Queen's University Retinopathy of Prematurity (ROP) in NI: Are we achieving 100% screening coverage?

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What causes ROP & Why choose this topic for audit?



ROP is a disease of the growing blood vessels in the retina of the premature eye. Severity increases in the most immature, smallest and unstable infants. Mild ROP normally resolves itself but more severe cases may require treatment.



Globally, ROP is a leading cause of preventable blindness. 'At risk' infants should be screened in accordance with recommended guidelines.

Improved survival amongst the least mature infants has resulted in increases in those infants most 'at risk' of developing ROP.

Screening criteria: 100% infants with BW \leq 1500g and/or GA < 32 wks.¹

Rationale, Aim & Method

2004/5 routinely collected neonatal data (NICORE) suggested that 'at risk' infants were being missed! Only 60 to 67% of eligible infants were screened PRIOR TO DISCHARGE from neonatal care. AREA OF CONCERN & HIGH RISK

AIM:

To ascertain whether the NICORE dataset is fit for the purpose of monitoring ROP screening attainment & to make recommendations for process improvement.

METHOD:

Retrospective audit using comparative analyses (Cohen's Kappa test) & linkage of two routine datasets (NICORE & Ophthalmology).





here are two ways to live your life. One is as though nothing is a mirade. The other is as though everything is a mirad Albert Einstein (1879-1955)

Results

During the study period (2006) there were 23,895 live born infants in NI with 317 infants fulfilling the ROP screening criteria. Twenty-eight eligible infants died prior to screen due date.

Eligible Survivors	NICORE	Ophth	Combined
Screened	217 (75%)	216 (80%)	242 (84%)

The Ophthalmology dataset reported more infants screened, tended towards more ROP present and more severe ROP. In NI 26.3% of infants developed any stage ROP, 9.5% severe & 6% required treatment (60 per 1,000 infants surviving to screen).

Findings, Conclusions & Action

- NI DID NOT reach the recommended standard (100%).
- > NOT all hospitals were adhering to RCO screening criteria.
- More mature infants NOT being screened BUT 1/3 SGA.
- > ROP performance monitoring datasets SUB-OPTIMAL.
- ➢ ROP datasets need to include all ophthalmic screens even AFTER DISCHARGE from neonatal unit to truly reflect ROP screening performance & outcomes & to meet 100% target.

ACTIONS 2009:

NI ROP interest group, implementation of 2008 RCPCH/RCOphth guidelines, dissemination of study findings to NI NICORE group, new ROP record keeping proforma & screening summary, ROP data entry screen in new neonatal data management software.

Progress to date & The way forward

2012/13 : Quality (ROP) commissioning contracts. 95% screened Badger Net implemented in all units.

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2013/14: Regional & Unit web reporting facility.

Ongoing performance monitoring.

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Reference:

http://www.rcophth.ac.uk/core/core_picker/download.asp?id=180&filetitle=UK+Retinopathy+of+Prematurity+Guideline+May+2008 (accessed September 2011)