

Decreasing Infections in the NICU: Ventilator Related Pneumonia

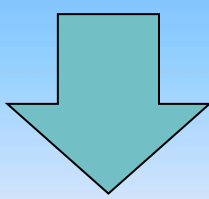
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Current Practice Evaluated



Literature Reviewed

Items reinforced or added to current policies

Daily assessment for ability to wean from ventilator

Environmental care: Disinfect high touch surfaces with hospital approved disinfectant at the beginning of each shift.

Includes outside of incubator, work surface at bedside, monitor and ventilator face.

Single-patient (non-disposable) resuscitation bags kept outside the bed covered in a plastic bag. Bags are changed and cleaned every 7 days.

Elevate head of bed 15 degrees.

Mouth care: Provide developmentally supportive mouth care every 4 to 6 hours utilizing sterile water and 2x2. Clean lips and mouth.

Suctioning Guidelines:

Maintain closed system

Implemented closed suctioning for all patients Suctioning of mouth before endotracheal tube (ETT) and before moving patient or ETT. Closed and oral suction devices changed daily and utilize separate suction systems

Parent education

Parents are educated to provide oral care for their infant

Parents are education regarding risks of VAP and measures taken to decrease the risk, including hand hygiene.

Staff Education

Provided education through Computer Based Learning Audits done and reinforcement/correction provided on the spot

VAP Definition

CDC definition
Chest x-rays reviewed by neonatologist and radiologist
RCA done for each case

Next Steps

1. Evaluation of Evacua® circuits – changed every 30 days vs 7 days
2. Lengthen time to change in-line suction to 7 days vs every 24 hours
3. Creation of video for ongoing education and for new staff

Results

Performance Outcomes

Audits of VAP elements

Observation #	Head of bed elevated 15 degrees	Resuscitation bag outside incubator (not lying on counter)	Oral care done every 4 to 6 hrs	In-line suction in place	Oral suction device dated/timed (changed every 24 hrs)	Oral suction holder dated/timed (changed every 72 hrs)	2-suction set up (using 2 suction canisters or y-connector)	Feedback provided	Comments
Feb	17 N	17 N	16/1	17 N	15/ 2	16/1	16/1	15/2	Missing Y's
Mar	10 N	10 N	Y N	10 N	10 N	6/4	10 N	Y N	
May	8 N	8 N	5 4	8 N	8 N	8 N	8 N	Y N	
June	4 N	4 N	1 3	4 N	4 N	4 N	4 N	1 N	Oral care not consistently documented every 4-6 hours
Aug	8 N	7/ 1	8 N	8 N	1 7	4/ 4	7/ 1	Y N	Oral suction not labeled

Suctioning Audits

Observation #	Hand hygiene performed adequately	2-persons immediately available during suctioning	Measured suctioning done	No routine use of saline	Indication for suctioning present	Oral suction completed prior to ETT suctioning	In-line suction used	Water drained from circuit prior to repositioning	Feedback provided	Comments
Month 1	27 N	26/1	22/4	26 N 1-NA	26/1	24/3	27 N	27 N	26/1	Lil sucker too big for mouth;
Month 2	10 N	10 N	10 N	10 N NA	10 N	10 N	10 N	10 N	Y N	No card for measured suctioning; cards moved to more convenient location
3	Y N	Y N	Y N	Y N NA	Y N	Y N	Y N	Y N	Y N	Reminded to do oral suctioning first;

Process Outcomes

Ventilator days

	2008	2009
Q1	588	276
Q2	852	467

VAP

	2009
Q1	0
Q2	1

Bibliography

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