Imaging algorithm in infants & children with suspected obstructive uropathy

- **mild (HN <3) x1**
- **US (+ DDS/CDS)**
  - **HN ≥3**
    - **VCUG (ce-VUS?)**
    - <6 weeks old
      - no VUR
    - >6 weeks old
      - clinical symptoms x3
      - potentially diuretic US(?)

- **VUR/PUV x1**
- **US follow-up hydration! CDS! diuretic US (?)**
- **deterioration x2**
  - clinical symptoms x3
  - non-obstructive normal function

- **VUR?**

- **MAG3 (T+20) x4**
  - or (quantitative) MRU, or IVU (pre-op., if no MRU)
  - equivocal - also, if <3 mo + obstructive & normal function
    - ⇒ MAG3 (T-20), follow-up (after 3-6 mo)...

- **⇒ others x1**

**Proposed imaging criteria for deterioration:**
- on MAG 3: decreased (split) renal function & drainage, contra-lateral hypertrophy
- on US increasing dilatation, decreasing parenchymal width, echotexture, contra-lateral hypertrophy
  - decreased vascularisation (on aCDS), asymmetrically elevated RI (on PW-DDS), reduced peristalsis (in MU) or ureteric jet (asymmetrically in unilateral disease)

**Clinical criteria for deterioration:**
- pain, infection, haematuria, (kidney) growth failure, hypertension

x1 as appropriate, see also respective algorithm
x2 Proposed imaging criteria for deterioration:
x3 Clinical criteria for deterioration:
x4 assess drainage pattern and (split renal) function

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