

# Nephrology for Solicitors

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## Dr Matthew Howse

- Consultant Nephrologist (Kidney / Renal Specialist)
  - Also practice in GIM
- Honorary Senior Lecturer
  - Teaching and Research
- Honorary Consultant Liverpool Women's Hospital
  - Renal Disease in Pregnancy
- Medical-Legal Work
  - Medical Negligence, claimants / defendants
  - PI
  - CPS

## What's what?

- Nephrology
- Urology
- Transplant Surgery

## Nephrology

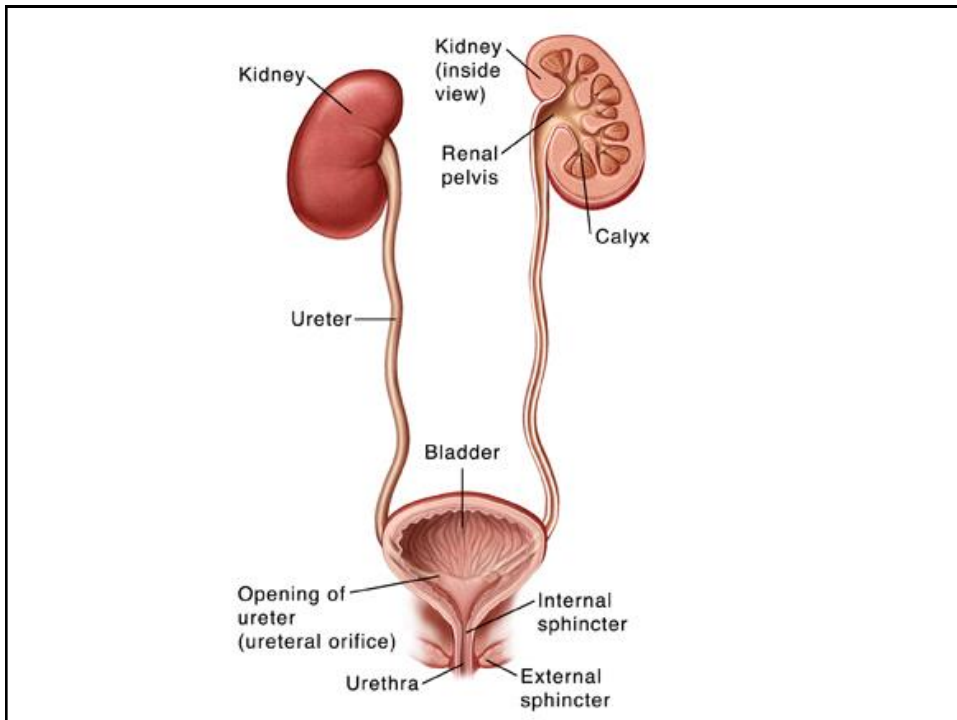
- Disease of the working of the kidneys (function)
  - Failing kidneys
  - Kidneys that leak protein into the urine
  - Complications of failing kidneys
    - Anaemia / bone disease / high blood pressure
- Dialysis when kidneys fail
- Long-term care of patients with kidney transplants

## Urology

- Surgical speciality
- Concerns *structural* conditions of the urinary tract often requiring surgery
  - Tumours / cancer of kidneys, bladder and prostate
  - Kidney stones
  - Incontinence
  - ‘Blocked’ kidneys
  - Urine infections

## Kidney Transplant Surgery

- Preparations for surgery
- Retrieving the kidney (live / deceased donors)
- Implanting the kidney
- Early post-operative care (1 week – 1 year)



