

Austin Health Nephrology Clinic holds two sessions per week to discuss and plan the treatment of patients with renal disorders

Clinical urgency categories for Specialist Clinics

Urgent (< 30 days):

- Severe chronic kidney disease (CKD) (eGFR < 15/ml/min/1.73m² or rapidly progressive)
- Rapidly progressive or high risk glomerulonephritis
- Symptomatic nephrotic syndrome
- Kidney disease at high risk of rapid (< 30 days) clinical deterioration
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Semi-urgent (30-90 days)

- Follow up of recent acute kidney injury (AKI)
- A sustained decrease in eGFR of 25% or more within 12 months OR a sustained decrease in eGFR of 15 mL/min/1.73m² per year

Routine (90-365 days):

- CKD with eGFR < 30 ml/min/1.73 m² (CKD 4-5)
- Persistent significant albuminuria (urine ACR ≥ 30 mg/mmol)
- CKD with hypertension that is uncontrolled despite at least three antihypertensive agents
- Renal anaemia with Hb < 10 g/L requiring erythropoietin
- Glomerular haematuria
- Complex renal stone disease
- Renal tubular acidosis
- Inherited polycystic kidney disease (PKD)

Exclusions:**In most cases nephrology referral is not necessary for:**

- Stable CKD 1-3 with eGFR > 30 mL/min/1.73m
- CKD with urine ACR < 30 mg/mmol (with no haematuria)
- Non-complex kidney stones

Less severe cases of CKD may be suitable for referral to **General Medical Outpatients**, especially if occurring in association with other medical conditions.

Complex hypertension occurring in the absence of kidney disease should be referred to the **Hypertension Clinic**.

Cases of **inherited kidney disease** requiring detailed genetic evaluation can be referred to the **Renal Genetics Clinic**.

Renal cysts and renal masses are not suitable for referral to Nephrology. When these lesions require assessment, to exclude malignancy, this should be referred to **Urology**. If there is a clinical suspicion of **inherited polycystic kidney disease** this is appropriate for referral to Nephrology.

Most patients with **Kidney Stones** do not require assessment by **Nephrology**. **Exceptions are complex and/or recurrent cases** that require a **metabolic workup** for an underlying cause of stone formation. Examples are cases of kidney stones with multiple episodes, kidney stones with nephrocalcinosis, and kidney stones with metabolic derangements such as metabolic acidosis (low serum bicarbonate). The metabolic workup for complex cases of kidney stones includes serum CUEs, Ca/PO₄, PTH, 25-OH vit D and uric acid; urinalysis for microscopy, albuminuria and urine pH; and 24hr urinary excretion of calcium, oxalate, uric acid and citrate. Patients with **renal colic** or evidence of **urinary obstruction** should be referred immediately to either the **Emergency Department** or **Urology**.

Anyone with an acute presentation and signs of **acute kidney injury** (rapid decline in GFR) or **acute nephritis** (oliguria, haematuria, acute hypertension and oedema) should be regarded as a medical emergency and referred without delay. Consider referral to the **Emergency Department**. For urgent renal advice call Austin Health switchboard on 94965000 and ask to speak to the on call Renal Registrar.

Condition / Symptom	GP Management	Investigations Required Prior to Referral	Expected Triage Outcome	Expected Specialist Intervention Outcome	Expected number of Specialist Appointments
<p>Patients with Chronic Kidney Disease (CKD) meeting the Kidney Health Australia (KHA) criteria for recommended referral to a nephrologist:</p> <ul style="list-style-type: none"> eGFR < 30 mL/min/1.73m (consider referral for younger patients < 60 yrs old with eGFR 30-60) Persistent significant albuminuria (urine ACR > 30 mg/mmol) A consistent decline in eGFR from a baseline of < 60 mL/min/1.73m (a decline > 5mL/min/1.73m over a six-month period which is confirmed on at least three separate readings) Haematuria with significant albuminuria (> 30 mg/mmol) CKD and hypertension that is hard to get to target despite at least three anti-hypertensive agents 	<p>Refer to Kidney Health Australia "Chronic Kidney Disease (CKD) – Management in General Practice" at the link below http://www.kidney.org.au/LinkClick.aspx?fileticket=vfDcA4sEUMs%3d&tabid=635&mid=1584</p>	<p>Mandatory:</p> <ul style="list-style-type: none"> Bloods: FBE, CUEs, Ca/PO4 Urine: Albumin/Creatinine ratio (ACR) or Protein/Creatinine Ratio (PCR), urine microscopy Imaging: Renal ultrasound The patient needs to have recent blood results (in the preceding month) prior to referral. <p>Prior to referral for an elevation of serum creatinine or increase in proteinuria/albuminuria repeat the investigation to confirm the change.</p> <p><i>Referrals lacking mandatory information will be assessed as incomplete and declined</i></p> <p>Discretionary:</p> <ul style="list-style-type: none"> Glomerulonephritis screen (ANA, ANCA, anti-GBM, ASOT, dsDNA, C3, C4) Myeloma screen (serum and urine EPG) 24hour urine collection (Cr clearance, protein) 	<p>Referrals will be triaged by a consultant nephrologist after which patients will be notified of the outcome and an appointment arranged depending on urgency.</p> <p>Where referral is triaged as 'urgent', patient will be contacted to arrange an appointment within 30 days (DHHS Specialist Clinics Access Policy)</p>	<p>CKD patients assessed as being at risk of needing renal replacement therapy or progression to symptomatic uraemia within 1-2 years will routinely remain in follow up in Nephrology outpatients</p> <p>CKD patients assessed as being at low risk of progressing to symptomatic uraemia within 1-2 years will commonly be discharged back to referring doctor with a management plan and criteria for referral back to Nephrology if their CKD progresses in the future</p>	<p>1-2 review appointments are sufficient for routine referrals. Complex cases may require additional appointments</p> <p>General Practitioners have a vital role in the care of CKD patients. Care should be shared between the General Practitioner and the Nephrologist</p>

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- Iron studies, PTH, vitamin D, lipids, LFTs, HbA1c, uric acid

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Other reasons for referral to Nephrology Outpatients include:

- Inherited kidney diseases (e.g. polycystic kidneys)
- Recurrent or complex kidney stones requiring metabolic workup (most kidney stone patients do not require review in Nephrology outpatients)
- Renal anaemia requiring erythropoietin
- Glomerulonephritis (diagnosed or suspected)
- Follow up after acute kidney injury