Frailty, old age and comorbidity main predictors of death from COVID-19

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The study of an acute hospital ward at Fairfield General Hospital in Greater Manchester has shown how risk of death from COVID-19 increases with age, frailty and comorbidity.

The study team published their research in the journal *BMC Geriatrics* after examining the outcomes of 215 patients with COVID according to age group and levels of frailty, 86 of whom sadly died.

In any patient as age and frailty increase, so do the numbers of illnesses or diseases occurring in that person at the same time which are known as comorbidities.

Tragically, 16% of the patients who were younger than 65 years died, 37% of the patients aged 65 to 75 years died: 53% of the patients aged 75 to 85 years died , and 62% of the patients aged above 85 years died.

And using Clinical Frailty Scale scores of 1 (very fit) to 9 (terminally ill), 16% of patients with a score of less than 5 died, 42% of patients with a score of 5 died, 67% of patients with a score of 6 died, 82% of patients with score of 7 and 8 died, and 100% of patients with a score of 9 died.

Frailty scores take into account factors such as such as needing help with activities of daily living, dementia and terminal illness.

The patients were admitted from A&E with shortness of breath, fever or a cough, stayed between one and four days on the unit, before being transferred to intensive care or a high dependency unit.

Dr. Rajkumar Chinnadurai, a research associate at the University of Manchester and Senior Registrar at Fairfield General Hospital, part of Northern Care Alliance NHS Group, lead the study.

He said: "This study mirrors an earlier study in *The Lancet*, which made very similar observations. And we are confident that these factors—older age and frailty—will constitute a risk factor of dying with COVID-19 if patients have comorbidities. That might explain why someone who was in the 70s but with no co-morbidities, such as the current US President, might be at lower risk. That is why it is essential that doctors assess their patients for frailty and plan interventions based on that assessment. Before the pandemic, Frailty assessment was not part of routine assessment but NICE has recommended that doctors use the Clinical Frailty Scale as routine. However, as COVID-19 grips, the Frailty assessment is being more commonly used. We hope this study will further encourage its use across the NHS."

More information: Rajkumar Chinnadurai et al. Older age and frailty are the chief predictors of mortality in COVID-19 patients admitted to an acute medical unit in a secondary care setting—a cohort study, *BMC Geriatrics* (2020). DOI: 10.1186/s12877-020-01803-5

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