Ambulatory Infection Prevention:  
A New Journey

The Institute for Healthcare Improvement  
27th Annual National Forum on Quality Improvement in Health Care  
Orlando, Florida  
December 8, 2015
Session Objectives

1. Identify specific actions to increase safety awareness and competency in infection prevention in ambulatory settings

2. Contrast the needs of ambulatory and inpatient environments

Memorial Hermann Health System

<table>
<thead>
<tr>
<th>Woodlands</th>
<th>Sugar Land</th>
<th>TMC</th>
<th>Katy</th>
<th>Memorial City</th>
<th>Southeast</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>12 Hospitals (9 Acute, 2 Rehab, 3 Children's)</strong></td>
<td><strong>2 additional hospitals planned</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Beds (acute licensed): 3,880</td>
<td>- Medical Staff Members: 5,807</td>
<td>- Physicians in Training: 304</td>
<td>- Residency programs: 26</td>
<td>- Fellowship programs: 48</td>
<td></td>
</tr>
</tbody>
</table>

Ambulatory Services

- Ambulatory Surgery Centers (ASC)
- Medical Group Practices (MHMG)
- Convenient Care Centers (CCC)
- Urgent Care Centers
- Sleep Study Centers
- Imaging Centers (OPID)
- Sports Medicine & Rehab Centers (SMR)
- Diagnostic Laboratories (MHDL)
- Home Health Branches
- Hospice (inpatient and home care)
- durable Medical Equipment (DME)
- Occupational Medication Clinics
Ambulatory Services

- Medical Group
- Imaging Centers
- Ironman Institutes
- Convenient Care Centers
- Sports Medicine
- MHMD
- Diagnostic Labs
- Home Care & Hospice
- Occupational Medicine Program
- Sleep Disorders Center

Ambulatory care represents 48% of our business.

What are we doing about quality?
Dan Wolterman, President and CEO
2012
Quality Mission Statement

Advance health through the creation of a high reliability culture with evidence-based quality and safety as our core value throughout One Memorial Hermann

High Reliability Phases 1+2

Phase 1. Hospitals FY07 - FY15+
- Safety Behaviors
- Training
- Reinforcement
- Results

Phase 2. Early Ambulatory - FY15
- Hand Hygiene
- Influenza Immunization
- Safety Event Reporting
High Reliability Model: Domains

- **Leadership Commitment**
  - Foundation that facilitates pursuit of HR as top priority

- **Safety Culture**
  - Collective mindfulness of what might go wrong

- **Robust Process Improvement**
  - Successful and proactive application of RPI methods
## High Reliability Model: Domains and Components

<table>
<thead>
<tr>
<th>Domain</th>
<th>Component</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leadership</td>
<td>Board of Trustees, CEO/Senior Management, Physician Engagement, Quality Strategy, Quality Measures-data use and dissemination, Information Technology usage to support quality and safety</td>
</tr>
<tr>
<td>Safety Culture</td>
<td>Trust, Accountability, Identifying Unsafe Conditions, Strengthening Systems, Assessment of safety culture</td>
</tr>
<tr>
<td>Process Improvement</td>
<td>Methods, Training, Spread</td>
</tr>
</tbody>
</table>

