

# 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 ≤1500g and/or GA < 32 wks.<sup>1</sup>**

## 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).

## 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).

## 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.



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

## Progress to date & The way forward

**2012/13**: Quality (ROP) commissioning contracts.

**95% screened**

Badger Net implemented in all units.

**2013/14**: Regional & Unit web reporting facility.

Ongoing performance monitoring.

