Learning together: A regional neonatal mortality review panel

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AIMS

- Identify areas of excellent practice.
- Identify areas where management could have been improved.
- To better understand the causes of death within our region.
- To disseminate learning throughout the region to all staff involved in neonatal care.
- To reduce overall neonatal mortality through striving for excellence in care.
- Establish good communication with CDOP panels.

Mandate

✧ The Kirkup report (Morecombe Bay, 2015) stated that deaths should be 'properly investigated, in order to identify problems and prevent a recurrence'.

METHOD

✧ We set up a regional peer review panel to review all neonatal deaths within the Yorkshire and Humber Neonatal ODN (South).

- 9 neonatal units
- Medical and nursing representatives
- Obstetric, transport and surgical representation
- Cases presented
- Peer review and completion of proforma, e.g.
  - Antenatal care.
  - Labour and delivery.
  - Neonatal care pathway for transfer (if applicable).
  - End of life care and palliative care (if applicable).
  - Certification including coroner involvement (if applicable).
  - Postmortem – offered and performed.
  - Outcome of internal Trust review.
  - After care bereavement support for parents.
- Fed into local CDOP processes

Opinion:

1. Were there were any modifiable factors that may have changed the outcome?

2. Were there any factors that could have improved the quality of care provided?

Case Example

We identified a common theme of delays in the emergency administration of blood at birth.

We undertook an extensive education programme:

Trust level education & training

Simulation

Network training days

Posters

At a newborn arrest…

THINK – of causes of arrest (4H's,4T's)
Remember **ACUTE BLOOD LOSS**
ACTION – Look at the Hb on the gas?
Ask obstetricians?
QUESTION – In your Trust, where can you get O negative blood from urgently?

At a newborn arrest…
THINK – of causes of arrest (4H's, 4T's): Remember **ACUTE BLOOD LOSS**
ACTION – Look at the Hb on the gas? Ask obstetricians?
QUESTION – In your Trust, where can you get O negative blood from urgently?

UAC and a dusky leg?
THINK - ? aortic thrombus
ACTION – Ultrasound the vessels

Learning together from neonatal mortality reviews: May 2013

In severe meconium aspiration at birth
THINK – early surfactant

UAC / UVC insertion
THINK – Is baby waiting too long without fluid during this procedure?
ACTION - If line is bleeding back, then it can be used for clear fluids and antibiotics whilst awaiting x-ray confirmation
QUESTION – Don't delay antibiotics / fluids in high risk babies

UAC
THINK – if no IV access, then UAC can be used for blood and platelets

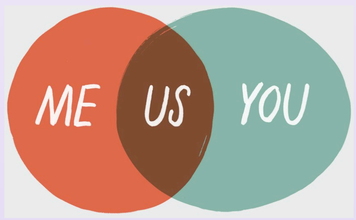
Meconium aspiration needing ventilatory support
THINK- Any signs of encephalopathy?
ACTION – Examine for signs of encephalopathy and document your findings in the notes (nb. Especially before muscle relaxation)
QUESTION – Do they need cooling?

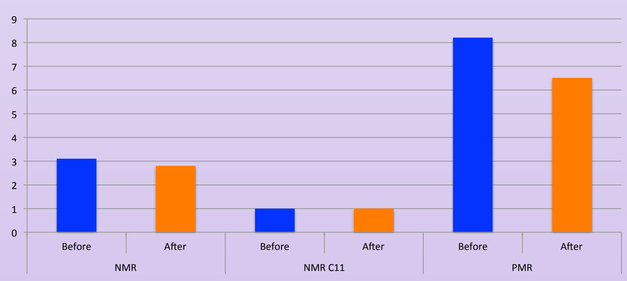
RESULTS

Since June 2012 we have had 15 meetings and reviewed 152 deaths.

Outcomes

- **Identified many learning points including common themes**
- **Improved collaboration**
- **Improved standardisation of care**
- **Disseminated learning through**
  - **Posters**
  - **Network training days**
  - **Simulation**
  - **Training package development**
- **Guideline development and review**





Mortality rates in 2010 and 2013 (before and after the panel)

NMR – Neonatal Mortality rate (per 1000 live births)
NMR CII - Neonatal mortality ratio based on CRIB II data (per 1000 live births)
PMR - Perinatal mortality rates (per 1000 births)
Data taken from The Yorkshire Neonatal Surveys 2011 and 2014 reports (nb. Categorisation changed slightly between reports)

CONCLUSIONS

✧ Critical reflection and peer review are key tools in improving care.

✧ A regional peer review panel allows identification of common themes.

✧ Education can be implemented network wide allowing collective learning.

✧ Collaboration can be improved.

✧ Mortality can be reduced.

✧ We are now replicating this model across the rest of the Neonatal Operational Delivery Network.

REFERENCES

Kirkup B. The Report of the Morecambe Bay Investigation: An independent investigation into the management, delivery and outcomes of care provided by the maternity and neonatal services at the University Hospitals of Morecambe Bay NHS Foundation Trust, from January 2004 to June 2013, 2015 [cited 2015 9 Apr].

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