



Healthcare Organization Commitment

Contact Details

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Position

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Commitment Details

Commitment Name

APSS #7A: Optimal Neonatal Oxygen Targeting

What Patient Safety Challenge does your Commitment address?

Challenge 7A - Optimal neonatal oxygen targeting

Commitment Start Date

01/01/2013

How Many Hospitals Will This Commitment Represent

Commitment Summary

Hypoxia in pre-term infants can result in mortality and morbidity. Supplemental oxygen administration helps avoid hypoxia but hyperoxia can cause retinopathy of prematurity (ROP) and increase risk for other conditions including chronic lung disease. Implementing an optimal oxygen targeting strategy can improve neonatal outcomes. For over a decade, CHOC Children's has taken actionable steps to address suboptimal oxygen targeting. The development of a "Small Baby NICU," a freestanding neonatal unit dedicated to the care of Extremely Low Birthweight (ELBW) neonates of less than 28 weeks gestational age or 1000 grams birthweight, has allowed for super-specialized care for these most vulnerable babies. This special, dedicated environment, staff and protocols have furthered the advancement of care for ELBW neonates, and improved outcomes across standard NICU measures, including ROP.

Commitment Description & Detail

CHOC Children's has rigorous neonatal quality improvement plans in place to deliver effective and safe oxygen concentrations to NICU infants. This includes standardized ordering plans and monitoring parameters and associated action steps. CHOC Retinopathy of Prematurity (ROP) rates are historically favorable versus international, national and state benchmarks, including Vermont Oxford Network (VON) and California Perinatal Quality Care Consortium (CPQCC). ROP is also a target of a the Children's Hospitals Neonatal Consortium (CHNC), a group of about 35 children's hospitals Level 4 NICUs, of which CHOC is a member. As an ongoing goal, CHOC will continue to endeavor to reduce its neonatal ROP annual rate by 10%. In alignment with the Patient Safety Movement Foundation's Actionable Patient Safety Solutions (APSS) checklist, CHOC Children's Hospital has completed and reached our goal for utilizing the below checklist items.

Action Plan

-Make an organization-wide commitment by administrative, clinical, and patient engagement leaders to address neonatal patient safety related to oxygen administration. - Assess opportunities to improve oxygen administration and monitoring for the prevention of adverse events due to lack or excess of oxygen. -Implement interdisciplinary strategies and develop an action plan with a timeline with concrete milestones to implement an optimal oxygen policy for neonates. -Select technologies that have been shown to improve neonatal outcomes, including but not limited to: blenders, pulse oximetry, and heated humidifiers. -Determine the oxygen targeting policy that healthcare providers should implement: " The SpO₂ for a pre-term baby breathing supplemental oxygen should not exceed 95%. " The SpO₂ for other larger infants and neonatal patients should stay in the range of 88-95% or 90-96% depending on infant and condition. -When the saturation or SpO₂ dips below 88%, avoid a response that would induce hyperoxia. -In order to accomplish this, the oxygen saturation monitor alarms should always be on and active when an infant is breathing supplemental oxygen. -The high SpO₂ alarm should be set to 95%,

depending on the infant. The low SpO2 alarm should be set to 85% or as required for special infant circumstances, eg., congenital heart disease. -Alarms signaling should receive attention from the appropriate bedside clinicians. -When a baby is not breathing supplemental oxygen, but is being monitored for desaturations, the low SpO2 alarm should in general be set at 85% and the high alarm can be turned off. -Implement your action plan for including educational activities, workshops, and tools for all members of the neonatal healthcare team. -Develop a process for continuous improvement by communicating with staff and implementing measures to improve processes in order to meet the oxygen targeting objective.

Commitment Timeline

These checklist items are currently in place at CHOC Children's. Our commitment to this clinical topic and APSS is ongoing and will be reported annually to the PSMF.

Impact Details

Lives Saved

Lives Spared Total =

0

For reporting purposes, the number has been rounded up to the nearest whole number.
Lives Spared Total

0