## High Reliability Model: Maturity Matrix

<table>
<thead>
<tr>
<th>Leadership</th>
<th>Beginning</th>
<th>Developing</th>
<th>Advancing</th>
<th>Approaching</th>
</tr>
</thead>
<tbody>
<tr>
<td>Board</td>
<td>Board quality focus is nearly exclusively on regulatory compliance</td>
<td>Full Board’s involvement in quality focused on ensuring adherence to it quality initiatives</td>
<td>Full Board engaged in management of quality goals and approval of quality plans, regularly reviews adverse events and progress on quality goals</td>
<td>Board commits to goal of high reliability for all clinical services</td>
</tr>
<tr>
<td>CEO/Management</td>
<td>CEO/Management quality focus is nearly exclusively on regulatory compliance</td>
<td>CEO acknowledges need for plan to improve quality of care and implementation of plans to reduce errors</td>
<td>CEO/Management commits to goal of high reliability for all clinical services</td>
<td>CEO/Management commits to goal of high reliability for all clinical services</td>
</tr>
<tr>
<td>Physicians</td>
<td>Physicians rarely lead quality improvement activities; several physicians are involved in quality activities in key areas</td>
<td>Physicians champion some quality improvement activities; physicians are active in quality improvement initiatives in key areas but we still have some improvement gaps</td>
<td>Physicians routinely lead quality improvement activities; physicians are active in quality improvement initiatives in key areas</td>
<td>Physicians routinely lead quality improvement activities; physicians are active in quality improvement initiatives in key areas</td>
</tr>
<tr>
<td>Quality Strategy</td>
<td>Quality is not identified in senior strategic plan</td>
<td>Quality is one of many competing strategic priorities</td>
<td>Quality is one of our organization’s top 3 or 4 strategic priorities</td>
<td>Quality is the highest priority strategic goal of the organization</td>
</tr>
<tr>
<td>Quality Measures</td>
<td>Quality measures are inconsistently displayed or not consistently monitored; quality improvement initiatives are not well integrated across the organization</td>
<td>Routine internal reporting of quality measures begins, few or none reported publicly, not part of reward systems</td>
<td>Routine internal reporting of quality measures begins, few or none reported publicly, not part of reward systems</td>
<td>Key quality measures are measured and displayed consistently across the organization, few or none reported publicly, reward systems for staff prominently reflect accomplishment of quality goals</td>
</tr>
<tr>
<td>Information Technology</td>
<td>Information Technology usage to support quality and safety</td>
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High Reliability Model: Leadership Commitment

- Foundation that facilitates pursuit of HR as top priority
- Commitment to ultimate goal of zero harm
- Create a culture where well-being and care of patients is primary
- Leaders take actions to achieve desired state of consistent excellence
- Accept personal responsibility and work together to minimize harm
- Quality is highest strategic goal
- IT solutions support quality improvement and are safely adopted

High Reliability Model: Adopting a Safety Culture

- Trust, report, improve are reinforced imperatives
- Collective mindfulness of what might go wrong
- Clear and transparent policies and procedures distinguish blameless from blame worthy
- Disciplinary procedures are equitably calibrated to the severity of patterns of error
High Reliability Model: Robust Process Improvement

- Successful and proactive application of RPI methods
- Deployment success depends on workforce skilled to address improvement opportunities
- Drive improvement, expand training, and skills development throughout and spread tools to all critical patient care areas.
Initial Areas of Focus

Three universal quality measures
- Hand Hygiene
- Safety Event Reporting
- Healthcare Worker Influenza Vaccination

Infection Prevention specific measure
- High Level Disinfection

Memorial Hermann Medical Group (MHMG)

67 locations covering 13 counties across the greater Houston area from Downtown to rural exurbs with 219 Providers and 20 Specialties.
Initial MHMG Priorities

2008
• No Physician or Nursing Leadership
• 18 Providers
• 7 Locations

2012
• System initiatives to begin aggressive recruitment and practice acquisitions
• 73 Providers
• 22 Locations

2013
• New Leadership Team/New Initiatives
• Shift towards Physician, Nursing, Business: Dual Dyadic Management
• Medical Operations
• Clinical Operations
• Informatics
• Project Management

2015
• 219 Providers
• 67 Locations
• 46,000 visits/month
• 78,000 wRVU/month
• Impact Award Recipient
• Continuous Improvement on Safety, Quality, Productivity

Case Study Exercise:
Physician Group Practice Scenario

Infection Prevention Assessment
• Aesthetically pleasing clinical setting
  – Facility design did not support HLD process
• Staffing model: Physicians, Physician Assistant, Medical Assistants, Practice Manager
  – No HLD training or competency assessment
• Unaware of expected IP standards
• Variable products

