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The options for the UK leaving the coronavirus lockdown of 2020

ABSTRACT. A computer simulation of the Covid-19 epidemic has been updated with data that became available on 14 May 2020. The model parameters have been adjusted (i) to provide the best match to data from Public Health England on daily new lab-confirmed infections to 30 April 2020 and (ii) to ensure that the model reproduces the Office of National Statistics central estimate of the average number of recently infected people in England in the week before and the week after 3 May 2020. The new information allows outline guidance to be given for the first time on the approximate consequences of each of the four main options for the UK coming out of lockdown in the absence of an effective vaccine. The options may be ranked based on minimizing the sum of deaths due to Covid-19 and those due to national impoverishment. The Government's currently declared aim of keeping the basic reproduction number below 1.0 emerges as the worst in terms of life preservation.

Keywords: coronavirus, Covid-19, economic challenge, J-value, lockdown, lockdown exit strategy, multi-cohort epidemic model

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