

Root Cause Analysis in Health Care

A Joint Commission Guide to Analysis and Corrective Action of Sentinel and Adverse Events



7th Edition

Joint Commission Resources Mission

The mission of Joint Commission Resources (JCR) is to continuously improve the safety and quality of health care in the United States and in the international community through the provision of education, publications, consultation, and evaluation services.

Disclaimers

JCR educational programs and publications support, but are separate from, the accreditation activities of The Joint Commission. Attendees at Joint Commission Resources educational programs and purchasers of JCR publications receive no special consideration or treatment in, or confidential information about, the accreditation process. The inclusion of an organization name, product, or service in a JCR publication should not be construed as an endorsement of such organization, product, or service, nor is failure to include an organization name, product, or service to be construed as disapproval.

This publication is designed to provide accurate and authoritative information regarding the subject matter covered. Every attempt has been made to ensure accuracy at the time of publication; however, please note that laws, regulations, and standards are subject to change. Please also note that some of the examples in this publication are specific to the laws and regulations of the locality of the facility. The information and examples in this publication are provided with the understanding that the publisher is not engaged in providing medical, legal, or other professional advice. If any such assistance is desired, the services of a competent professional person should be sought.

© 2020 The Joint Commission

Published by Joint Commission Resources Oak Brook, Illinois 60523 USA https://www.jcrinc.com

Joint Commission Resources, Inc. (JCR), a not-for-profit affiliate of The Joint Commission, has been designated by The Joint Commission to publish publications and multimedia products. JCR reproduces and distributes these materials under license from The Joint Commission.

All rights reserved. No part of this publication may be reproduced in any form or by any means without written permission from the publisher. Requests for permission to make copies of any part of this work should be sent to permissions@jcrinc.com.

ISBN (print): 978-1-63585-161-8 ISBN (e-book): 978-1-63585-162-5

Printed in the USA

For more information about The Joint Commission, please visit https://www.jointcommission.org.

Development Team

Senior Editor: Natalie Ruppert **Project Manager:** Heather Yang

Associate Director, Global Publications: Helen M. Fry, MA

Associate Director, Production: Johanna Harris

Executive Director, Global Publishing: Catherine Chopp

Hinckley, MA, PhD

Reviewers for the Seventh Edition

Joint Commission Division of Healthcare Improvement

Karen E. Black, RN, BSN, MSHA, CPHQ, Associate Director, Standards Interpretation Group

Lisa Buczkowski, RN, MS, CPPS, Associate Director, Office of Quality and Patient Safety

Julia S. Finken, BSN, MBA, CPHQ, CSSBB, Executive Director, Behavioral Health Care Accreditation

Erin Lawler, MS, CPPS, Human Factors Engineer, Office of Quality and Patient Safety

Chad Larson, MBA, Executive Director, Hospital Accreditation Program

Edward Pollak, MD, FASA, Medical Director and Patient Safety Officer, Office of Quality and Patient Safety

Raji Thomas, DNP, MBA, CPHQ, CPPS, Director, Office of Quality and Patient Safety

Gina Zimmermann, Executive Director, Nursing Care Center Services

Joint Commission Division of Healthcare Quality Evaluation

Caroline Christensen, Project Director—Technical,
Department of Standards and Survey Methods
Antigone E. Kokalias, MBA, MSN, RN, Project Director—
Clinical, Department of Standards and Survey Methods

Joint Commission International

Barbara Holland, RN, MSN, CPHQ, CCM, Associate Director, Measurement and Quality Monitoring

The Joint Commission Center for Transforming Healthcare

Klaus Nether, D.H.Sc., CSSMBB, Master Change Leader, Executive Director, High Reliability Product Delivery

Contents

Introduction	V	
Chapter 1—Getting Started: Understanding Sentinel Events	9	
Understanding The Joint Commission's Sentinel Event Policy		
Signals of Risk: Close Calls and No-Harm Events		
Responding to Sentinel Events		
Responding to Patient Safety Events	13	
How The Joint Commission Becomes Aware of a Sentinel Event		
Addressing Concerns About Reporting	17	
Benefits of Reporting a Sentinel Event to The Joint Commission or Joint Commission International		
Root Cause Analysis and Corrective Action		
Accreditation Requirements Related to the Sentinel Event Policy		
Leadership, Culture, and Improvement	26	
Joint Commission International's Sentinel Event Policy		
Related Joint Commission International Standards	30	
Early Response Strategies	30	
Event Investigation		
Onward with Root Cause Analysis	33	
Chapter 2—Digging Deeper: The Basics of Root Cause Analysis	47	
Committing to Excellence		
Investigating Patient Safety Events: The Need for Root Cause Analysis		
Understanding Causes and Variation	53	
Benefits of Root Cause Analysis	58	
The Root Cause Analysis and Corrective Action Plan: Doing It Right	59	
Chapter 3—Preparing for Root Cause Analysis	71	
Step 1: Organize a Team	72	
Step 2: Define the Problem	78	
Step 3: Study the Problem	81	
Chapter 4—Determining Proximate and Underlying Causes	93	
Step 4: Determine What Happened	94	
Step 5: Identify Contributing Process Factors	97	
Step 6: Identify Other Contributing Factors	98	
Step 7: Measure—Collect and Assess Data on Proximate and Underlying Causes	102	
Step 8: Design and Implement Immediate Changes	107	

Chapter 5—	Identifying Root Causes	117
Step 9:	Identify Which Systems Are Involved—The Root Causes	118
Step 10:	Prune the List of Root Causes	119
Step 11:	Confirm Root Causes and Consider Their Interrelationships	125
Chapter 6—	Designing and Implementing a Corrective Action Plan for Improvement	135
Step 12:	Explore and Identify Risk Reduction Strategies	136
Step 13:	Formulate Improvement Actions	145
Step 14:	Evaluate Proposed Improvement Actions	148
Step 15:	Design Improvements	148
Step 16:	Ensure Acceptability of the Corrective Action Plan	153
Step 17:	Implement the Improvement Plan	153
Step 18:	Develop Measures of Effectiveness and Ensure Their Success	157
	Evaluate Implementation of Improvement Efforts	
Step 20:	Take Additional Action	158
Step 21:	Communicate the Results	158
Appendix		169
Glossary		181
Index		189