Table 1. Defining and Comparing Analytical Tools

Tool	What It Is	When to Use It
Run Chart	A data chart, plotting in time order, used to show the performance of a process over time. It shows both positive and negative patterns, trends, and variation in process.	• When the hospital needs to identify changes and variation within a process • When the hospital needs a simple and straightforward analysis of a process • As a precursor to an SPC chart
Statistical Process Control Chart (SPC)	An advanced data chart, plotted in time order, used to show the performance and stability of a process over time. The chart includes a center line (process mean) and upper and lower control limits (process variation) based on the data plotted, that show both positive and negative patterns, trends, and variation in a process. Action is taken when a data point goes beyond a control limit or data points form a pattern or trend.	• When the hospital needs to determine if a process is stable, to identify variation within a process, or find indicators of why the variation occurred • When the hospital needs a more detailed and in-depth analysis of a process
Capability Chart	A chart used to assess the capability of a process to meet specifications based on the voice of the customer. The chart shows upper and/or lower specifications (that is, customer requirements or targets).	• When the hospital needs to determine whether a process will function as expected, according to specifications (requirements or targets) • When the hospital needs to determine how capable their process is for meeting customer specifications (requirements or target)

Using Data to Drive Improvement

After data have been turned into information, leaders should ensure the following (per the requirements shown)[25–27]:

- Information is presented and shared with the appropriate groups throughout the hospital, from frontline staff to the governing board in a clear manner (**Standards GLD.04.01** and **QPS.01.00**).
- Opportunities for improvement and actions to be taken are communicated (**Standard GLD.04.01**).
- Improvements are celebrated or recognized.

A Proactive Approach to Preventing Harm

Proactive risk reduction prevents harm before it reaches the patient. By engaging in proactive risk reduction, a hospital can correct process problems to reduce the likelihood of experiencing adverse events. Additional benefits of a proactive approach to patient safety include increased likelihood of the following:

- Identification of actionable common causes
- Avoidance of unintended consequences