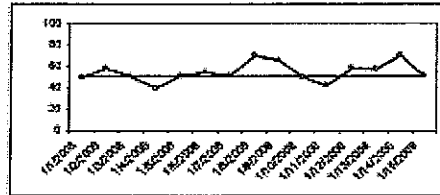


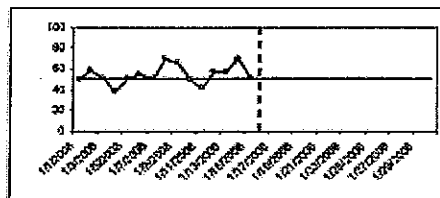
Procedure for Interpreting Run Charts

Testing a Change with a Run Chart

1. Plot the baseline



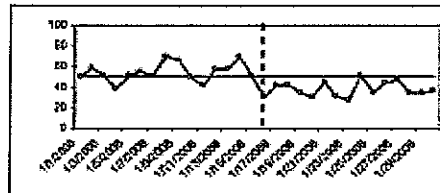
2. Extend the median & begin the test



Aug-4-10 - 1

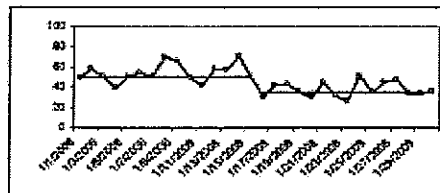
Testing a Change with a Run Chart

3. Continue to plot data following the change



4. Apply the rules

5. If there was a signal, re-plot with new median



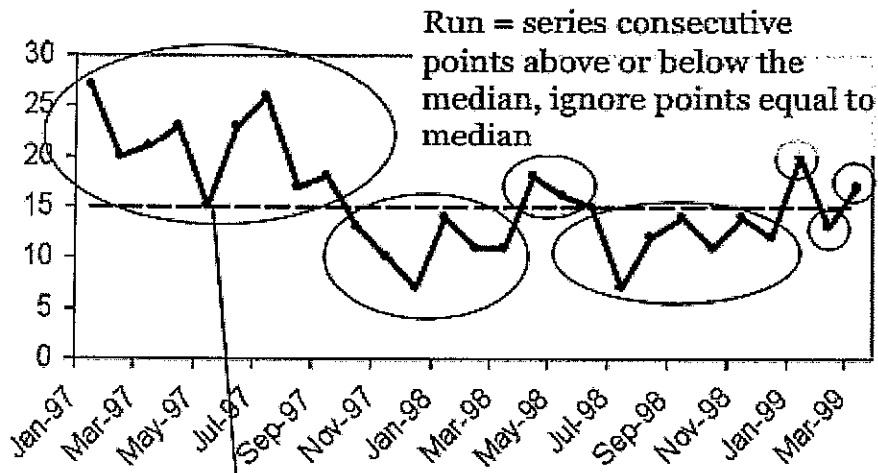
Aug-4-10 - 2

A Run

- A run is a sequence of consecutive points which all lie on the same side of the line
- Ignore points exactly on the line!

Aug-4-10 - 5

Counting Runs



This point is on the center line - IGNORE

Aug-4-10 - 6

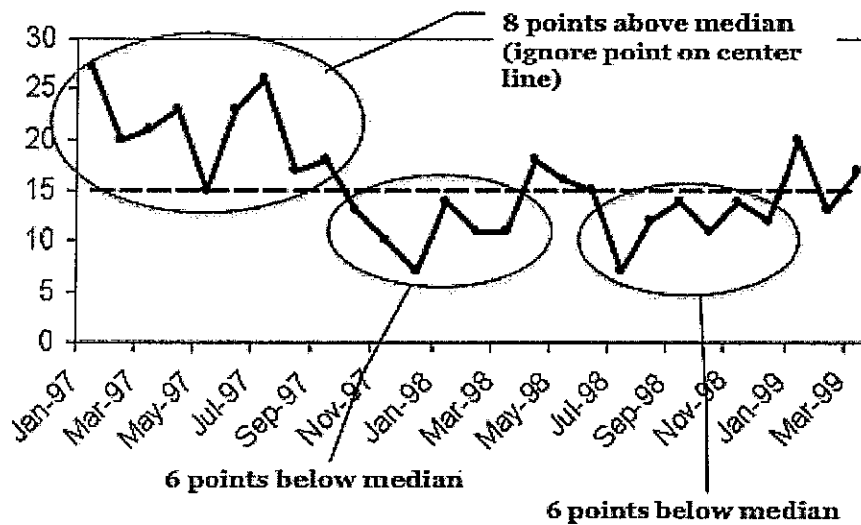
Run Charts Decision Rules

Signals of an effective change:

- Shift – 6 or more consecutive points above or below the median
- Trend – 5 or more consecutively increasing or decreasing points
- Runs – Are there too many or too few for just common cause variation?
- Astronomical Point – A dramatically different value

Aug-4-10 - 3

Signals



Aug-4-10 - 4

How Many Runs?

- How many runs should we expect if the values all come from the same unchanged process with the baseline median?
- If there are fewer runs (or more), we have a signal that our change has made a difference in the process.
- Use the table on the following slide to determine expected number of runs.

Aug-4-10 • 7

Expected Runs Table

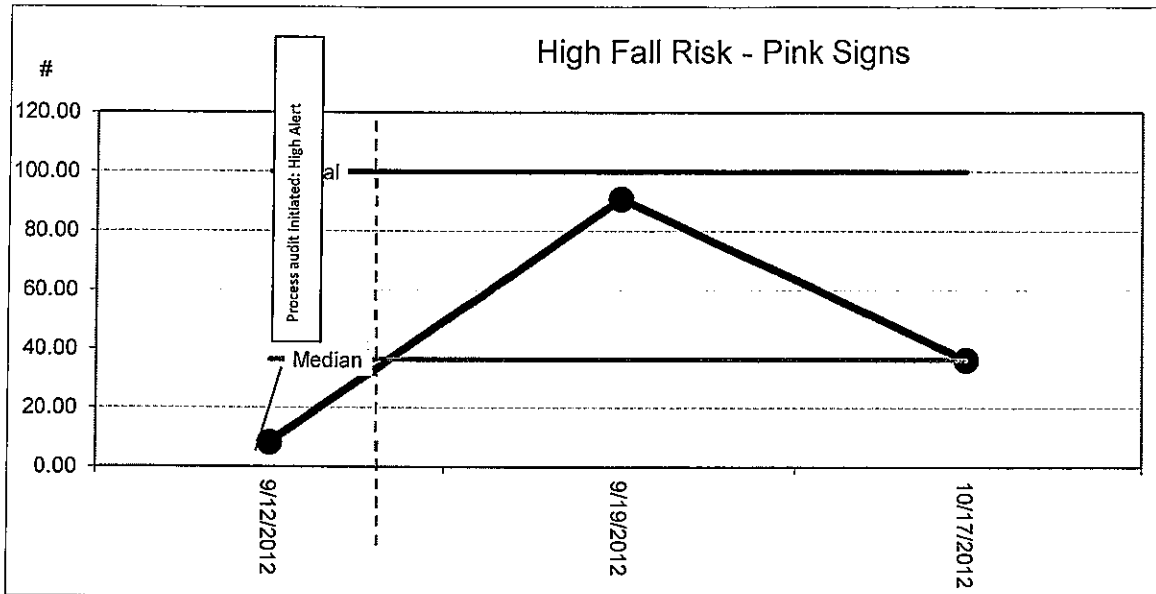
Count *USEFUL* values only – ignore those equal to the median!

If there are no signals in the data, how many runs would we expect to see?

If too few, then a signal that change was effective.

# obs	Lower	Upper	# obs	Lower	Upper
15	4	12	30	11	20
16	5	12	31	11	21
17	5	13	32	12	22
18	6	13	33	12	22
19	6	14	34	12	23
20	6	15	35	13	23
21	7	15	36	13	24
22	7	16	37	13	25
23	8	16	38	14	25
24	8	17	39	14	26
25	9	17	40	15	26
26	9	18	41	16	27
27	9	19	42	17	28
28	10	18	44	18	30
29	10	20	46	19	31

Aug-4-10 • 8



Add intervention details here and drag to corresponding data point on graph.

Add intervention details here and drag to corresponding data point on graph.

Add intervention details here and drag to corresponding data point on graph.

Partnership for Patients: Process Audit for placement of "High Alert" pink signage indicating patient is identified as a high fall risk.

