Cheshire & Merseyside NHS
Neonatal Network

Working together to provide the highest standard of care for babies and families

Antenatally-diagnosed (non-cardiac) surgical conditions

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The North West Neonatal Network (NWNODN) consists of 3 locality neonatal networks, Cheshire and Merseyside (CM) Lancashire and South Cumbria (LSC) and Greater Manchester (GM). This document has agreed by locality Clinical Effective Groups (CEG) and can be adapted for local use. **Please acknowledge source if this document is adapted for local use.**	

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Background

It is generally accepted that co-ordinated, integrated pathways of care are essential for Networks to provide effective clinical care. Parental choice with the provision of good quality information is a key component of decision making in the antenatal period. This document aims to set out a Network framework for clinical practice and decision making in cases where a surgical disorder has been diagnosed antenatally.

Principles

The NICE Quality Standard for specialist neonatal care (QS 04) includes the requirement for in-utero surgical transfers to follow perinatal network guidelines
The essential components of a specialised fetal medicine service have been laid out in the NHS CB Service Specification E12/S/a. Only specialist Fetal Medicine Centres, staffed by subspecialist consultants, will be commissioned to provide a full range of fetal medicine services.
The ideal setting for surgical neonates is a specialist unit closely linked to a neonatal intensive care unit with ready access to appropriate obstetric services (Children's Surgical Forum – Surgery for Children)
NHS CB Service Specification E02/S/c: Neonatal Surgery
http://www.england.nhs.uk/wp-content/uploads/2013/06/e02-paedi-surg-neon.pdf

- *For simple surgical conditions e.g. duodenal atresia at > 34 weeks' gestation, a booked delivery in a NICU is not necessary; however a mother may wish to choose this.*
- *For complex surgical conditions, e.g. gastroschisis, diaphragmatic hernia, booked delivery in a surgical NICU is required.*
- *Shared obstetric care should take place with the local unit in both scenarios.*
- *Surgical assessment by perinatal team at a NICU should include input from genetics, fetal medicine specialists and neonatologists.*
- *Ideally, the neonatal surgical centre will be co-located with the specialist surgical service and NICU.*

Other considerations

The general surgical team at Alder Hey Hospital are currently only in a position to provide surgical cover to one level 3 neonatal unit, LWH. SLA agreements are in place formalising the antenatal counselling and post-natal surgical service provided to LWH. Although from time to time they have provided some *ad hoc* neonatal surgical support to other units, it is not feasible for them to provide this on a sustainable basis.

Surgical disorders pathway – general principles

1. Antenatal diagnosis of suspected surgical fetal anomaly should be confirmed at an appropriate fetal medicine centre according to the nature of the suspected anomaly.

2. For complex conditions, a multi-professional meeting must be held involving fetal medicine specialists, paediatric surgeons, neonatologists and the parents. On occasion, in 'highly complex' cases, other professionals such as geneticists, cardiologists and the palliative care team may need to be present. Ideally, this should be a 'one-stop shop' where all the relevant professionals provide counselling jointly for the parents at the same time in the same place.

3. The purpose of the multi-professional meeting is to provide consistent, co-ordinated and comprehensive information for the parents regarding diagnosis, antenatal management, place of delivery, neonatal care and arrangements for surgery. Ideally written information should be available to reinforce counselling about diagnosis, intervention and prognosis.

