

Key Takeaways for Clinicians from the KDIGO 2025 Clinical Practice Guideline for the Evaluation, Management, and Treatment of ADPKD: CKD management and progression, kidney failure, and kidney replacement therapy (KRT)



1

CKD management

Management of the complications of CKD and lipid lowering therapy for the primary prevention of cardiovascular disease in people with ADPKD should be similar to those in other kidney diseases. HIF-PHIs should not be used to manage anemia in people with ADPKD who are not receiving dialysis as they may theoretically exacerbate cystogenesis. Diabetes management should be the same than in general population. SGLT2i and GLP-1 RAs are not recommended until further data in people with ADPKD are available.

2

Native nephrectomy

Native nephrectomy should only be performed for specific indications, usually in people with ADPKD receiving a kidney transplant (Figure 1). Native nephrectomy should be considered by a multidisciplinary team in a center with sufficient surgical experience; the benefit must outweigh the risk. Ideally, native nephrectomy should not precede KRT and should be unilateral when appropriate.

3

Transplantation

Living-related donor transplantation done preemptively is the optimal treatment for kidney failure in people with ADPKD. Several complications after kidney transplantation are more common in ADPKD (Figure 2). Due to reduced availability of living, related donors in ADPKD families, there is value in evaluation of the extended family, and the wider circle of friends, coworkers, and acquaintances. Potential at-risk, blood-related donors should undergo thorough evaluation to exclude ADPKD.

4

Accurate assessment of weight and BMI

The transplant team should take into consideration the weight (volume) of enlarged cystic organs. During the health-screening phase before kidney transplantation, the body weight should be adjusted for the estimated polycystic kidney and liver weights to arrive at a more accurate indication of the BMI (Figure 3)

5

Dialysis

Peritoneal dialysis and hemodialysis are acceptable dialysis modalities for people with ADPKD with comparable long-term mortality. People at high risk of abdominal hernias should be counseled to avoid peritoneal dialysis. There are no objective criteria for total kidney volume that would predict success or failure of peritoneal dialysis.

6

Clinical trials

Voluntary participation in clinical trials of interventions to slow progression of ADPKD should be offered to all eligible people with ADPKD.

Figure 1

Recurrent and/or severe kidney infection
Symptomatic nephrolithiasis
Recurrent and/or severe kidney cyst bleeding
Intractable pain
Suspicion of kidney cancer
Insufficient space for insertion of a kidney graft
Ventral hernia in the setting of massively enlarged kidneys
Severe symptoms related to massively enlarged kidneys

Figure 2

Post-transplant complication	
New-onset diabetes	Pooled RR 1.92; 95% CI: 1.36–2.70
Erythrocytosis	Recipients with post-transplant erythrocytosis were more likely to have PKD than other kidney diseases (17% vs. 6%; P <0.001)
Valvular heart disease	Greater risk for worsening of tricuspid, mitral and aortic valve regurgitation
Aortic root dilatation	Greater risk for dilation of sinus of Valsalva and ascending thoracic aorta
Subarachnoid hemorrhage	3.8/1000 hospital admission in kidney transplant recipients with ADPKD compared to 0.9/1000 in kidney transplant recipients without ADPKD
Thromboembolic events (DVT, PE)	8.6% of 534 patients with ADPKD vs. 5.8% of 4779 patients without ADPKD after kidney transplantation (P = 0.009)
Skin cancers: SCC, BCC, melanoma	Adjusted ORs 1.22, 1.30, 1.21, respectively
Urinary tract infections	Weak evidence only
Cyst infection	Cumulative IR 3%, 6% and 12% (63% kidney, 37% liver) at 1, 5 and 10 years after transplantation (1.6 episodes per 100 person-years). Increased risk with history of cyst infection before transplantation, HR: 3.47; 95% CI: 1.29–9.31
Colon diverticulitis	Prevalence (2006–2013) in kidney transplant recipients with compared to without ADPKD (2.6% vs 0.8%)

Figure 3

$$\text{Adjusted BMI (ADPKD)} = \frac{\text{Adjusted body weight (kg)*}}{\text{Height (m)}^2}$$

$$\text{*Adjusted body weight} = \text{Measured body weight (kg)} - \text{TKV (in kg)} - \text{TLV (in kg)} + \text{weight of normal kidneys (kg) and liver (kg)}$$