



How Big is Your Head? Measuring Head Circumference in a Surgical NICU

Porteous Z¹, Davey N², Hannam S¹

1. Great Ormond Street Hospital for Children
2. QIC Learn Project

Corresponding Author:

Zoe Porteous

ztporteous@doctors.org.uk

London Paediatrics 2022: Volume 1 (1)

Accepted for publication March 2022

To subscribe to London Paediatrics:

<http://journal.londonpaediatrics.co.uk>

Article submissions and author instructions:

<http://journal.londonpaediatrics.co.uk/index.php/1/about/submissions>

Background

This is a Quality Improvement Project undertaken in NICU at Great Ormond Street Hospital. The main cohort are infants referred with surgical or neurological problems. Babies' heads are measured irregularly and not plotted on the growth chart. This means their growth is not effectively monitored and underlying pathology can be missed.

Methods

To understand the extent of the problem we initially explored whether the problem was influencing patient care. We established that infants were not having their growth adequately monitored and we performed diagnostics to further understand the problem. Some infants had missed measurements on admission, and many did not have their weekly measurements recorded. A snapshot audit displayed the extent of the problem with 1/7 infants having measurements documented.

Through the QIC Learn Course we performed multiple small PDSA cycles to assess effectiveness of interventions.

Results & Analysis

High risk infants in the NICU are not receiving their weekly head circumference measurements to monitor growing and for underlying pathology.

Analysis

Initially displaying a reminder poster was a quick and easy intervention, however the impact was low. Next, discussion with the nurse educator who assured that the nursing staff measure the head circumference weekly. She also sent out a reminder email to all nursing staff. After the discussion, I did some investigation into the EPIC computer system, and it became apparent that the nursing staff documented the data on 'Flowsheets' but sometimes these numbers did not translate to the growth chart.

Meeting with the EPIC configuration consultant identified a block on the system where there must be seven days between measurements, or they will not translate to the growth chart. This is inadequate as medical staff can miss trends, nursing staff are wasting their time taking measurements that cannot be easily found, underlying pathology can be missed.

This block will be taken off to allow all measurements for infants in NICU, PICU and CICU to be effectively plotted on the growth chart. This will have a positive impact on all infants in intensive care in Great Ormond Street Hospital.