DIAPHRAGMATIC HERNIA

DEFINITION

Most commonly this abnormality is caused by failure of the postero lateral portion of the diaphragm (the Foramen of Bochdalek) to fuse or the pleural peritoneal membrane to develop. Presentation soon after birth is commonly associated with increasing respiratory distress and the infant's survival depends on early recognition, adequate resuscitation and effective stabilisation.

Early surgical intervention is no longer imperative and stabilisation of the infant is considered of primary importance. In a level 3 unit such as RPA Newborn Care early transport must not be given priority over adequate stabilisation.

CLINICAL MANIFESTATIONS

Early respiratory distress usually in a term infant.

Diminished breath sounds.

Apex beat on right side of chest (left sided diaphragmatic hernias are more common).

Bowel sounds may be heard in the chest.

Scaphoid abdomen.

DIAGNOSIS

Confirmation is on chest / abdominal x ray. Other abnormalities may be present eg cardiac anomalies such as hypoplastic left heart, neural tube defects or malrotation of the bowel.

NURSING MANAGEMENT

Avoid bag and mask ventilation as the gut will fill with air and further compromise chest expansion

Pass an oro gastric 8FG tube and aspirate - leave on free drainage

Nurse in high ambient oxygen if not initially ventilated

Infants are usually electively ventilated at birth to allow adequate stabilisation and lung expansion. Observe closely for pneumothorax.

Minimal handling and prompt recognition of the complications associated with ventilation are essential to prevent and / or minimise the development of persistent pulmonary hypertension.

Infants are generally muscle relaxed.

RPA Newborn Care Clinical Practice Guidelines – April 2002
Cardiovascular support with volume and/or inotrope may be considered.

Correction of acidosis

**CARE OF PARENTS**
Pre-natal diagnosis by ultra sound may have allowed some preparation and explanation to the parents prior to delivery. These infants should be transferred in utero to a tertiary perinatal centre with surgical facilities. Regardless parents will need ongoing support and care during this difficult period.

**SEE RELATED POLICIES**
- Assisted ventilation
- Muscle relaxation
- Nitric Oxide
- Persistent Pulmonary Hypertension of the Newborn
- Arterial lines
- Central lines