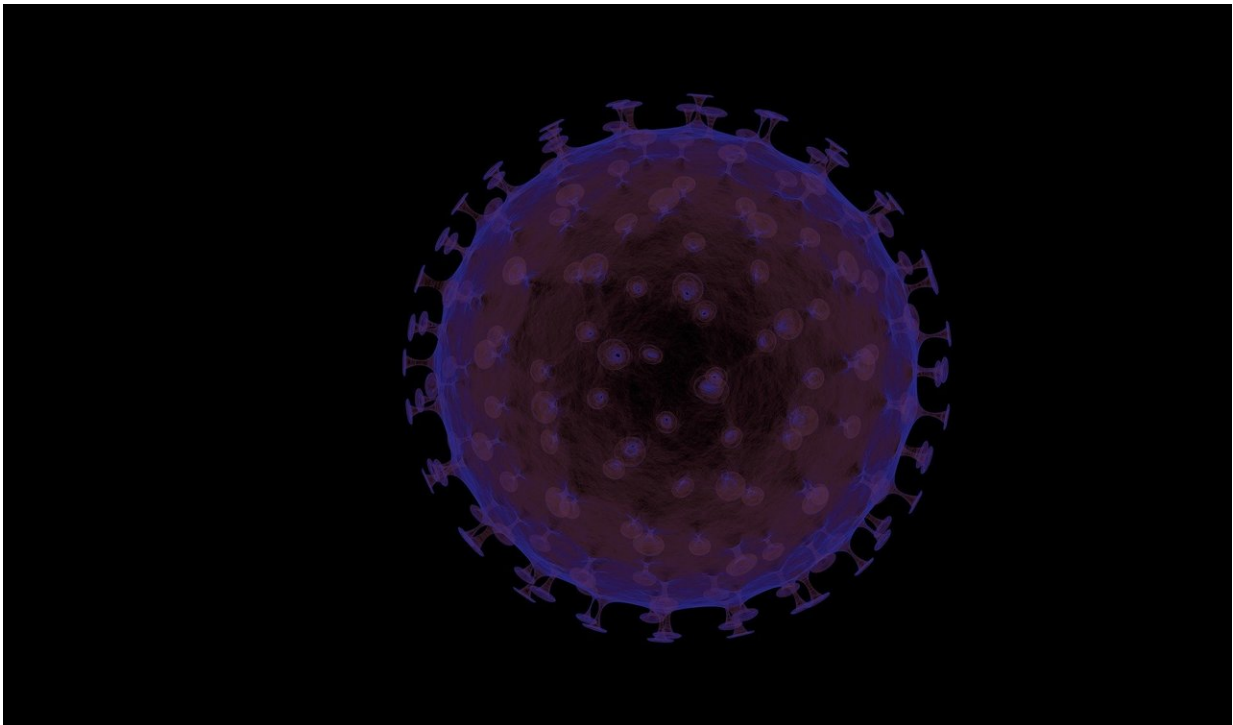


# One in 10 patients with major vascular event, infection or cancer will be misdiagnosed

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New research provides estimates of diagnostic error and serious misdiagnosis-related harm rates for each of the five most frequently misdiagnosed major vascular events, infections, and cancers in the U.S.

According to a new study published in De Gruyter's open access journal

Diagnosis, approximately one in 10 people (9.6%) in the United States with symptoms caused by major vascular events, infections, or cancers will be misdiagnosed.

The study's authors, led by David E. Newman-Toker from the Johns Hopkins University School of Medicine and CRICO Strategies, analyzed modern, U.S.-based studies and literature-based estimates to calculate rates of diagnostic error and related harms.

Based on the analysis, the authors provide estimates of diagnostic error and serious misdiagnosis-related harm rates (i.e., misdiagnoses that result in permanent disability or death) for each of the five most frequently misdiagnosed major vascular events, infections, and cancers. In total, these 15 diseases represent roughly half of all diagnostic error-related permanent disabilities or deaths in the U.S. health system and suggest a focal area for quality improvement efforts.

Of the people with the most-commonly misdiagnosed major vascular events, infections, and cancers, roughly half (53.9%) suffer a permanent disability or die because of the error.

According to the study, the most uncommon infections and major vascular events are most likely to be misdiagnosed. Among the 15 diseases analyzed, spinal abscesses (an [infection](#) that can compress the [spinal cord](#) and cause paraplegia) was the disease most often missed (62.1%). More than one in four aortic aneurysms and dissections have a critical delay in diagnosis (27.9%). More than one in five (22.5%) lung [cancer](#) diagnoses are also meaningfully delayed.

The authors say the study should be used to target efforts to improve diagnosis among these conditions. They note that misdiagnoses of major vascular events, infections, and cancers do not appear to have declined over the last several decades. For some conditions, such as stroke and

aortic aneurysms, they may even be rising.

"With this insight, health care leaders and clinicians can focus their resources and interventions to target these vulnerabilities," said Dana Siegal, Director of Patient Safety at CRICO Strategies and study co-author.

The study, which was funded by the Society to Improve Diagnosis in Medicine, builds on previous research showing that one in three malpractice cases with serious patient harms is due to a misdiagnosis.

**More information:** David E. Newman-Toker et al. Rate of diagnostic errors and serious misdiagnosis-related harms for major vascular events, infections, and cancers: toward a national incidence estimate using the "Big Three", *Diagnosis* (2020). [DOI: 10.1515/dx-2019-0104](https://doi.org/10.1515/dx-2019-0104)

Provided by De Gruyter

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