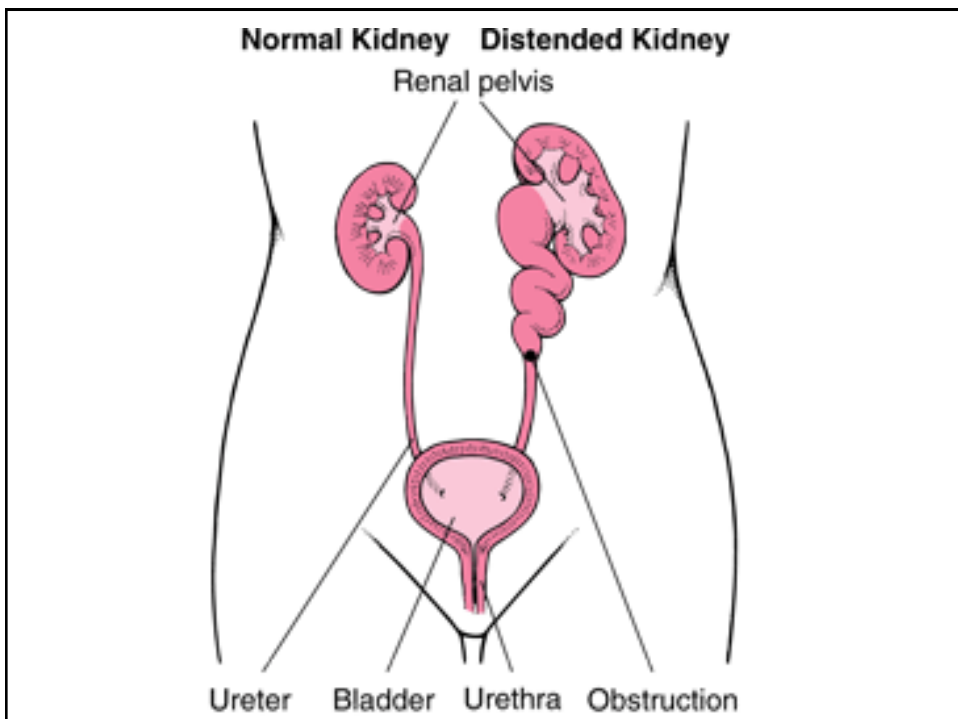
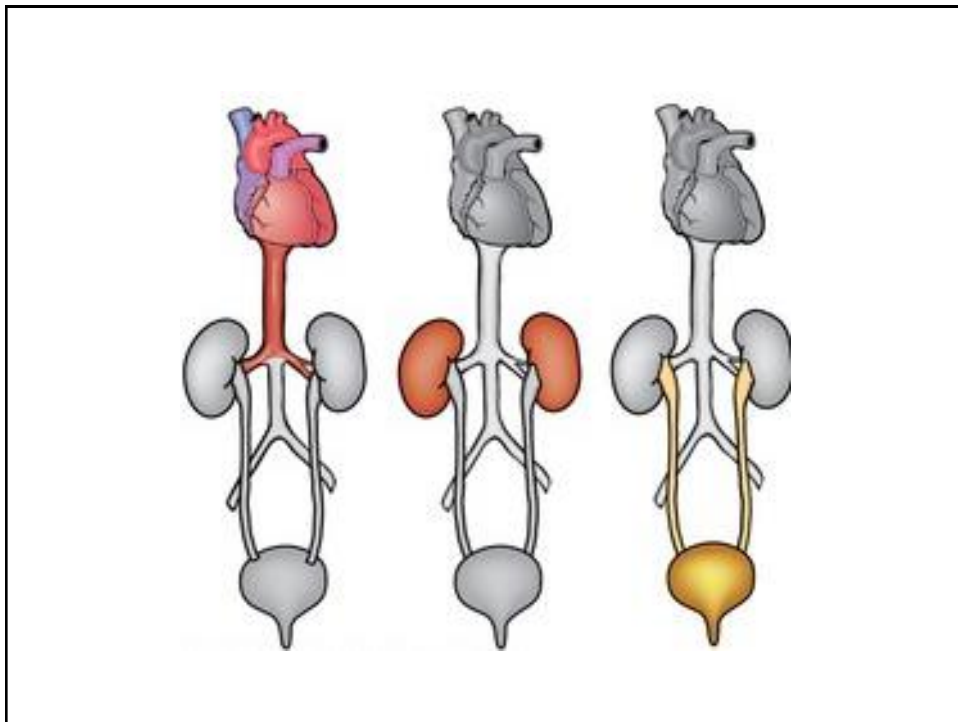
## Functions of the Kidney

