

## **Glycerine chips for prevention of meconium-related ileus of prematurity**

Lack of meconium clearance after birth results in feed intolerance and complications such as meconium-related ileus, intestinal perforation and prolonged periods on parenteral nutrition with associated risks of late onset infection. Preterm infants, particularly those less than 26 weeks show intestinal dysmotility with slower intestinal transit times and have more viscous meconium due to immature intestinal secretion. While there is insufficient evidence to support glycerine treatment in this gestational group, stimulating meconium passage is a standard of care for such extreme preterm infants in several countries.

### **Aim:**

This aim of this guideline is to reduce complications related to meconium ileus of prematurity by stimulating the bowel using glycerine chips in order to clear meconium early in the first week.

### **Patient group:**

1. Preterm infants <26 weeks gestation
2. Older preterm babies <750g birthweight

### **Exclusions:**

1. Any baby with suspected gut atresia, imperforate anus
2. Any baby who already has a diagnosis of NEC or intestinal perforation
3. Any baby who is paralysed, on inotropes, critically unwell or who is not receiving feeds

### **Treatment:**

- 125mg of glycerine suppository (1/8 of a suppository) gently administered into the rectum and held in place with one finger kept over the anus for 60 seconds to prevent immediate expulsion
- This should be written up as a prn medication, 1/8<sup>th</sup> of a 1mg glycerine suppository, to be given if no stool passed in last 12 hours at a frequency of 12 hourly.

### **Plan of treatment:**

1. From birth: give MBM for mouthcare
2. By 12h at latest: start regular trophic feeds of MBM/DBM if well enough to do so
3. On reaching 30ml/k/d of enteral feeds (around 60h of age)
  - a. If no stooling or smear only in the last 12hours → start glycerine chip twice a day
  - b. Do not give a glycerine chips if stool has been passed (more than a smear) in the 12h interval since last chip was given.
  - c. Give a glycerine chip if stool has not been passed or only a smear in any 12 hour period.
4. From 96h of age:
  - a. If no stooling or smear only → AXR and medical assessment. Feeds and chips can be continued if these are reassuring. Consider increasing the frequency of chips to 6 hourly.
5. The glycerine plan will continue until stool has been fully yellow for 24h indicating elimination of meconium.
6. The frequency of chips and stooling response will be assessed at every ward round 12 hourly.

### **Exclusions:**

- Babies should not receive glycerine chips if:
  - they develop NEC, intestinal perforation or any other severe bowel pathology

- they develop critical illness including need for paralysis or inotropes
- enteral feeds are stopped
- rectal bleeding occurs as is occasionally reported with glycerine treatment. If this happens, chips should be paused pending medical review.

**Special considerations**

Glycerine chips may be recommended for delayed stool passage at other times for example after a prolonged period without feeds. The dose and frequency are subject to consultant discretion.