

*Serving, Seeing, Striving for*  
something  
greater

# *Management of Chronic Kidney Disease*

**Dr Sue Coulshed** MBBS(Hons) UNSW MRCP(Lond) FRACP  
Nephrologist & General Physician



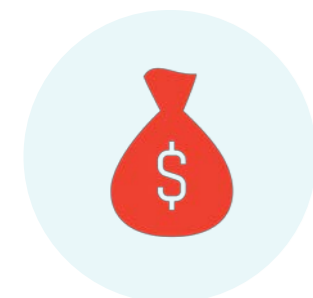
Nephrology at The Mater

# Chronic kidney disease (CKD) poses a significant burden to Australian healthcare<sup>1-3</sup>



## Prevalence

An estimated **1 in 10** Australian adults (**1.7 million**) in 2018 had indicators of CKD such as reduced kidney function and/or albumin in the urine<sup>1</sup>



## Costs

CKD costs the Australian economy more than <sup>2</sup>

**\$5 billion a year**<sup>3</sup>

and from 2009–2020

**~\$12 billion in RRT**



## Incidence

**1 in 3**

**Australians**

has risk factors for CKD<sup>1</sup>



## Mortality

CKD contributed to

**11% of all deaths**

in Australia in 2018<sup>4</sup>

AstraZeneca 

CKD, chronic kidney disease; RRT, renal replacement therapy

1. Kidney Health Australia, Chronic Kidney Disease (CKD) Management in Primary Care 4th edition 2020. Available at: <https://kidney.org.au/uploads/resources/chronic-kidney-disease-management-in-primary-care-4th-edition-handbook.pdf>. Accessed September 2021. 2. National Strategic Action Plan for Kidney Disease. 2019, Kidney Health Australia: Adelaide. Available at: [https://www.health.gov.au/sites/default/files/documents/2020/03/national-strategic-action-plan-for-kidney-disease\\_0.pdf](https://www.health.gov.au/sites/default/files/documents/2020/03/national-strategic-action-plan-for-kidney-disease_0.pdf). Accessed September 2021. 3. Kidney Health Australia. Kidney fast facts. Available at: [https://kidney.org.au/uploads/resources/Fact-sheet\\_Kidney-fast-facts\\_2018.pdf](https://kidney.org.au/uploads/resources/Fact-sheet_Kidney-fast-facts_2018.pdf). Accessed September 2021. 4. Australian Institute of Health and Welfare 2014. Chronic kidney disease - Death from Chronic Kidney disease. Available at: <https://www.aihw.gov.au/reports/chronic-kidney-disease/chronic-kidney-disease/contents/deaths-from-chronic-kidney-disease>. Accessed September 2021.

# Principals of Management of Patients with Chronic kidney Disease

Optimally treat the underlying cause of CKD

Slow the progression

Targeted therapy to reduce the BP  
(RAAS Blockade)

Reduce Albuminuria

Implement proven therapies to reduce the progression

- RAAS Blockade
- Metformin
- SGLT2.....Credence, Dapagliflozin
- Finerenone. (Mineralocorticoid Rec antagonist)

