

Decrease in the Incidence of Retinopathy of Prematurity in a Level 3 Tertiary Neonatal Intensive Care Unit
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Problem: The incidence of retinopathy of prematurity (ROP) in our neonatal intensive care unit (NICU) was higher than in those units which implemented strict management of oxygenation. A concentrated effort to decrease the rate of ROP was necessary.

Evidence: The ACE Star Model of Knowledge Transformation (Stevens, 2004) - was utilized to develop the protocol. In-depth review and critique of literature was conducted to identify essential research evidence for changing practice.

Strategy: A multidisciplinary team developed the unit specific protocol to restrict oxygen supplementation based on the evidence found in the literature.

Practice Changes:

Oxygen saturation equipment was adapted to reflect the new established alarm parameters. Visual cues were developed utilizing to identify those patients under the new ROP protocol

Evaluation: The rates of stage III and IV ROP and the incidence of laser surgery among the at-risk patients were measured.

Results: Stage III and IV ROP decreased by 53% in infants with a birth weight of 500-750gm and 18% in infants 750-1000 gm. Laser surgery decreased by 18% in infants w/birth weight of 500-750gm.

Recommendations: We have adopted the oxygen targeting protocols into our practice. Restricted oxygen use has reduced the risk of eye damage in our patients. More research is needed to determine the best level of oxygen usage in premature and low birthweight infants.

Bibliography:

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