



COVID-19 CLINICAL SOLUTIONS

What did you do?

We collated published data on relative risks for COVID-19-related mortality associated with age, sex, ethnicity, and pre-existing diseases, and derived a measure (Covid-age) that can easily be calculated and used to inform consultations with individual patients about their personal vulnerability (their risk of dying if they were to contract the disease) and discussions about returning to work.

Who are you?

Peter Croft, David Coggon, Anthony Williams, Paul Cullinan for the Association of Local Authority Medical Advisors (ALAMA) - <https://alama.org.uk/covid-19-medical-risk-assessment>

What was the problem?

As restrictions ease, patients seek advice about returning to work. Their risk of catching COVID-19 depends on infection rates locally and on measures to limit their exposure in the community and workplace. If, despite control measures, exposure risk remains higher inside than outside work, their personal vulnerability to serious illness and death, if infected, must be considered.

What was the solution?

Covid-age is a simple way to help assess an individual's personal vulnerability. The proportion of people who die if they have contracted COVID-19 (case-fatality) increases exponentially with age, such that a healthy person aged 60 years has almost 40 times the risk of dying if they contract the disease compared with a healthy person aged 20 years. Covid-age summarises vulnerability for combinations of risk factors including age, sex, ethnicity, and various health problems. It works by "translating" the relative risk associated with each factor into years, which are added to (or subtracted from) an individual's actual age. This then gives a single overall measure of personal vulnerability. It represents the age of a healthy white male with equivalent vulnerability.

To calculate Covid-age, take the person's actual age and add any additional factors from the published table (*). For example:

A healthy white woman, aged 40, has a Covid-age of $(40-8) = 32$ years

A white man aged 45, BMI 36 with severe asthma, has a Covid-age of $(45+5+4) = 54$ years.

An Asian woman aged 50 with poorly controlled Type 2 diabetes has a Covid-age of $(50-8+4+8) = 54$ years.

Covid-age has not been tested for use as a clinical decision tool and does not provide an exact measure, so when used to calculate vulnerability from medical conditions, and particularly multiple medical conditions, clinical judgement must be used. It is intended to inform discussions with individual patients about fitness for work. It is not intended for use in clinical treatment pathways.

Where can we find out more?

For the Covid-age table (*), and full details of the methods used to develop the Covid-age table, its limitations and updates, see the ALAMA website: <https://alama.org.uk/covid-19-medical-risk-assessment>

<https://bjgp.org>