Case fatality in hospitalised patients after 23rd March 2020

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\mathbf{Aim}

To identify any difference in case fatality from COVID-19 before and after 23rd March 2020 associated with age and comorbidity.

Summary

Fewer deaths are seen after 23rd March 2020 by both simple case count and in formal survival models.

Methods

CO-CIN is a clinical study of 33,413 COVID-19 patients (as of 2020-05-11) admitted to UK hospitals. To avoid bias in the assessment of outcomes, patients admitted to hospital in the most recent 2 weeks were excluded.

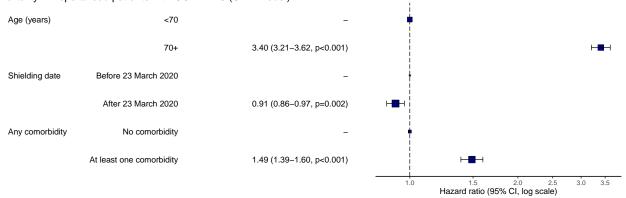
Results

Case fatality in hospitalised patients with COVID-19 (CO-CIN)

Before and after 23rd March 2020 stratified by age and the presence of any comorbidity. N = 24832. Denominator is all patients admitted prior to 10 April 2020. Numbers are deaths / total per group and proportion (%). Binomial confidence intervals. Fisher's exact test. Ewen Harrison, Annemarie Docherty, Calum Semple

Shielding Before 23 March 2020 After 23 March 2020 No comorbidity 8%, 47/602 <70 7%, 224/3360 p=0.338 35%, 153/443 70+ 27%, 501/1830 p=0.032 Age (years At least one comorbidity 20%, 236/1155 16%, 881/5415 p=0.005 44%, 1123/2550 70+ 39%, 3677/9477 p=0.002 Ó 40 60 Case fatality (%)

Mortality in hopsitalised patients with COVID-19 (CPH model)



 $\bullet~$ CPH: Cox proportional hazards survival model accounting for discharge competing death.

 $Number\ in\ dataframe=27109,\ Number\ in\ model=25557,\ Missing=1552,\ Number\ of\ events=6877,\ Concordance=0.659\ (SE=0.003),\ R-squared=0.094(\ Max\ possible=0.995),\ Likelihood\ ratio\ test=2523.734\ (df=3,\ p=0.000)$