent or present immobilization (>72 hours)
- Prior history of thrombosis (3 risk factors)
- Confining air/ground travel (>4h within one week of admission)
- Hormonal replacement therapy/oral contraceptive use
- Myeloproliferative disease
- Known thrombophilia
- Decompensated CHF
- Tobacco use
- Spinal cord injury w/ paralyis (3 risk factors)
- Pregnancy/postpartum (< 1 month)
- Inflammatory bowel disease
- Nephrotic syndrome
- Sickle cell disease
- Active Malignance and/or oncologic treatment: surgery, chemotherapy, radiotherapy
- Dehydration
- Varicose veins/leg swelling or venous stasis
- Obesity (BMI > 29)
- Central Venous Access
- Severe chronic obstructive pulmonary disease
- Sepsis

### RELATIVE OR ABSOLUTE CONTRAINDICATION TO PHARMACOLOGIC PROPHYLAXIS

- Lumbar puncture or epidural anesthesia within 24 hours
- Active bleeding
- Coagulopathy (INR > 1.5) or thrombocytopenia (platelet count < 60,000)
- Presence or history of HIT (Heparin induced thrombocytopenia) – Fondaparinux recommended
- Recent intraocular or intracranial surgery or lesions
- Significant renal insufficiency (Creatinine clearance < 30 dose carefully) – may also use UFH
- Hypertensive crisis

### SPECIAL CONSIDERATIONS:

- **Impaired renal function:** CrCl < 30 ml/min
  - Enoxaparin dosing: 30 mg Qday
  - Use of fondaparinux is contraindicated in patients on Hemodialysis
  - UFH preferred agent

- **Obesity**
  - BMI 40-50 kg/m²: Enoxaparin 40 mg BID
  - BMI > 50 kg/m²: Enoxaparin 60 mg BID
  - Fondaparinux should not be used in patients < 50 kg

### SCIP CORE MEASURES CONSIDERATIONS:

Select surgical procedures have specific VTE Recommendations which may be in addition to the above. Those procedures which have post-op order sets include the VTE recommendations.

### DRUG COST

<table>
<thead>
<tr>
<th>Warfarin 5mg</th>
<th>Heparin 5,000 units</th>
<th>Enoxaparin 30 mg</th>
<th>Enoxaparin 40 mg</th>
<th>Fondaparinux 2.5 mg</th>
</tr>
</thead>
<tbody>
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<td>$</td>
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<td>$</td>
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</tr>
</tbody>
</table>

Warfarin < Heparin < Enoxaparin 30 < Enoxaparin 40 < Fondaparinux 2.5
PICC Plan

• Appropriate use of PICC
• Vascular Access Device Algorithm
• Education
  – EJ placement
  – Peripheral IV placement
University of Kansas Hospital Vascular Access Device Selection Algorithm

**EARLY PICC ACCESS ASSESSMENT**
Promote identification of patients that would benefit from early PICC orders and facilitate placing the line.

**NOTE:** PICCS are for Non-Emergent use, Reassess daily for need.

**Infusate characteristic**
- Central Access Not Required
  - Less than 10% dextrose
  - Isotonic Solutions
  - Osmolarity <600 mOsm/L
  - Meds pH between 5-9

- Central Access Required
  - More than 10% Dextrose
  - Hypo- and Hypertonic Sol'n
  - Osmolarity >600 mOsm/L
  - Meds pH below 5 & over 9
  - Inherently irritating meds (see list)

**Duration of Therapy**
- Less than 5 days
- 1-4 Weeks
- Less than 3 months
- More than 3 months

**Vascular Integrity**
- Good
- Poor

**1st Choice of Device Selection**
- Contraindications for PICCs: Dialysis, ESRD, CKD, Quadriplegia, Bilateral radical Mastectomy, skin conditions or burns at insertion site, VAD or total artificial heart, pensive ipilateral thrombosis, existing fistula on extremity
- See Non-Emergent Venous Access Algorithm
- Peripheral IV
- EJ
- PICC

**2nd Choice of Device Selection**
- Relative Contraindications for PICCs: contractures, previous mastectomy, existing thrombophlebitis, radiation therapy, pacemaker wires, crutch walking, trauma to extremity, future use of the extremity for AV fistula placement
- EJ
- PICC
- Central Venous Catheter
- Tunneled Catheter
- PORT

**3rd Choice of Device Selection**
- PICC
- Central Venous Catheter
PICC Insertions
Housewide VTE PE Rates per 1000
Lessons Learned
Focus on Clinical Outcomes – not Financial Metrics
Our Guiding Formula

World Class Patient Outcomes + World Class Patient Satisfaction

Delivered by Competent, Committed and Engaged Staff

Strong, Sustainable Growth + Strong, sustainable Financial Performance
Pay Attention to the Culture

