



# PGY1-5 ORTHOPAEDIC RESIDENT SELF-ASSESSMENT OF MILESTONE ACQUISITION

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## Background

Orthopaedic Surgery is one of 7 early adopters of competency-based milestones. ACGME recognizes “self assessment” as a valid assessment tool. It is unknown how residents actually make educational progress, or how their self assessment, will be reflected by milestones.

## Objective

The purpose of this study is to provide a “baseline” of Orthopaedic residents’ milestone acquisition, judged by their self-assessment at the conclusion of the academic year just prior to milestones adoption.

## Hypotheses

- 1) Residents will be able to self assess using milestones
- 2) Self-assessment scores will increase across PGY1-5.
- 3) Self-assessment for patient care (PC) and medical knowledge (MK) milestones will differ compared with milestones for systems based practice-practice based learning & improvement-professionalism- and interpersonal communication. (SBP-PBLI-P-IC)

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## Methods

153 ACGME Orthopaedic Surgery Programs were requested to participate in an electronic survey (45 questions, 41 of which were milestones). Milestone “boxes” were represented as letters, later converted to a numeric scale 1-9.

“1” corresponded to “Fully achieved” (FA) Level 1; “3” = FA Level 2; “5” = FA Level 3; “7” = FA Level 4, and “9” = FA Level 5. The survey was anonymous and de-identified. The Duke IRB deemed this study exempt. A one-way ANOVA was performed to determine the difference in each milestone across PGY levels. A two way sample t-test was done to compare PC, MK, and SBP-PBLI-P-IC averages across PGY levels.

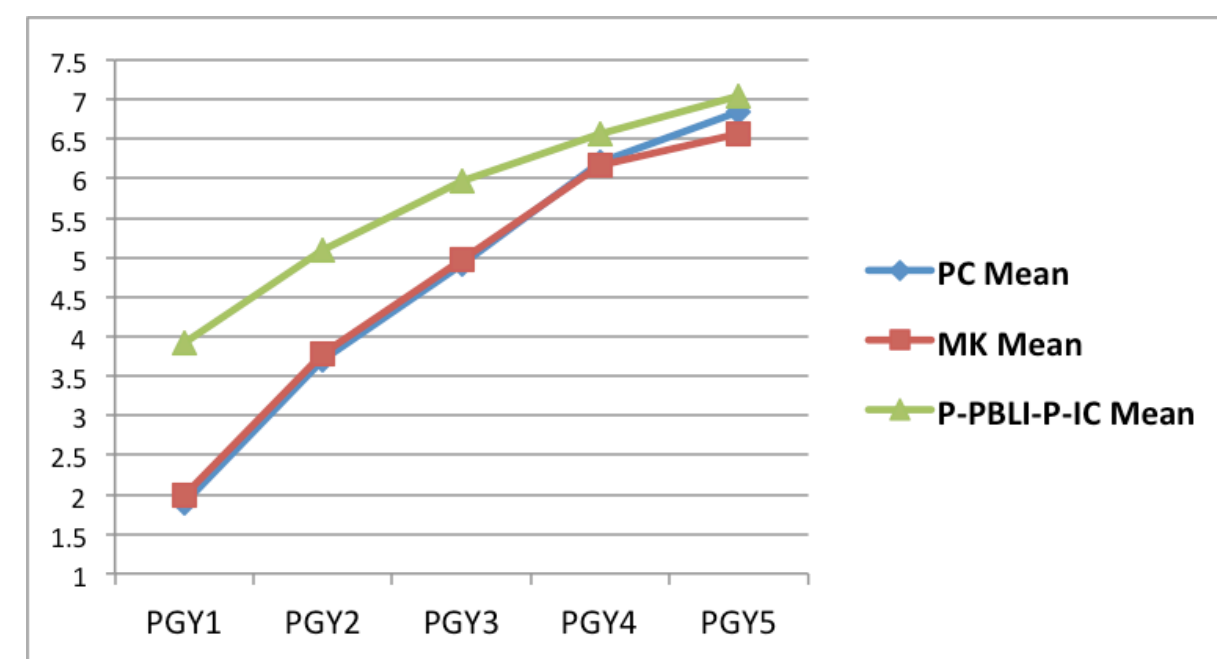


Figure 1 Trajectory of Milestone Acquisition by PGY Level, by Competency Means Patient Care (PC) Medical Knowledge (MK) and Systems Based Practice-Practice Based Learning & Improvement-Professionalism-Interpersonal Communication (SBP-PBLI-P-IC)