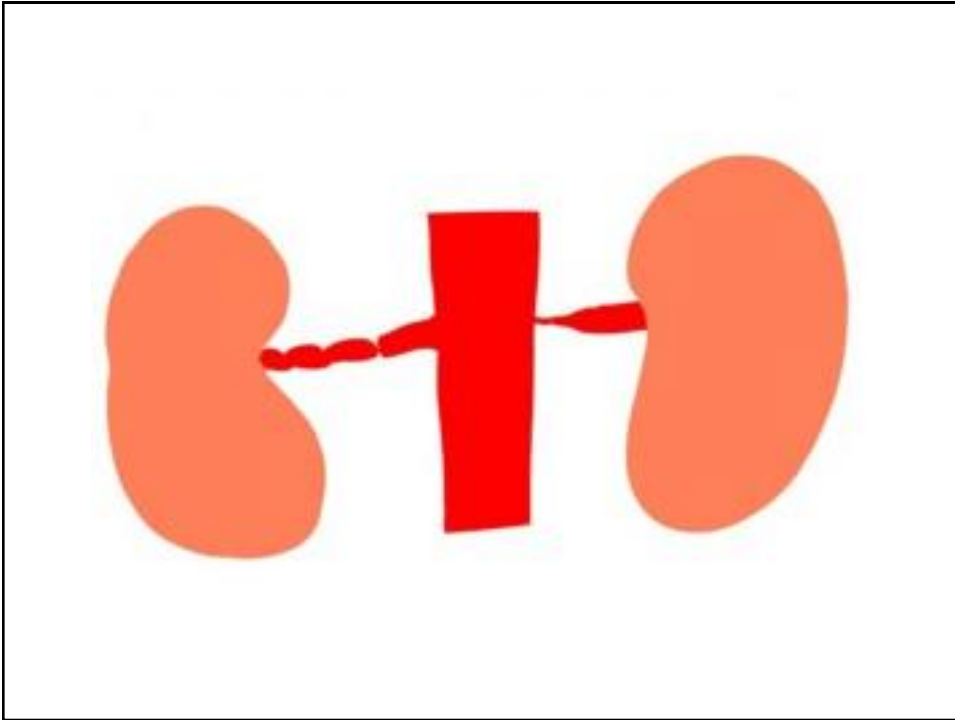
- Filtering the blood of certain toxins / waste products / drugs
- Control of certain mineral levels in blood – potassium, calcium, phosphate
- Control of blood pressure
- Control of the number of red blood cells

## Measuring kidney function

- Amount of fluid filtered by the kidneys = glomerular filtration rate (GFR)
- Usually measured by a blood test giving the estimated GFR (eGFR)

## Kidney Failure





## Kidney Failure

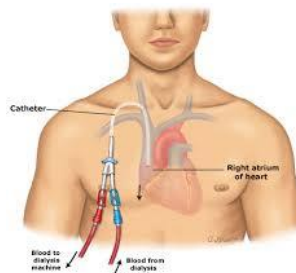
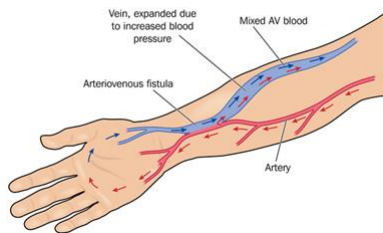
- Sudden (AKI)
  - Hours and days
  - Acute kidney injury
  - Sick patient – usually in hospital
  - Reversible
- Slow (CKD)
  - Months and years
  - Chronic kidney disease
  - Less unwell
  - Not reversible / progressive
- Patients with CKD or who have had AKI have a reduced life expectancy and increased risk of dialysis

