**Appendix S3** Proposed work-up, staging, and scoring systems suggested in literature for suspected fetal lower urinary tract obstruction (LUTO)

**Workup**

1. Detailed ultrasonography
2. Fetal echocardiography, if yes then which trimester
3. Fetal MRI, if yes then which trimester
4. Genetic screening: first trimester screen, cell free DNA,
5. Diagnostic genetic testing:

* Modality: CVS, amniocentesis, amnioinfusion then amniocentesis, cordocentesis, placental biopsy, bladder tap
* Assessment: FISH, karyotype, microarray, overgrowth syndromic panel, BWRS panel, exome sequencing.

1. Assessment of fetal renal function via

* Ultrasound: appearance of renal cortex: cortical cysts, echogenicity, cortico-medullary differentiation, kidney size, urinary ascites, perinephric abscess
* Amniotic fluid volume or deepest vertical pocket
* No, one, two, three pre-intervention bladder taps: assess for bladder refill and/or biochemistry
* Urine or blood biochemistry: sodium, chloride, calcium, osmolarity, B2- macroglobulin, peptidome (12PUV)
* Bladder refill: ultrasound bladder volume via VOCAL or urine volume after one or two or three bladder taps. Definition of bladder refill: Ruano et al 2016 suggested <27% reduction after the 48 hr bladder tap, Nassr et al 2021 suggested 48 hr bladder tap volume>80% of the initial volume.

**Staging and scoring systems:**

1. Staging system proposed by Ruano et al 2016.

Graphical user interface, application, Word

Description automatically generated

1. Staging system suggested by Fontanella et al 2019

Graphical user interface, text, application

Description automatically generated

1. Nassr et al 2021 proposed scoring system to choose candidates for intervention, in which those with score >3 are associated with 0% chances for survival at 6 months of life.

Graphical user interface, text, application, Word

Description automatically generated