Perceived Resident Competency in ACGME-Required NICU Procedures

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**BACKGROUND**

- ACGME-required NICU procedures that residents are meant to be competent in prior to graduation include bag mask ventilation (BMV), umbilical venous catheter (UVC) placement, and intubation
- However, there is reported variation in residents’ perceived competency in these procedures nationwide

**METHODS**

- **Objective:** To evaluate and identify methods for improving pediatric residents’ perceived competency in ACGME-required NICU procedures prior to graduation
- **Design:** 5-point Likert scale-based survey administered via email to pediatric residents at UW Madison in 2020 to assess perceived competency in BMV, UVC placement, and intubation; demographics collected included year in residency and number of NICU rotations completed
- **Methods:** Statistical analysis completed using Chi-square (Fisher’s exact test) testing to assess statistical significance of differences in competency perception between residents with 1, 2, or 3 months of NICU experience

**RESULTS**

- 46 pediatric residents surveyed with a 64% response rate (n=29)
- 45% (n=13) of respondents completed 1 month of a NICU rotation; 34% (n=10) completed 2 months; 21% (n=6) completed 3 months
- **BMV:** 90% (n=26) of respondents indicated perceived competency with no differences in competency perception between residents with 1, 2, or 3 months of NICU experience (p>0.999)
- **UVC Placement:** 62% (n=18) of respondents disagreed with feeling competent, but residents with 3 months of NICU experience indicated an increase in perceived competence compared to those with 1 or 2 months (p=0.001)
- **Intubation:** 62% (n=18) of respondents disagreed with feeling competent with no differences in competency perception between residents with 1, 2, or 3 months of NICU experience (p>0.999)

**CONCLUSIONS**

- There is ongoing self-perceived resident discomfort with ACGME-required procedures in the NICU, despite the number of completed NICU rotations
- Further interventions are necessary to improve resident self-perceived comfort and competency