"Root Cause Analysis is a structured and systematic incident investigation, that inquires all the potential factors contributing to the occurrence of error in the healthcare process. It is a continuous process improvement tool that typically lists out all possible causal mechanisms using various tools and approaches, enabling action plans to overcome the pitfalls. However, the statistical significance of the factors is rarely considered, allowing for wastage of resources on factors that may not play a pivotal role in the adverse event. Although not applicable to all RCA undertakings, applying regression analysis to calculate the significance of factors in the RCA process, whenever data can be collected, can radically alter the course of corrective and preventive steps implemented. The incorporation of an existing analytic tool into RCA is a novel approach that can usher in a culture of Statistical RCA endeavors, significantly decreasing the margin of errors while warranting pertinent utilization of resources."
FIG1: OPINION BASED (HYPOTHETICAL) RCA

INVESTIGATION

ORGANIZE A TEAM

FLOW CHART

BRAINSTORMING

AFFINITY DIAGRAM

CAUSE & EFFECT DIAGRAM

ACTION PLAN
FIG 2: STATISTICAL RCA

INVESTIGATION
ORGANIZE A TEAM
FLOW CHART
BRAINSTORMING
AFFINITY DIAGRAM
CAUSE & EFFECT DIAGRAM
DATA COLLECTION
PARETO CHART
SCATTER DIAGRAM
REGRESSION MODEL
ACTION PLAN