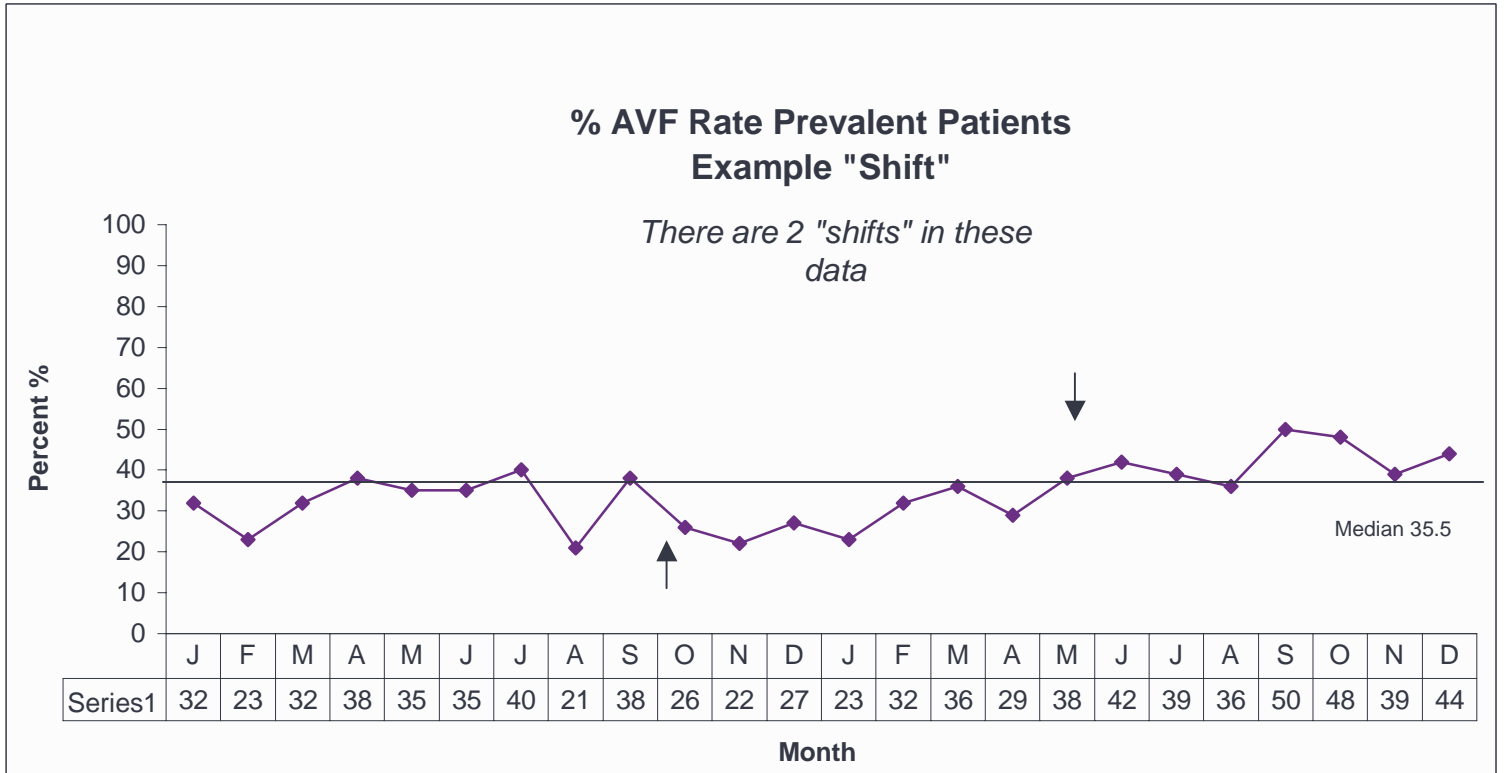


Step 1 Check for "Shifts"

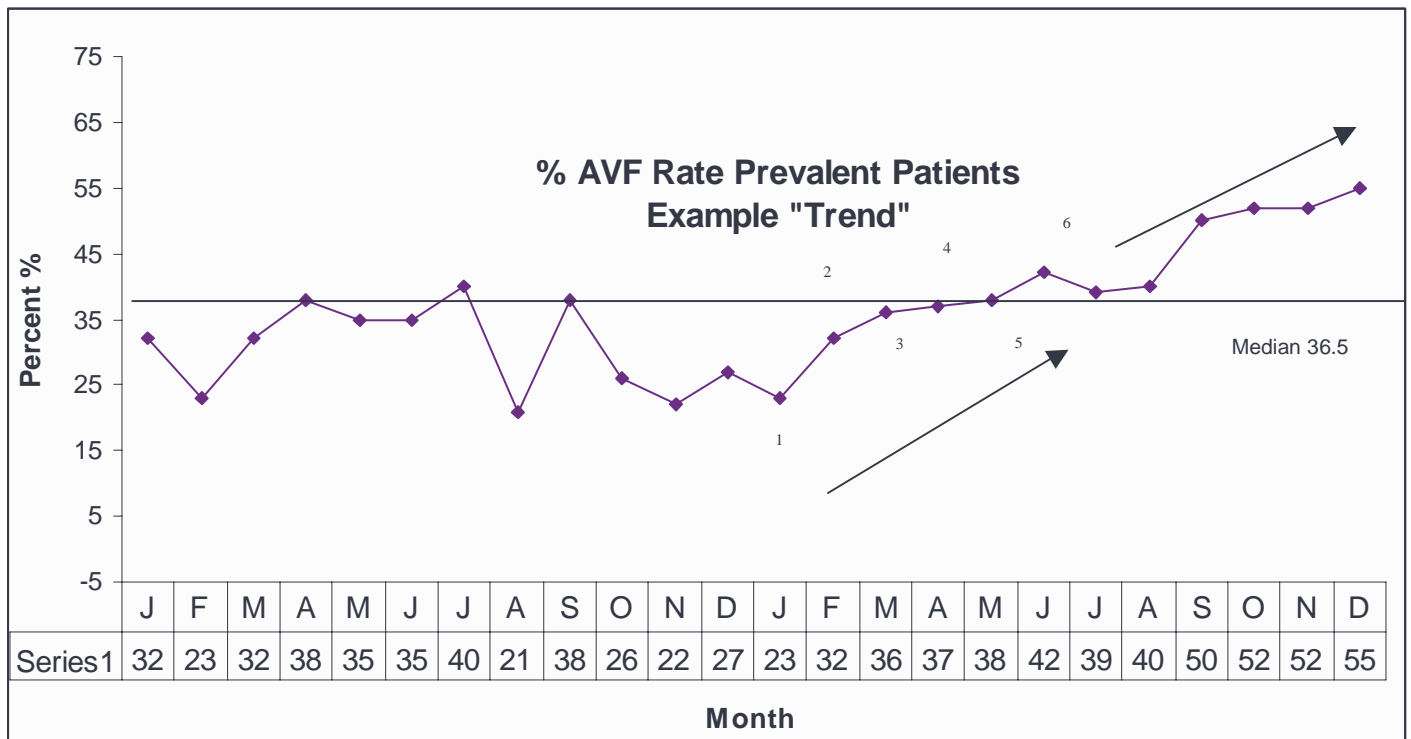
Six or more consecutive **POINTS** either all above or all below the median

