

Supplemental Table 1: Summary of period 1, 2 and 3 study interventions, including educational interventions in period 2 and Plan-Do-Study-Act (PDSA) cycle interventions in period 3.

Study Intervention Timeline			
Study Period	Baseline Data Collection		Implementation Date
Period 1	Retrospective chart review		May 1st, 2019 - January 28th, 2020
Study Period	Educational Interventions		Implementation Date
Period 2	Provider Lecture-Based Education		January 28th, 2020
	Multi-disciplinary workgroup formed with representation from bedside nursing staff, nurse management leadership, RT, pharmacy and providers (NNPs, PAs and MD/DOs)		May 20th, 2020
	MUSC Pre-Medication for Non-Emergent Intubation Protocol received consensus-based clinical guideline approval by the Division of Neonatology		July 1st, 2020
	Fellow Lecture-Based Education Session		July 10th, 2020
	Educational video released through a secure video-streaming service (Panopto) to all bedside nursing staff and incorporated into new hire nursing orientation		July 31st, 2020
	Printed protocols placed in NICU provider work rooms and intubation procedure carts		August 5th, 2020
MUSC Premedication for Non-Emergent Intubation Protocol Released on August 6th, 2020			
Study Period	Targeted Gap	PDSA Change Idea Intervention	Implementation Date
Period 3	Low RN video view rate	RN email alert and staff meeting reminder to view video	October 1st, 2020
	Small NMBA dose volume	1:10 rocuronium dilution dose for infants <1 kilogram	January 23rd, 2021
	Monthly resident turnover	Lecture-based education incorporated into monthly resident teaching	April 8th, 2021
Abbreviations: NNP, Neonatal Nurse Practitioner; PA, Physician Assistant; MD, Medical Doctor; DO, Doctor of Osteopathic Medicine; RT, Respiratory Therapist; MUSC, Medical University of South Carolina; PDSA, Plan-Do-Study-Act			