

MEDITECH Expanse Hospitals Again Outperform Cerner Millennium and Epic Hospitals on CMS Quality and Value Measures

According to research conducted by Navin Haffty, hospitals utilizing MEDITECH Expanse outperform and demonstrate better outcomes on Centers for Medicare & Medicaid Services (CMS) quality and value measures than those using Cerner Millennium and Epic. These findings come from the CMS database and use Meaningful Use (MU) attestation and electronic health record (EHR) data, as provided by Definitive Healthcare.

Below is a summary of the results using FY2019 data. Highlights include:

- Only 20.9% of hospitals using MEDITECH Expanse had a Medicare penalty resulting from being in the bottom quartile of hospitals in risk-adjusted Hospital Acquired Conditions (HAC) quality measures, while a greater percentage of hospitals using Cerner Millennium (24.5%) or Epic (24.6%) were impacted by this penalty.
- When it comes to Value Based Purchasing adjustments, the largest percentage of MEDITECH Expanse hospitals had positive adjustments, with a smaller percentage of Epic hospitals having a positive adjustment and a far smaller percentage of Cerner Millennium hospitals having a positive adjustment. The smallest percentage of Expanse hospitals had a negative adjustment with a significantly larger percentage of Cerner Millennium hospitals having a negative adjustment.
- While there was a smaller difference between the percentages of hospitals impacted by readmission penalties, greater percentages of Cerner Millennium and Epic hospitals were penalized than MEDITECH Expanse hospitals.

The table below presents the number of hospitals impacted by category. Hospitals that provided data to CMS for one but not all categories were included only in the categories in which they provided data.

FY2019 ¹	Cerner Millennium	Epic	MEDITECH Expanse
Hospital Acquired Conditions Penalty	24.5%	24.6%	20.9%
Positive Value-Based Purchasing Adjustment	52.4%	58.7%	66.1%
Negative Value-Based Purchasing Adjustment	46.8%	40.3%	33.0%
Readmission Penalty	85.2%	87.1%	84.2%

While correlation does not necessarily imply causation, these are statistically significant findings and may dispel the notion that greater spending on an EHR translates into improved quality measures and related financial performance.

Of the twenty hospitals with the largest negative financial impact, ten run Epic, three utilize Cerner Millennium and none run Expanse. The largest estimated penalty totaled nearly \$7.5 million for AdventHealth Orlando (formerly known as Florida Hospital Orlando), which utilizes Cerner Millennium. The second largest total penalty was estimated at about \$5 million for Beaumont Hospital, Royal Oak, Michigan, which utilizes Epic.

¹ Number of hospitals by EHR which reported data to CMS included in the study: MEDITECH Expanse 129, Cerner Millennium 666 and Epic 1,171.



Navin Haffty began comparing CMS quality metrics data between Cerner, Epic and MEDITECH hospitals in 2016 using FY2016 CMS data. Over the past few years, hospitals on the most recent MEDITECH platform have consistently outperformed Cerner and Epic hospitals. **We believe the following reasons might explain the variation between MEDITECH Expanse, Cerner Millennium, and Epic:**

- MEDITECH has focused extensively on tools for addressing patient safety and quality. Quality and population health-focused features and functionality in the Expanse platform have further improved patient communication and helped hospitals quickly identify potential patient safety issues.
- While Cerner Millennium and Epic have strong advanced clinical tools, it is possible their complexity distracts from the ability to implement and utilize these tools. As one of the more integrated EHRs and with a track record of interoperability, MEDITECH Expanse supports access to and exchange of clinical data more fully than most vendors, which translates into improved communication with patients and providers, both within and outside of the hospital environment.
- While Cerner Millennium and Epic tend to have a greater presence at larger hospitals with more resources, smaller hospitals often have a greater focus on meeting quality measures, as they often do not have the financial reserves to survive these penalties.

This study omitted hospitals that are not subject to these Medicare penalties, including critical access hospitals, specialty hospitals, DOD and VA hospitals, and a few that did not provide data to CMS. Further, Maryland hospitals are exempt from penalties under their CMS waiver, and hospitals in non-state territories are exempt from the program.

