Quality Council Meeting
Quality and Innovation Program
Department of Internal Medicine
December 16, 2015
Agenda

• Updates and Follow Up
• Division Quality Project
• Education Driver Update
• Division Inventory Update
• 2016 Strategic Planning
• Next Steps
Meeting Objectives

• Review current division work and define opportunities to collaborate
• Review and discuss quality improvement efforts in our education driver area
Updates and Follow Up

Follow Up

• Shared application with Peter Higgins to receive support through Health System Clinical Quality Committee based on ongoing IBD work

• In early stages of creating a cardiology division dashboard

• Meeting scheduled to continue refining COPD measures for departmental dashboard

• Identified department members for Advance Care Planning Steering Committee

New

• Questions based on Quality and Innovation Program tracker?
Hospital Medicine
QI Work

Jeff Rohde
Megan Mack
General Medicine
Improving GenMed’s use of RBCs

Total Number of RBC Units Used: FY'12 - FY'14

- FY’12
- FY’13
- FY’14
Improving GenMed’s use of RBCs

Number of RBC Units by Clinical Services with Highest RBC Use: FY'12 - FY'14
Overall Description

University of Michigan Hospitals and Health Centers
Adult Blood Transfusion Clinical Guidelines

Request does not meet ECCA Guidelines when ordering 1 or 2 units. HGB result is > 7 and result is over 48 hours old. Confirm HGB before ordering or select an override reason to complete the order.

Link to UMHS Guidelines

Last HGB=9.8 g/dL on 12/12/2015

Acknowledge reason:
- Active bleed
- Acute leukemia
- Cardiovascular
- ECMO patient
- Hemodynamic
- Hemoglobinopathy
- Hemolysis
- Hgb/Hct result
- Oxygen carry
- Symptomatic
- Attending physician

Accept
Cancel
Individual Physician Feedback

No. of Transfusions Meeting Lab Criteria vs. % Transfusions Meeting Lab Criteria by Physician ID.
### Individual Physician Feedback

#### Percent Blood Transfusions That Meet Lab Criteria

**Reporting Timeframe: Quarter 4, FY 2015**

<table>
<thead>
<tr>
<th>Letter ID</th>
<th>Total Meeting Criteria</th>
<th>Total Transfusions</th>
<th>% Transfusion Meeting Lab Criteria (Physician-Specific)</th>
<th>% Transfusion Meeting Lab Criteria (Ex. This MD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>GM374</td>
<td>7</td>
<td>8</td>
<td>87.50%</td>
<td>98.23%</td>
</tr>
<tr>
<td>GM42</td>
<td>18</td>
<td>18</td>
<td>100.00%</td>
<td>97.69%</td>
</tr>
<tr>
<td>GM382</td>
<td>16</td>
<td>16</td>
<td>94.74%</td>
<td>98.14%</td>
</tr>
<tr>
<td>GM45</td>
<td>15</td>
<td>15</td>
<td>100.00%</td>
<td>97.71%</td>
</tr>
<tr>
<td>GM179</td>
<td>12</td>
<td>12</td>
<td>100.00%</td>
<td>97.75%</td>
</tr>
<tr>
<td>GM187</td>
<td>10</td>
<td>10</td>
<td>100.00%</td>
<td>97.77%</td>
</tr>
<tr>
<td>GM819</td>
<td>9</td>
<td>9</td>
<td>100.00%</td>
<td>97.78%</td>
</tr>
<tr>
<td>GM567</td>
<td>9</td>
<td>10</td>
<td>90.00%</td>
<td>98.21%</td>
</tr>
<tr>
<td>GM257</td>
<td>8</td>
<td>8</td>
<td>100.00%</td>
<td>97.79%</td>
</tr>
<tr>
<td>GM1</td>
<td>7</td>
<td>7</td>
<td>100.00%</td>
<td>97.80%</td>
</tr>
<tr>
<td>GM37</td>
<td>6</td>
<td>6</td>
<td>100.00%</td>
<td>97.81%</td>
</tr>
<tr>
<td>GM285</td>
<td>6</td>
<td>6</td>
<td>100.00%</td>
<td>97.81%</td>
</tr>
<tr>
<td>GM698</td>
<td>5</td>
<td>5</td>
<td>100.00%</td>
<td>97.82%</td>
</tr>
<tr>
<td>GM368</td>
<td>5</td>
<td>5</td>
<td>100.00%</td>
<td>97.82%</td>
</tr>
<tr>
<td>GM709</td>
<td>5</td>
<td>5</td>
<td>100.00%</td>
<td>97.82%</td>
</tr>
<tr>
<td>GM678</td>
<td>5</td>
<td>5</td>
<td>100.00%</td>
<td>97.82%</td>
</tr>
<tr>
<td>GM348</td>
<td>5</td>
<td>5</td>
<td>100.00%</td>
<td>97.82%</td>
</tr>
<tr>
<td>GM263</td>
<td>5</td>
<td>6</td>
<td>83.33%</td>
<td>98.25%</td>
</tr>
</tbody>
</table>
Results

