Hospital mortality

Although the reported hospital mortality data have been assumed to directly reflect patient care, documentation and coding that are inaccurate or have failed to incorporate knowledge of mortality modeling by reporting agencies can result in higher reported mortality rates. The mortality index, or the ratio of observed mortality to expected mortality, is a quality metric frequently used to measure survival within a hospital system or service line. The observed mortality rate reflects true mortality events (i.e., the number of deaths divided by the total number of patients). The expected mortality rate is an estimation of the number of mortality events expected from the same population using the normalized population covariates. As such, a mortality index of <1.0 implies that fewer deaths occurred than would be expected for a certain patient population. In contrast, a mortality index >1.0 implies that more deaths had occurred than would be expected for that population. A high-performing healthcare system or service line should aim for a mortality index of □1.0.

The expected mortality is estimated using codified data from the World Health Organization's International Classification of Diseases (ICD) obtained from clinical documentation and submitted by institutions to reporting agencies, with the most recent revision, ICD, 10th revision, in current use. If healthcare performance is measured using the ICD-10 data, one would hope that it accurately reflects the quality of the care provided. Errors can occur if a misrepresentation has occurred of normalized data from which the expected mortality rate has been generated or errors have occurred in the institutional documentation and coding for individual patients. Errors in documentation and coding are modifiable and present opportunities for improvement for any institution. With increasing emphasis on documentation and coding as true proxies for the quality of care, it is the providers and coders who have been required to accurately convey the complexity of patients to avoid a reported mortality index that suggests greater mortality than expected at their institutions.

In-hospital mortality in preterm infants with severe intraventricular Hemorrhage decreased over the last decade, whereas major neonatal morbidities increased, particularly surgical necrotizing enterocolitis (NEC) and sepsis. A study suggests the importance of multidisciplinary specialized medical and surgical neonatal intensive care in preterm infants with severe intraventricular Hemorrhage [1)].

1)
Choi EK, Kim HJ, Je BK, Choi BM, Kim SD. Morbidity and Mortality Trends in Preterm Infants of <32 Weeks Gestational Age with Severe Intraventricular Hemorrhage : A 14-Year Single-Center Retrospective Study. J Korean Neurosurg Soc. 2023 Mar 9. doi: 10.3340/jkns.2022.0264. Epub ahead of print. PMID: 36891659.