Pediatric Resident Minimum Milestone Expectations by Level of Training

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We have nothing to disclose.
Background

- ACGME requires biannual reporting of milestones on all pediatric residents
- Milestone expectation of performance at each level of training is unknown
Specific Aims

- Determine program director expectation of milestone level:
  - Before a resident is “ready to supervise”
  - Before a resident is “ready to graduate”
Methods

- Cross-sectional survey of pediatric program directors in June 2015

- Program demographics

- Does your program have minimum milestone expectations before your residents are ready to supervise?

- Does your program have minimum milestone expectations for graduating residents?
Methods

- For each of the 21 subcompetencies, please indicate the MINIMUM milestone level you expect in your program (or, if your program has not established minimum milestone level, you are considering):
  - Before your residents are READY TO SUPERVISE
    - IF you would allow a resident to supervise even if they are at milestone 1 for this subcompetency, please mark NO MINIMUM LEVEL.
  - GRADUATING pediatric residents (ie., would provide UNSATISFACTORY evaluation to American Board of Pediatrics (ABP) if minimum milestone level not met).
    - IF you would allow a resident to graduate even if they are at milestone 1 for this subcompetency, please mark NO MINIMUM LEVEL.
Analysis

- Descriptive statistics
  - Mean, standard deviation for continuous variables
  - Percentages for categorical variables

- Mixed effects logistic regression to determine:
  - Subcompetencies for which PDs reported:
    - Having no minimum milestone rating before a resident was ready to supervise, or ready to graduate
  - Clustered by program
  - Adjusted for program size, program region
Results

- 57% (113/199) response rate

- Program demographics (size, location) similar between respondents and non-respondents

- Most (80%; 76/95) did NOT have minimum milestone expectations before residents are ready to supervise

- Most (84%; 80/95) did NOT have minimum milestone expectations before residents were ready to graduate
Figure 1. Before "Ready to Supervise" Minimum Milestone Expectations

PC1: Gather information
PC2: Organize and prioritize
PC3: Transfer of care
PC4: Diagnostic/therapeutic decisions*
PC5: Develop management plans
MK: EBM
PBL1: Identify limits
PBL2: Learning activities
PBL3: QI
PBL4: Incorporate feedback
ICS1: Communicate effectively
ICS2: Insight into emotion
Prof1: Humanism
Prof2: Professionalization
Prof3: Professional conduct
Prof4: Help-seeking
Prof5: Trustworthiness
Prof6: Accept ambiguity
SBP1: Coordinate care*
SBP2: Advocacy
SBP3: Teamwork*
Before a resident is “ready to supervise”:

- Majority of PDs expect > Milestone 2 for all subcompetencies
- Majority of PDs expect > Milestone 2.5 for:
  - PBLI4: incorporate feedback
  - Most patient care subcompetencies
    - PC3: transfer of care
    - PC4: diagnostic/therapeutic decisions
    - PC5: develop management plans
  - Most professionalism subcompetencies
    - PROF1: humanism
    - PROF2: professionalization
    - PROF3: professional conduct
    - PROF4: help-seeking
    - PROF5: trustworthiness
Before a resident is “ready to supervise”:

- Mixed effects logistic regression, PDs were more likely NOT to have minimum milestone expectations before a resident was ready to supervise for:
  - SBP2: Advocacy
    • OR: 59.66; 95% CI: 3.54- >999.99
  - PROF6: Accept ambiguity
    • OR: 19.35; 95% CI: 1.33-280.88
  - PBLI3: Quality improvement
    • OR: 19.30; 95% CI: 1.31-283.91
  - PBLI2: Identify learning activities
    • OR: 13.94; 95% CI: 1.01-19.62
Before a resident is “ready to graduate”:

- Majority of PDs expect > Milestone 3 in all subcompetencies
  - Except for:
    - Help-seeking (PROF4) – where >3.5 was expected
    - Advocacy (SBP2) – where >2.5 was expected

- PDs had minimum milestone expectations for all subcompetencies prior to graduation
  - Mixed effects logistic regression adjusting for program size and region
Limitations

- Moderate overall response rate
- Large drop-off in response
  - 113/199 (57%) – Program demographics
  - 95/199 (48%) - Minimum milestone expectations in program
  - 54/199 (27%) – Program director minimum milestone expectations by level of training

- Only second year of milestones reporting
  - PDs and CCC members still developing experience with milestone determinations and implications
  - Limited experience with post-graduation outcomes by which to assess validity of how milestone scores are correlated with post-graduation performance
Implications for Medical Education

- Most programs do not have set minimum milestones for progression from one level of training to the next

- PDs recognize relative importance of different subcompetencies in
  - allowing a resident to supervise vs.
  - allowing a resident to graduate and practice without supervision

- PDs may have a shared mental model of expectations of residents prior to being “ready to supervise” which include ability to incorporate feedback and performance on professionalism and patient care competencies

- Help-seeking behavior may be key to entrustment decisions before a resident is “ready for unsupervised practice”
Thank you!

- Program directors who participated in the study