

Quality Improvement Committee Annual Report Proforma

ANNUAL REPORT TO THE PUBLIC
ON
QUALITY IMPROVEMENT ACTIVITIES UNDERTAKEN OR OVERSEEN
BY

Neonatology Clinical Care Unit Audit Committee (Clinical Review Committee)

Please send completed reports to:
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If you require any further information, or have any queries, please contact the Office of Safety and Quality in Health Care on 9222 4080.

Please note: The information you provide in this form must not identify, directly or by implication, any individual health care provider or receiver.

Contact details of person providing the report:

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Signature:.....

1. Name of Committee.

Neonatology Clinical Care Audit Committee (Clinical Review Committee)

2. Name the health care facilities that contribute to this Committee.

King Edward Memorial Hospital and Princess Margaret Hospital

3. Give a brief description of the purpose of Qualified Privilege including the balance of the public interest in access to information and encouragement of participation by health care professionals in quality assurance.

The Neonatology Clinical Care Unit Audit Committee was gazetted as a quality committee under the *Health Services (Quality Improvement) Act 1994* in September 2002 to provide a forum for open discussion of issues related to the safety and quality of services. This committee ceased to be an approved quality committee on 24 September 2005. Over the past three years, it has become evident that the functions and operations of the committee do not appear to require qualified privilege. Staff participate actively in the review of services. Therefore no further application will be made for qualified privilege under the Act.

4. Describe the main functions of the Committee.

The committee reviews clinical indicators, clinical incidents, audits, complaints and deaths.

5. Attach the Terms of Reference (TOR) and any proposed changes to the TOR.

See attached.

6. Describe the categories of membership of the declared Committee.

Membership is as per TOR and includes all consultants, senior registrars, senior nursing staff and representatives from allied health.

7. a) What services have been assessed and evaluated by the committee?

b) What action has been taken as a result of the assessment and evaluation?

c) What were the results of the action and the lessons learnt (if known at the time of producing report)?

The following audits have been reviewed from September 2004 – September 2005.

Neonatal Abstinence Syndrome

- Review of staff educational needs in using the Finnegan's Scoring System which assesses the need for narcotic treatment of infants withdrawing from maternal narcotic use. Review of the support required for infants treated with morphine, and of compliance with unit guidelines. No change was needed.

Hand Hygiene Observation Audit in Special Care and Intensive Care Nurseries

- The aim is for 100% compliance by staff and parents with washing hands before and after each patient contact, 100% compliance with wearing gloves during procedures, maintenance of a sterile field for 100% of procedures, and use of appropriate hand cleansing technique before such procedures. Audits are done every 6 – 12 months and have demonstrated a progressive increase in compliance with hand hygiene policy.

Audit of long stay infants in the Neonatal Clinical Care Unit, Princess Margaret Hospital (PMH)

- The NCCU planned to transfer infants still requiring hospitalisation from 6B to other wards in PMH at the age of approximately 8 weeks post term. Very complex patients remain in PMH either in the infants' ward or in paediatric intensive care unit for many months after discharge from the neonatal unit. These patients have a significant impact on hospital resources. The number and reasons for their long stay were audited. There are about 6 such patients per year and issues contributing to their stay are increased survival of very preterm infants and those with complex medical problems, increased antenatal identification of abnormalities, increased incidence of preterm birth and increased transfer of sick patients from King Edward Memorial to Princess Margaret Units. It was suggested that the transition time from the Neonatal Unit be increased to the age of 4 months post term. To facilitate transfers, better communication with the receiving medical team is needed. It was also noted that the number of such patients due to extreme prematurity is very low and not increasing over the years.

Grade 3-4 Intraventricular Haemorrhages (IVH) and their predisposing factors were reviewed

- Patients with grade 3-4 haemorrhages over a 3 ½ period were reviewed and compared with case controls. Use of vasopressor agent, usually dopamine, was found to be the most significant predisposing factor associated with IVH.

Report of the Neonatal Follow up program for all infants born in 2000 and 2001, including cerebral palsy rates and intellectual disability

- All infants born less than 32 weeks gestation are followed until 2 years of age and those less than 27 weeks gestation until school age. The classification of disability includes mild disability defined as 1 – 2 standard deviations below the mean General Quotient.

There is excellent compliance with follow up. Survival rates remain high at about 95% for infants born between 27 – 31 weeks gestation. Survival rates are increasing for infants born less than 27 weeks and are currently close to 90%. Cerebral palsy rates for infants less than 32 weeks gestation are low (3-5%), however approximately 16-20% of these infants have at least mild disability. These results compared favourably with other states and other countries.

Thalamic Haemorrhage

- Thalamus is an important integrative centre in the brain and is involved in motor control and auditory, somatosensory and visual sensory signals. All patients with thalamic haemorrhage in Western Australia between 1989 – 2003 were reviewed.

The prevalence was 5.3 per 100,000 live births with the highest prevalence in the very preterm infants. Patients with complex thalamic haemorrhages presented early with clinical signs of seizures and cardiovascular collapse, and were more likely to die or survive with disability compared with those with an isolated thalamic haemorrhage. This information will help predict outcome when counselling parents.

