CMS Overall Hospital Quality Star Rating

CMS[1] publishes hospital quality star ratings on [Hospital Compare](#) to help patients choose a hospital based on quality performance. They usually release new star ratings twice per year, in July and December, although the February 2019 update came after a 14-month delay. CMS said it plans to update the star rating methodology through rulemaking in 2020.

CMS uses metrics from the Hospital Inpatient Quality Reporting (IQR) Program and Hospital Outpatient Quality Reporting (OQR) Program to determine star ratings. Following criticism that claimed, among other things, the ratings favored smaller, private, non-teaching hospitals, CMS changed its methodology in Dec. 2017. Notably, they removed "winsorization," a technique that limits extreme values from arising in statistical analysis, which resulted in an increase of 5- and 1-star hospitals. For the Feb. 2019 update, CMS removed measures with "statistically significant negative loadings" and changed the weighting of hospital-associated infection measures.

CMS calculates overall star ratings using a composite of as few as nine or up to 57 distinct quality metrics (depending on which data is available). The scores are based on hospital performance in seven different categories, as shown the table below. They then calculate an overall hospital score by weighting and aggregating the individual category scores. If a hospital is missing a measure group, the weights are redistributed among the other qualifying groups. However, only hospitals that have at least three measures within at least three groups (including one outcome group) are eligible for an overall rating. For more details on the CMS Hospital Compare Star Rating methodology, review the [CMS QualityNet website](#).

Categories of Metrics Used to Calculate the CMS Hospital Quality Star Ratings

Category	Category Weight	Examples of Included Metrics	Number of Metrics
Mortality	22%	30-day mortality rate for patients suffering from a heart attack or receiving coronary artery bypass graft surgery	7
Readmissions	22%	30-day readmissions rate for patients suffering from a heart attack or receiving coronary artery bypass graft surgery	8
Safety of Care	22%	Catheter-associated urinary tract infection rate Overall *Clostridium difficile* infection rate	8
Patient Experience	22%	Patient's perception of information communicated by doctors and nurses.	10
Effectiveness of Care	4%	Patient and caregiver were offered influenza immunization	10
Timeliness of Care	4%	Time taken for various events in the emergency department, such as time from arrival to discharge.	6
Efficient Use of Medical Imaging	4%	Assess the clinical necessity of imaging	5

1) Centers for Medicare and Medicaid.