

The quality and patient safety program participates in the determination of how often data are aggregated and analyzed. The frequency of this process depends on the activity or area being measured and the frequency of the measurement, in accordance with laws and regulations and national health care industry standards. For example, clinical laboratory quality control data may be aggregated and analyzed weekly to meet local regulations, and patient fall data may be aggregated and analyzed quarterly if falls are infrequent. Aggregation and analysis of data at points in time enables the hospital to judge the stability of a particular process or the predictability of a particular outcome in relation to expectations.

The goal of data analysis is to be able to compare a hospital in the following ways:

- With itself over time, such as month to month, or one year to the next
- With other similar hospitals, such as through reference databases
- With standards, such as those set by accrediting and professional bodies or those set by laws or regulations
- With recognized desirable practices identified in the literature as best or better practices or practice guidelines

These comparisons help the hospital understand the source and nature of undesirable change and help focus improvement efforts.

Measurable Elements of QPS.03.02

1. The hospital aggregates, analyzes, and transforms data into useful information to identify opportunities for improvement. (*See also* QPS.03.00, ME 2)
2. The hospital defines and approves appropriate qualifications for individuals who participate in data collection, aggregation, validation, and analysis.
3. The hospital uses established statistical tools and techniques in the analysis process.
4. Hospital leaders determine the frequency of reporting the results of analysis to those accountable for action, in accordance with laws and regulations and national health care industry standards.
5. Data analysis supports comparisons internally and externally over time, including comparisons with databases of like hospitals, with best practices, and with objective scientific professional sources.

Standard QPS.03.03

The data analysis process includes at least one evaluation of the clinical, financial, and operational impact of hospitalwide improvement priorities per year.

Intent of QPS.03.03

The analysis provides useful information on which improvements positively impact clinical outcomes and efficiency to justify resource allocation. The quality and patient safety program includes an analysis of the clinical, financial, and operational impact of priority improvements as supported by leaders. For example, the analysis shows that there is evidence to support that the use of clinical practice guidelines to standardize care, treatment, and services has a significant impact on efficiency and a reduction in the length of stay, which ultimately reduces costs. Therefore, hospital leaders can make informed decisions about allocating resources for performance improvement initiatives.

The quality and patient safety program team must use appropriate tools to evaluate the use of resources for the existing process and then reevaluate the use of resources for the improved process. The resources may be human (for example, time devoted to each step in a process) or may involve the use of technology or other resources. The evaluation is then reported to leaders and others who are responsible for making decisions.

Measurable Elements of QPS.03.03

1. ③ The hospital collects data on the amount and type of resources used on at least one hospitalwide priority improvement project per year before and following the improvement. (*See also* GLD.04.00, ME 1; QPS.01.00, ME 3)
2. The quality and patient safety program staff work with other units such as human resources, information technology, and finance in deciding which data are to be collected.
3. The hospital uses the results of the analysis to refine the process and report it through the quality and patient safety program mechanism to leaders.

Standard QPS.03.04

The hospital identifies undesirable trends and variation, and always conducts an intensive analysis, or a comprehensive systematic analysis, when these are evident from its data collection.

Intent of QPS.03.04

There must be a formal structure and processes in place for comprehensive data collection on diverse areas of patient care, treatment, and services; identifying and intensively analyzing undesirable trends; and reporting the results to the governing body as part of the quality and patient safety program. Data collection should be sufficient to detect trends and patterns and will vary depending on the service frequency and/or the risk for patients. The data must include all hospital departments and services.

The hospital determines the scope of data collection to identify patient safety risks throughout the hospital based on the care, treatment, and services it provides, and in accordance with health care industry or national standards, laws and regulations, external reporting requirements, and other identified areas of concern. This also includes efforts to encourage incident or variance reporting by staff and health care practitioners because the hospital cannot identify risks to make improvements without this valuable information. The hospital must be able to identify trends down to the individual patient care unit or specific service line level, and it must be evident that all departments and services are integrated into the quality and patient safety program.

The hospital should incorporate the use of frameworks such as Just Culture, or similar concepts that minimize assigning blame, when addressing errors or variances where staff members are directly involved. The hospital must also use a structured methodology, such as root cause analysis, in its comprehensive systematic analysis processes.