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## Long-term Outcome After ICU for Male and Female COVID-19 Patients



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There are many questions about the long-term outcome for patients with COVID-19 and the differences between men and women as data suggests men suffer a more dramatic course of coronavirus disease. However, why that is so, still remains unclear. The number of COVID-19 cases appears to be equally distributed between the two genders, but more men are hospitalised following COVID-19, and more men require treatment in the ICU.

It is also unclear whether there is an association between sex and outcomes beyond 30-days after ICU admission. A study was conducted to analyse outcomes beyond 90 days in ICU patients with COVID-19. The study focused especially on differences between men and women. All patients over the age of 18 with COVID-19 admitted between March-June 2020 in the Swedish Intensive Care Registry were included in the analysis.

Patients were followed until death or study end-point (October 2020). 2354 patients were included, of which 73.2% were men. The median follow-up time was 183 days.

As per the findings of the analysis, overall mortality at 90-days was 26.9%; 23.4% in women and 28.2% in men. Men remained significantly associated with mortality compared to women. Male sex, age, cardiac disease, chronic liver disease, COPD, chronic kidney disease, diabetes, hypertension, immune deficiency, malignancy, morbid obesity, Simplified Acute Physiology Score (SAPS3) and admission month were associated with mortality.

Overall, these findings show that among patients with COVID-19, men were at higher risk of poor long-term outcomes compared to women. Men had a 1.3 times higher risk of death compared to women. While study findings do not suggest any explanatory factor for this, it is well known that the male sex is associated with a poorer prognosis in several pulmonary clinical conditions. The mechanism for this discrepancy is unknown, but it is hypothesised that it may have something to do with the effect of sex-hormones on inflammation or X-chromosomes linked molecules that are involved in inflammation. However, the underlying mechanisms for these differences still remain unclear.

Source: [Critical Care](#)

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