Blood Transfusion Lab Criteria Not Met

Rates (%)
0.0 2.0 4.0 6.0 8.0 10.0 12.0 14.0 16.0 18.0 20.0
Q207 Q208 Q209 Q210 Q211 Q212 Q213 Q415

Change in Criteria
Results

Mean & Median Pre-Transfusion Hgb

Mean Pre-Transfusion Hgb  Median Pre-Transfusion Hgb
Background:

- **40 - 60%** of patients admitted to the Hospitalist service are actively receiving antibiotics.
- upwards of **50%** of antibiotics given to inpatients could be considered inappropriate.
- Improved hospitalist documentation of antibiotic use may improve clinician awareness and appropriateness of use.
- Appropriate documentation is particularly important at times of transitions.
Antimicrobial Documentation

- Indication
- Expected Duration
- Day of therapy/Start Date

- Progress Notes
- Discharge summaries
Antimicrobial Documentation

Methods
• Audit and Feedback
• Antibiotic “Timeout” with clinical pharmacists 3x weekly
• Increased availability of guidelines for infectious conditions

Antibiotic Timeout

[Pie chart showing the distribution of antibiotic changes: No Change 72%, Rejected Change 3%, Accepted Change 27%, Adjusted dose/interval/duration 18%, Changed to different agent 21%, Stopped antibiotics 34%, Changed to Oral 25%]
Results

Antibiotic Documentation Compliance Pre- and Post-Intervention

- **Discharge Summaries**: 10% (Pre-intervention) vs. 84%, p < 0.001 (Post-intervention)
- **Progress notes**: 4% (Pre-intervention) vs. 51%, p < 0.001 (Post-intervention)
- **Service Signouts**: 18% (Pre-intervention) vs. 50%, p < 0.001 (Post-intervention)
What’s working well?

• Clinicians are very receptive to feedback

• Clinicians are willing to change their practice if the case has effectively been made that this change will result in improved patient care (+/- attached to incentive)
What isn’t working well? Barriers?

- Collection of Data is VERY time intensive and difficult to do longitudinally
- Collaboration with clinical pharmacy has fallen off
How can the Quality Council help?

• Continued support (? expansion) of the annual inpatient incentive pool.

• Continued support (? expansion) from PACE with individual and service level data on performance indicators

• Development of a more nimble data collection system

• Development of a coordinated data system
AVOIDING PAGE RAGE: A HOSPITALIST/NURSING COLLABORATIVE TO IMPROVE PAGING COMMUNICATION

Megan Mack, M.D.
Division of General Medicine
“Hello?....It’s me…..”

“I was wondering if after all these years (hours?) you’d like to meet (bedside round?)”

“Hello from the other side….I must have called a thousand times…..”

“When I call you never seen to be home (at the clerk phone)…..”

