

## **Congenital Abnormalities of the Kidneys and Urinary Tract – Recommendations for Paediatric Nephrology Involvement and Antenatal Counselling**

If a renal tract abnormality is suspected antenatally, parents should receive specialist counselling by a doctor with appropriate competency in counselling and the postnatal management of such problems. Prognosis should be guarded as postnatal scans and clinical findings may reveal the abnormality to be either more or less severe than expected. There should then be appropriate liaison and communication with the parents, fetomaternal team, neonatal teams and other relevant specialists to agree a postnatal management plan. If a syndromic/ genetic cause is suspected advice from the local clinical genetics service should be sought.

### **Indications for antenatal referral**

**High Risk Conditions;** referral is likely to be to paediatric nephrology consultant or experienced local paediatric consultant with an interest in nephrology. Referral to a neonatology consultant and / or joint counselling should be considered in cases where there is the possibility of respiratory difficulties after birth secondary to oligohydramnios:

- Suspected bladder outlet obstruction (e.g. posterior urethral valve or obstructing ureterocoele)
- Bilateral renal parenchymal abnormality (echogenic kidneys, ARPKD, renal cystic disease, small kidneys)
- Any renal abnormality associated with oligohydramnios
- Suspected congenital nephrotic syndrome
- Unilateral hydronephrosis  $\geq 10\text{mm}$  in a fetus with a single kidney or suspected non-functioning contralateral kidney (e.g. MCDK)
- Any other abnormality where the fetal medicine team recommend paediatric nephrology involvement at an early stage

**Medium Risk Conditions;** referral is likely to be to local paediatric consultant with an interest in nephrology:

- Severe unilateral hydronephrosis  $\geq 20\text{ mm}$  with pelvicalyceal dilatation
- Bilateral hydronephrosis  $\geq 10\text{mm}$
- Complex duplex i.e. Significant hydronephrosis or non-obstructing ureterocoele
- Hydronephrosis  $\geq 7\text{mm}$  and  $< 10\text{mm}$  in a single functioning kidney

**Low Risk Conditions;** counselling should be done by fetal medicine team or obstetrician:

- Simple duplex

- Unilateral hydronephrosis <20mm with normal contralateral kidney
- Unilateral MCDK with normal contralateral kidney
- Unilateral renal agenesis with normal contralateral kidney
- Unilateral renal dysplasia / hypoplasia with normal contralateral kidney
- Other renal abnormality with no hydronephrosis, normal contralateral kidney and normal liquor volume e.g. horseshoe kidney

### **For all patients:**

1. Consider also discussing with other specialists as relevant e.g.
  - a. Neonatologist
  - b. Paediatric Urologist
  - c. Geneticist
2. Ensure all patients have written information and / or are referred to relevant sections of [www.infoKID.org.uk](http://www.infoKID.org.uk)
3. Written plan to include details of timing and place of delivery and management plan after delivery with copies to
  - Parents
  - Local NICU and obstetric teams
  - Local paediatrician with a specialist interest in nephrology
  - NICU and obstetric teams in hospital where planned to deliver if not local hospital
  - Paediatric Urologist or other specialist as applicable

### **Who to refer to**

EMEESY is the Children's Renal and Urology Network for South Yorkshire, The East Midlands and the East of England. The main specialist renal centre is at Nottingham Children's Hospital at the Queens Medical Centre in Nottingham. There is a shared care clinic at each hospital within the network.

There are currently 7 consultant paediatric nephrologists covering the network.

In Nottingham, Andrew Lunn and Meeta Mallik are the consultants who provide antenatal counselling for babies referred by the local fetomaternal team. In terms of the wider network, the areas covered by each consultant are listed in Table 1.

It is recommended that referrals for antenatal counselling across the fetomaternal network are directed to the local team initially who can then liaise with the link paediatric nephrologist in Table 1 as need. Where possible, patients will be seen at their local centre. However urgent cases with suspected severe abnormalities may need to be seen in Nottingham to ensure timely access to services. The paediatric nephrologist will liaise with the local team to co-ordinate postnatal management.

### **How to make a referral**

Please call our PA Clare Robinson on 0115 924 9924 ext. 83832. A written referral can then be faxed or sent by secure email.

**Table 1 – Areas across the EMEESY Network covered by each Paediatric Nephrologist**

<b>Paediatric Nephrology Consultant</b>	<b>Areas covered</b>	<b>Local Link Paediatrician</b>
Martin Christian	Addenbrookes Hospital, Cambridge	Dr Bailie
	West Suffolk Hospital, Bury St Edmunds	Dr Cesar
	Doncaster and Bassetlaw Hospitals	Dr Singh and Dr Wong
	Rotherham Hospital	Dr Suri
Drew Maxted	Queen Elizabeth Hospital, King's Lynn	Dr Hughes
	James Paget Hospital, Great Yarmouth	Dr Bentsi-Enchell
	Norfolk and Norwich University Hospital	Dr Upton
	Derby Children's Hospital	Dr Bowker
Farida Hussain	Leicester Royal Infirmary	Dr Hall
	King's Mill Hospital, Mansfield	Dr Rhodes
	Nottingham University Hospitals	N/A
Jon Jin Kim	Addenbrookes Hospital, Cambridge	Dr Bailie
	Hinchingbrooke Hospital, Huntingdon	Dr Fraser
	Pilgrim Hospital, Boston	Dr Broodbank
	Lincoln County Hospital	Dr Broodbank
	Grantham District Hospital	Dr Broodbank
	Peterborough City Hospital	Dr Aslam
Andrew Lunn	Sheffield Children's Hospital	Dr Ehidahmen
	Chesterfield Royal Hospital	Dr Thekkekkarra
	Barnsley Hospital	Dr Bhimsaria
	Nottingham University Hospitals	N/A
Meeta Mallik	Leicester Royal Infirmary	Dr Hall
	Kettering Hospital	Dr Royed
	Nottingham University Hospitals	N/A
Sudarsana De	Leicester Royal Infirmary	Dr Hall