

# Cardiovascular outcomes in patients with chronic kidney disease & COVID-19: a multi-regional data-linkage study

Lambourg & Gallacher *et al*, 2021

## Methods

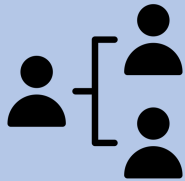


SARS-CoV-2 PCR



**86,964 patients**

with prior measures of serum creatinine  
tested in Scotland, UK



Cohort 1: N = 36,904  
CKD = 15.9%

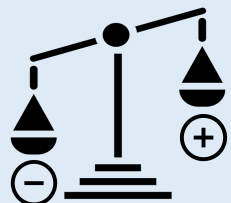
Cohort 2: N = 50,060  
CKD = 16.4%

### Primary outcomes

- Cardiovascular death
- All-cause death



Covariate Balancing Propensity Score  
*Weighted comparison by test status*



SARS-CoV-2

in CKD



in non-CKD

## Results

### CKD



- SARS-CoV-2 (+): **11.4%**
- Outcomes in patients with COVID-19:
  - Cardiovascular death: **11.1%**
  - COVID-19 death: **36.8%**
  - All-cause death: **46.5%**

### No CKD



- SARS-CoV-2 (+): **9.2%**
- Outcomes in patients with COVID-19:
  - Cardiovascular death: **2.7%**
  - COVID-19 death: **12.5%**
  - All-cause death: **16.3%**

**COVID-19 (+) vs (-) → EXCESS RISK in PATIENTS WITH CKD**

Adjusted meta-estimates combining both cohorts  
for cardiovascular and all-cause death