PGY Level	Comparison of Milestone Averages within PGY Level	Adjusted p-value
1	P-SBP-IC-PBLI vs. MK Milestones	0.0040
2	P-SBP-IC-PBLI vs. MK Milestones	0.1660
3	P-SBP-IC-PBLI vs. MK Milestones	0.1585
4	P-SBP-IC-PBLI vs. MK Milestones	0.5562
5	P-SBP-IC-PBLI vs. MK Milestones	0.5688
1	P-SBP-IC-PBLI vs. PC Milestones	0.0033
2	P-SBP-IC-PBLI vs. PC Milestones	0.1585
3	P-SBP-IC-PBLI vs. PC Milestones	0.1585
4	P-SBP-IC-PBLI vs. PC Milestones	0.5688
5	P-SBP-IC-PBLI vs. PC Milestones	0.8480

Table 1 Milestones from Medical Knowledge and Patient Care competencies were generally rated less highly than milestones reflecting the other four competencies though this difference was statistically different only for PGY1s

## Results

- 74 Residents responded
- PGY1s and PGY2 mean self -assessments corresponded to FA Level 1 and Level 2 respectively for all milestones.
- PGY3 means indicated FA 30/41 Level 3 milestones.
- PGY4 means corresponded to FA all Level 3 milestones, and 3 Level 4 milestones.
- PGY 5 resident means corresponded to FA 17 Level 4 milestones; they were extremely “close” to FA Level 4 on another 15 milestones.

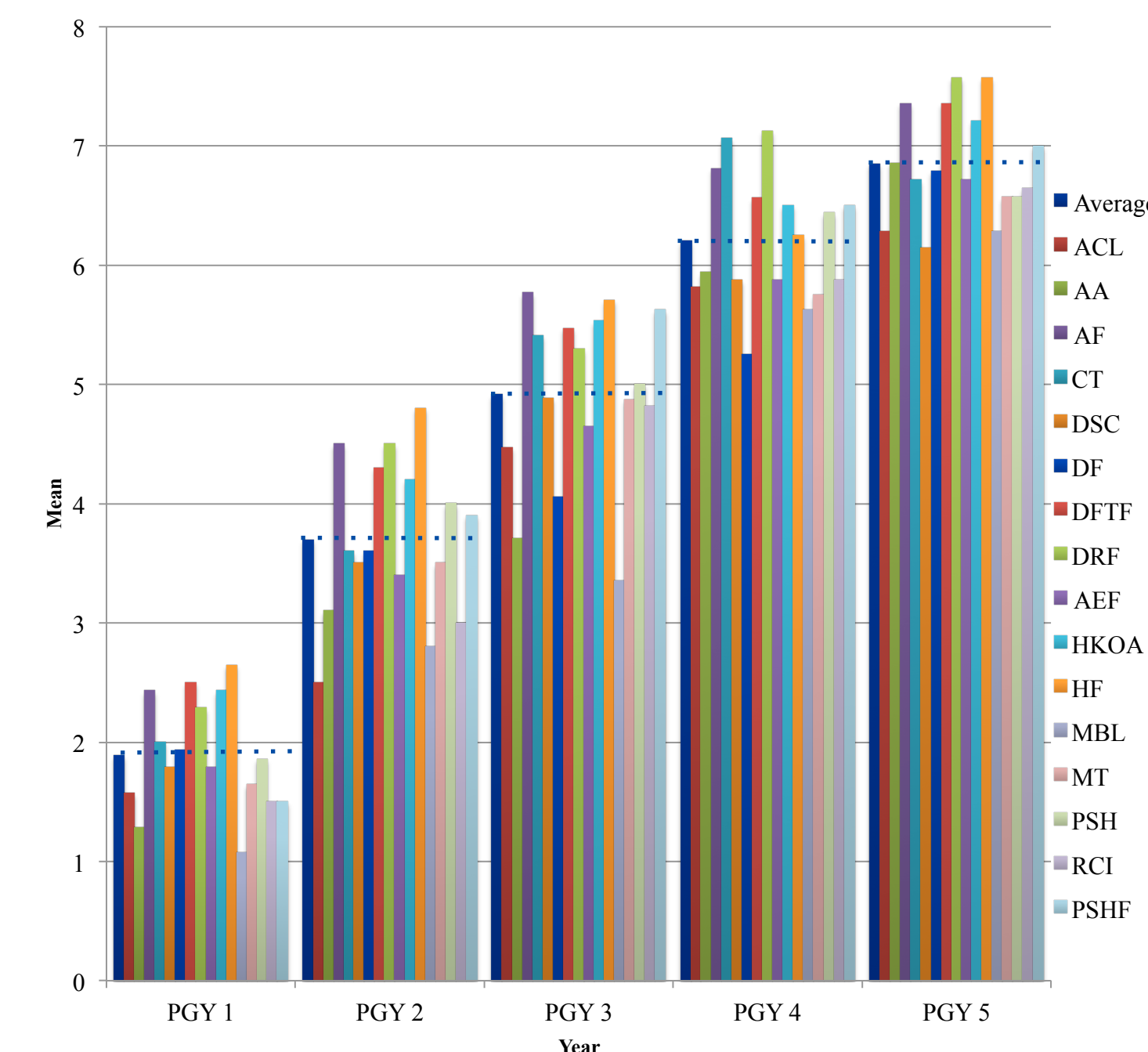


Figure 2 Averages of each of the specific milestones by PGY Levels for Patient Care Milestones

