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Pediatric Educational Outreach to a Community Based Emergency Department: Clinical Management of the Febrile Infant

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Pediatric Educational Outreach to a Community Based Emergency Department: Clinical Management of the Febrile Infant

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INTRODUCTION/RESEARCH GOAL:

- Multiple studies have shown variability in the approach to febrile infants ≤60 days of age in community emergency departments (EDs).
- The American Academy of Pediatrics (AAP) recently published new guidelines on management of febrile infants.
- We created a novel survey for ED providers in a local community ED to assess comfort level and alignment with an AAP informed clinical practice guideline (CPG) pre and post targeted education.

METHODS:

An anonymous pre/post survey was administered to providers at a single community ED, including demographics, educational preference, comfort level, and six case scenarios containing 5-8 questions each. Education was designed based on results from the initial survey and conducted via a virtual PowerPoint presentation at a mandatory division meeting and subsequent informative email.

Pre-Education Electronic Survey

- Demographics
- Comfort level
- 6 case-based scenarios

Educational Intervention

- Guided by Pre-education assessment
- Education on CPG and high yield areas

Follow-up Electronic Survey

- Comfort level
- Same 6 case-based scenarios, shuffled
- Current guideline use

RESULTS:

Sample Case: 34 day old female born at 37 weeks; Presented with fever of 38.4 C. for 1 day and otherwise normal vitals; No evidence of infection on physical exam; History is unremarkable; Maternal GBS negative; No antibiotics given to infant.

Question	% Correct in pre-survey	% Correct in post-survey	p-value*
Q1. Tests to be ordered	37.5	37.5	1.00
Q2. Imaging to be ordered	100.0	100.0	NA
Q3. Additional labs based on results	31.3	68.8	0.03
Q4. Current disposition	62.5	81.3	0.26
Q5. Antibiotics to be ordered	25.0	56.3	0.03
Q6. Additional tests/imaging to be ordered	56.3	81.3	0.10
Q7. Results-based disposition	93.8	100.0	0.32
Q8. Results-based Antibiotics	62.5	93.8	0.03

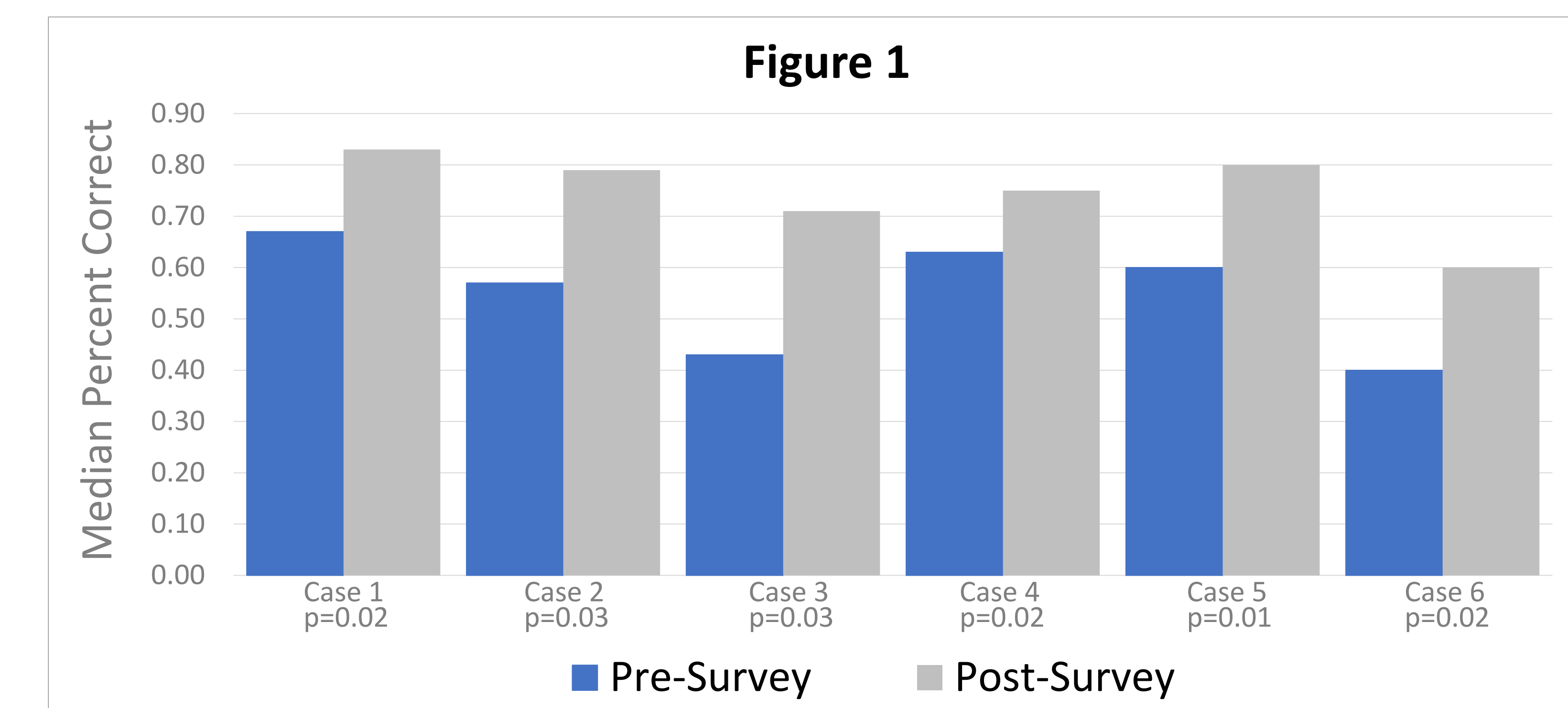
* McNemar's test

Understanding provider comfort level and management allows for education with the potential to decrease use of inappropriate testing, interventions and antibiotics.

- 20 providers (74%) completed the initial survey, 87.5% were physicians
- 16 (85%) completed the post-education survey, 12 (75%) of whom completed the educational intervention prior
- Increase in comfort level in evaluating febrile infants pre/post education from 56% to 75% (p-value = 0.17)
- All providers (3) indicating no improvement in comfort did not participate in the educational intervention

RESULTS (continued):

- Statistically significant improvement in all cases when comparing median percent correct answers pre/post education (Figure 1)
- Across all cases providers improved most in correct antibiotic choice



LIMITATIONS:

- Single site
- Inability to objectively measure if education changed local practice

CONCLUSIONS:

- Targeted education on management of febrile infants less than or equal to 60 days of age increased overall comfort level among community ED providers
- Education increased adherence to guidelines with regard to antibiotic selection and patient disposition
- Pediatric Educational outreach efforts have the potential to improve care of pediatric patients in local community EDs

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