

# Graphical Abstract



## Risk prediction of COVID-19 incidence, severity, and mortality in a large multi-national hemodialysis cohort: implications for management of the pandemic in outpatient hemodialysis settings

Risk prediction models for incidence and mortality of COVID-19 among HD patients

### Methods



22 countries  
Multinational network



March to July 2020



n = 38 256  
Median age 64 years



41% female

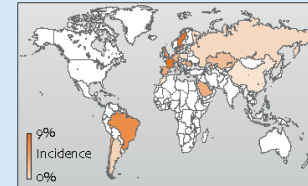


2% living in nursing homes

### Results

#### COVID-19 incidence 3.3%

- Age > 70 years and ARBs were associated with a lower incidence of COVID-19
- Living in a nursing home, lower education, lower albumin, and higher BMI were associated with higher incidence of COVID-19



#### Mortality was 22% among COVID-19 patients

- OR were 219.8–342.7 vs. matched controls
- Vascular access other than AV-fistula
- Higher Charlson Comorbidity Index
- Age ≥ 70 years
- Male sex
- Ischemic heart disease
- Longer time on dialysis
- Treatment with anxiolytic or hypnotic agents



#### Severity: 62% of COVID-19 patients were hospitalized or died

- Lower phosphate values



**Conclusion:** Dialysis patients are at highest risk of severe complications to COVID-19. Modifiable risk factors for COVID-19 incidence and outcome in HD patients were identified

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*Clin Kidney J*, sfab037, <https://doi.org/10.1093/ckj/sfab037>