Mortality rate

Mortality rate is a measure of the number of deaths (in general, or due to a specific cause) in a population, scaled to the size of that population, per unit of time. Mortality rate is typically expressed in units of deaths per 1,000 individuals per year; thus, a mortality rate of 9.5 (out of 1,000) in a population of 1,000 would mean 9.5 deaths per year in that entire population, or 0.95% out of the total.

It is distinct from morbidity rate, which refers to the number of individuals in poor health during a given time period (the prevalence rate) or the number of newly appearing cases of the disease per unit of time (incidence rate). The term "mortality" is also sometimes inappropriately used to refer to the number of deaths among a set of diagnosed hospital cases for a disease or injury, rather than for the general population of a country or ethnic group. This disease mortality statistic is more precisely referred to as "case fatality rate" (CFR).

With the passage of the Affordable Care Act in 2010, healthcare metrics and patient outcomes, especially mortality rates, are increasingly emphasized as integral measures of overall quality of care and hospital reimbursements [1] [2] [3] [4].

Due to the intrinsically high risk of adverse events in neurosurgery, compared to other surgical subspecialties, mortality rates are one of the most frequently assessed measures of departmental- and hospital level performance [5].

Due to the acuity and complexity of many neurosurgical patients' conditions, preoperative risk stratification can have significant implications for mortality on neurosurgical services. Commonly, assessment involves documentation of health-assessment metrics that include a 1 to 4 rating of risk of mortality (ROM) and severity of illness (SOI) on admission and discharge, which are reflections of patients' risk of inhospital death and degree of illness, respectively. Case mix index (CMI) assesses the complexity of care and accounts for patient comorbidities [6].

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