Background
In the era of work-hour restrictions, pressure to impart skills in Perioperative medicine and meet residency requirements for systems learning, interprofessional (IP) teamwork, and quality improvement (QI) is particularly challenging for surgical services. Co-management hospitalists embedded in the surgical setting are uniquely positioned to facilitate learning in these areas.

While co-management services have been in existence for over a decade, formal hospitalist roles in surgical education have been slower to evolve. We describe a novel clinical rotation for orthopedic interns collaboratively designed to meet multiple stakeholder needs.

Benefits of Collaborative Education
Orthopaedics
- Meet ACGME requirements
- Improve education in perioperative management of medical issues
- Increase departmental QI efforts

Hospital Medicine
- Transform direct-care service into a teaching service
- Deepen and evolve relationships between medicine and surgical services
- Facilitate early management in perioperative medical issues
- Foster additional med-surg cross teaching opportunities

Program Description
- One-month mandatory rotation, 7 interns annually, initiated 2015
- Immersion in surgical co-management service with hospitalist as primary educator and supervisor
- 1:1 teaching with hospitalist, management of inpatient medical issues in postoperative orthopaedics patients (no OR, no Ortho Clinic)
- Rounding with ortho team and hospitalist at bedside, case discussions, notes, patient-directed didactics and medicine conferences
- Group QI project, IH online modules, lecture, and seminars
- CORE CURRICULUM: diabetes, tachycardia, chest pain/MI, hypoxia, VTE, HTN, hypotension, pain, nausea, AKI, pre-op evaluation, delirium, peroperative Alk, ECGs, pneumonia, electrolyte abnormalities, thrombocytopenia, peripau medication management, cardiac electronic implantable devices, quality/safety improvements, patient safety

Orthopaedic Intern Co-Management Rotation 15-16

Program Development:
- Orth/Med organizational meetings
- Create objectives & curriculum,
- daily schedule & responsibilities
- Prepare faculty hospitalists, team
- Create orientation materials

QI Training
Introduction lecture
IH online modules

PERIOP MEDICINE DIDACTIC SESSION

Daily activities:
- Bedside rounding with ortho, hospitalist
- Manage medical issues, write notes
- Facilitate IP team communication
- Patient Education
- Preoperative evaluations, optimize QI project work, PM Didactics

Planning Summer 2015

Midpoint Rotation Review

July Aug Sept Oct Nov Dec Jan Feb Mar Apr May June July Aug

QI PROJECT

DATA ANALYSIS & prep for year 2

QI Projects
2015-16
- Barriers to postop PT and related outcomes in TKA patients

2016-17
- Waste reduction, using evidence-based preoperative lab testing

Results

<table>
<thead>
<tr>
<th>Knowledge &amp; Skills</th>
<th>Phys Exam</th>
<th>Comm attractive</th>
<th>Clin Assess</th>
<th>Clin Reass</th>
<th>Medical Mgnt</th>
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<tbody>
<tr>
<td>My clinical skills improved as a result of the rotation</td>
<td>3.7</td>
<td>4.4</td>
<td>4.6</td>
<td>4.8</td>
<td>4.9</td>
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<tr>
<td>My knowledge about medical management of perioperative issues improved as a result of the rotation</td>
<td>4.9</td>
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<tr>
<th>Relationships</th>
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<tr>
<td>I have a greater understanding for the role of the hospitalist with our orthopaedic patients</td>
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<td>I think my relationship with internists in the future will be positively influenced by this experience</td>
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<tr>
<td>I had ample interaction with the multiple professions on the orthopaedic team</td>
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<td>Good communication &amp; understanding between IP members is critical to team function</td>
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<tr>
<td>QI</td>
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<tr>
<td>I learned quality improvement tools from this rotation</td>
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<td>I believe in the value of patient safety and QI efforts in my field</td>
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<th>Overall Rotation</th>
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<td>I enjoyed the rotation</td>
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<tr>
<td>I would recommend this rotation to other surgical colleagues</td>
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Qualitative responses

FAVORITE ASPECTS
- One on one with hospitalist for didactic/teaching/mentoring
- Learning medicine in the context of orthopaedic patients
- Daily teaching, noon conferences, ample time for discussions
- Serving as a link of continuity between medicine & surgical arms

LEAST FAVORITE ASPECTS
- "...best rotation I’ve had this year"
- "...nice not having to worry about being pulled into the OR or clinic to help out, allows us to focus our energy on this rotation"

Future Directions
- Intern role in new Hospitalist Pre-op Clinic for vulnerable patients
- Qualitative analysis of Ortho NP, PAs, R3/RS and hospitalist interviews
- Pre-post medicine self-assessments, tailored reading assignments
- Standard teaching requirement for all interns
- Expanded hospitalist role in QI projects
- Assessment of R3 comfort on medicine issues in 17-18 (first intern class)