# Treat the underlying disease

## Diabetes

- Glycaemic control
- Weight loss
- Reduce albuminuria

## Hypertension

- RAAS blockade
- Dihydropyridone Ca<sup>++</sup>channel blockers

## Glomerular disease

- Specific to form of GN
- RAAS blockade

## ADPKD

- Tolvaptan. Hypotonic diuresis.  
Vasopressin Rec antagonist
- Drink plenty

## Ischemic Kidney Disease

- No specific Rx

## Reflux Nephropathy

- No specific Rx

## Other Genetic Disorders

- No specific Rx

# Treat the underlying disease

## Think about nephrotoxic drugs

- NSAIDs
- IV Contrast
- Lithium

## Hydration

- Diuretics

## Drug doses

- Antibiotics
- Antivirals

## K<sup>+</sup>

- Cation binders

# Manage Complications

## CVS Disease

- Statin/Ezetimibe
- Aspirin
- Clopidogrel
- Rivaroxaban.....low dose

## Bone Disease

- Acidosis
- Ca
- PO<sub>4</sub>
- PTH

## Anaemia

- Fe
- ESA
- HIF stabilisers
- Transfusion

Itch

Diet

Sleep dysregulation

Social support structures

Employment

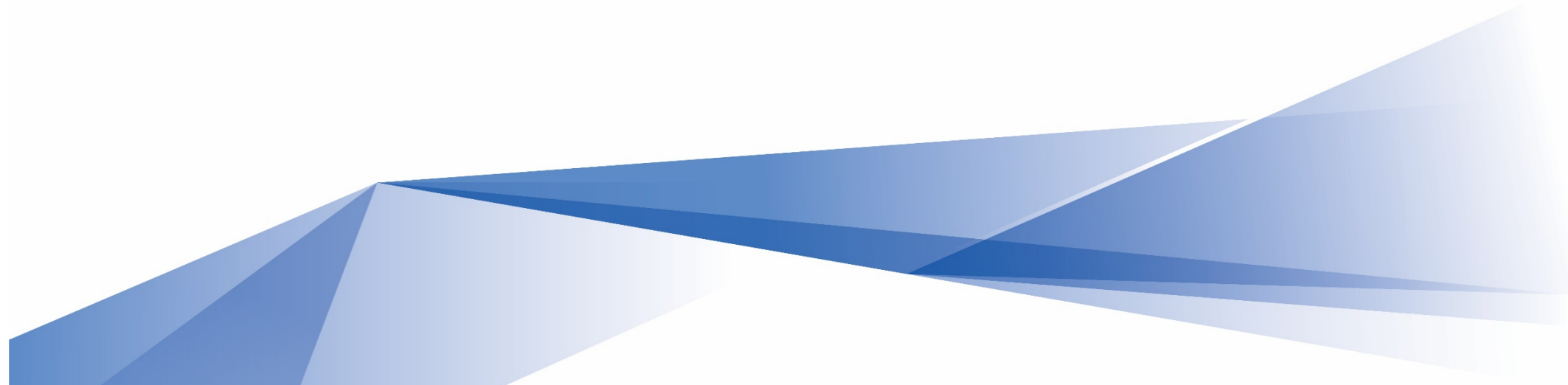
# Diabetes

**Strict diabetic control has a microvascular benefit**

**Limited macro vascular benefit**

**Metformin**

**Dapaglifozin**



# Talking Points

## Early recognition of CKD

- **Helps reduce progress**
- **Patient anxiety**

## Driving

## Cognitive Decline

## COVID. 3 vaccinations



# The first therapy approved in 20 years to slow CKD progression in patients with or without T2D<sup>1-4</sup>



FORXIGA is indicated to reduce the risk of progressive decline in kidney function in adults with proteinuric chronic kidney disease (eGFR ≥ 25 to ≤ 75 mL/min/1.73 m<sup>2</sup> and UACR ≥ 22.6 to ≤ 565 mg/mmol).

- **Initiate FORXIGA in patients with:<sup>1</sup>**
  - **eGFR ≥25 to ≤75\***
  - **UACR ≥22.6 to ≤565 mg/mmol (≥200 to ≤5000 mg/g)**
  - **Stabilised on ACEi/ARB for 4 weeks**
- **10mg once daily<sup>1</sup>**

