INFECTION CONTROL IN NURSERY

Rationale:

- To prevent the spread of infection in neonatal nursery
- To contain an outbreak of infection

Policy:

- To maintain infection control measures aimed to prevent morbidity and mortality.

Legislation:

- Constitution of the Republic of South Africa (108/1996)
- Foodstuff, cosmetics and disinfectants Act 54/1972
- Health and environmental management Act 107/1998
- Occupational health and Safety Act 61/1993
- The Nursing Act 50/1978
- Skills Development Act 97/1998

EACH INFANT IS A POTENTAIL SOURCE AND RECIPENT OF MICRO ORANISMS.

Physical Design of Neo-Natal Nursery:

- The nursery design should have adequate space for necessary equipment
- Traffic through the other services should not pass through the unit
- 30 square feet per neonate approximately three feet between bassinets is currently recommended

- For infant who require extensive nursing care 50-60 square feet working space with at least four feet between incubators or bassinets and five feet wide aisles.
- For Neonatal intensive care units 80-100 square feet per infant with at least six feet between incubators or bassinets and eight feet between aisles

Hand washing Facilities

- There should be at least one elbow operated hand washing sink for every 4-6 basinettes
- Each single room shall be provided with an elbow operated stand alone sink
- Hand washing posters with clear washing instructions should be provided above all sinks
- Hand washing sinks should be scoured and cleaned daily using a detergent.

Ventilation:

- Positive pressure airflow from a ceiling entry to a floor return pulling dust downwards and out is recommended
- Filters with efficiency of at least 90-100% must be used
- Minimum of 10-15 air charges per hour
- Access to at least one isolation room with negative air pressure discharging air vented to the outside to accommodate newborns with airborne infections

Staffing Norms:

- Adequate staff is mandatory to allow for hand washing between patients' contact
- Normal nursery staffing ratio is: one professional nurse to every 6-8 infants
- Intermediate care nursery staffing ratio is: one professional nurse for ever 2-3 patients
- NICU- one professional nurse for every 1-2 patients

- Dedicated assistance is needed to mentor and support lodger mothers not to expose their babies to cross-infection

Standard Infection Control Precautions (Universal) - to be observed.

Isolation Rooms:

- Appropriately designed isolation rooms should be available in all hospitals with a nursery
- A suitable area should be designated for hand scrubbing in preparation for procedures that require aseptic technique
- Adequate space of 13.94 square metres (150 square feet) should be available excluding the entry work area
- Ideally single multi-bedded corners are appropriate?
- Ventilation in isolation rooms to have negative pressure with our 100% exhausted to the outside
- A hands free emergency communication system is required within the isolation room to minimize in and out movement
- Choice and placement of windows an blinds should allow for care of operation and cleaning
- All babies with Septicaemia should be isolated
- Babies transferred from other hospitals or admitted from home must have swabs taken and sent for culture
- Transfers must be nursed in an isolation unit

Hand Washing

- Use antiseptic soap to thoroughly wash and rinse hands before entering the nursery

- Use paper towel to dry hands and dispose of in a plastic lined functional pedal bin.

Protective Attire:

- A short sleeved gown should be worn over special clothing designated for nursery by the health care personnel and lodger mothers- this gown to be exclusively for one named neonate and hand hygiene strictly practiced before moving on to others.

Patient Care Equipment

Cleaning and disinfection: important to follow the manufacturer's instructions, swabs for culture should be taken from ventilators of the infected babies/ neonates.