Regular review of neonatal mortality and morbidity

- Over the last year, patients who died from metabolic problems such as propionic acidemia, fetal akinesia sequence and complex congenital heart disease were reviewed with multidisciplinary input. The aim being to improve the detection and management of similar patients in the future.

Use of Naloxone in neonatal resuscitation

- The aim was to determine the incidence of the use of naloxone, the appropriateness of such use and whether use followed the neonatal resuscitation guidelines. Charts of all patients who received naloxone in 2003 and 2004 were reviewed. The results were fed back to midwifery and medical staff who attend deliveries with the aim of improving compliance with guidelines, and subsequently the resuscitation of newborns. The importance of establishing adequate ventilation before administration of naloxone was emphasised.

Growth failure in extremely low birth weight infants

- The growth, fluid intake and protein and energy intakes of extremely low birth weight infants in 1999, and in 2005 were graphed. The aim being to review change in feeding practice and revise the fortification of human milk. Two levels of fortification were subsequently devised, using a commercial fortifier, a protein supplement, and a fat and carbohydrate energy supplement. The higher level of supplementation is to be used only for stable infants who are fluid restricted due to cardiac and respiratory disease. The need for some dietetic input in the formulation and monitoring of changes in feed composition was highlighted and a business case developed. Outcome of this change in practice will be reviewed in 6 months.

Customer satisfaction survey – Special Care Nursery and Home Visiting Service

- A high level of satisfaction with our service was reported. The survey is conducted every 18 months. Areas for improvement included developing management guidelines for telephone queries and developing a transfer manual containing information about peripheral units where our patients may be transferred.

Nosocomial infections in Neonatal Intensive Care

- This is an extensive quality control project aimed at developing appropriate clinical indicators to monitor the burden of sepsis in the neonatal intensive care unit against appropriate denominators, to develop methodology for assessing antibiotic usage in a neonatal intensive care unit and to identify and modify the neonatal intensive care culture in relation to nosocomial infection. Infection rates were analysed from the beginning of 2002 until the present with a newly developed clinical indicator for assessing the impact of interventions aimed at reducing nosocomial infections. Nosocomial infection rate in the extremely low birth weight infant is high as is antibiotic usage. This program has identified factors contributing to nosocomial infection and interventions are being developed to reduce this significant cause of morbidity.

The discharge of infants from King Edward Memorial Hospital to peripheral hospitals

- With changes in statewide maternity service, it has become increasingly difficult to back transfer infants during their later hospitalisation phase. This audit aimed to ascertain the effort required to effect the transfer of a baby to another hospital and to determine the extent of delay and the factors resulting in the delay. Three hundred and thirty infants were referred back in 2004 and delays over 3 weeks were recorded with up to 7 telephone calls per transfer required. All babies were assessed to be stable enough to be transferred to the specific hospitals. Reasons for declining transfer included that the peripheral units were too busy or that the babies' care was too demanding. KEMH plans to negotiate more with peripheral hospitals to try and facilitate back transfer as the delay is inconvenient for families, and is resulting in a significant increase in workload and cost that has not been accounted for in our budget.
- The neonatal resuscitation program, a one day course by accredited trainees, was implemented at KEMH with the aim of training all staff in Western Australia who attend deliveries.
- Credentialling for all RFDS flight nurses was developed and implemented with the aim of approving care of sick neonates during transfer to PMH.

Audit of Neotrend – continuous blood gas monitoring

- The results demonstrated that more blood was taken from babies with a neotrend in-situ. These babies had more top-up transfusions. The findings were contrary to the hypothesis. The manufacturer has discontinued making neotrends.

Transition from an incubator to an open cot

- The results suggested that infants could be graded out of their incubators at 31 degrees as opposed to 29 degrees. Guidelines were modified and this change may facilitate earlier discharge.

Audit – Exchange transfusions from 1990 – 2002

- The audit demonstrated that the procedure was relatively safe even in the sickest preterm infants. Associated adverse events included hypotension and thrombocytopenia and occurred mainly in preterm or very sick infants. A credentialing program for medical staff was developed and implemented.

Audit of timing of introduction of solids for preterm infants

- Results demonstrated that solids were introduced months before the recommended national guidelines. The infants suffered no ill effects and may have even benefited as far as weight gain. We conclude that the National Dietary guidelines for term infants may not be applicable to preterm infants.

Retinopathy of prematurity information for parents of preterm infants

- An assessment of their needs was made and an information of brochures developed and evaluated.

CMV infectivity of mother's own breast milk.

- Freezing to -20°C for seven days was shown to reduce or eliminate CMV infectivity. Recommendation, that until further data is available, mother's own milk that has been frozen for ≥ 7 days be used in preference to fresh milk for preterm babies until the baby is ready to breastfeed.

8. Attach a summary of the information management policy.

Our information management policy is as follows:

Members of the Committee are aware of and comply with the requirements of the Health Service (Quality Improvement) Act 1994 regarding the disclosure of information.

Minutes of the Committee are stored in a secured place and access is limited to the members of the Committee.

Reports provided to the Medical Advisory Committee contain de-identified information only.