Clinical Practice Guideline for Urinary Tract Dilation (UTD)

Points of emphasis/Primary changes in practice: The recommendations for post natal care leave much to the physician discretion based on the recommendations.

1. The term “urinary tract dilation” (UTD) replaces all other descriptions of the condition

2. Algorithms to guide care are categorized based on prenatal versus postnatal presentation as well gestational age less than versus greater than 34 weeks

Rationale for change:
Renal anomalies comprise 20-30% of all anomalies diagnosed prenatally. Over the past decade there has been much discussion and debate surrounding the management and care of prenatally noted hydronephrosis.

Given the numerous differences in ultrasound descriptions and physician management a consensus statement was issued in November 2014. The participants in the consensus meeting included: Society for Maternal-Fetal Medicine, American Institute of Ultrasound in Medicine, American College of Radiology, Society of Radiologists in Ultrasounds, Society for Fetal Urology, Society for Pediatric Urology, Society of Pediatric Radiology and American Society of Pediatric Nephrology.

There were numerous new recommendations that included using the new term UTD (urinary tract dilation) in place of all other descriptions (hydronephrosis, pelvic fullness etc). They also gave recommendations of what should be included in any description of a pre or postnatal renal ultrasound: antero-posterior diameter of renal pelvis (APRPD), parenchymal appearance, parenchymal thickness, calyceal dilation, ureters, bladder, oligohydramnios (prenatal only).

The recommendations for postnatal care leave much to the physician discretion based on the recommendations.
### Prenatal Presentation

<table>
<thead>
<tr>
<th>16-27 wks APRPD 4 to ≤7mm</th>
<th>≥ 28 wks APRPD 7 to &lt;10mm</th>
<th>16-27 wks APRPD ≥7mm</th>
<th>≥ 28 wks APRPD ≥10mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Central calyceal dilation*</td>
<td>Peripheral calyceal dilation*</td>
<td>Parenchymal thickness abnl</td>
<td>Parenchymal thickness abnl</td>
</tr>
<tr>
<td>Parenchymal thickness normal</td>
<td>Parenchymal appearance abnl</td>
<td>Parenchymal appearance abnl</td>
<td></td>
</tr>
<tr>
<td>Parenchymal appearance normal</td>
<td>Ureters abnormal</td>
<td>Ureters abnormal</td>
<td></td>
</tr>
<tr>
<td>Ureters normal</td>
<td>Bladder abnormal</td>
<td>Bladder abnormal</td>
<td></td>
</tr>
<tr>
<td>Bladder normal</td>
<td>No unexplained oligohydramnios</td>
<td>Unexplained oligohydramnios**</td>
<td></td>
</tr>
</tbody>
</table>

*Central and peripheral calyceal dilation may be difficult to evaluate early in gestation
**Oligohydramnios is suspected to result from a urological cause

### Risk-Based Management, Prenatal Diagnosis

<table>
<thead>
<tr>
<th>UTD A1: LOW RISK</th>
<th>UTD A2-3: INCREASED RISK</th>
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</table>

#### Prenatal Period:

**UTD A1: LOW RISK**
- One additional US ≥ 32 weeks

**UTD A2-3: INCREASED RISK**
- Initially in 4 to 6 weeks*

#### After Birth:

**UTD A1: LOW RISK**
- Two additional US:
  1. > 48 hrs to 1 month
  2. 1-6 months later
- Other:
  - Aneuploidy risk modification if indicated

**UTD A2-3: INCREASED RISK**
- US at > 48 hours to 1 month of age*
- Other:
  - Specialist consultation, e.g. nephrology, urology

*Certain situations [e.g. posterior urethral valves, bilateral severe hydronephrosis] may require more expedient follow up
The choice to utilize prophylactic antibiotics or recommend voiding cystourethrogram will depend on the suspected underlying pathology.