NHS Lothian

Administration of Incorrect Breastmilk to a Baby

Background

When a baby receives expressed breastmilk (EBM) in error from a woman other than their biological mother, the major risk usually relates to parental concern about possible transmission of infection. In practice the risk of infection is extremely low. Only HIV, CMV, and HTLV viruses are known to transmit via breastmilk, and HTLV is extremely uncommon in our population. Although HBV, HCV and HBV may be found in breastmilk, this is not associated with transmission during breastfeeding.

No mother who is known to be HIV infected will be expressing and storing milk in the neonatal unit, and there is only a tiny chance that the mother will have seroconverted since she was screened on her booking bloods. Moreover chemicals present in breast milk act, together with time and cold temperatures, to destroy HIV present in expressed breastmilk.

CMV commonly transmits via breastmilk, although the act of freezing EBM destroys many of the viral particles, which significantly reduces the risk of infection. Should CMV be contracted in this way, it may cause acute infection, but is very unlikely to have any longterm detrimental effects, in contrast to prenatal infection. Infants contracting CMV postnatally are not offered any antiviral medication, except in the rare instance of a significant systemic infection.

In addition to viruses, transmission of Group B Streptococcus and Listeria monocytogenes in mothers' breastmilk may cause neonatal disease but the risk of bacterial transmission when an infant is briefly exposed to another mother's breastmilk is likely to be extremely low.

1. Protocol

1.1 Key principles

- When a baby receives breastmilk from a mother other than their own, the incident is treated as a significant body fluid exposure. There is a tiny but possible risk of transmission of bloodborne viruses and bacteria.
- Both families need to receive consistent information and guidance from the consultant and nurse in charge
- A Datix must be completed containing details of the incident and contributing factors, both mothers' details and the subsequent management including any Duty of Candour discussions that have occurred since. Information required:
    - Name and CHI number of exposed baby and mother
    - Name and CHI number of source baby and mother
    - Volume of milk administered
    - Volume of milk aspirated if applicable
    - Type of milk- fresh, frozen
    - Date of expression of source mother's EBM
    - Details of all staff involved in the error and those informed subsequently
    - How the error came about including details of the checking procedure
    - Any contributing factors to the error
    - Details of communication with parents including names of staff involved

  The incident must also be recorded in the Badger record of the exposed baby, including the details above and those of the risk assessment below, but omitting any identifiable information about the source mother.

1.2 Immediate Response – management of baby

- If feeding was given by a gastric tube, aspirate the stomach contents but only if the gastric tube is still in place. A gastric tube must NOT be reinserted for the purpose of aspirating the incorrect EBM
- Report the incident immediately to the nursing team leader and the neonatal middle grade tier so that a management plan may be formalised as soon as possible and so staff involved in the error can be supported
- Provide the baby with the appropriate feed
- Proceed to risk assessment of the source mother
- The consultant should be made aware as soon as possible during working hours

1.3 Risk assessment

The neonatal Middle Grade doctor/ANNP and/or Consultant should perform and document a risk assessment at the time of the error in relation to:

The source mother:

- General wellbeing, medications, recent blood transfusions and whether there is a history of taking illegal drugs
- Antenatal serology including HCV, HBV, HIV antibodies and history of HBV vaccination
- History of Group B streptococcus in this pregnancy
- CMV if tested for.

The mother of the exposed baby:

- Antenatal serology including HCV, HBV, HIV antibodies and history of HBV vaccination

A. If all serology is negative and the source mother is well without relevant lifestyle factors, then the exposure is of minimal risk to the baby.

B. If serology is positive for blood borne viruses in this pregnancy, then the exposure is of low but potential risk for the baby
    a. *If the source mother is HIV positive:* The exposed baby's parents should be counselled that the risk to the exposed baby is extremely small. The baby should have baseline viral titres taken and managed as per the relevant guideline. The baby should be discussed with the Paediatric Infectious Diseases consultant.
    b. *If the source mother is HBsAg or hepatitis DNA positive:* The exposed baby's parents should be counselled that the risk to the exposed baby is extremely small. Take baseline viral titres and offer hepatitis B immunoglobulin preferably within 24 hours of exposure and HBV vaccine if dose at birth has not already been administered.

C. If it is discovered that serology for HIV, HBV, HCV has not been performed during pregnancy then the risk to the exposed baby cannot be classified. Importantly the source mother's own baby may also be at risk from an unidentified bloodborne virus infection. Informed consent should be sought urgently from the source mother for testing of her blood.
    a. If the mother consents to testing and is found to be positive for HIV, HBV or HCV during the screening process, they must be referred to an adult physician with the relevant experience for counselling and future management. Her baby and the exposed baby should have viral titres sent and managed as per the relevant guidelines.
    b. If consent is not provided then the source mother's baby must be screened to inform further management for her baby and the exposed baby.

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1.4 Counselling the exposed baby's parents

- This should be undertaken by a Consultant and Senior Nurse
- The source mother must NOT be identified to the birth mother/parents
- There must be open disclosure to the birth parents regarding the incident and an apology offered on the behalf of the service
- The parents should be made aware that a review will be undertaken to understand the reasons leading to the error and systems strengthened to prevent it occurring again
- The parents of the exposed baby should be reassured as to the very low risk of transmission of pathogens and supported at the time and thereafter as they process this information. It may be appropriate to share the source mother's viral status without identifying her.
- Parents of the exposed baby should not be routinely offered the possibility of viral testing of the exposed mother if her viral status was known to be negative at booking.
- Document the discussion in the Badger record of the exposed baby
- It desirable to meet with parents of the exposed baby in the subsequent 24hours to address any further questions or concerns.

Key points in counselling

- The duration of exposure is limited to one feed, in contrast to the hundreds of feeds that occur over the first months of life on which most risk is documented
- The dose (volume) of exposure is usually small
- There have been no reports of HIV, HBV, HBC transmission with this level of exposure in the literature
- Breastmilk stored in the neonatal unit may have been frozen, reducing the chance further
- Women at booking have universal screening for HIV, hepatitis B, hepatitis C and syphilis and exposure to HIV positive breast milk is unlikely to occur due to counselling against breastfeeding in this group of women

Some parents of exposed babies may insist on further reassurance including further virological testing of the source mother, although this will require consent. The exposed baby's blood should not be tested, unless the source mother refuses consent for further testing and this test is requested by the exposed baby's parents. If this is the case, then the exposed baby's blood should <u>not</u> be tested at the time of exposure, but arrangement made for this to be tested in three months' time to allow time for viral seroconversion.

Do not routinely offer testing of the exposed baby for CMV unless they shows signs or symptoms of acute CMV infection (incubation period 28-60 days). If a postnatal infection with CMV were to occur it is more likely that the infection would have originated from the exposed baby's own mother rather than from a small aliquot of milk from the source mother.

1.5 Counselling the source parents

- This should be undertaken by a Consultant and Senior Nurse
- The exposed baby/family must NOT be identified to the source mother/family
- There must be open disclosure to the source parents regarding the incident and an apology offered on the behalf of the service
- The source parents should be made aware that a review will be undertaken to understand the reasons leading to the error and systems strengthened to prevent it occurring again
- Document the discussion in the Badger record of the baby of the source mother