• Sensitive to the historical impacts
• Proactive approach
• Delivered by Competent, Committed and Engaged Staff
  – Right Fit
  – Treating each physician as a partner in the delivery of care
Pay Attention to the Culture

• Just Culture
  – Take Action
  – Tea with Lee
  – Systems vs Provider attributes

• Physician engagement survey
<table>
<thead>
<tr>
<th>Item</th>
<th>University of Kansas Hospital Staff Physician 2011 (Q:35)</th>
<th>University of Kansas Hospital Staff Physician Percentile Ranking</th>
<th>Nth Percentile Percentile</th>
<th>Nth Percentile Percentile</th>
<th>Nth Percentile Percentile</th>
<th>Nth Percentile Percentile</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. The nursing staff is responsive when I need assistance.</td>
<td>4.16</td>
<td>44</td>
<td>4.27</td>
<td>4.43</td>
<td>4.61</td>
<td></td>
</tr>
<tr>
<td>2. There is good teamwork between physicians and nurses at KUH.</td>
<td>3.86</td>
<td>8</td>
<td>4.12</td>
<td>4.27</td>
<td>4.41</td>
<td></td>
</tr>
<tr>
<td>3. There is effective communication between the nursing staff and physicians regarding patient care.</td>
<td>3.82</td>
<td>24</td>
<td>4.10</td>
<td>4.14</td>
<td>4.32</td>
<td></td>
</tr>
<tr>
<td>4. The nursing staff treats faculty physicians with respect.</td>
<td>3.77</td>
<td>N/A</td>
<td></td>
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</tr>
<tr>
<td>5. The nursing staff treats resident physicians with respect.</td>
<td>3.29</td>
<td>N/A</td>
<td></td>
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</tr>
<tr>
<td>6. If needed, the hospital night staff is attentive to my needs.</td>
<td>3.86</td>
<td>N/A</td>
<td></td>
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<tr>
<td>7. If needed, the hospital weekend staff is attentive to my needs.</td>
<td>3.86</td>
<td>N/A</td>
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</tr>
<tr>
<td>8. Patient care between shifts is adequate at KUH.</td>
<td>3.70</td>
<td>N/A</td>
<td></td>
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</tr>
<tr>
<td>9. I am satisfied with the quality of care provided to my patients at all hours and shifts.</td>
<td>3.06</td>
<td>N/A</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>10. I am satisfied with the clinical care provided by hospitalists at KUH.</td>
<td>3.99</td>
<td>N/A</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. I am satisfied with the effectiveness of communication between hospitalists and staff physicians regarding patient care.</td>
<td>3.06</td>
<td>N/A</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12. Overall, I am satisfied with the performance of hospitalists at KUH.</td>
<td>3.87</td>
<td>N/A</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13. The nursing staff at KUH is committed to providing compassionate care.</td>
<td>4.36</td>
<td>42</td>
<td>4.40</td>
<td>4.45</td>
<td>4.64</td>
<td></td>
</tr>
<tr>
<td>14. Overall, I am satisfied with the expertise of the nursing staff at KUH.</td>
<td>4.08</td>
<td>54</td>
<td>4.07</td>
<td>4.23</td>
<td>4.40</td>
<td></td>
</tr>
<tr>
<td>15. Overall, I am satisfied with the performance of the nursing staff.</td>
<td>4.04</td>
<td>53</td>
<td>4.02</td>
<td>4.19</td>
<td>4.35</td>
<td></td>
</tr>
<tr>
<td>16. I am satisfied with the ease of the registration process for my patients.</td>
<td>3.16</td>
<td>1</td>
<td>3.65</td>
<td>3.90</td>
<td>4.03</td>
<td></td>
</tr>
<tr>
<td>17. I am satisfied with the ease of the scheduling process for my patients.</td>
<td>2.83</td>
<td>N/A</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>18. I am satisfied with the availability of beds at KUH.</td>
<td>2.50</td>
<td>N/A</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>19. I am satisfied with the appearance and cleanliness of the patient care areas.</td>
<td>3.62</td>
<td>23</td>
<td>3.92</td>
<td>4.15</td>
<td>4.44</td>
<td></td>
</tr>
<tr>
<td>20. The methods used by KUH to communicate with physicians are effective.</td>
<td>3.43</td>
<td>N/A</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>21. I receive useful information about KUH (e.g., new services) in a timely manner.</td>
<td>3.86</td>
<td>20</td>
<td>3.89</td>
<td>3.97</td>
<td>4.07</td>
<td></td>
</tr>
<tr>
<td>22. I get the tools and resources I need to provide the best care/service for our patients (i.e., response teams, etc.).</td>
<td>3.82</td>
<td>27</td>
<td>3.88</td>
<td>4.04</td>
<td>4.37</td>
<td></td>
</tr>
<tr>
<td>23. I am satisfied with the amenities (e.g., lounge, food service) provided to the medical staff.</td>
<td>2.86</td>
<td>N/A</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>24. KUH is appropriately staffed by nurses and other ancillary staff to provide high-quality care to patients.</td>
<td>3.77</td>
<td>72</td>
<td>3.62</td>
<td>3.87</td>
<td>3.94</td>
<td></td>
</tr>
<tr>
<td>25. KUH is a safe place for me to work.</td>
<td>4.33</td>
<td>N/A</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>26. KUH makes use of new technology and clinical practices that will improve patient care.</td>
<td>4.16</td>
<td>05</td>
<td>3.03</td>
<td>4.03</td>
<td>4.23</td>
<td></td>
</tr>
</tbody>
</table>

