

VROC 5 Why's Root Cause Analysis



Patient Identification Information

Person Reporting

Date

Target Site

Occurred on Fx #s

Out of ____ total

Was this a Near Miss? (i.e. the error was caught and patient was treated correctly).

Yes: Fill in the Dose and Severity as though the error DID occur

No: Fill in the Dose and Severity for what Actually occurred

Target Volume Information

RX Dose/Fx	% Target Overdose (estimate for Near-Miss)	% Target Under-dose (estimate for Near-Miss)
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Normal Tissue Information: Calculate the Overdose by normalizing change in dose by the Prescribed Dose. For the VROC you may use the Change in EUD. (Or estimate these values for a Near Miss).

Normal Tissue1	Over- Dose Tissue1 (%)	Normal Tissue2	Over -Dose Tissue2 (%)
Normal Tissue3	Over-dose Tissue3 (%)	Normal Tissue 4	Over-dose Tissue4 (%)

Please fill in the Table below including the Dose Severity as Determined by the VROC system. This is scaled by the highest % change in dose to any structure. The Severity score is estimated from the VROC - please transfer that to the middle row.

Based on your own experience, please also include your own severity score based on the Table below.

If it was a near miss - fill in the EXPECTED values if the error had NOT been caught.

What Side effects/ tumor control issues do you anticipate from this error?

Does the State need to be notified?
[\(Review FL 64E-5.101 #85\(c\) & #119\(f\)\)](#)

Yes
No

Does the patient or family need to be notified?

Yes
No

Dose Scores

- 9/10 > 100% dose deviation
- 7/8 >25-100% dose deviation
- 5/6 >10-25% dose deviation
- 3/4 >5-10% dose deviation
- 1/2 <5% dose deviation
- 0 - Not applicable

Severity Scores (used for ranking error Below)

- 10 Premature Death
- 8/9 Life Threatening or Possible recurrence
- 7 Permanent major disability (grade 3/4 toxicity)
- 5/6 Permanent minor disability (grade 1/2 toxicity)
- 3/4 Temporary side effects Major (hospitalization)
- 2 Temporary side effects (intervention indicated)
- 1 Temporary side effects (intervention not indicated)
- 0 No Harm

SEVERITY SCORES

	0	1	2	3	4	5	6	7	8	9	10
Dose % Error (From VROC)											
Severity of Error (from VROC)											
Severity of Error (from Table above)											

For this section please answer each question to the best of your ability.

1. Give a Brief description of the event.

2. Who was involved in the Incident?

3. How was the error detected?

4. Please list any additional questions you would ask of those involved.

5. What additional information is needed?



5 Whys.

The following six questions are an attempt to get you thinking about the error in question to try to determine the root cause. The two columns separated by (a) and (b) are to allow you two separate pathways.

Please review relevant departmental policies, procedures, & guidelines before starting.

For near misses - fill in this section for what Actually occurred. It is important to stress those methods that were helpful in preventing the error to ensure that occurs for all such cases.

1.) What was the error?

2a) What were the immediate causes to the event described in 1?

2b. What was the immediate cause to the event in 1.

3a.) Why did 2a occur?

3b.) Why did 2b occur?

4a.) Why did 3a occur?

4b.) Why did 3b occur?

5a) Why did 4a occur?

5b.) Why did 4b occur?

6a.) Why did 5a occur?

6b.) Why did 5b occur?

Causality Table

Can either 6a or 6b above be considered the Root Cause? To investigate further, the following list of options is from the Published Causality Chart for Radiotherapy. The final Root Cause should be match to one of the items in the chart.

NOTE: Almost all items related to departmental policies and procedures go in the **ORGANIZATIONAL** category. The Procedural category includes higher level systems issues.

CATEGORY: Select the following area that is most appropriate category to the answer in 6a or 6b. (Note: Department Policies/Procedures are an Organizational issue)

1. Organizational Management

a. Planning for Program

- b. Policies, Procedures, regulations
- c. Training, acquiring and transmitting knowledge& skills
- d. Communication
- e. Physical Environment
- f. Leadership & external issues

2. Technical

- a. Acceptance Testing
- b. Equipment Design
- c. Equipment Maintenance
- d. Environment (facility)

3. Human Behavior involved staff

4. Patient -related circumstances

5. External factors (beyond facility control)

6. Procedural Issues

Solutions and Quality Indicators

Based on the Root Cause. Propose a solution or a check or double check that can occur to prevent errors based on that particular root cause.

How will your proposed solution help to solve the error reported above?

What is the measurable outcome of this solution?

The following questions relate to the RCA exercise overall.

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
I was successfully able to complete the RCA for this event?					
The RCA exercise helped me better understand the RCA process?					
I would recommend this exercise to others.					
After completing this exercise I have a better understanding what events need to be reported (Florida Rules)?					

Additional Comments/ Feedback

Please Select Submit to Finalize your Analysis.