Study design	Definition
Systematic review and meta-analysis	A structured literature review reporting quantitative results, for which the search strategy and inclusion/exclusion criteria are transparent.
Prospective observational study	An analytical study (i.e., one in which p-values for hypothesis tests are reported) that follows patients forward in time from enrollment date to a specified follow-up date, prior to classifying them as severe/non-severe or survivor/non-survivor, and often reports a Hazard Ratio or Risk Ratio rather than an Odds Ratio. Includes but not limited to prospective cohorts, which are relatively rare because they involve longer follow-up periods and enrollment prior to exposure to the risk factor in question (e.g., prior to onset of diabetes, if diabetes is a risk factor for COVID-19 outcomes).
Retrospective observational study	An analytical study (i.e., one in which p-values for hypothesis tests are reported) that involves a medical records review of patients who have already been classified as severe/non-severe or survivor/non-survivor, enrolling patients who were admitted from a certain date and including their medical records running through a given follow-up date. Includes but not limited to retrospective cohorts, which are relatively rare when strictly defined.
Cross-sectional study	An analytical study (i.e., one in which p-values for hypothesis tests are reported) that involves a medical records review of patients who were classified as severe/non-severe on admission, or survivor/non-survivor for a specified date of records collection. There is no follow-up period (i.e., no description of change over time) in the medical histories taken for these patients. Also includes population-level surveys, such as prevalence surveys. Includes but not limited to cross-sectional case-control studies, which are relatively rare.
Case series	This is a descriptive study in which no tests of between-group differences are performed, often because the sampling strategy was highly selective and not representative of the population of interest.
Expert review	A literature review that is not structured (no search strategy or inclusion/exclusion criteria are reported) which provides quantitative secondary data but no meta-analysis.
Editorial	An editorial in which original quantitative data with a comparison group are reported.
Ecological regression	A linear regression analysis with population-level data on risk factors and outcomes but not individual-level data.
Simulation	A risk factor analysis using synthetic datasets, bootstrapping, Monte Carlo analysis, machine learning or deep learning methodologies to model COVID-19 outcomes in the presence or absence of the risk factors of interest.