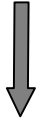


# Flowchart for urea and creatinine (GP)

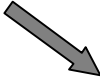
**NB. As with other biochemistry, compare with previous results. Is there a large acute change in results or a gradual change?**

Reference ranges		
	Male	Female
Urea (mmol/l)	2.3 - 7.7	2.0 - 6.8
Creatinine (umol/l)	66 - 118	51 - 96

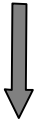
Increased plasma urea



Check the plasma creatinine result



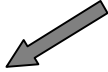
**Elevated creatinine**  
Renal failure



- Check**
- Previous disease** - vascular, DM...
  - Drugs** - ACEI, aminoglycosides...
  - Fluid balance** - ?hypovolaemia, urine output, BP...
  - Infection** - blood cultures
  - Urinalysis** – protein, blood, electrolytes, microscopy
  - Urinary tract obstruction** - ultrasound

**Normal creatinine**

Dehydration  
High protein intake  
Possible GI bleed



- Other blood tests required
- Potassium** - may require treatment if elevated
  - Phosphate** - likely to be elevated
  - Bicarbonate** - likely to be acidosis
  - Calcium**
  - Creatine kinase**
  - FBC**
  - Immunology screen** - autoAb, complement etc
  - Immunoglobulins and ESR**