

Category : **Outcome scores/prognostication**

**A33 - Association between ethnicity and COVID-19 severity in a district general hospital in East London**

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### **Introduction:**

During the Sars-CoV-2 pandemic, in the United Kingdom, ethnic minorities have experienced poorer outcomes. This study conducted in Hackney (London, UK), a diverse and deprived urban community, aims at characterising the association between ethnicity and COVID-19 severity.

### **Methods:**

A retrospective cohort study was conducted at Homerton University Hospital. Patients with PCR-confirmed Sars-CoV-2 infection admitted between 1 March 2020 and 1 June 2020 were included. Indices of Multiple Deprivation (IMD) and self-declared ethnicities were collected. Co-morbidities, organ support requirements and markers of severity were also collected and compared according to ethnic background.

### **Results:**

Out of 362 included patients, 47.79% were White, 40.60% Black and 11.60% Asian. Despite Asian and Black patients being significantly younger than White patients, mortality rates were comparable across all ethnic groups. IMD scores were comparable across ethnic groups. Compared to White, prevalence of diabetes mellitus (DM) was higher in Asian patients while prevalence of hypertension and DM was higher in Black patients. Compared to White, organ support requirements were significantly increased in Black and Asian patients. Interestingly, only Asian patients required more respiratory support (OR (CPAP or IMV) 3.241, CI95 1.567-6.476) while both Asian and Black patients required more renal replacement therapy compared to White patients (OR 3.761, CI95 1.210-13.76; OR 2.930, CI95 1.067-7.601, respectively). In line with this, markers of severity also indicated higher inflammation in Asian and Black patients compared to White.

### **Conclusion:**

Morbidity is influenced by ethnic background in COVID-19. Little is known about the association between ethnicity and morbi-mortality in other conditions associated with inflammation. Understanding how ethnic background impacts severity and outcome in other diseases is crucial for targeted public health interventions and equitable resource allocation.