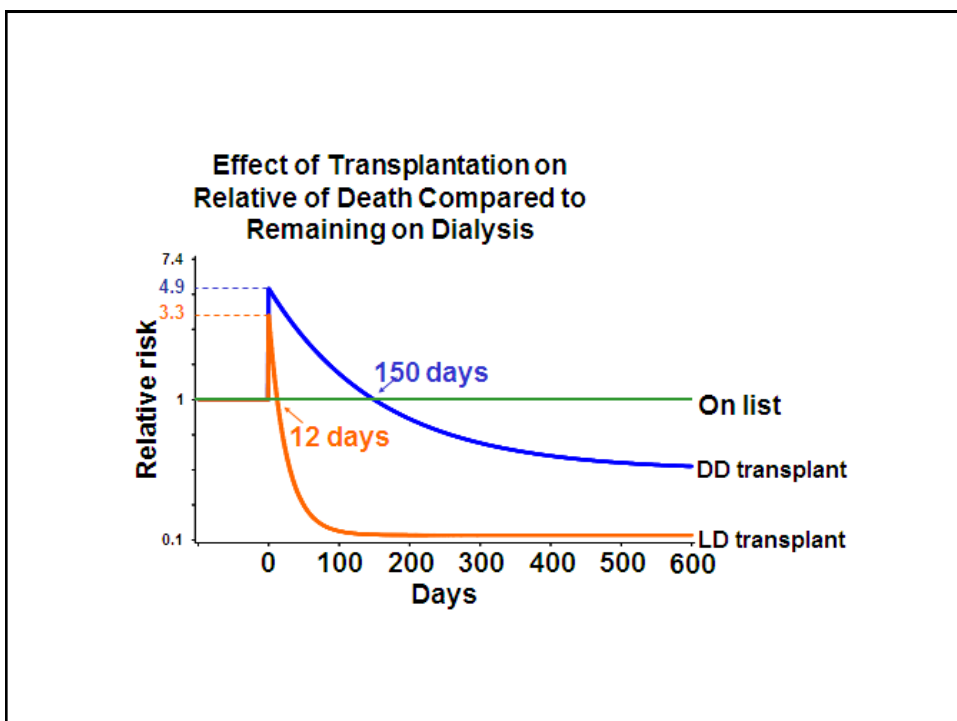
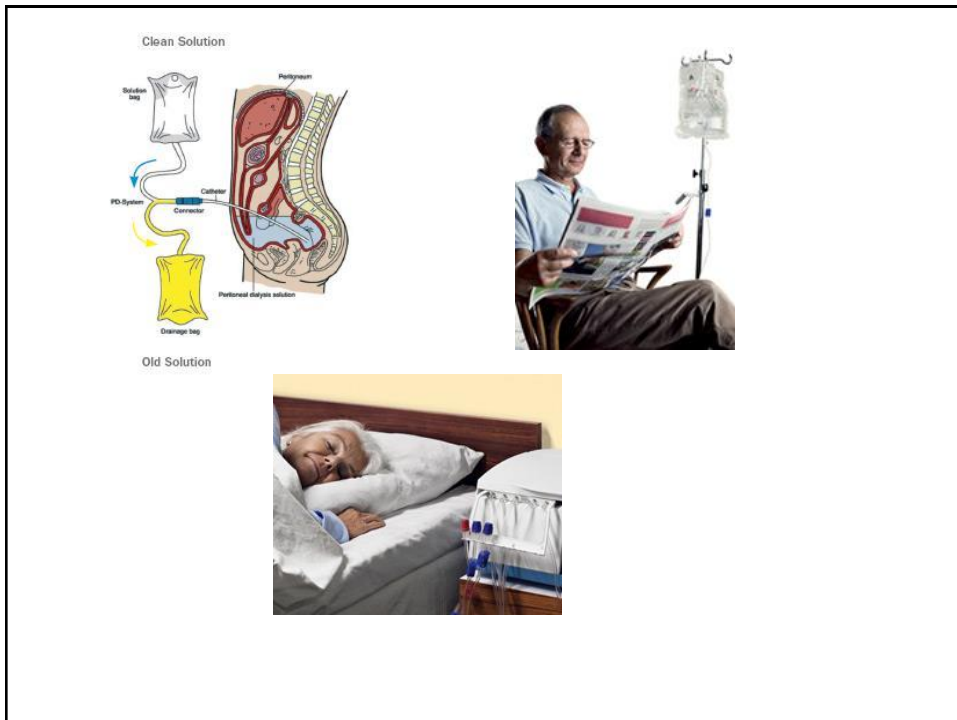
## Acute Tubular Necrosis

