Root cause analysis (RCA)

Root cause analysis (RCA) has become a key tool for health care services to understand those adverse events.

Root cause analysis (RCA), used extensively in engineering and similar to critical incident technique, is a formalized investigation and problem-solving approach focused on identifying and understanding the underlying causes of an event as well as potential events that were intercepted. The Joint Commission requires RCA to be performed in response to all sentinel events and expects, based on the results of the RCA, the organization to develop and implement an action plan consisting of improvements designed to reduce future risk of events and to monitor the effectiveness of those improvements.

RCA is a technique used to identify trends and assess risk that can be used whenever human error is suspected with the understanding that system, rather than individual factors, are likely the root cause of most problems.

A similar procedure is critical incident technique, where after an event occurs, information is collected on the causes and actions that led to the event.

An RCA is a reactive assessment that begins after an event, retrospectively outlining the sequence of events leading to that identified event, charting causal factors, and identifying root causes to completely examine the event.66 Because it is a labor-intensive process, ideally a multidisciplinary team trained in RCA triangulates or corroborates major findings and increases the validity of findings.

Taken one step further, the notion of aggregate RCA (used by the Veterans Affairs (VA) Health System) is purported to use staff time efficiently and involves several simultaneous RCAs that focus on assessing trends, rather than an in-depth case assessment.

Delays in transfer of patients or wrong site surgery, which always involved poor adherence to correct patient and site identification procedures. The RCA committees' recommendations included education for staff, and improvements in rostering and procedural guidelines.

RCAs have improved the patient safety profile; however, the RCA committees have no power to enforce any recommendation or ensure compliance. A single RCA may provide little learning beyond the unit and staff involved. However, through aggregation of RCA data and dissemination strategies, health care workers can learn from adverse events and prevent future events from occurring [1].

Implementing an incident reporting system is quite demanding; the process should involve all of the people who work within the environment under study. Persistence and strong commitment are required to enact the culture change essential in shifting from a paradigm of infallible operators to the philosophy of errare humanum est. For this paradigm shift to be successful, contributions from aviation and human factor experts are critical [2].

1)
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2)
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