

Postnatal imaging in newborns with fetally diagnosed high grade hydronephrosis

Prenatal US: gross dilatation = $HN \geq IV^\circ$

+ narrowed or dysplastic parenchyma, dilated ureter particularly if bilateral or single kidney ^{*1}

VCUG. in all boys particularly if ureter dilated
ce-VUS in girls, potentially delayed

early US + VCUG

PUV

high grade VUR

obstructive uropathy

others ^{*4}

⇒ drainage renal function?
+ isotopes ^{*2}, MRU ^{*3}

US follow-up
6 mo: isotopes ^{*2}, MRU ^{*3}?

UPJO, MU ^{*5}

as indicated ^{*5}

^{*1} (US) genitography: in patients with single kidney, MCDK, ectopic kidney, suspected genital anomaly ...

^{*2} **MAG3** - better than DMSA in dilated systems and neonates, DMSA usually after > 3-6 months, not before 6 weeks;
+ open bladder catheter to avoid VUR induced errors

^{*3} **MRU** - complex anatomy, function, obstructive component ...

^{*4} e.g.: MCDK, cystic dysplasia, duplex or horseshoe kidney, other malformation, non-obstructive HN, cysts/cystic tu ...

^{*5} see respective algorithm