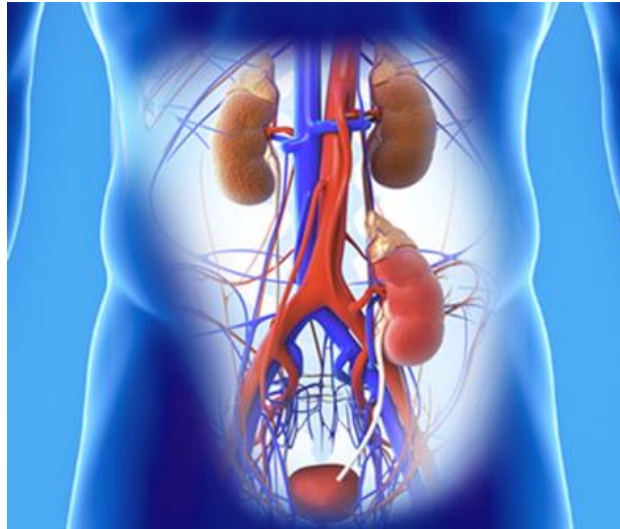
- ATN
- A 'reaction' to a life threatening illness
  - Low blood pressure
  - Severe infection
  - Major surgery
- AKI may need dialysis; kidneys in 'shock'
- Usually recover but an element of CKD often remains

## Dialysis and Transplantation in End-Stage Renal Disease (ESRD)









## Glomerulonephritis

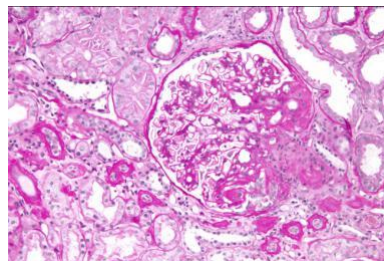
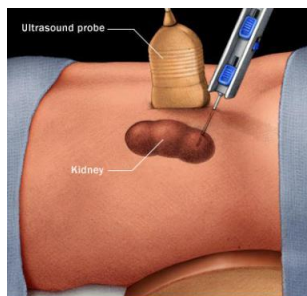
- Blood and or protein in the urine
- Chronic Kidney Disease
- Acute kidney injury
- Nephrotic syndrome
- Diagnosis; kidney biopsy
- Often responds to specific treatment



## Nephrotic Syndrome

- A triad of
  - Lots of protein in the urine
  - Reduced albumin (protein) in the blood
  - Swelling of the legs (oedema)
- Usually caused by glomerulonephritis

## Kidney Biopsies



## Medico-Legal Cases

- Nephrologists are rarely sued
- Almost all my work is failure to diagnose kidney disease in a timely fashion
- Surgical damage to, or removal of, a kidney

## Failure to Diagnose Glomerulonephritis

- Patient presents to GP
- Unwell
- Aches and pains
- Ankle swelling
- Treated symptomatically / for heart failure
- Urine not tested

## ATN Complicated Another Illness

- Patient presents with an acute illness that is misdiagnosed / mistreated
  - Infection
  - Heart attack / stroke
- Becomes critical unwell
- Develops AKI with partial recovery
- Affects of kidney failure on future prognosis

## Life expectancy in Claimants with CKD

- Patient with CKD has another illness which is mistreated / misdiagnosed
- In assessing damages court needs life expectancy estimation with respect to kidney function

## Surgical Error

- During surgery a kidney is damaged or injured requiring removal
- Affect on life expectancy / chance of requiring dialysis / transplantation in the future.



## Predicting Life Expectancy in Kidney Disease

- Most patients / claimants with kidney disease have other diseases (comorbidities)
- The effect of the reduction in life expectancy of kidney disease partially overlaps with these
- Medical literature doesn't fully take account of this

Thank You



"...And seven years ago I donated one of my kidneys to him. I want it back."