

COVID-19

This material covers a brief overview of two distinct COVID-19 aspects:

1. Identifying patients who are at **high risk** for progression to severe COVID-19, including hospitalization or death



2. Clinical **symptom severity** spectrum



1. Identifying patients who are at high risk for progression to severe COVID-19, including hospitalization or death

The CDC provides a list of underlying medical conditions associated with higher risk of severe COVID-19¹

- Evidence was determined by CDC reviewers based on available literature about COVID-19
- Literature includes:
 - published reports
 - scientific articles in press
 - unreviewed pre-prints, and
 - data from CDC-led investigations
- The methods used to assess the conditions have changed during the pandemic as the amount of literature and types of studies increased
 - Initially the list was based on descriptive data
 - As the research expanded, literature was categorized by study design
- Since May 2021, the process includes a CDC-led review process that uses rigorous systematic review methods

A person with severe illness from COVID-19 is more likely to...²



be hospitalized



require a ventilator to help them breathe



need intensive care



die

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1. CDC COVID-19 People with Certain Medical Conditions. Available at: www.cdc.gov/coronavirus/2019-ncov/need-extra-precautions/people-with-medical-conditions.html. Accessed: April 2022.

2. CDC Science Brief: Evidence Used to Update the List of Underlying Medical Conditions Associated with Higher Risk for Severe COVID-19. Available at: <https://www.cdc.gov/coronavirus/2019-ncov/science/science-briefs/underlying-evidence-table.html>. Accessed: April 2022.

1. Identifying patients who are at high risk for progression to severe COVID-19, including hospitalization or death

Summary of risk factors for progression to severe COVID-19



Older adults

- Older adults are at highest risk of getting very sick from COVID-19
- More than 81 % of COVID-19 deaths occur in people over age 65 years
 - The number of deaths in those >65 years is 97 times higher than among those aged 18–29 years



Comorbidities

- The risk of severe COVID-19 increases as the number of underlying medical conditions a person has increases



Racial/ethnic minority or disabilities

- Risk increases with increase in likelihood of comorbidities, reduced healthcare access and increased likelihood of living in a congregate setting
- People with certain disabilities are more likely to get COVID-19 and have worse outcomes



Vaccination status

- Staying up to date with COVID-19 vaccines (getting primary series and booster) and following preventive measures for COVID-19 are especially important if you are older or have severe health conditions or more than one health condition



Pregnancy

- Pregnant and recently pregnant people (for at least 42 days following end of pregnancy) are more likely to get very sick from COVID-19 compared with non-pregnant people

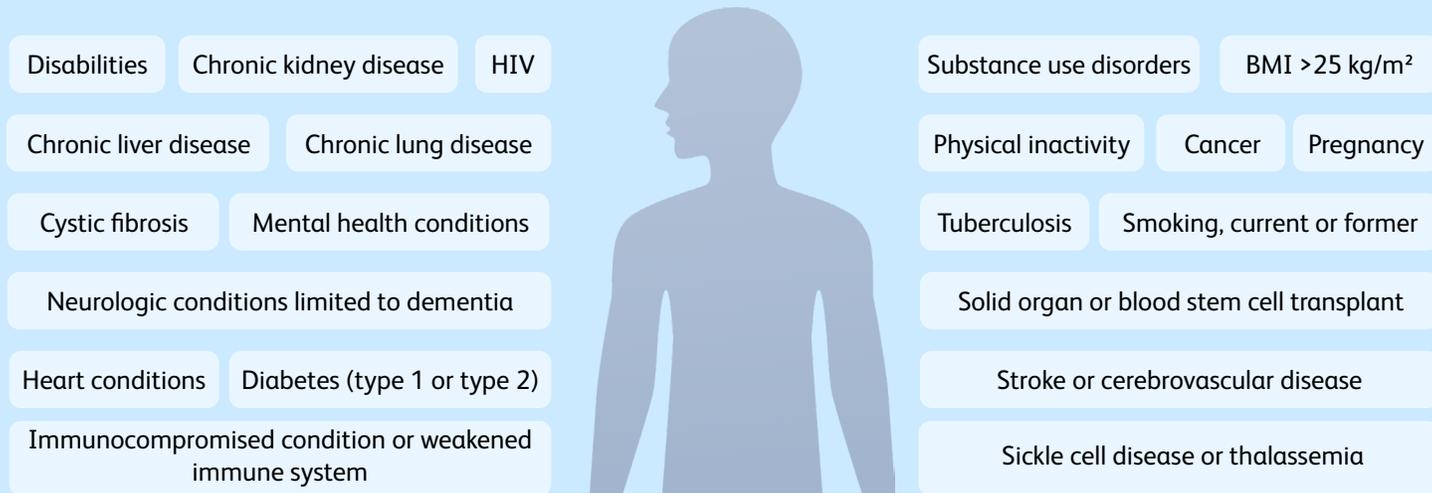
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1. Identifying patients who are at high risk for progression to severe COVID-19, including hospitalization or death

