



# Six Sigma by the Minute



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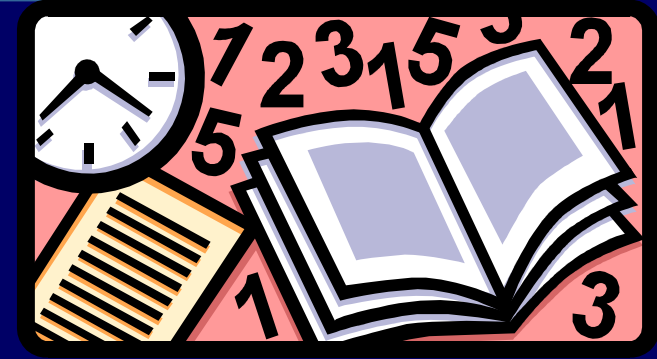


Quality is not achieved by chance

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# Why Six Sigma



- World wide trend in biomedical services
  - Increased Benchmarking practices
  - Quality Movements - Organization wide
- External v/s Internal Benchmarking
- Stake holder's heightened expectations
- Time of essence

# Goal and Objectives



- The goal is to achieve Sigma level of 6
- Set objectives are :
  - Implementation of DMAIC processes
  - Continuous Quality Improvement
- Systems, Processes and Procedures

# Today's Situation



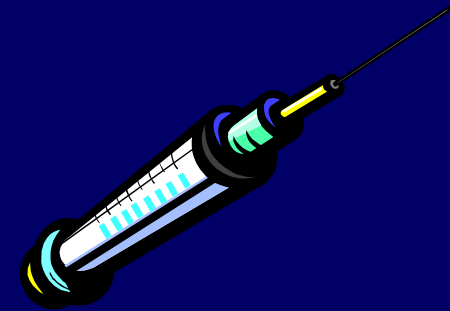
- Sigma levels of 3.5 to 4 are common with timeliness as a measure of Quality.
- A fine balancing act –  
Timely preventative maintenance  
v/s  
Costly interruptions to clinical users




Bottom-line :

*Who pays and Who cares?*

( A quote from Edith Cowan University, IDHSM management program 1999)



- Compliance standards such as AS3551 specify the required level of equipment performance.
  - Quality standards such as ISO 9000 specify the process requirements
  - Six Sigma ensures Continuous Improvement
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# DMAIC – key to CI



- Define – the processes are mapped
- Measure – charting of KIVs & KOVs
- Analyze – analysis of the processes
- Improve – fix what really is the problem
- Control – change for the better

Process continually repeats

# Design of Experiment



- Recommended to be done by suitably qualified and experienced professional
- Customer focused, data driven approach
- Distinction between proof & evidence

# Design of Experiment

- Top-down approach
- Management commitment
- Don't fix something if it is not broken





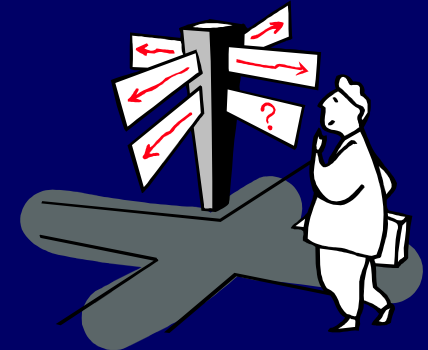


# Critical to Quality Factor

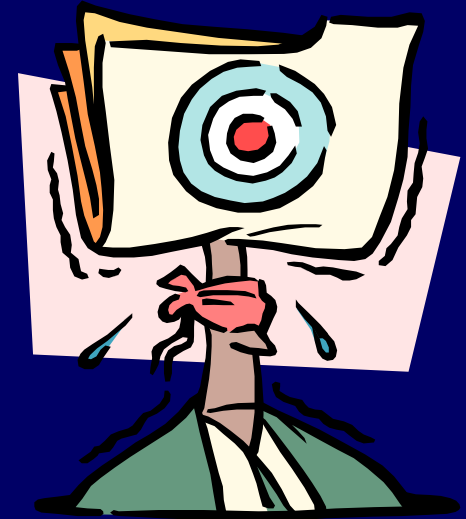
- Time is a measure easily appreciated by both service provider and customer
- With Standard Operating Procedures (SOP) established, timeliness of SOP provides the best measure of quality of service.
- Cost generally is secondary to timeliness in healthcare services

# Roller coaster ride

- Make Charter
- Pareto Charting, Xbar & R charting
- Preliminary regression
- Cause and Effect Matrices
- Response Surface Methods
- Formal optimization



# *To be OR NOT To be*



- Control of the process v/s randomness
- Quality v/s cost
- Premium payments v/s damage bills

No wonder - quality is not achieved by chance !



Thank You .....