Root cause analysis is a process for identifying the cause of variation in performance, including the occurrence of a sentinel event. A root cause analysis focuses primarily on systems and processes, not individual performance. It progresses from special causes in clinical processes to common causes in organizational processes. It also identifies potential improvements in processes or systems that could decrease the likelihood of such events in the future.

The product of the root cause analysis is an action plan that identifies strategies that will reduce the risk of similar events occurring in the future. The plan should address responsibility for implementation, oversight, pilot testing as appropriate, time lines, and methods for measuring the effectiveness of the actions.

**Fault Tree Analysis**

Fault tree analysis is one tool that can be used to conduct a root cause analysis. It is an organized, systematic way of examining a design for possible ways in which a failure could occur. It consists of looking at the possible causes starting at the system level and working down through the system, sub-system, equipment, and component to identify all possible causes. It takes a representation of the system and analyzes how its operation can lead to an unsafe deviation from the intent of the system. Additional protective features that can be incorporated into the design can also be identified. It can be used to analyze accidents or adverse events, such as falls.

Begin by first listing the potential failure modes. After thorough analysis, identify ways to avoid these origins and causes.

**Fault Tree Analysis**

**Patient Falls in SNF**

**Personnel**
- Short staffing
- Poor work practices
- Lack of supervision
- Lack of orientation or information regarding fall process and/or resident needs

**Procedures**
- No written policy and procedure
- Poor work practices
- Lack of supervision
- Lack of orientation or information regarding fall process and/or resident needs

**Equipment**
- Wheelchairs not locked
- Beds not kept in low position
- Improper restraint equipment
- Equipment not working

Document available at www.primaris.org

MO-06-52-NH July 2006 This material was prepared by Primaris, the Medicare Quality Improvement Organization for Missouri, under contract with the Centers for Medicare & Medicaid Services (CMS), an agency of the U.S. Department of Health and Human Services. The contents presented do not necessarily reflect CMS policy.