

Who must comply with this procedure?

Monash Health medical, nursing and midwifery staff within the Women's and Children's Program

This procedure applies in the following setting:

This procedure is applicable to all babies born at Monash Health facilities, in whom hydronephrosis was detected antenatally.

It **does not apply** to those babies for whom a specific management plan was constructed antenatally (for example, through FDU). For these babies, the specific plan should be followed.

Precautions and Contraindications

Ask and look for antenatal counselling and / or antenatally-constructed plan (eg. check SMR, ask the mother)

If YES, follow antenatal management plan

Procedure

1. Commence antibiotic prophylaxis:
trimethoprim 2mg/kg or cephalexin 10mg/kg once daily
2. Examine baby for palpable kidney or bladder
YES? → urgent ultrasound and call paediatric urology
NO? → proceed to next step
3. Stratify risk, based on antenatal reports and images (see below - SFU grading system)

High Risk = any of:

- bilateral hydronephrosis \geq SFU 3 ("mod-severe", APD >10 mm)
- unilateral dilatation SFU 4 ("severe", APD >15 mm)
- single kidney
- duplex system
- ureteric dilatation
- ureterocoele (seen at any point)
- oligohydramnios

Low Risk = none of above and:

- unilateral hydronephrosis SFU1-3 (mild or mod, APD <15 mm)
- bilateral hydronephrosis, SFU 1-2 (mild-mod, APD <10 mm)
- no ureteric dilatation
- normal bladder
- no renal anomaly apart from HN

4. Follow appropriate risk pathway

4.1 High-risk, no antenatal plan

1. Commence antibiotic prophylaxis
2. Examine baby: palpable kidney or bladder? YES → urgent ultrasound and call urology
3. NO palpable kidney or bladder: **USS 48-72 hours**
SFU 0 – 2 → refer nephro-urology clinic with repeat USS at 1 month

→ educate parents on UTI symptoms
 SFU 3 – 4 → inpatient urology or nephrology consult
 Renal parenchymal abnormality → inpatient nephrology consult

4.2 Low-risk, no antenatal plan

1. Commence antibiotic prophylaxis
2. Examine baby: palpable kidney or bladder? YES → urgent ultrasound and call urology
3. NO palpable bladder or kidney: **USS 1 month**
 - normal → repeat at 6 months
 → stop antibiotics and educate parents on UTI symptoms
 - SFU 1-2 → repeat at 6 months, 12 months and 2 years
 → stop antibiotics and educate parents on UTI symptoms
 → discharge from surveillance once normal, or stable at 2 years
 - SFU 3-4 → refer to nephrourology clinic
 → continue antibiotic prophylaxis

Criteria for referral to Nephro-Urology (during “low risk” HN follow-up)

1. Dilatation increases during surveillance (SFU grade increases, RPD increases >50%)
2. Renal size discrepancy >1cm
3. UTI <1yo
4. Bladder anomalies

SFU grading system guide

Society for Fetal Urology Grading System – congenital hydronephrosis



Grade	Central renal complex	Parenchyma
0	intact	normal
1	slight splitting of pelvis	normal
2	evident splitting of intrarenal pelvis or dilated extrarenal pelvis <i>major calyces dilated</i>	normal
3	wide splitting of pelvis <i>major and minor calyces dilated</i>	normal
4	wide splitting of pelvis <i>major and minor calyceal dilatation</i>	thinned or reduced

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Keywords or tags

Pyelectasis, PUJ obstruction, renal dilatation, duplex system, ureterocoele, pelvi-calyceal dilatation, posterior urethral valves, urinary obstruction, megaureter, vesico-ureteric reflux, reflux nephropathy, MCU. MAG3, VUR

Document Management

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