

International Forum on Quality
and Safety in Healthcare

Understanding the Milestones in the Quality Measurement Journey: Worksheets

Faculty

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Measurement Self-Assessment

Source: R. Lloyd, Quality Health Care: A Guide to Developing and Using Indicators. 2nd edition, Jones & Bartlett Publishers, 2017.

Measurement Topic or Skill	Response Scale				
	1	2	3	4	5
Help people in my organization determine why they are measuring (improvement, judgment or research)					
Move teams from concepts to specific quantifiable measures					
Building clear and unambiguous operational definitions for our measures					
Develop data collection plans (including stratification and sampling strategies)					
Explain why plotting data over time (dynamic display) is preferable to using aggregated data and summary statistics (static display)					
Explain the differences between random and non-random variation					
Construct run charts (including locating the median)					
Explain the reasoning behind the run chart rules					
Interpret run charts by applying the run chart rules					
Explain the statistical theory behind Shewhart control charts (e.g., sigma limits, zones, special cause rules)					
Describe the basic 7 Shewhart charts and when to use each one					
Help teams select the most appropriate Shewhart chart for their measures					
Describe the rules for special cause variation on a Shewhart chart					
Help teams link measurement to their improvement efforts					

1. I'd definitely have to call in an outside expert to explain and apply this topic/method.
2. I'm not sure I could apply this appropriately to a project.
3. I am familiar with this topic but would have to study it further before applying it to a project.
4. I have knowledge about this topic, could apply it to a project but would not want to be asked to teach it to others.
5. I consider myself an expert in this area, could apply it easily to a project and could teach this topic/method to others.

Operational Definition Worksheet[©]

Team name:

Date: _____ Contact person: _____

WHAT PROCESS DID YOU SELECT?

WHAT SPECIFIC MEASURE DID YOU SELECT FOR THIS PROCESS?

OPERATIONAL DEFINITION

Define the specific components of this measure. Specify the numerator and denominator if it is a percent or a rate. If it is an average, identify the calculation for deriving the average. Include any special equipment needed to capture the data. If it is a score (such as a patient satisfaction score) describe how the score is derived. When a measure reflects concepts such as accuracy, complete, timely, or an error, describe the criteria to be used to determine “accuracy.”

Source: R. Lloyd. *Quality Health Care: A Guide to Developing and Using Indicators. 2nd edition*, Jones and Bartlett Publishers, 2017.

Operational Definition Worksheet[©] (cont'd)

DATA COLLECTION PLAN

Who is responsible for actually collecting the data?

How often will the data be collected? (e.g., hourly, daily, weekly or monthly?)

What are the data sources (be specific)?

What is to be included or excluded (e.g., only inpatients are to be included in this measure or only stat lab requests should be tracked).

How will these data be collected?

Manually _____ From a log _____ From an automated system

Will sampling be required? If 'yes' what type of sample will you pull?

BASELINE MEASUREMENT

What is the actual baseline number? _____

What time period was used to collect the baseline? _____

TARGET(S) OR GOAL(S) FOR THIS MEASURE

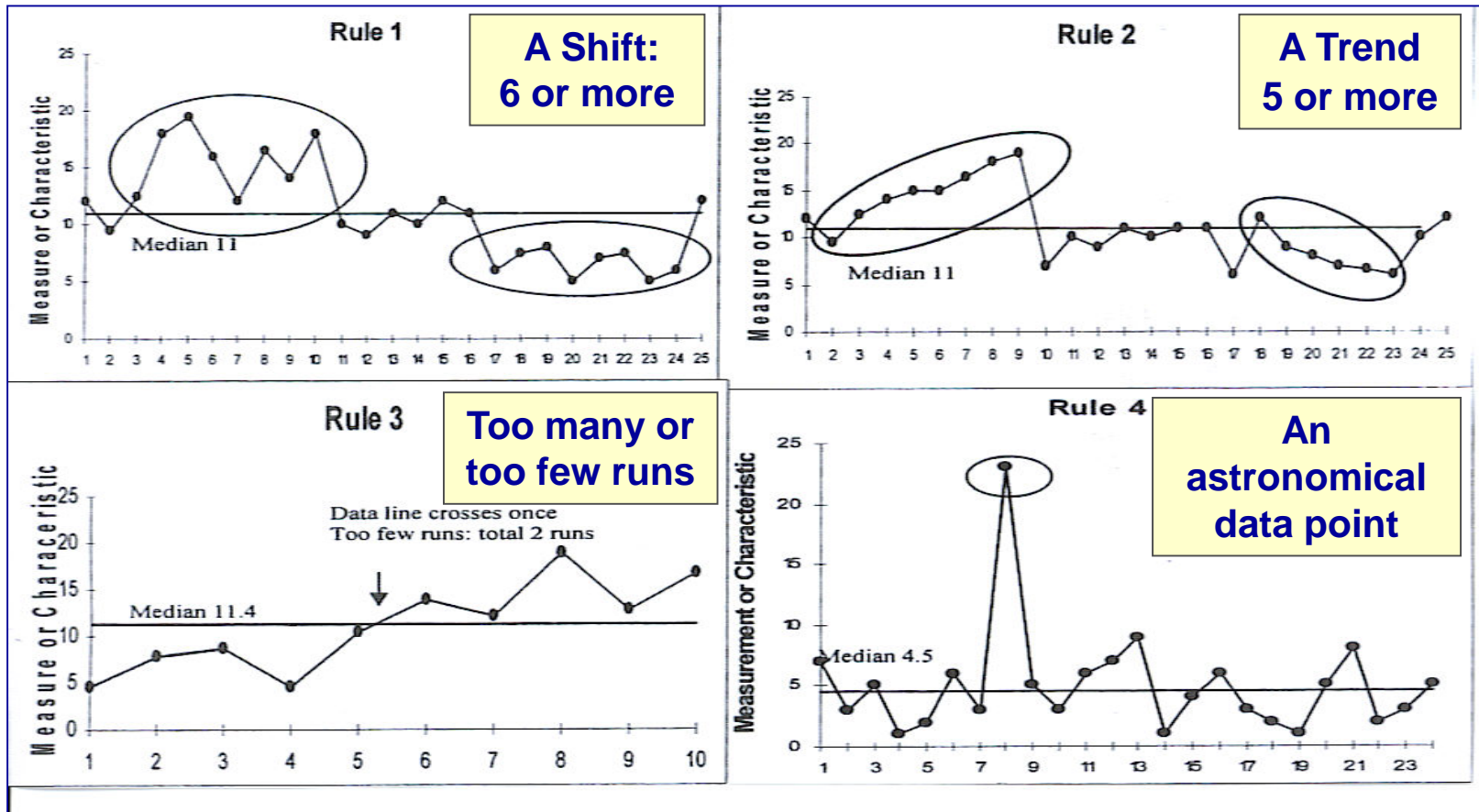
Do you have target(s) or goal(s) for this measure?

