

COVID ICU Simulator - Model package (3 years)

The COVID ICU Simulator is a tool for capacity planning in hospital intensive care units during COVID-19

We are currently only authorising requests from people representing the following organisations:

- UK National Health Service (NHS)

Please submit eligible requests using your organisational email address to avoid delays.

"COVID ICU Simulator" is a tool for capacity planning in hospital Intensive Care Units (ICU), specifically developed for the COVID-19 pandemic. Developed by the UCL Clinical Operational Research Unit (

https://www.ucl.ac.uk/clinical-operational-research-unit/) as a macroenabled MS Excel file, it is intended for use by decision makers in hospitals (e.g. managers, clinicians).

Taking into account the characteristics of COVID and non-COVID patients, the rates at which they require hospital care and the number of beds available, COVID ICU Simulator:

- 1) estimates ICU dynamics over a given time period and computes performance measures such as admission rate, occupancy, deaths due to capacity limits;
- 2) enables assessment of strategies for the timely reintroduction of elective patients or accepting transfers of ICU COVID patients from other hospitals.

For more information and a tutorial, please visit https://www.ucl.ac.uk/clinical-operational-research-unit/covid-icu-simulator.

Product Specification

Category General

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This software can be used to estimate the numbers of COVID-19 and non-COVID-19 patients that will occupy a hospital intensive care unit in the short term given current patient characteristics and arrival rates, and to assess different capacity adaptation strategies.

Product Requirements

Microsoft Windows XP or later

Microsoft Excel 2010 or later

This software was developed as part of the project WORKTECC: Workforce Operations that Realise Knowledge-based Transformational Efficiency gains in Community Care. WORKTECC is part of the Health Foundation's Efficiency Research Programme. The Health Foundation is an independent charity committed to bringing about better health and health care for people in the UK.