

Modifications to the Agency for Healthcare Research and Quality (AHRQ) Patient Safety Indicators (PSI) for Use in this Report

Released in March 2003 and updated through version 3.2 in March 2008, the AHRQ Patient Safety Indicators (PSIs) “are a set of measures that can be used with hospital inpatient discharge data to provide a perspective on patient safety. Specifically, the AHRQ PSIs screen for problems that patients experience as a result of exposure to the healthcare system and that are likely amenable to prevention by changes at the system or provider level.”¹ The AHRQ PSIs were developed using a rigorous evidence-based methodology², and were designed for use with the type of information found in inpatient hospital discharge abstract data; the specific data elements required by the PSIs algorithms are available from most hospital and State-level inpatient administrative data systems.

The PSIs as developed by AHRQ were modified for this report by WebMD Health Services in order to facilitate the comparison of performance across hospitals and across health plans. WebMD Health Services applied an alternative risk-adjustment method that is widely used and understood by health plans in quality reporting. We discuss this in greater detail below.

Severity Adjustment Approach

The report uses an adjustment of the refined diagnosis related groups (RDRG) to account for hospital case-mix rather than the approach used for the AHRQ PSIs in the public-use software (which uses a modified CMS DRG and the AHRQ comorbidity classes), in order to apply a consistent methodology across Select Quality Care™ measures. RDRG is a method that classifies cases (based on each patient’s diagnosis and procedure codes, age, sex and length of stay) into levels of severity and complexity based on the impact they are likely to have on use of hospital resources.

For each measured complication, a relative weight was calculated for every Age-RDRG combination. A hospital’s actual complication rate for each measure was then divided by these relative weights to come up with an adjusted complication rate. Thus, each hospital’s actual complication rate was standardized based on its relative mix of patients at every Age-RDRG level.

Additional modifications from the AHRQ methodology for the BCBSIL Hospital Profile are:

- Admissions that involve a transfer in from another hospital are excluded.
- Medicaid cases are excluded.
- Cut-off points were identified for each indicator. Results are not reported for hospitals with a denominator lower than the cutoff.

¹*Patient Safety Indicators Download. AHRQ Quality Indicators. March 2008. Agency for Healthcare Research and Quality, Rockville, MD. http://www.qualityindicators.ahrq.gov/psi_download.htm*

²AHRQ Quality Indicators – PSI Technical Specifications Version 3.2 (March 10, 2008). Available at http://www.qualityindicators.ahrq.gov/downloads/psi/psi_technical_specs_v32.pdf.