

THE USE OF HIGH FLOW NASAL CANNULA OUTSIDE OF THE PEDIATRIC INTENSIVE CARE UNIT



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BACKGROUND

- High flow nasal cannula (HFNC) is used as respiratory support for children with bronchiolitis, a lung disease characterized by inflammation of the pediatric lower airway.

- Studies have shown that the use of HFNC decreases rates of intubation and mechanical ventilation. The use of HFNC outside of the PICU was implemented in 2015 and revised in 2020 given new data on it's use.

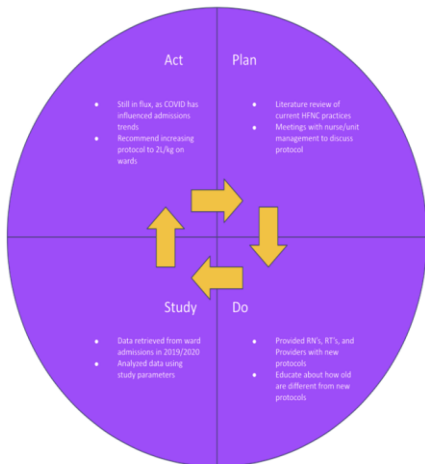
PROJECT AIM

To show that the use of a new HFNC policy allowing higher flows outside the Pediatric ICU for respiratory support of patients with bronchiolitis up to two years of age, is well tolerated and safe, improves patient satisfaction, and minimizes costs of care.

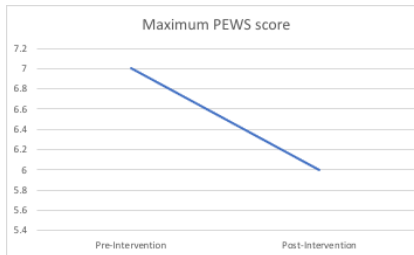
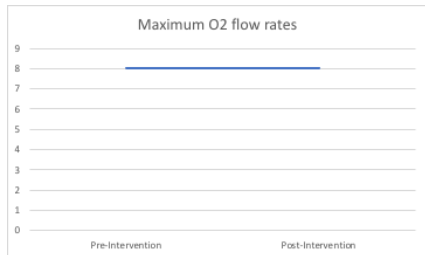
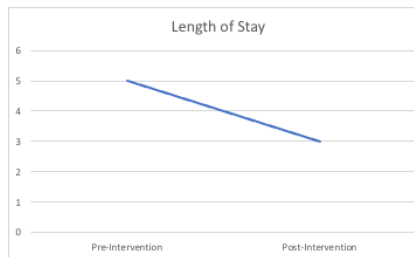
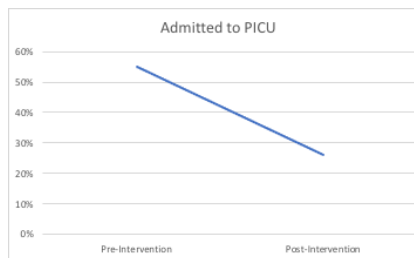
PROJECT DESIGN/STRATEGY

- Patients \leq 24 months admitted to the general pediatric floor
- January – March of 2019 (pre-implementation) and 2020 (post-intervention)
- Those with respiratory diagnoses consistent with bronchiolitis were selected.

CHANGES MADE (PDSA CYCLES)



RESULTS/OUTCOMES



VARIABLES AND OUTCOMES

Variables:

- Admission weight
- Pediatric Early Warning Score (PEWS)
- Initial and Max Oxygen flow

Outcomes:

- Transfer to PICU
- Intubations
- Length of stay

LESSONS LEARNED

- Our children's hospital has lower intubation rates than the national average
- Although our findings lacked statistical significance, they hint at the possibilities
- COVID has complicated our next PDSA cycle, as we have had fewer patients

NEXT STEPS

- Continue lit review for new considerations
- Consider changing the protocol to reflect new data and literature findings to allow 2L/kg outside of the PICU
- Consider next PDSA cycle in 2021/2022