Underlying medical conditions* may increase likelihood for progression to severe COVID-19¹

An estimated 176.1 million individuals representing 75.4% of U.S. adults had at least one increased-risk condition, 40.3% ≥ 2 and, 18.5% ≥ 3 conditions²



*This list was last updated on 26 February 2022, and does not include all medical conditions that place a person at higher risk of severe illness from COVID-19; ongoing reviews of additional underlying conditions are being conducted. The conditions listed are not in order of risk.

HIV, human immunodeficiency virus

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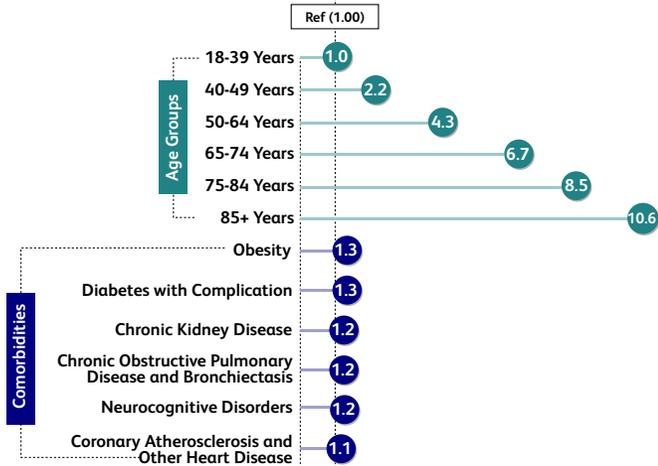
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1. Identifying patients who are at high risk for progression to severe COVID-19, including hospitalization or death

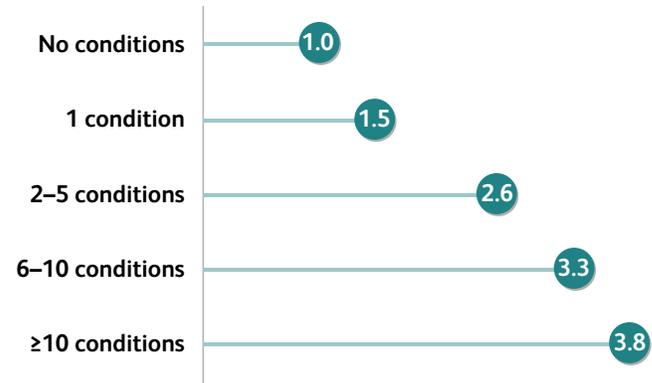
Key Findings from One Large Cross-Sectional Study

Underlying Medical Conditions and Severe Illness Among 540,667 Adults Hospitalized With COVID-19, March 2020–March 2021

COVID-19 Death Risk Ratio (RR) for Select Age Groups and Comorbid Conditions



COVID-19 Death Risk Ratio (RR) Increase as the Number of Comorbid Conditions Increases