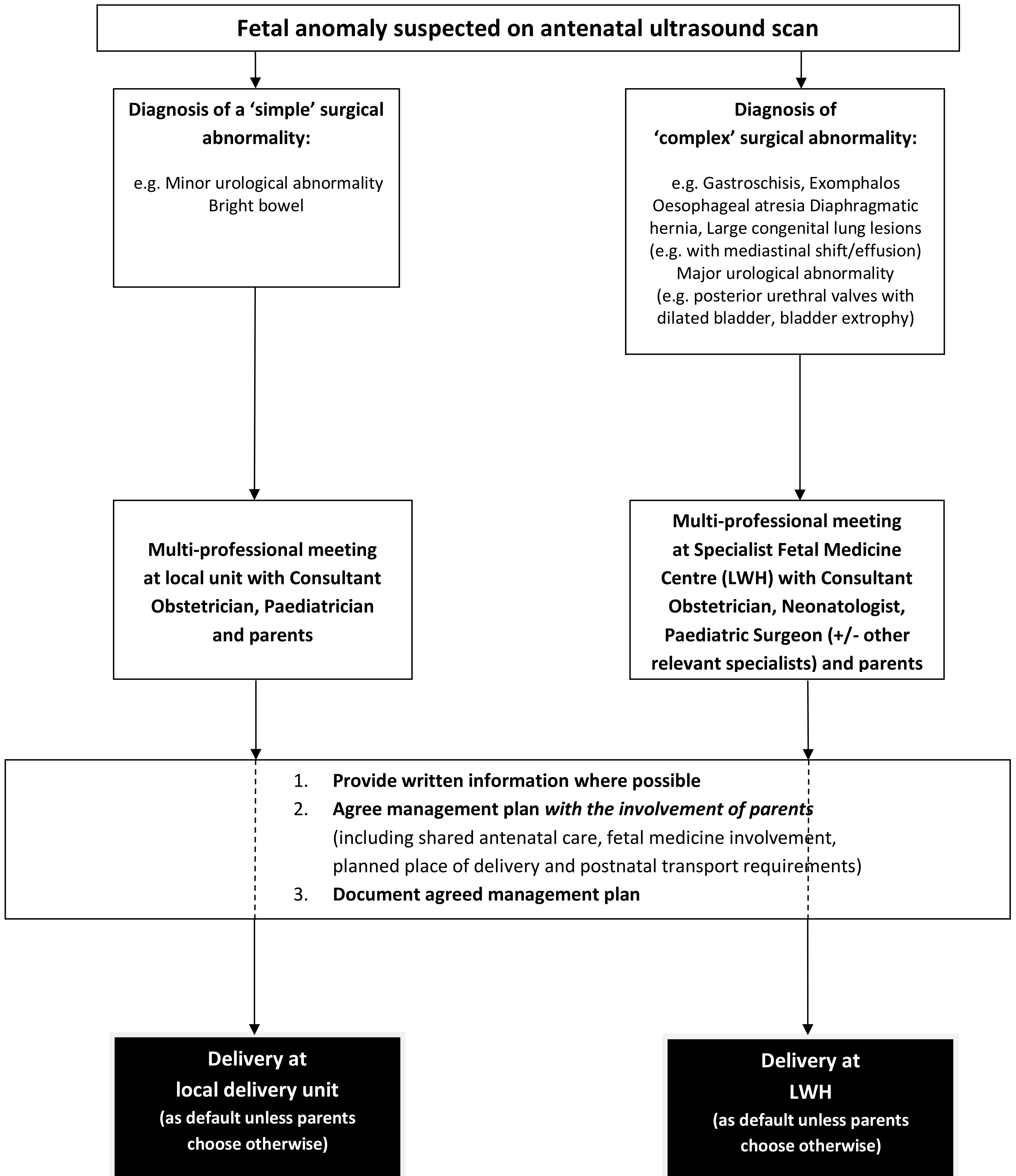
4. Decisions about ongoing antenatal care and place of delivery should be made with parents who have been fully briefed in order to make an informed choice. Ideally discussions should be reinforced with written parent information.

5. For 'simple' surgical conditions, planned delivery at a local delivery unit is acceptable with parental consent. Planned delivery of 'complex' surgical conditions should be at a surgical NICU supported closely by the various relevant specialists, including the paediatric surgeons.

6. The place of delivery should ideally be the same as the hospital providing multidisciplinary antenatal counselling and management.

7. A formal service level agreement should exist between the surgical service and surgical NICU which includes arrangements for providing joint antenatal counselling, post-natal assessment/advice, emergency treatment on NICU and transfer for definitive surgery at Alder Hey.

8. This pathway excludes neurosurgical malformations which will be managed on an 'individual' basis according to the specific antenatal diagnosis.


Fetal anomaly suspected on antenatal ultrasound scan
Diagnosis of a 'simple' surgical abnormality:
e.g. Minor urological abnormality
Bright bowel
Diagnosis of 'complex' surgical abnormality:
e.g. Gastroschisis, Exomphalos
Oesophageal atresia Diaphragmatic hernia, Large congenital lung lesions
(e.g. with mediastinal shift/effusion)
Major urological abnormality
(e.g. posterior urethral valves with dilated bladder, bladder extrophy)
Multi-professional meeting at local unit with Consultant Obstetrician, Paediatrician and parents
Multi-professional meeting at Specialist Fetal Medicine Centre (LWH) with Consultant Obstetrician, Neonatologist, Paediatric Surgeon (+/- other relevant specialists) and parents
1. Provide written information where possible
2. Agree management plan with the involvement of parents
(including shared antenatal care, fetal medicine involvement, planned place of delivery and postnatal transport requirements)
3. Document agreed management plan
Delivery at local delivery unit
(as default unless parents choose otherwise)
Delivery at LWH
(as default unless parents choose otherwise)