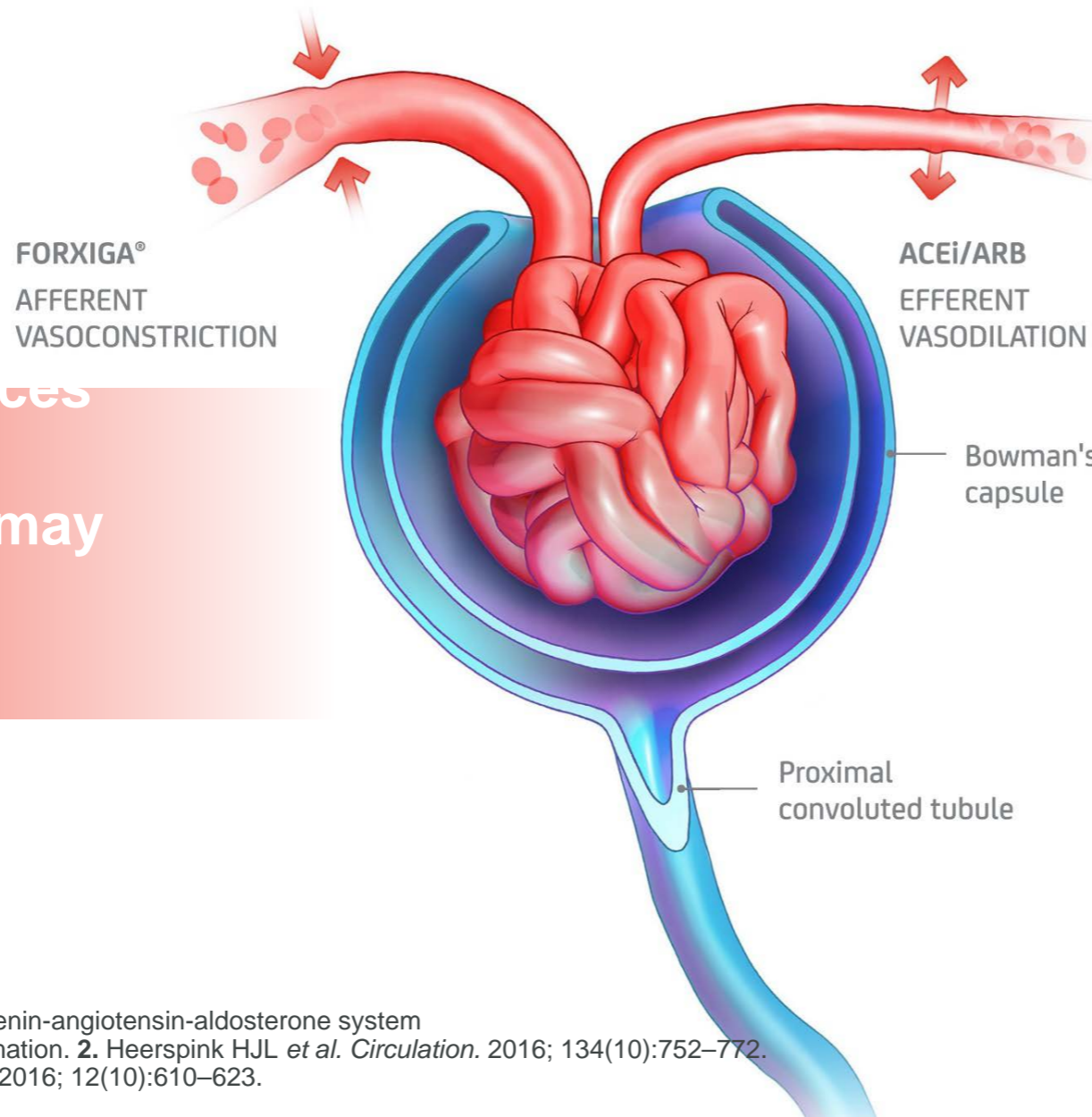
Kidney Function Stage	GFR (mL/min/1.73m <sup>2</sup> )	Albuminuria Stage		
		Normal (urine ACR mg/mmol) Male: <2.5 Female: <3.5	Microalbuminuria (urine ACR mg/mmol) Male: 2.5-25 Female: 3.5-35	Macroalbuminuria (urine ACR mg/mmol) Male: >25 Female: >35
1	≥90	Not CKD unless haematuria, structural or pathological abnormalities present	Yellow	Red
2	60-89		Yellow	Red
3a	45-59	Yellow	Orange	Red
3b	30-44	Orange	Orange	Red
4	15-29	Red	Red	Red
5	<15 or on dialysis	Red	Red	Red

ACEi, angiotensin-converting enzyme inhibitor; ARB, angiotensin receptor blocker; CKD, chronic kidney disease; eGFR, estimated glomerular filtration rate; T2D, type 2 diabetes; UACR, urine albumin-to-creatinine ratio  
 \*Initiating treatment with FORXIGA in patients with eGFR <25 mL/min/1.73 m<sup>2</sup> is not recommended. The glucose lowering efficacy of FORXIGA is reduced in patients with eGFR below 45 mL/min/1.73 m<sup>2</sup>. Therefore, if eGFR falls below 45 mL/min/1.73 m<sup>2</sup>, additional glucose lowering treatment should be considered in patients with diabetes mellitus.<sup>1</sup>

1. FORXIGA® Approved Product Information. 2. Breyer MD *et al. Nat Rev Drug Discov.* 2016; 15(8):568–588. 3. Tuttle KR. *Lancet Diabetes Endocrinol.* 2021; 9(1):3–5. 4. Therapeutic Goods Administration. Public Summary. Available at [https://www.ebs.tga.gov.au/servlet/xmlmillr?dbid=ebs/PublicHTML/pdfStore.nsf&docid=180147&agid=\(PrintDetailsPublic\)&actionid=1](https://www.ebs.tga.gov.au/servlet/xmlmillr?dbid=ebs/PublicHTML/pdfStore.nsf&docid=180147&agid=(PrintDetailsPublic)&actionid=1). Accessed September 2021.



# FORXIGA® offers a complementary pathway to RAAS inhibition in CKD<sup>1-3</sup>



FORXIGA® reduces intraglomerular pressure which may have beneficial effects on

benefits of FORXIGA® are not solely dependent on the blood glucose-lowering effect and not limited to patients with

CKD, chronic kidney disease; RAAS, renin-angiotensin-aldosterone system  
1. FORXIGA® Approved Product Information. 2. Heerspink HJL *et al. Circulation.* 2016; 134(10):752-772.  
3. Schefold JC *et al. Nat Rev Nephrol.* 2016; 12(10):610-623.