“Hello from the outside (off the unit)….at least I can say that I’d tried (I stayed on hold for like 10 minutes)…..”
Background:
• No standard structure exists for RN to MD paging

• Style of paging depends on training of new nurses, which is highly variable

• Previous patient safety events have been linked to the volume, frequency, and content of paging

• Hospitalist survey February 2015:
  • Most felt that majority of pages did not contain all info needed to act, lacked valid callback #s, or could be answered by reviewing the chart
  • 77% agreed or strongly agreed that the quantity of paging=patient safety risk
Goal:
- To convene an RN/MD collaborative to assess common categories in paging, standardize required information within those categories, educate all bedside nurses
- To provide timely feedback on suboptimal pages

Methods
- Pre-intervention pages collected January 2015 (1 week, 24/7)
- 100% bedside nurses educated by paging “champions” on 6b/7a from spring-fall 2015
- Group email with nursing/hospitalist leadership created, hospitalists educated on forwarding suboptimal pages
# Division Quality Project

<table>
<thead>
<tr>
<th>Paging scenario/category</th>
<th>Required material (1 pt for each)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Family update</strong> (total 3 pts)</td>
<td>• Relationship to patient (i.e., stating “family member” ok)</td>
</tr>
<tr>
<td></td>
<td>• What specific questions/concerns are there?</td>
</tr>
<tr>
<td></td>
<td>• How long are they there OR number to contact?</td>
</tr>
<tr>
<td><strong>Vital sign abnormality: routine/FYI</strong></td>
<td>• For any abnl vital sign, is HR (1pt), BP (1pt), and pulse ox (1pt) listed?</td>
</tr>
<tr>
<td>(ASAP/urgent would be included in category below)</td>
<td>• Associated symptoms</td>
</tr>
<tr>
<td>(total 5 pts)</td>
<td>• Same as previous or new/changing?</td>
</tr>
<tr>
<td><strong>Pain update</strong> (total 4 pts)</td>
<td>• Location OR descriptor</td>
</tr>
<tr>
<td></td>
<td>• Quantity (number OR descriptor)</td>
</tr>
<tr>
<td></td>
<td>• Previous interventions tried</td>
</tr>
<tr>
<td></td>
<td>• Same as previous or new/changing?</td>
</tr>
<tr>
<td><strong>ASAP/urgent page: if appears anywhere in the page</strong> (total 2 pts)</td>
<td>• Specific content that needs to be addressed in an ASAP/urgent manner</td>
</tr>
<tr>
<td></td>
<td>• Callback # (OK if clerk phone when unable to page to patient's room IF page explicitly states that RN is by clerk desk)</td>
</tr>
</tbody>
</table>
Division Quality Project

**Results**
- 2830 total pages received by 10 day hospitalists over 1 week
  - 46% from nursing
  - *Average 40.4 pages/physician/day*

- 14/380 (3.7%) pre-intervention pages contained all critical elements

- Post-intervention pages to be collected in January 2016
Division Quality Project

• **Results**
  
  • Paging email feedback ongoing
  
  • Feedback to bedside nursing from nursing leadership has been within 24 hours
  
  • Variety of responses
What’s working well?

• Collaborative, cohesive group of RN/hospitalist leadership and RN paging “champions”; mutual respect of others’ workflow

• Bedside nurses reportedly receptive to paging education

• Timeliness of feedback from paging email group by nursing leadership
Division Quality Project

Barriers/Challenges

• Have only included 2 units thus far; gradually adding more units so full effect not yet felt by the group

• Participation in forwarding suboptimal pages low

• With nursing turnover, all new nurses have to be educated

• To be truly effective, need institutional buy-in (affects all frontline providers)
Division Quality Project

How can the Quality Council help?

• Are other hospital units interested in being involved in this project? (5B, 6C)

• Are other inpatient services interested in giving feedback in regards to quality of paging from RNs? (fellows, residents, Midlevels on Cards, Pulm, GI, Heme/Onc, etc)
UM Department of Internal Medicine will be a leader in quality improvement and delivery system re-design locally, regionally, and nationally.