Yes ___ No ___

Specify the **External** target(s) or Goal(s) (specify the number, rate or volume, etc., as well as the source of the target/goal.)

Specify the **Internal** target(s) or Goal(s) (specify the number, rate or volume, etc., as well as the source of the target/goal.)

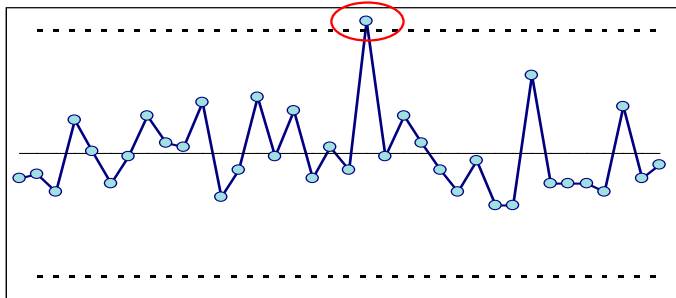
Non-Random Rules for Run Charts



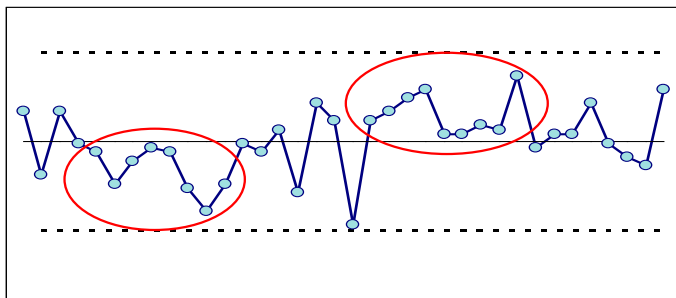
Source: The Data Guide by L. Provost and S. Murray, Jossey-Bass Publishers, 2011.

Rules for Detecting Special Causes

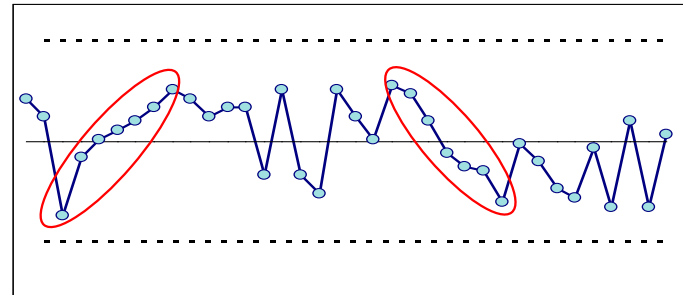
A single point outside the control limits



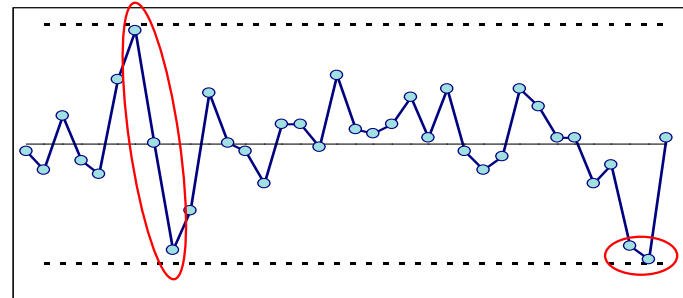
Eight or more consecutive points above or below the centerline



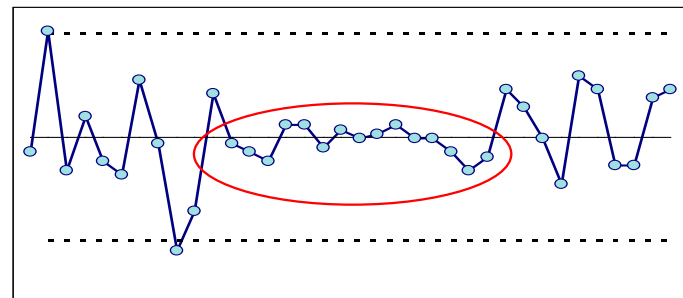
Six consecutive points increasing (trend up) or decreasing (trend down)



Two out of three consecutive points near a control limit (outer one-third)



Fifteen consecutive points close to the centerline (inner one-third)



The Control Chart Decision Tree

Source: R. Lloyd. *Quality Health Care: A Guide to Developing and Using Indicators*. 2nd edition, Jones and Bartlett, 2017.

