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| IHQI Quality Toolkit:Root Cause Analysis (RCA) |  |  |
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| Purpose Root cause analysis (RCA) is a tool to help health care organizations retrospectively study events where patient harm or undesired outcomes occurred in order to identify and address the root causes. By understanding the root cause of an event, we can improve patient safety by preventing future harm. A good root cause analysis allows for the design and implementation of a solution that addresses the failure at its source.**Process**A **Safety Assessment Code Matrix** is used to determine the frequency and severity of an event. If the event exceeds a threshold for frequency and/or severity, a RCA must be conducted.A RCA is conducted via a multi-disciplinary team that includes the following:* Subject Matter Expert(s)
* Individual(s) not familiar with (naïve to) the event or close call process
* Leader who is well versed in the RCA process
* Front line staff working in the area/process
* Patient representative

+/- Staff directly involved in the event. The RCA utilizes tools and techniques such as a **Cause and Effect Diagram** and **The Five Whys** to isolate the primary cause of an event from incidental factors that may or may not have contributed to the event.Product Once the root cause is identified, the team must establish that it meets the **Five Rules of Causation:**1. Clearly shows the cause and effect relationship
2. Uses specific and accurate descriptors for what occurred
3. Human errors must have a preceding cause
4. Violations of procedure are not root causes, but must have a preceding cause
5. Failure to act is only causal when there is a pre-existing duty to act

For example, a poor root cause is, “A resident was fatigued.An example of a good root cause is, “Residents are scheduled to work 80 hours per week, which led to increased levels of fatigue, increasing the likelihood that a medication dose would be ordered incorrectly.”Once the root cause is identified the system is redesigned to eliminate it or mitigate its impact. |  | **References****IHI Open School Course:** [**PS 201: Root Cause and Systems Analysis**](http://app.ihi.org/lmsspa/#/6cb1c614-884b-43ef-9abd-d90849f183d4/450435c3-f015-4541-9432-46eb235461bb)**AHRQ:** [**RCA**](https://psnet.ahrq.gov/primers/primer/10/root-cause-analysis)**ADDITIONAL RESOURCES** **Level 2 Execution*** Safety Assessment Code Matrix
* Cause and Effect Diagram
* Five Whys

**Level 3 Expertise*** RCA2 Improving Root Cause Analyses and Actions to Prevent Harm
* [To Err Is Human: Building a Safer Health System](https://www.nap.edu/read/9728/chapter/1#iii)
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