## Conclusions

- 1) Residents were able to self assess using milestones.
  - Residents discriminated among the milestones and did not assess themselves as equally proficient in all
- 2) Self-assessment ratings improved from PGY1 to PGY5
- 3) P-PBLI-SBP-IC milestones were rated more highly than MK and PC milestones (in earlier years of training)

Resident self-assessment using milestones may be one tool useful to CCCs in assessing resident performance

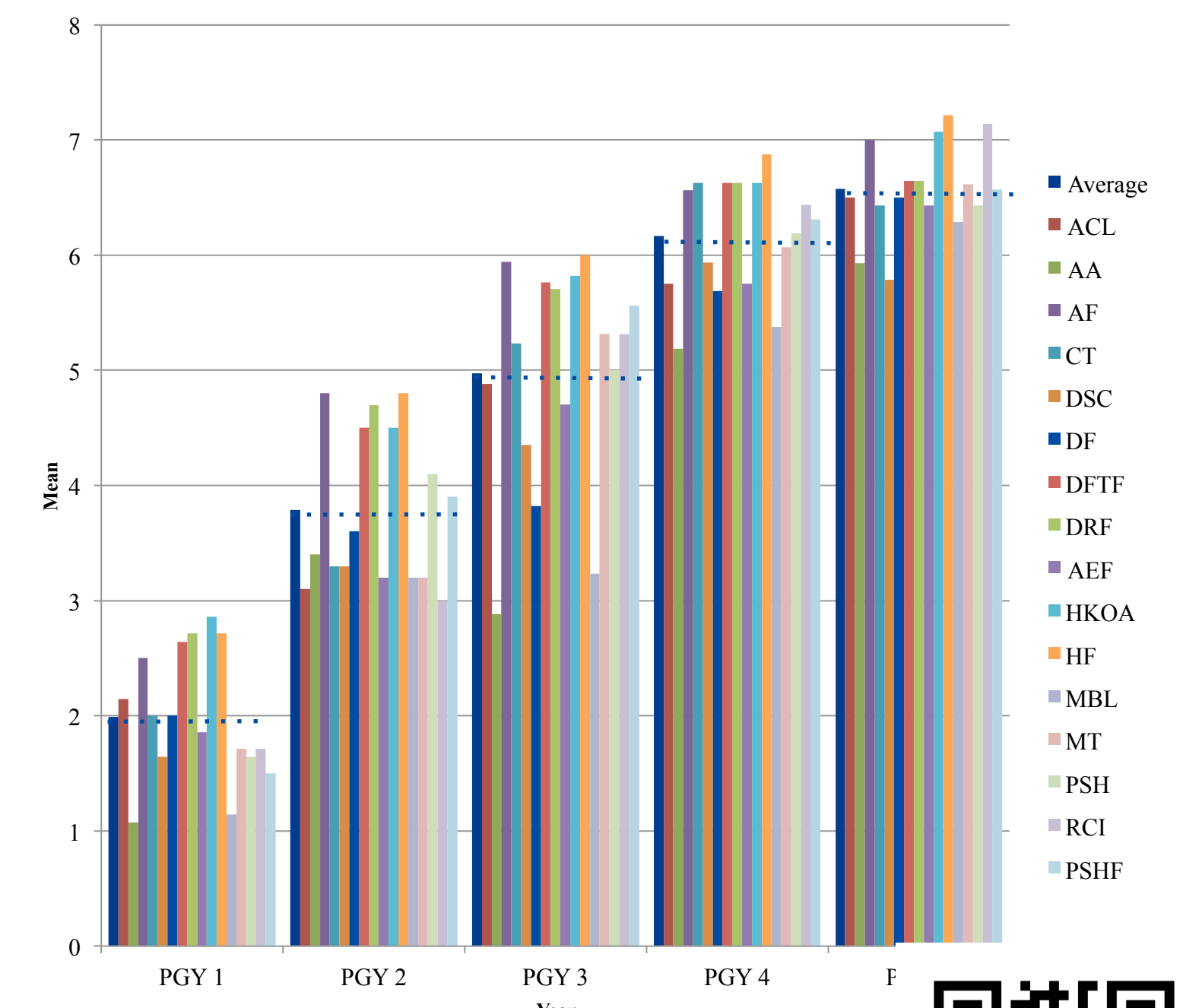


Figure 3 Averages of each of the specific milestones by PGY Levels for Medical Knowledge Milestones

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