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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.

CO-MANAGEMENT TEAM



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, IHI online modules, lecture, and seminars
- CORE CURRICULUM: *diabetes, tachycardia, chest pain/MI, hypoxia, VTE, HTN, hypotension, pain, nausea, AKI, pre-op evaluation, delirium, perioperative Afib, ECGs, pneumonia, electrolyte abnormalities, thrombocytopenia, periop medication management, cardiac electronic implantable devices, quality/systems improvement, patient safety*

Results

12 interns have completed the rotation to date

Survey completed by 10 interns **Average Likert Scores** Strongly Disagree(1)-Strongly Agree(5)

| Knowledge & Skills | Phys Exam | Communication | Clin Assess | Clin Reas | Medical Mgmt |
|--|-----------|---------------|-------------|-----------|--------------|
| My clinical skills improved as a result of the rotation | 3.7 | 4.4 | 4.6 | 4.8 | 4.9 |
| My knowledge about medical management of perioperative issues improved as a result of the rotation | | | | | 4.9 |
| Relationships | | | | | |
| I have a greater understanding for the role of the hospitalist with our orthopaedic patients | | | | | 4.9 |
| I think my relationship with internists in the future will be positively influenced by this experience | | | | | 4.9 |
| Interprofessional | | | | | |
| I had ample interaction with the multiple professions on the orthopedic team | | | | | 4.7 |
| Good communication & understanding between IP members is critical to team function | | | | | 4.9 |
| QI | | | | | |
| I learned quality improvement tools from this rotation | | | | | 4.1 |
| I believe in the value of patient safety and QI efforts in my field | | | | | 4.5 |
| Overall Rotation | | | | | |
| I enjoyed the rotation | | | | | 4.9 |
| I would recommend this rotation to other surgical colleagues | | | | | 4.9 |

Benefits of Collaborative Education

Orthopaedics

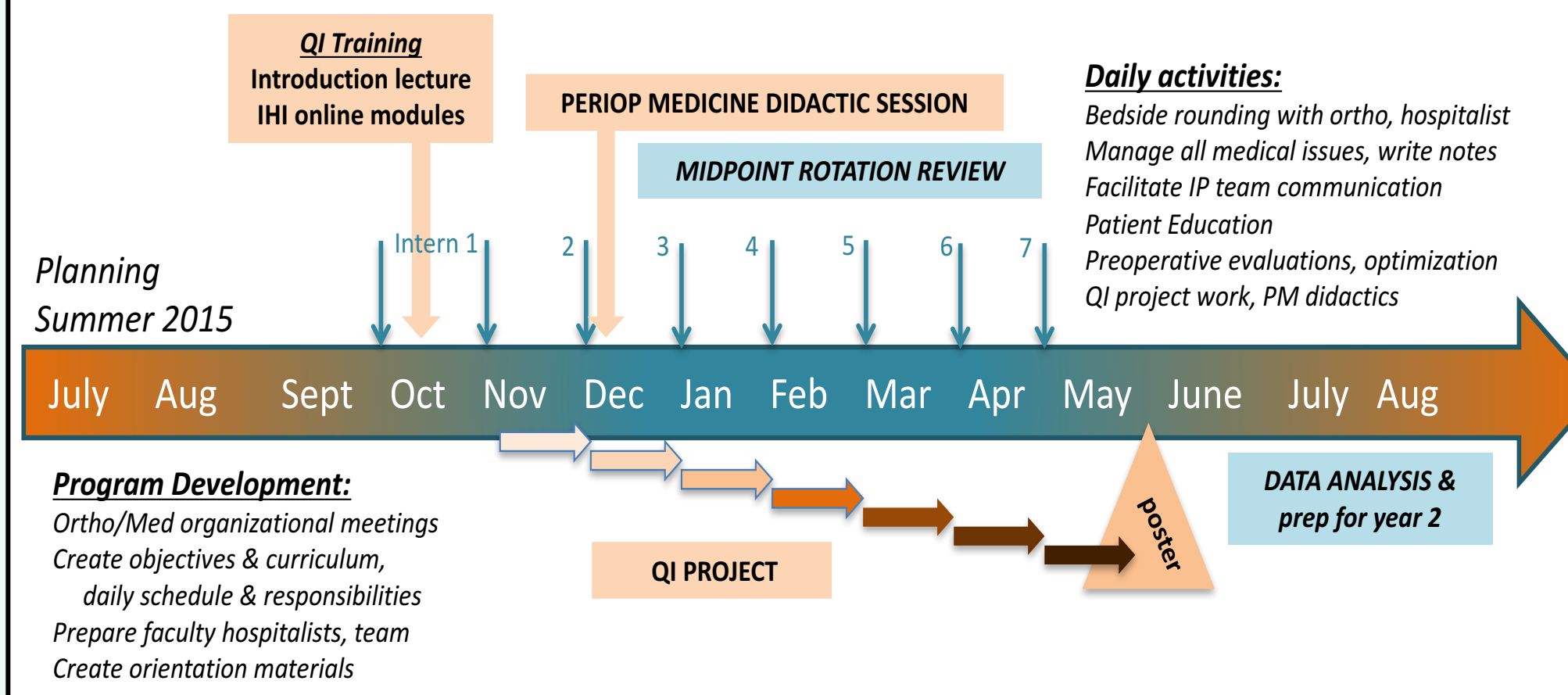
- Meet ACGME requirements
- Improve education in perioperative management of medical issues
- Increase departmental QI efforts



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

Orthopaedic Intern Co-Management Rotation 15-16



QI Projects

- 2015-16 *Barriers to postop PT and related outcomes in TKA patients*
- 2016-17 *Waste reduction, using evidence-based preoperative lab testing*

16-17 Programmatic Additions

- Intern teaching requirement piloted (med student or resident conference)
eg: *Medical students: The Shoulder Musculoskeletal Exam*
Medicine resident noon conference: Common Orthopaedic Infections
- Teaching / Literature Perioperative Database created
- Annual combined didactic session lengthened to 4 hours

Qualitative responses FAVORITE ASPECTS

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

"...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"

"...unintimidating and allowed me to ask any questions I wanted. At the same time, it also forced me to know everything about that patient"

LEAST FAVORITE ASPECTS

- QI project, "awkward" down time
 - Chart review for upcoming surgeries
 - Navigating med/surg team role
- "...While I don't like the QI jargon/nomenclature, I love the idea..."

Future Directions

- Intern role in new Hospitalist Pre-op Clinic for vulnerable patients
- Qualitative analysis of Ortho NP, PAs, R3/R5 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*)