



# Quality Toolkit | Pareto Chart

## DESCRIPTION

The pareto chart is a type of bar graph that displays frequency data from highest to lowest rank order. The pareto principle states that 80% of consequences come from 20% of causes (the “vital few”). A cumulative percent line is applied to indicate where the majority of the causes are occurring. The pareto chart is helpful when resources are limited, and the team wants to prioritize their efforts to those causes that will have the biggest impact from process improvement efforts. Graphical format is an effective communication tool.

Data from a brainstorming session, check sheet, and /or fishbone diagram are used to construct the pareto chart.

## STRENGTHS

The pareto chart can be used to identify the “vital few” problems to study and narrow down the causes to address first. In addition, it allows monitoring of the effectiveness of any corrective actions taken.

## WEAKNESSES

The pareto chart can be misleading if cost or other weighing factors are not incorporated into the chart. It can also be misleading if work is done from the wrong side of the chart.

## APPLICATIONS

1. Identify “vital few” to focus for process improvement opportunities.
2. Post implementation monitoring of corrective actions.

## EXAMPLES

Prior to constructing pareto chart, identify the categories to analyze and tabulate the data. Calculate both the cumulative count and percentage.

Accessioning	#	Cumulative Count	Cumulative Percentage
Unlabeled	20	20	25%
Hemolyzed	17	37 (20 + 17)	46% (37/80)
QNS	14	51 (37 + 14)	64% (51/80)
Clotted	11	62 (51 + 11)	78% (62/80)
Phlebotomist Info	10	72 (62 + 10)	90% (72/80)
Two Labels Attached	4	76 (72 + 4)	95% (76/80)
Lipemic	3	79 (76 + 3)	99% (79/80)
Wrong Blood in Tube (WBIT)*	1	80 (79 + 1)	100% (80/80)
Total	80		

\*Although only one incident of WBIT, should be addressed immediately due to level of risk.