- Terminal disinfection of equipment done using soap and water and hypochlorite solution
- Ventilator tubing used in babies with negative bacilli to be discarded as medical waste
- Ventilators used for infected babies to be left standing for 96hours after terminal disinfection before re-use
- Incubators and bassinets should have the detachable parts removed and scrubbed meticulously
- Incubator fans, where applicable should be cleaned and disinfected
- Air filters in the incubator should be maintained as recommended by the manufacturer
- Waterproofed mattresses replaced when waterproof covering is broken
- Porthole cuffs are easily and often heavily contaminated, therefore need for daily cleaning with detergent and daily cleaning with disinfectant

- Babies admitted in the nursery for prolonged periods, need to be transferred into cleaned and disinfected incubators after seven days and the used incubator be exposed to thorough cleaning and disinfection

Invasive Device:

- Meticulous attention should be given to aseptic and maintenance of cannulae and to aseptic techniques of fluid administration
- Parental nutrition fluids ordered direct from supplying company and no decanting at the facility level (even in the pharmacy) to prevent cross-infections
- Single dose medication vials are recommended for injections.
- For handling of intravenous lines, this to be done according to relevant policy
- Infection Control guidelines should be observed with the ff:
  - endotracheal tubes
  - urinary catheters

Linen Handling (see chapter 9 KZN Policy Guidelines)

- Wash linen in correct temperature to disinfect it, that is 93°C for infected linen
- Ensure that linen handling policy is adhered to, to prevent cross-infection
- Enough clean linen must be made available
- Clean linen should be transported in covered carts or laundry bags to the nursery area
- New garments to be first laundered prior the use of neonates

Soiled Linen:

- Soiled linen should be discarded into leak proof yellow bags, taken to the laundry twice daily
- Soiled diapers and medical waste should be collected 3 hourly after every feeding round
- Nappy changes should be done wearing disposable rubber gloves to prevent heavy contamination and transient colonization of the hands

Patient Care

- Aseptic techniques is to be maintained using sterile cotton balls in sterile warm water for the skin and 0,5% chlorheridine in 70% alcohol for the umbilical cords

Eye Care

- Sterile cotton wool used and aseptic techniques manufactured
- For topical prophylaxes use of single dose treatment packs advisable
- Avoid eye contamination with drips catheters after suctioning the nasopharynx or endotraecheal tube

Infant Feeding

- Hand hygiene emphasized and aseptic techniques maintained during preparation and handling processes
- Nurses to take responsibility and ensure that all feeds are handled without contamination
- If a breast pump is used, pump components to be washed in soapy water, rinsed off and sterilized after use
- Where medicine measures are used for feeding, wash in soapy water, rinse, then double bagged and send for autoclaving
- Where disposable syringes are used for feeding, use once and discard
- Continuous infusion tube feeding set up under aseptic precautions with sterile gadgets used per each feeding episode

Health Education to Lodger Mothers

- Lodger mothers are from diverse cultures and communities and need to be treated with understanding, respect and patience
- Lodger mothers should be taught the importance of good personal hygiene and hand washing practices
- Importance of wearing a clean gown and disposable plastic apron emphasized
- Taught the importance of preventing baby contact with potential contaminated facecloths, towels, bedclothes, tissue and other

Visitors

- Visitors should be treated on a individual basis
- View babies through the viewing box
- If mandatory to enter the unit, hand hygiene and protective clothing should be used as for all staff members and lodger mothers

Outbreak Control

- The infection control committee should define the status referred to as an outbreak when there is a significant change from the baseline infection rate at a certain site or with a particular microbe
- Microbiological intervention measures should be taken to identify involved micro-organisms
- Emphasis on compliance to infection control practices should be the main focus
- Continuous Surveillance and appropriate reports forwarded to the hospital infection control, management, CDC and District Office for prompt outbreak response measures

Employee Health

- Personnel allocated to work in nursery should be immune to rubella, measles, polio and chicken pox
- Staff to be offered yearly HBV and influenza VACCINE
- Protective apparel should be readily available for appropriate use, where blood splashes and body fluids spillages are anticipated
- Resuscitation equipment should be adequate to eliminate cross-infection
- Infection safety to be practiced to prevent needle stick injuries

Implementation, Monitoring and Evaluation of this Policy

- It is the responsibility of the hospital manager, the nurse manager, the head of department and the nursery personnel (both day and night) the infection control manager and the matron in charge of the nursery to ensure that effective support, implementation, monitoring and evaluation systems are in place.
- It is the responsibility of all nursery staff to support and mentor the lodger mothers and to comply with the policy.

Complied by:

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