

# **PENGARUH PENYAKIT KARDIOVASKULAR TERHADAP MORTALITAS PASIEN COVID-19 TAHUN 2019-2020 : SYSTEMATIC REVIEW**

**Sarah Adhiningtias**

## **Abstrak**

Pada Desember 2019, kota Wuhan, China, menjadi pusat wabah kasus pneumonia yang disebabkan oleh Coronavirus. Virus tersebut termasuk dalam Betacoronavirus dan diberi nama *Severe Acute Respiratory Syndrome Coronavirus-2* (SARS-CoV-2) dengan nama penyakitnya *Coronavirus Disease 2019* (COVID-19) yang sampai saat ini menjadi pandemi. Komorbid Hipertensi, Penyakit Jantung koroner, dan DM dicurigai merupakan faktor resiko yang menyebabkan keparahan dan kejadian mortalitas. Hingga saat ini data mengenai hal tersebut masih belum lengkap dan masih terus diteliti. Penelitian ini bertujuan untuk mengetahui pengaruh penyakit kardiovaskular yaitu Penyakit Jantung Koroner (PJK) dan Hipertensi serta komorbid selain penyakit kardiovaskular yaitu Diabetes Mellitus (DM) terhadap mortalitas pasien COVID-19 tahun 2019-2020 dengan metode *systematic review*. Pencarian jurnal dilakukan pada bulan Juni hingga Desember 2020 dengan kata kunci (COVID-19 OR SARS-CoV-2) AND (*Cardiovascular Disease*) AND (*Hypertension OR Coronary Artery Disease*) AND (Diabetes Mellitus) AND (*Mortality*) dan di seleksi dengan metode PRISMA-P. Jurnal dinilai menggunakan *Quality Assessment Criteria* yang disusun oleh JBI (*Joanna Briggs Institute*). Didapatkan 7 jurnal yang disintesis berdasarkan kriteria inklusi dan eksklusi. Penelitian ini membuktikan Hipertensi, DM, dan PJK berpengaruh terhadap mortalitas, sebagian besar pasien meninggal karena kegagalan multi organ. Hasil pemeriksaan lab seperti kadar troponin, d-dimer, dan prokalsitonin dapat menunjang kemungkinan prognosis pasien.

**Kata kunci:** COVID-19, Hipertensi, Penyakit Jantung Koroner, Diabetes Mellitus, Mortalitas

# **CARDIOVASCULAR DISEASE AND ITS IMPACT ON MORTALITY IN COVID-19 PATIENTS 2019-2020 : A SYSTEMATIC REVIEW**

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## **Abstract**

In December 2019, Wuhan, China, became the center of an outbreak of pneumonia cases caused by the Coronavirus. The virus is included in Beta coronavirus and named as Severe Acute Respiratory Syndrome Coronavirus-2 (SARS-CoV-2) or Coronavirus Disease 2019 (COVID-19) which until now has become a pandemic. Comorbid such as Hypertension, Coronary Artery Disease, and DM are suspected to be risk factors for the severity and mortality. Until now, data regarding this matter is still incomplete and being researched. This study aims to determine the effect of Coronary Artery Disease and Diabetes Mellitus on mortality of COVID-19 patients in 2019-2020 using a systematic review method. Journal searches conducted from June to December 2020 with the keywords (COVID-19 OR SARS-CoV-2) AND (Cardiovascular Disease) AND (Hypertension OR Coronary Artery Disease) AND (Diabetes Mellitus) AND (Mortality) and selected by PRISMA-P method. Journals are assessed using the Quality Assessment Criteria compiled by JBI (Joanna Briggs Institute). There were 7 journals synthesized based on inclusion and exclusion criteria. This study proves that hypertension, DM, and CAD have an effect on mortality, most of the patients died due to multi-organ failure. Lab examination results such as troponin, d-dimer, and procalcitonin levels can support the patient's possible prognosis.

**Keywords:** COVID-19, Hypertension, Coronary Artery Disease, Diabetes Mellitus, Mortality