Skip values on the median and continue counting points. Values on the median **DO NOT** make or break a shift.



Step 2 Check for "Trends"

Five points all going up or all going down. If the value of two or more successive points is the same, ignore one of the points when counting; like values do not make or break a trend. *There are two "trends" in these data.*



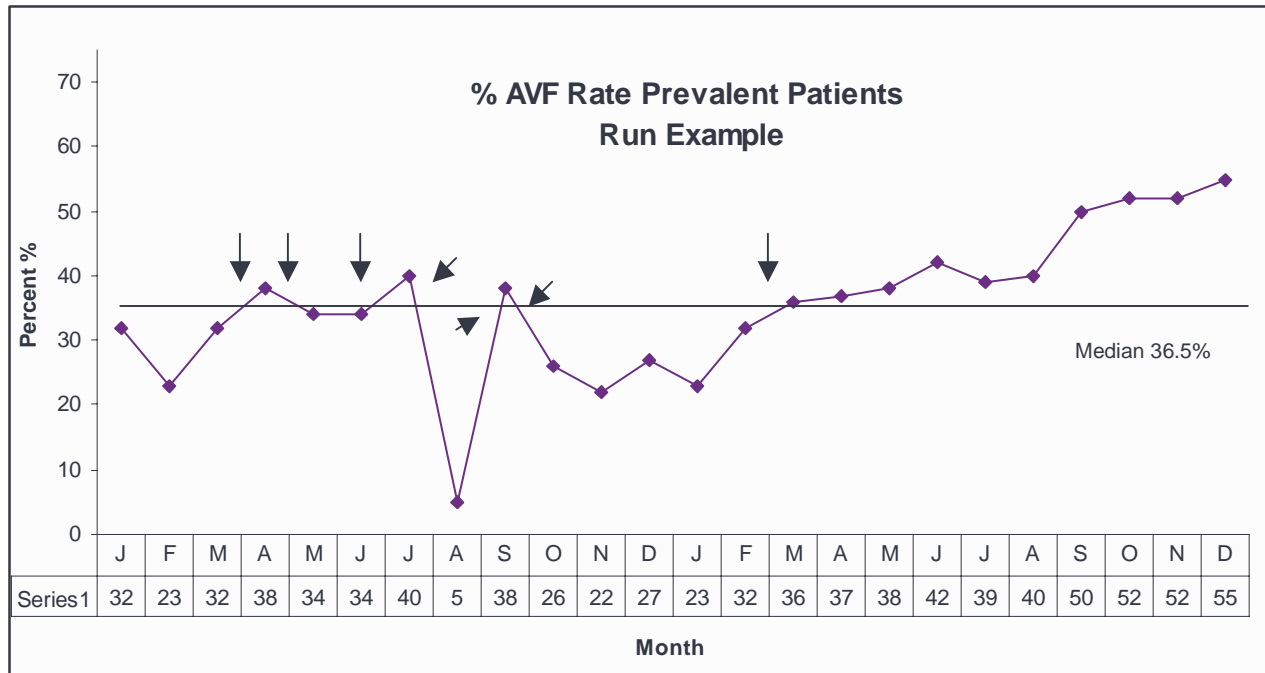
Step 3 Check for "Runs"

To Determine the Number of Runs Above and Below the Median:

- A **Run** is a series of points in a row on one side of the median. Some points fall right on the median, which makes it hard to decide which run these points belong to.
- So, an easy way to determine the number of runs is to **count the number of times the data line crosses the median and add one**.
- Statistically significant change is signaled by too few or too many runs

Steps

- Count the # of data points not falling on the median
- Count the # of runs (# of times the data line crosses the median = 7 + 1 = 8). There are 8 runs on this chart.
- Go to the table and find out if you have too few or too many runs (table indicates between **8** and **18** runs means no signal of anything unusual going on. Below **8** runs or above **18** runs would be unusual for this amount of data).



Step 4 Check for "Blatantly Obvious" Outliers

For detecting **unusually** large or small numbers:

- Data that is a **Blatantly Obvious** different value
- Everyone studying the chart agrees that it is unusual
- Remember: *every data set will have a high and a low-this does not mean the high or low are astronomical*