Shaded areas appear for items where there is an insufficient number of observations in the Morehead database. These are either new or customized items.

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8/15/2011
Fundamental Requirements

• Co-Leaders - Physician Champion Required
  – Identify formal and informal physician leaders
• Early participation
• Transparent communication
• Select the right projects
• Define expectations and objectives up front
• Use meeting time wisely
• Support “offline” work
• Use credible data sources
• Communicate activities and results
80/20 Rule

• Expecting All Physicians to Agree From the Outset is a sure failure mode
• Drive expectations for Physicians by the physicians – not by the hospital
• Use small tests of change to identify quick results or failures
How Did We Do?
The Hospital was Named the Best Hospital in KC Metro for the 2nd Time-

–Pulmonology (29th)
–ENT (31st)
–Gastroenterology (35th)
–Kidney Disorders (37th)
–Heart & Heart Surgery (39th)
–Cancer (44)
Six Additional Services Were Named High Performing

- Diabetes & Endocrinology
- Geriatrics
- Gynecology
- Neurology & Neurosurgery
- Orthopedics
- Urology
Service
People
All Hospital Employee Turnover

<table>
<thead>
<tr>
<th>FY Year</th>
<th>Turnover Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY1999</td>
<td>33.10%</td>
</tr>
<tr>
<td>FY2000</td>
<td>32.00%</td>
</tr>
<tr>
<td>FY2001</td>
<td>23.39%</td>
</tr>
<tr>
<td>FY2002</td>
<td>19.85%</td>
</tr>
<tr>
<td>FY2003</td>
<td>17.73%</td>
</tr>
<tr>
<td>FY2004</td>
<td>14.12%</td>
</tr>
<tr>
<td>FY2005</td>
<td>14.80%</td>
</tr>
<tr>
<td>FY2006</td>
<td>13.00%</td>
</tr>
<tr>
<td>FY2007</td>
<td>13.26%</td>
</tr>
<tr>
<td>FY2008</td>
<td>14.14%</td>
</tr>
<tr>
<td>FY2009</td>
<td>11.06%</td>
</tr>
<tr>
<td>FY2010</td>
<td>10.38%</td>
</tr>
<tr>
<td>FY2011</td>
<td>10.07%</td>
</tr>
</tbody>
</table>
Quality
RRT Calls and Codes/Census

- RRT TOTAL
- CODES TOTAL
- CMI

Year 2005:
- RRT: 281
- Codes: 180

Year 2006:
- RRT: 565
- Codes: 197

Year 2007:
- RRT: 791
- Codes: 182

Year 2008:
- RRT: 989
- Codes: 151

Year 2009:
- RRT: 1186
- Codes: 162

Year 2010:
- RRT: 1579
- Codes: 186

CMI:
- 2005: 1.57
- 2006: 1.60
- 2007: 1.63
- 2008: 1.66
- 2009: 1.71
- 2010: 1.75
Sepsis Mortality Index

100 Less Deaths Than Expected in FY11
Mortality Index
(Actual Deaths/Expected Deaths Based on Severity of Illness)

407 Fewer Deaths Than Expected Based on Patient Acuity FY11
54 consecutive months with Mortality Index <1.0
Cost
Capital Investments ($ Millions)

<table>
<thead>
<tr>
<th>Year Range</th>
<th>Pre-Authority Total</th>
<th>Post-Authority Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1993-1998</td>
<td>$33</td>
<td>$814</td>
</tr>
<tr>
<td>1998-2011</td>
<td>$0</td>
<td></td>
</tr>
</tbody>
</table>
Growth
Inpatient Discharges

Public Authority

106%↑
Growth - ED Visits

Bethany Closure

79% ↑
Growth - OR Volume

- FY04: 11,694
- FY05: 12,058
- FY06: 12,127
- FY07: 13,025
- FY08: 13,883
- FY09: 14,725
- FY10: 16,433
- FY11: 17,704

51.4% ↑
Final Lesson Learned

“When a team outgrows individual performance and learns team confidence, excellence becomes a reality.”

Joe Paterno