Evaluation of Polyuria
(Urine vol > 3 L per 24 hours)
Suggested scheme for evaluation of Polyuria

**Urine Osmolality**

- **< 200 mOsmol/kg**
  - **Fluid deprivation (~ 12 hours)**
    - if urine volume > 5L/day, contact pathologist - test should be performed in hospital

- **~ 300 mOsmol/kg**
  - **Serum Urea and Glucose**
    - **High glucose**
    - Diabetes mellitus
    - **High urea**
    - Renal disease
    - Hypercatabolism
    - **Normal glucose and urea**
    - ? Sodium diuresis

**High water intake (normal ADH*/Renal function)**

- **> 750 mOsmol/kg†**
  - **Urine osmolality**
    - **< 750 mOsmol/kg†**

**Formal Water Deprivation Test**

- **No response**
  - **Nephrogenic diabetes insipidus**

- **Positive response**
  - **Hypothalamic (central) diabetes insipidus**

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* ADH: Antidiuretic Hormone
† A cut-off of 600 mOsmol/kg is appropriate in older adults