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

**Urine Osmolality**
- > 750 mOsmol/kg
  - Positive response
  - Hypothalamic (central) diabetes insipidus
- < 750 mOsmol/kg
  - No response
  - Nephrogenic diabetes insipidus

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

**Serum Urea and Glucose**
- High glucose
  - Diabetes mellitus
- High urea
  - Renal disease
  - Hypercatabolism
- Normal glucose and urea
  - ? Sodium diuresis

**Formal Water Deprivation Test**
- > 750 mOsmol/kg
- Positive response
- Hypothalamic (central) diabetes insipidus
- < 750 mOsmol/kg
- No response
- Nephrogenic diabetes insipidus

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