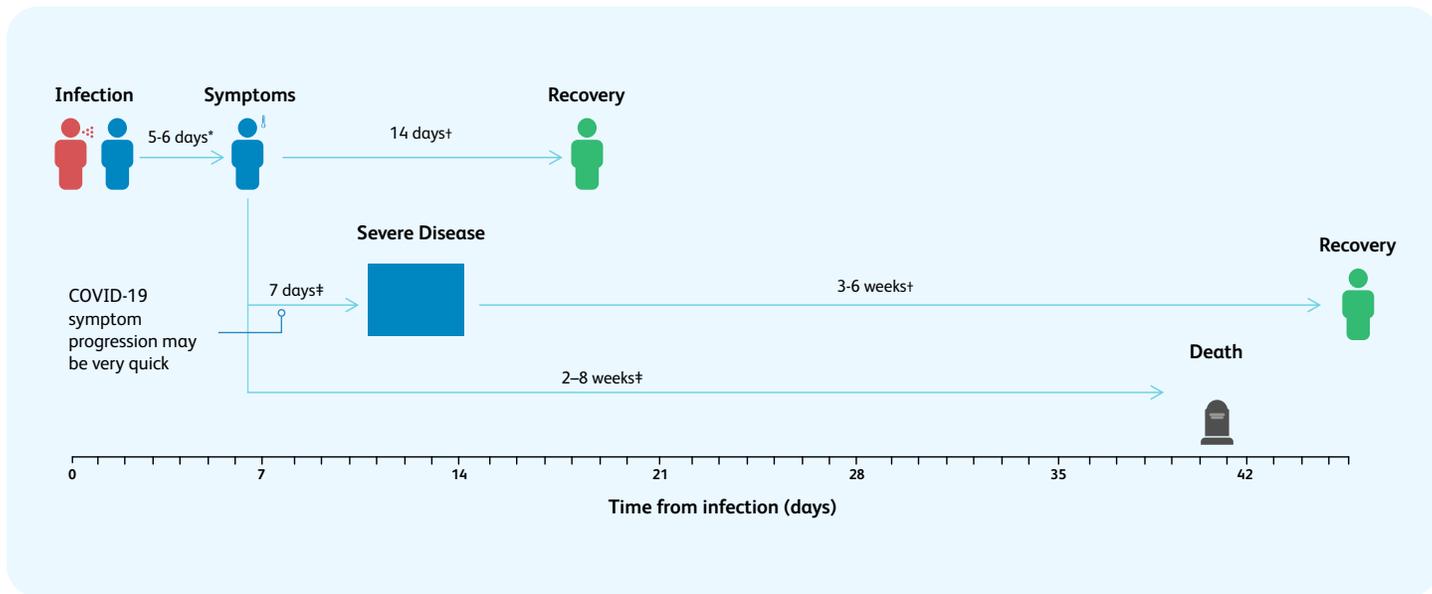


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2. Clinical symptom severity spectrum

COVID-19 Disease Course



Adapted from the Report of the WHO-China Joint Mission on Coronavirus Disease 2019

*mean; † median; ‡ unknown average type

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2. Clinical symptom severity spectrum

NIH Guidelines: The COVID-19 Severity Spectrum

Stage	Characteristics
Asymptomatic or pre-symptomatic	Positive test for SARS-CoV-2 but no symptoms
Mild illness	Varied symptoms (e.g., fever, cough, sore throat, malaise, headache, muscle pain) but no shortness of breath, dyspnea or abnormal imaging
Moderate illness	SpO ₂ ≥94 % and evidence of lower respiratory disease during clinical assessment or imaging
Severe illness	SpO ₂ <94 %, PaO ₂ /FiO ₂ <300mmHg, respiratory rate >30 breaths/min, or lung infiltrates >50 % on imaging
Critical illness	Respiratory failure, septic shock, and/or multiorgan dysfunction

[Visit the NIH website for the most up-to-date clinical spectrum information.](#)

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Additional COVID-19 Education Resources

[Pfizer Medical Portal – Infectious Disease](#) 

Explore topics such as:



SARS-CoV-2 Viral
Replication



SARS-CoV-2 Virology



COVID-19 Clinical
Presentation



COVID-19 Clinical
Overview



COVID-19 Testing and
Diagnosis

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