Sustainability in the AAP Bronchiolitis Quality Improvement Project (BQIP) Collaborative

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BACKGROUND

• Osmotic dehydrates in hospital bronchiolitis management is well documented, despite presence of the evidence-based American Academy of Pediatrics (AAP) bronchiolitis clinical practice guideline (CPG).

• Adherence to the AAP CPG recommendations improved significantly during the one year AAP multi-institutional project “Quality Collaborative for Improving Hospitalized Compliance with the AAP Bronchiolitis Guidelines” (BQIP).

• Whether these improvements were sustained in the subsequent year was unknown.

OBJECTIVE

To assess whether improvements in key bronchiolitis quality measures made during BQIP were sustained one year following completion of the collaborative.

METHODS

Study Design and Data Collection

• Twenty-one multi-disciplinary hospital-based teams initially participated and provided quarterly data of key hospital bronchiolitis management process and outcome measures during January through March bronchiolitis seasons. Teams reviewed 2013 baseline data and 2014 intervention data. Nine sites provided 2015 sustainability data, following the completion of the collaborative.

Sustainability Assessment

• Development of best practice sustainability strategies will inform future collaborative work.

RESULTS

Figure 1: Measure specific performance demonstrates sustained improvement defined as lack of statistically significant difference from intervention to sustainability seasons

Table 1: Characteristics of sites that did and did not participate in the BQIP sustainability data collection season

Table 2: Differences in bronchiolitis quality measures at baseline for sites that did and did not participate in BQIP sustainability data collection season

DISCUSSION

Conclusions:

• Sites maintained the improvements in bronchiolitis process measures one year after completion of the collaborative.

• Orders for intermittent pulse oximetry monitoring increased.

• Opportunities exist for further improvement across all measures.

Limitations:

• Limited details of local improvement work during sustainability season.

• Only a subset of original sites submit sustainability data which may introduce selection bias, and test generalizability.

• Variability of data collection in the chart review process may have occurred.

• Absence of control group limits assessment of causal relationship of interventions and influence of secular trends.

Future directions:

• Expanded bronchiolitis quality improvement work through hospitalist and emergency medicine collaborations in the AAP multi-institutional project “Quality Collaborative for Improving Hospitalist Compliance with the AAP Bronchiolitis Guidelines” (BQIP) collaborative.

• Development of local practice sustainability strategies will inform future collaborative work.

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