**Strategic planning**
- Refine the mission, goals, and structure of the department’s QI enterprise
- Establish department and division goals for quality improvement
- Establish a DOIM Quality Council
- Establish a DOIM Advisory Board to strategically guide the work
- Hold a yearly Departmental Quality Improvement Retreat

**Performance dashboards to guide improvement**
- Set improvement goals
- Establish department-level dashboard to identify areas in need of improvement
- Establish division-level dashboards to identify areas in need of improvement

**Quality and innovation projects**
- Identify thematic issues faced by multiple divisions to generate departmental improvement and innovation projects
- Operate projects through multidisciplinary teams
- Create a QI team to facilitate the design and analysis of departmental projects

**Promotion of quality improvement**
- Foster a culture of collaboration, collegiality, and improvement
- Create a learning system with information sharing, transparency, and regular sharing of results
- Enhance focus on dissemination of scholarly QI projects
- Support the Inpatient Care Standardization Team and help direct their efforts to target high yield clinical conditions
- Support faculty promotion within the clinical track
- Host a QI symposium

**Education**
- Facilitate the training and development of resident and fellow QI skills
- Help place interested medical residents on active improvement teams
- Facilitate the implementation of resident and fellow QI projects
- Support the development of faculty interested in quality improvement
- Create a quality scholars fellowship
- Help to link division QI programs to maintenance of certification

Alignment and facilitation of QI and innovation work across divisions, the department, and UMHS; barrier identification and removal

Alignment and facilitation of QI and innovation work external to UMHS
Overview of Fellowship Quality Improvement

Daniel Alyesh, MD
Chief Cardiology Fellow
Overview

• Summary of fellowship work
• Deeper dive into cardiology
• Specific areas for attention by quality council
Hematology/Oncology

- Biyearly presentation at division conference

- Counseling young adult cancer patients regarding fertility preservation options
  - Encouraging dialogue
  - Coordinating with REI
  - Changing consent process
  - Developing best practices

Pulmonary Critical Care

- Risk model of bronchoscopy complications
  - Analyzing relationship between pulmonary status and bleeding, PTX, ICU admission after bronchoscopy

- Airway management review
  - Analyzing programs adherence to published literature and guidelines
2014 Cardiology Baseline
Our mission

• Create ideal learning, clinical, and research culture in our fellowship
Improvement Methodology

• Teach the Model for Improvement through projects
• Hardwire continuous improvement into daily work
• Encourage an open forum of ideas
• Leverage intrinsic motivation
• Design for the user
• Team based, engage all fellows with faculty champions
  – interprofessional whenever possible
• Encourage creativity, debate, ownership, and accountability
Create the ideal learning, clinical, and research culture in our fellowship.

**Aim/Mission**

**Primary Drivers**

- Curriculum
- Research Infrastructure
- Clinical Outcomes
- Relationship with Faculty
- Community Outreach

**Secondary Drivers**

- Conferences
- Rotations
- Pathways
- Mentorship
- Methods
- Clinical data
- Laboratories
- Critical care
- EP
- Cath
- Inpatient cardiology
- Imaging
- Vascular
- Valvular
- Outpatient
- Preventive
- Formal
- Informal
- Professional societies
- Alumni
- University

**Team Interventions**

- More active interpretation of clinical data
- Streaming to VA
- Review and revision
- Clinician Educator Pathway
- Research conference and curriculum
- Interprofessional project to improve ventilator care, reduce line infections, and improve antibiotic stewardship
- Discharge process improvement team
- Faculty champions
- Evening with fellows
- Yearly tailgate
- ACC National/Big Sky
- ACC Committees
- Alumni reunions
- UMHS Committees
Overall Program Evaluation

ACGME Survey
Work to be done...

• QI mentorship  
  – the distinction between research and quality improvement
• Training in improvement science
• Value this work
• Improve infrastructure for conducting quality improvement  
  – Access to data, project coordination
• Standardize improvement methods and approach
• Communicate broadly and articulate priorities
Division Inventory Updates

- Update every six months
- Make edits today
- We’ll circulate an updated draft to share with your divisions
- Final revisions due first week of January
2016 Strategic Planning

• Devote March meeting to reviewing our drivers (i.e., theory of how to be successful in achieving our aim)
  
  • What have we accomplished so far?

  • Do we have the right drivers? What is the role of a department in leading improvement?

  • Are we spending time in the right drivers?
Next Steps

Quality Council Meetings:
• What should we be doing in these meetings that we’re not?

Follow up:
• Send additional edits to division inventories

• Request for list of division quality publications
  • For website and to track yearly goal
  • Include all 2015 publications about changing the way we care for or impact patients at UM

Next meeting:
• Strategic Planning for the Quality and Innovation Program