

Levels of Reliability

- *Level 1: (10^{-1}) basic level of reliability 80-90% success, 1-2 failures out of 10*
 - *Protocol based care*
- *Level 2: (10^{-2}) standard level of reliability, around 95% 5 failure or fewer out of 100*
 - *standard order sets, common equipment, awareness and training*
- *Level 3: (10^{-3}) high reliability 5 failures or fewer of out 1000*
 - *Decision aids and reminders built into the system*
 - *desired action is default, care bundles measured as all or nothing*

Levels of reliability

- *Level 4: (10^{-4}) 5 or fewer failures out of 10,000*
- *Level 5: (10^{-5}) 5 or fewer failures out of 100,000*
- *Level 6: (10^{-6}) 5 or fewer failures out of 1,000,000*
 - *This is the level that Nuclear Power Plants and airlines work at (also what you hear referred to as 6 Sigma)*

Trick of LOR

- *It's multiplicative*
- *if you have 5 key steps in your process*
- *and they are all at a LOR 1 - so let's say 90% (being generous)*
 - *that is $0.9 \times 0.9 \times 0.9 \times 0.9 \times 0.9 = 0.59$*
 - *So a 59% reliability for the process, pretty crummy*
 - *Get those to LOR3 $(0.995)^5 = 98\%$*
 - *or stream line it, get it to 3 steps at LOR 1*
 - *$(0.9)^3 = 73\%$*