Guideline for the Management of a Baby with Meconium Present at Delivery

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Key Amendments

Date	Amendments	Approved by
3rd Nov 2021	Stop routinely suctioning under direct vision if baby not making respiratory effort at delivery, start using standard NLS algorithm as with all other babies	Neonatal Development meeting
November 2022	Document approved for 3 years with no amendments	Dr Gregory/ Neonatal Guidelines Review Meeting
10th November 2025	Document extended for 6 months to allow time for review and update	Susan Smith

INTRODUCTION

Whilst the approach to neonatal resuscitation is standardised as much as possible, it is important to understand that in some situations a slightly different approach may be needed. The majority of babies born through meconium stained liquor will be healthy and vigorous at delivery, but a small number of infants born with significant meconium staining will be asphyxiated and potentially at risk of meconium aspiration. This guideline aims to help the paediatrician or midwife identify the most appropriate intervention.

The patients covered by this guideline are newborn infants delivered in hospitals within the Worcestershire Acute Hospitals NHS Trust.

THIS GUIDELINE IS FOR USE BY THE FOLLOWING STAFF GROUPS:

Staff with basic training in neonatal resuscitation (either attendance at a neonatal resuscitation workshop, NLS provider status or compliance with your Royal College recommendations if different).

Management of a newborn with meconium-stained liquor present at birth should follow current Resuscitation Council UK guidance:

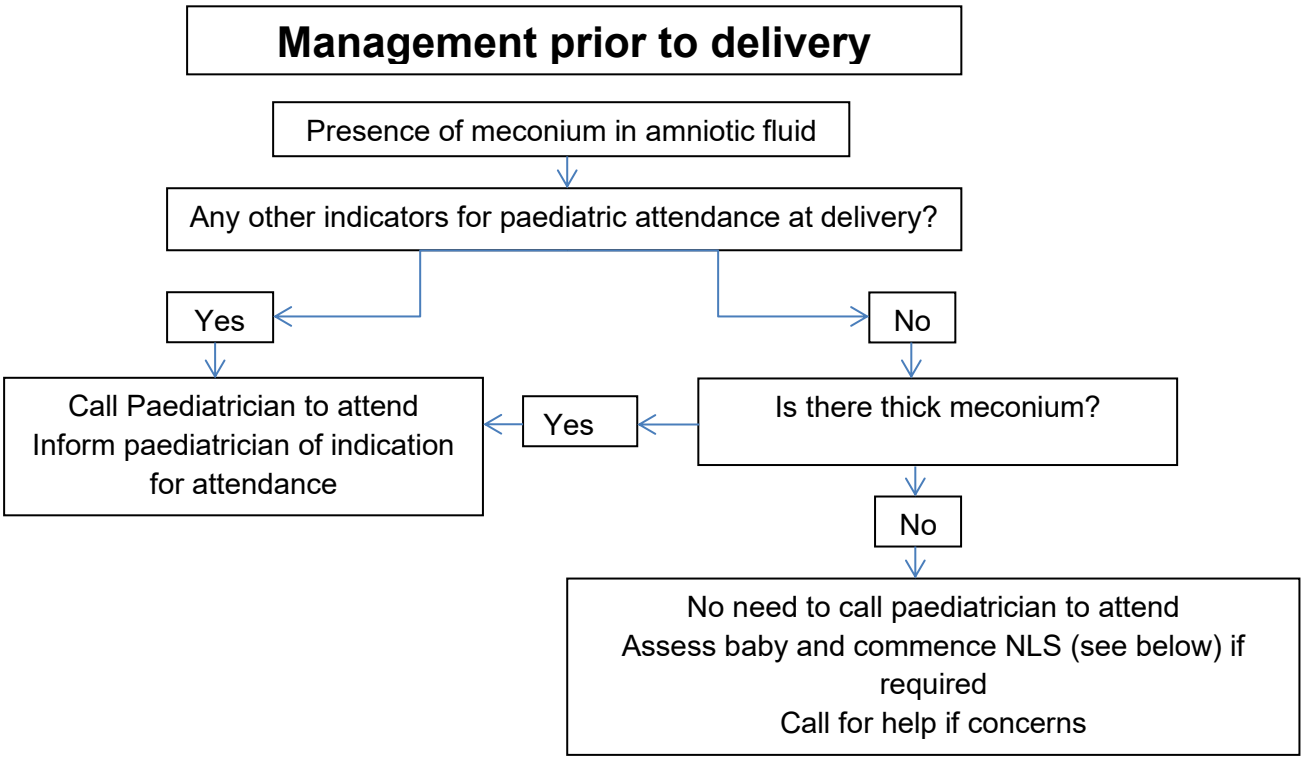
NLS Recommendation

Lightly meconium stained liquor is common and dose not usually give rise to much difficulty during transition. The less common finding of very thick or particulate meconium-stained liquor at birth is an indicator of perinatal distress.
Most babies born through meconium-stained liquor have not inhaled any particulate material into the lower respiratory tract. If they have not done so as a result of anoxic gasping before birth, they will only very rarely do so at birth. Suction of the baby's airways on the perineum or routine suction after delivery is not recommended. In a bradycardic baby, the emphasis must be to inflate the lungs within the first minute after birth and this should not be delayed. Do not inspect the oropharynx or suction the trachea until you have attempted and been unable to inflate the chest despite standard airway opening manoeuvres. There is no evidence to support routine tracheal suctioning in this situation. If you fail to inflate the lungs and you strongly suspect airway obstruction, inspect the airway under direct vision.

When the presence of meconium is identified in amniotic fluid, staff present at the birth will use their clinical judgement to assess whether there are any other indications for a paediatrician to attend delivery- suspected fetal compromise, preterm infant for example. In the presence of thick (particulate) meconium, a paediatrician will be contacted and asked to attend the birth.

If the baby is vigorous and crying at birth, there is no indication to suction the oropharynx or trachea. If the baby is in poor condition with no spontaneous breathing initial efforts should still be focussed on good airway positioning and inflating the chest with inflation breaths. Only when this is unsuccessful despite good mask placement and airway positioning should oropharyngeal and tracheal suctioning under direct vision be considered - see algorithm.

Actions taken during resuscitation should be documented in the neonatal records along with postnatal ward management plans as required.



Approach at Delivery

Dry, Wrap and Keep Warm
Assess Baby
Is baby active and crying?

Yes

No further action taken
Hand baby to mother

No

Commence NLS

Assess tone, colour heart rate, respiratory effort

Ensure open airway

Gasping/Not breathing
Give 5 inflation breaths using 30cmm H20 in air

Reassess – any improvement?
Chest Movement seen?

Chest movement seen
Continue down NLS algorithm

No chest movement seen
Check mask, head and jaw position
Give 2 person jaw support and repeat inflation breaths

No chest movement seen
Suction pharynx under direct vision using laryngoscope and yankouer sucker or large bore suction catheter (size 10)
If meconium visualised below the cords pass a large bore suction catheter through the cords and suction to aspirate the mecounium
Repeat inflation breaths

No chest movement seen
Insert Laryngeal mask airway or endotracheal tube
Position confirmed with Co2 capnography
Consider increasing inflation pressures

Vigorous babies born through meconium stained liquor do not require a prolonged period of observation as a routine.
They may have early discharge after 6 hours once feeding well and baby check is normal with no signs of respiratory distress

If meconium aspiration is suspected, baby should be admitted to the Neonatal Unit for observation.

Call for help if required

MONITORING TOOL

How will monitoring be carried out?
Prospective audit of notes following requests for paediatrician at delivery for thick meconium.

Who will monitor compliance with the guideline?
Paediatric clinical governance group.

STANDARDS:

Added Item	%	Exceptions
Paediatrician called for delivery in the presence of thick meconium	100	Born before arrival of health professional or home birth

REFERENCES

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6. Nangia S, Thukral A, Chawla D. Tracheal suction at birth in non-vigorous neonates born through meconium-stained amniotic fluid. Cochrane Database of Systematic Reviews 2021, Issue 6. Art. No.: CD012671. DOI:10.1002/14651858.CD012671.pub2.