Figure 5-2. A Framework for a Root Cause Analysis and Action Plan in Response to a Sentinel Event

Framework for a Root Cause Analysis

This template (*see* pages 2–4) is provided as an aid in organizing the steps in a root cause analysis. Not all possibilities and questions will apply in every case, and there may be others that will emerge in the course of the analysis. However, all possibilities and questions should be fully considered in your quest for root causes and risk reduction.

As an aid to avoiding "loose ends," the three columns on the right are provided to be checked off for later reference:

- "Root Cause?" should be answered "Yes" or "No" for each finding. A root cause is typically a finding related to a process or system that has a potential for redesign to reduce risk. If a particular finding that is relevant to the event is not a root cause, be sure that it is addressed in the analysis with a "why" question. Each finding that is identified as a root cause should be considered for an action and addressed in the action plan.
- "Ask 'Why?'" should also be answered "Yes" or "No" for each finding. Enter "Yes" whenever it is reasonable to ask why the particular finding occurred (or did not occur when it should have)—in other words, to drill down further. It is expected that most significant findings, whether they are identified as root causes or not, will have "Yes" entered in this column because one can almost always ask, "Why?" one more time.
- "Take Action?" should be answered "Yes" or "No" as well. Answer "Yes" for any finding that can reasonably be considered for a risk-reduction strategy. Each item identified with a "Yes" in this column should be addressed later in the action plan.

The framework is an aid in organizing the steps in an RCA, determining appropriate actions as a part of a risk-reduction strategy, and identifying how the effectiveness of those actions will be measured. This is only a guide, and the actual approach and tools that a team uses will depend on the characteristics of the health care organization, the nature of the event, and the experience and preferences of the people involved in the analysis.

Figure 5-2. A Framework for a Root Cause Analysis and Action Plan in Response to a Sentinel Event, *continued*

Level of Analysis		Questions	Findings	Root Cause?	Ask "Why?"	Take Action
What happened?	Sentinel event	What are the details of the event? (Brief description)				
		When did the event occur? (Date, day of week, time)				
		What area/service was impacted?				
Why did it happen?	The process or activity in which the event occurred	What are the steps in the process, as designed? (A flow diagram may be helpful here.)				
What were the most proximate factors?		What steps were involved in (contributed to) the event?				
(Typically "special cause" variation)	Human factors	What human factors were relevant to the outcome?				
	Equipment factors	How did the equipment performance affect the outcome?				
	Controllable environmental factors	What factors directly affected the outcome?				
	Uncontrollable external factors	Are they truly beyond the organization's control?				
	Other	Are there any other factors that have directly influenced this outcome?				
		What other areas or services are impacted				

(continued)

Figure 5-2. A Framework for a Root Cause Analysis and Action Plan in Response to a Sentinel Event, *continued*

Level of Analysis		Questions	Findings	Root Cause?	Ask "Why?"	Take Action
Why did that happen? What systems and processes underlie those proximate factors?	Human resources issues	To what degree are staff properly qualified and currently competent for their responsibilities?				
(Common-cause variation here may lead to special-cause variation in dependent processes)		How did actual staffing compare with ideal levels?				
		What are the plans for dealing with contingencies that would tend to reduce effective staffing levels?				
		To what degree is staff performance in the operant process(es) addressed?				
		How can orientation and in-service training be improved?				
	Information management issues	To what degree is all necessary information available when needed? Accurate? Complete? Unambiguous?				
		To what degree is communication among participants adequate?				
	Environmental management issues	To what degree was the physical environment appropriate for the process(es) being carried out?				
		What systems are in place to identify environmental risks?				
		What emergency and failure-mode responses have been planned and tested?				

(continued)

Figure 5-2. A Framework for a Root Cause Analysis and Action Plan in Response to a Sentinel Event, *continued*

Level of Analysis		Questions	Findings	Root Cause?	Ask "Why?"	Take Action
	Leadership issues: —Corporate culture	To what degree is the culture conducive to risk identification and reduction?				
	—Encouragement of communication	What are the barriers to communication of potential risk factors?				
	—Clear communication of priorities	To what degree is the prevention of adverse outcomes communicated as a high priority? How?				
	Uncontrollable factors	What can be done to protect against the effects of these uncontrollable factors?				

Action Plan	Risk-Reduction Strategies	Measures of Effectiveness
For each of the findings identified in the analysis as needing an action, indicate the planned action expected, implementation date, and associated measure of effectiveness. OR . . .	**Action Item #1:**	
If, after consideration of such a finding, a decision is made not to implement an associated risk-reduction strategy, indicate the rationale for not taking action at this time.	**Action Item #2:**	
Check to be sure that the selected measure will provide data that will permit assessment of the effectiveness of the action.	**Action Item #3:**	
Consider whether pilot testing of a planned improvement should be conducted.	**Action Item #4:**	
Improvements to reduce risk should ultimately be implemented in all areas where applicable, not just where the event occurred. Identify where the improvements will be implemented.	**Action Item #5:**	
	Action Item #6:	
	Action Item #7:	
	Action Item #8:	
Cite any books or journal articles that were considered in developing this analysis and action plan:		