Science Brief: Evidence used to update the list of underlying medical conditions that increase a person’s risk of severe illness from COVID-19

Summary of Recent Changes – Updates as of March 29, 2021

Updates to the list of underlying medical conditions that put adults of any age at high risk for severe illness from the virus that causes COVID-19 were based on evidence from published reports, scientific articles in press, unreviewed pre-prints, and internal data. Updates to the following conditions were completed based on evidence from the date range below:

- Substance use disorders were based on evidence published between December 1, 2019, and January 2021.
- Asthma, blood disorders, cancer, cerebrovascular disease, chronic obstructive pulmonary disease (COPD), chronic kidney disease (CKD), cystic fibrosis, diabetes, Down syndrome, heart disease, hypertension, immunosuppressant medications, use of corticosteroids or other immunosuppressive medications, solid organ or blood stem cell transplantation, neurological conditions, and obesity were based on evidence published between December 1, 2019 and December 2020.
- Smoking was based on evidence published between December 1, 2019, and July 20, 2020.
- All other conditions were based on evidence published between December 1, 2019, and October 16, 2020.

In keeping with an ever-growing volume of literature, references are now categorized by study type. With these categories, we can be more specific about the type of study used as supporting evidence. By presenting the references in these categories, clinicians can better evaluate the quality of the data to determine risk. No conditions were removed from the previous underlying medical conditions list.

Overview

Conditions on this list have been shown to be associated with severe illness from COVID-19. Updates to the conditions below were based on published reports, scientific articles in press, unreviewed pre-prints, and data from CDC-led investigations. Conditions were categorized by the type of study design:

- Supported by meta-analysis/systematic review: Defined as having a significant association in at least one meta-analysis or systematic review.
- Supported by mostly cohort, case-control, or cross-sectional studies: Defined as having an association in cohort, case-control or cross-sectional studies; may include systematic review or meta-analysis that represents one condition in a larger group of conditions (for example, kidney transplant under the category of solid organ or blood stem cell transplantation).
- Supported by mostly case series, case reports or, if other study design, the sample size is small (and no systematic review or meta-analysis were available to review): Defined as having an association in one or more case series studies. If there are cohort or case-control studies, sample sizes were small. Conditions included may be rare.
• Supported by missed evidence: Defined as having an association in at least one meta-analysis or systematic review and additional studies or reviews that reached different conclusion about risk associated with a condition.


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