Barriers
• Productivity quotas
• Limited resources allocated to quality and patient safety
• Materials management disengagement
• Significant variability in clinical skill set
### Group Breakout Case Study Exercise

**30 minutes**

### High Reliability Model: Handout for Case Study Exercise

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<th>Approaching</th>
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</thead>
<tbody>
<tr>
<td><strong>Board</strong></td>
<td>Board quality focus is nearly exclusively on regulatory compliance</td>
<td>Full board involvement in quality initiatives for hearing reports from quality committee</td>
<td>Full board engaged in development of quality plan and approval of quality plan</td>
<td>Board commits to goal of high reliability for all clinical services</td>
</tr>
<tr>
<td><strong>CEO/Management</strong></td>
<td>CEO/Management quality focus is nearly exclusively on regulatory compliance</td>
<td>CEO acknowledges need for plan to improve quality; development and implementation of plan to subordinate</td>
<td>CEO leads development and implementation of proactive quality agenda</td>
<td>Management must be able to demonstrate near zero failure rates for all clinical services</td>
</tr>
<tr>
<td><strong>Physicians</strong></td>
<td>Physicians rarely lead quality improvement activities; overall physician participation in these activities is low</td>
<td>Physicians champion some quality improvement activities, physician participation occurs in some areas but is not widespread</td>
<td>Physicians often lead quality improvement activities; physician participation in most areas but we still have some improvement gaps</td>
<td>Physicians routinely lead clinical quality improvement activities and work closely with all other appropriate clinicians; physician participation in these activities is uniform throughout the organization</td>
</tr>
<tr>
<td><strong>Quality Strategy</strong></td>
<td>Quality is not identified as central strategic imperative</td>
<td>Quality is one of many competing strategic priorities</td>
<td>Quality is one of our organization’s top 3 or 4 strategic priorities</td>
<td>Quality is the highest priority strategic goal of the organization</td>
</tr>
<tr>
<td><strong>Quality Measures</strong></td>
<td>Quality measures not prominently displayed or reported internally; few or none reported publicly; not part of reward systems</td>
<td>Most quality measures reported internally; few or none reported publicly; not part of reward systems</td>
<td>Most quality measures reported internally; few or none reported publicly; reward systems introduced into staff reward systems</td>
<td>Key quality measures are routinely displayed and reported internally and externally; reward systems reflect achievement of quality goals</td>
</tr>
<tr>
<td><strong>Information Technology</strong></td>
<td>Provides little or no support for quality improvement</td>
<td>Some support for quality improvement activities, but these are not integrated to other efforts or adhered to</td>
<td>Support for improvement activities, but these are not integrated to other efforts or adhered to</td>
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</tr>
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**Note:** Values represent a spectrum from Beginning to Approaching and are aligned to supporting high reliability improvements.
Early Interventions/Improvements

- Engaged leadership in promoting safety culture
- Standardized policies, procedures, products, and supplies
- Staff trained in high level disinfection
- Onsite validation – just in time coaching; design challenges addressed
- Evaluation – unannounced audits; findings communicated to leadership
- Staff re-trained – practice leadership engaged
- Collaborative audits

Lessons Learned

- Recognize the significant differences between acute care and ambulatory
- Awareness is the first step to improvement
- 75% relationship + 25% technical = Success
- Change management is key to inspire, launch, and sustain a culture of safety
- Robust accountability systems
Next Steps

- Allocate dedicated staff to quality
- Develop and implement quality metrics dashboard
- Engage local staff in process ownership and ongoing evaluation
- Integrate Infection Prevention consults for facility acquisitions, plans/designs
- Continue to build relationships and hardwire safety culture through collaborative strategic planning and Joint Operating Committees
High Reliability Model: References


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