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 with normal renal function

- > 750 mOsmol/kg†
- < 750 mOsmol/kg†

Urine osmolality

Formal Water Deprivation Test

- No response
  - Nephrogenic diabetes insipidus
- Positive response
  - Hypothalamic (central) diabetes insipidus

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