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Infographic

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Advancing
Therapeutic Goals in
IgA Nephropathy

Nephrology



Advancing Therapeutic Goals in IgA Nephropathy

IgA Nephropathy (IgAN)

Epidemiology



IgAN is the most prevalent primary glomerulonephritis worldwide¹

2.5/100,000 people are affected per year²

30–40% of all primary glomerular disease in Europe is IgAN¹

Burden



IgAN is a leading cause of CKD and kidney failure³



up to 53% of patients develop kidney failure within 20 years of diagnosis⁴



Patients are often diagnosed late-stage with symptoms of established kidney disease, including proteinuria, renal insufficiency, haematuria, and hypertension.⁵

Management



Initial supportive care including lifestyle modification (e.g., weight reduction, increased physical activity, and dietary sodium restriction), blood pressure control and maximum tolerated RAS blockade when proteinuria >0.5 g/d.³

Unmet need

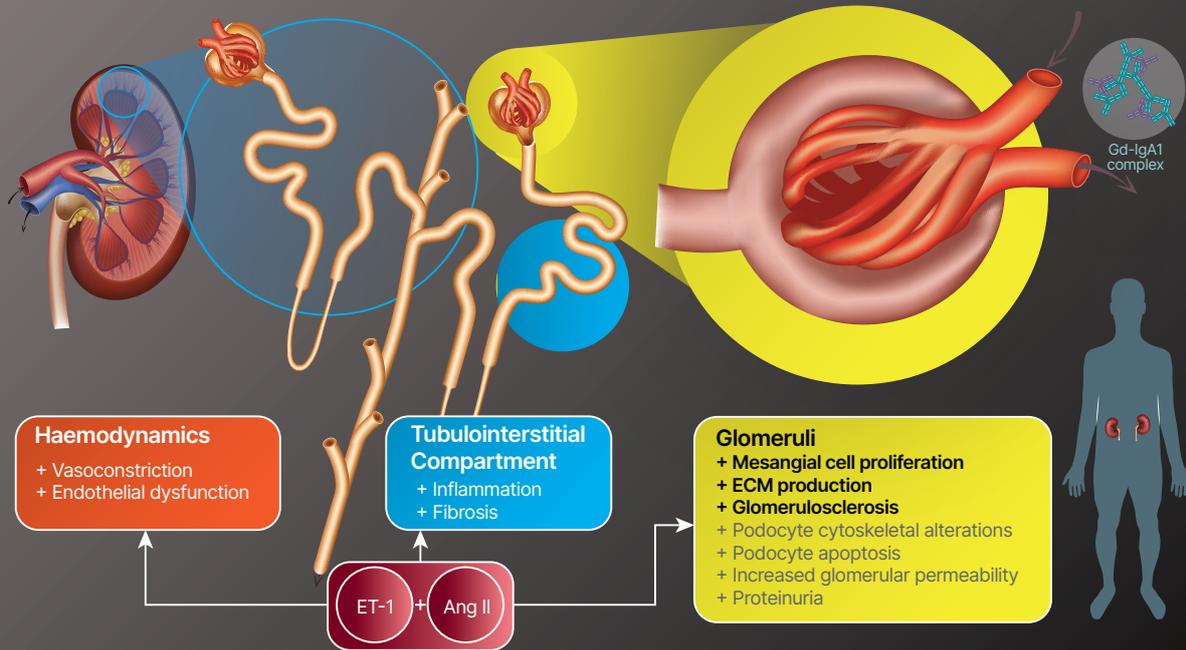


64% of patients remain above proteinuria targets when treated with current first-line therapies ACEis and ARBs⁶

Pathophysiology

IgAN is characterised by the mesangial deposition of galactose-deficient immunoglobulin A1 (IgA1) immune complexes, which stimulates mesangial cell activation and proliferation, increases production of inflammatory cytokines and mediators, including ET-1 and Ang II, and stimulates expansion of extracellular matrix (ECM) components.^{7–9}

ET-1 and Ang II act in tandem to amplify inflammation and damage to the glomerular filtration barrier and tubulointerstitial compartment and cause vascular dysfunction, leading to increased proteinuria, a progressive loss of glomerular filtration rate ultimately leading to kidney failure.^{10–12}



Therapeutic Goals in IgAN

Managing blood pressure and proteinuria thus slowing the progression to kidney failure³

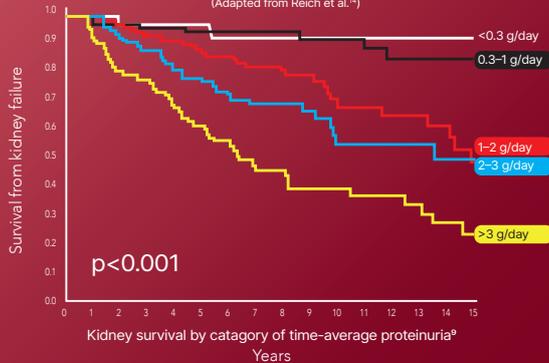


<1 g/day proteinuria

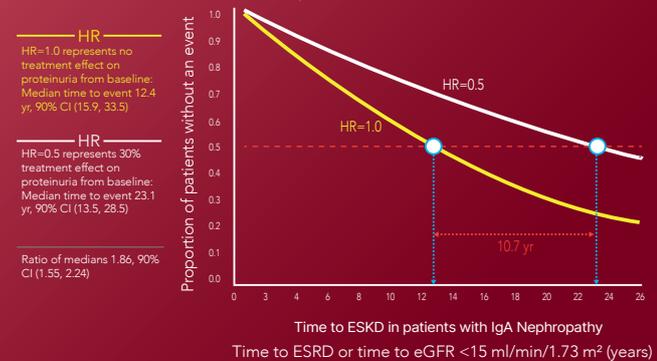


<120 mmHg systolic blood pressure^{3,13}

Proteinuria is the single strongest and modifiable prognostic factor in IgAN, with sustained levels >1 g/day associated with a faster rate of kidney function decline¹⁴
(Adapted from Reich et al.¹⁴)



Hypothesised treatment effect on proteinuria estimated that a 30% reduction in proteinuria at 9 months conferred a 50% lower risk of ESKD, extending the median time to ESKD by 10.7 years¹⁵
(Adapted from Carroll et al.¹⁵)



ACEis: angiotensin-converting enzyme inhibitors;
Ang II: angiotensin II;
ARBs: angiotensin receptor blockers;
CI: confidence interval; CKD: chronic kidney disease; ECM: extracellular matrix; eGFR: estimated glomerular filtration rate; ESKD: end-stage kidney disease; ESRD: end-stage renal disease; ET-1: endothelin-1; Galactose-deficient immunoglobulin A1 (Gd-IgA1)
HR: hazard ratio; RAS: renin-angiotensin system;
Yr: year

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