# The relationship between proteinuria and disease progression in IgA nephropathy (IgAN)

A summary of the RaDaR study



## What does this research mean for people with IgAN?



Even patients who were considered "lower-risk" (proteinuria levels of less than 1,000 mg/day)<sup>a</sup> were shown to have poor long-term outcomes



Starting treatments early is important for people with IgAN



New treatments that **reduce proteinuria** levels may improve outcomes in people with IgAN, including **slower kidney disease progression** and delaying kidney failure

## Why was this study done?

To understand how **proteinuria** affects people with IgAN over time

#### Researchers looked at:

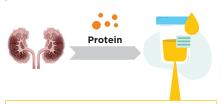
How well their kidneys work (kidney function)



How long they live without needing kidney dialysis or transplant (kidney survival)

# **Background of the study**

When the kidneys are damaged, protein leaks into the urine



Excess protein in the urine is called proteinuria



Levels of **proteinuria**<sup>a</sup> can predict how likely kidney disease is to get worse



IgAN risk categories were traditionally thought to be:



Less than 1,000 mg/day (1 g/day): lower risk for disease worsening



More than 1,000 mg/day (1 g/day): higher risk for disease worsening

### What is RaDaR?

The United Kingdom Registry of Rare Kidney Diseases (RaDaR) is the largest rare kidney disease registry in the world, collecting information on patients with rare kidney diseases



RaDaR works closely with kidney centers and laboratories around the UK





The database includes >33,000 patients

Researchers examined data from **2,439** people with IgAN who were part of RaDaR

\*Sometimes, proteinuria values are expressed as mg/g (mg of protein per gram of creatinine), rather than mg/day. As a rule of thumb, you can find an estimate by multiplying the "per day" measurement by 0.7 (e.g. 300 mg/day x 0.7  $\sim$  210 mg/g).

**Reference**: Pitcher D, et al. Long-term outcomes in IgA nephropathy. *Clin J Am Soc Nephrol.* 2023;18(6):727-738.





## How was this study done?



The study included **2,439** people with IgAN, including **140** children



On average, patients were followed for **8 years** 

#### Researchers looked at:



**Proteinuria** 



**Kidney function** 



Kidney survival

# What were the main results of the RaDaR study?

#### Clinical outcomes for people with IgAN were poor



Approx. 50% of adults progressed to kidney failure or death during the study period



Most patients progressed to kidney failure within 10-15 years in all age groups

Treatment options for IgAN have been made available in recent years



SCAN TO SEE WHAT TREATMENT OPTIONS MAY BE AVAILABLE TO YOU

#### Higher proteinuria was associated with worse outcomes





Faster kidney function decline



Lower chance of kidney survival

# Most people with high levels of proteinuria will progress to kidney failure within 10 years of diagnosis Patients reaching kidney failure

Proteinuria levels<sup>a</sup>



More than mg/day **2,000** (2 g/day)

**1,000 -** mg/day **2,000** (1 - 2 g/day)

Less than **1.000** 

mg/day (1 g/day) Patients reaching kidney failur within 10 years

approx. **85%** 

approx. 60%

approx. 20 - 30%

Even people with **proteinuria levels of less than 1,000 mg/day (1 g/day)** were at risk of developing **kidney failure** 

#### Lower proteinuria was associated with better outcomes





Slower kidney function decline



Higher chance of kidney survival

# Reduction in proteinuria further delayed the need for kidney dialysis or transplant



# Greater eGFR decline was associated with worse outcomes

The estimated glomerular filtration rate (eGFR) measures how well the kidneys filter the body's waste

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PLAIN-LANGUAGE
SUMMARY PUBLICATION
Pitcher D, et al. Future Rare Diseases.



SCAN TO SEE THE FULL RESEARCH PUBLICATION Pitcher D, et al. Clin J Am Soc Nephrol.



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