Technical Information Report

AAMI TIR102: 2019

U.S. FDA 21 CFR mapping to the applicable regulatory requirement references in ISO 13485:2016 Quality Management Systems



AAMI Technical Information Report

AAMI TIR102:2019

U.S. FDA 21 CFR mapping to the applicable regulatory requirement references in ISO 13485:2016 Quality Management Systems

Approved 30 August 2019 by **AAMI**

Abstract: This document provides a mapping of the US FDA 21 CFR requirements to the "regulatory requirements" references in ISO 13485:2016. This mapping is intended to be a tool for US industry to help identify the regulatory requirements from the US medical device regulations to be addressed through an ISO 13485 quality management system.

Keywords: quality systems, regulations, 21 CFR 820, medical devices

AAMI Technical Information Report

A technical information report (TIR) is a publication of the Association for the Advancement of Medical Instrumentation (AAMI) Standards Board that addresses a particular aspect of medical technology.

Although the material presented in a TIR may need further evaluation by experts, releasing the information is valuable because the industry and the professions have an immediate need for it.

A TIR differs markedly from a standard or recommended practice, and readers should understand the differences between these documents.

Standards and recommended practices are subject to a formal process of committee approval, public review, and resolution of all comments. This process of consensus is supervised by the AAMI Standards Board and, in the case of American National Standards, by the American National Standards Institute.

A TIR is not subject to the same formal approval process as a standard. However, a TIR is approved for distribution by a technical committee and the AAMI Standards Board.

Another difference is that, although both standards and TIRs are periodically reviewed, a standard must be acted on reaffirmed, revised, or withdrawn—and the action formally approved usually every five years but at least every 10 years. A TIR must be acted on and the action formally approved usually every three years.

A TIR may be developed because it is more responsive to underlying safety or performance issues than a standard or recommended practice, or because achieving consensus is extremely difficult or unlikely. Unlike a standard, a TIR permits the inclusion of differing viewpoints on technical issues.

CAUTION NOTICE: This AAMI TIR may be revised or withdrawn at any time. Because it addresses a rapidly evolving field or technology, readers are cautioned to ensure that they have also considered information that may be more recent than this document.

All standards, recommended practices, technical information reports, and other types of technical documents developed by AAMI are *voluntary*, and their application is solely within the discretion and professional judgment of the user of the document. Occasionally, voluntary technical documents are adopted by government regulatory agencies or procurement authorities, in which case the adopting agency is responsible for enforcement of its rules and regulations.

Comments on this technical information report are invited and should be sent to AAMI, Attn: Standards Department, 901 N. Glebe Road, Suite 300, Arlington, VA 22203.

Published by

AAMI 901 N. Glebe Road, Suite 300 Arlington, VA 22203 www.aami.org

© 2019 by the Association for the Advancement of Medical Instrumentation

All Rights Reserved

This publication is subject to copyright claims of AAMI. No part of this publication may be reproduced or distributed in any form, including an electronic retrieval system, without the prior written permission of AAMI. All requests pertaining to this document should be submitted to AAMI. It is illegal under federal law (17 U.S.C. § 101, et seq.) to make copies of all or any part of this document (whether internally or externally) without the prior written permission of the Association for the Advancement of Medical Instrumentation. Violators risk legal action, including civil and criminal penalties, and damages of \$100,000 per offense. For permission regarding the use of all or any part of this document, complete the reprint request form at www.aami.org or contact AAMI, 901 N. Glebe Road, Suite 300, Arlington, VA 22203. Phone: +1-703-525-4890; Fax: +1-703-276-0793.

Printed in the United States of America

ISBN 978-1-57020-724-2

Contents

Page

Co	ommittee representation	iv
For	reword	vi
Intr	roduction	vii
1	Scope	1
2	Using this technical information report	1
3	Key considerations	2

Tables

Table 1: QS Regulation and risk-related Preamble comments	3
Table 2: Comparison from 21 CFR 820 to ISO ISO 13485:2016	5
Table 3: Comparison from ISO ISO 13485:2016 to 21 CFR 820	89

Committee representation

Association for the Advancement of Medical Instrumentation

AAMI Application of Quality Systems to Medical Devices Working Group

This technical information report (TIR) was developed and approved by the AAMI Application of Quality Systems to Medical Devices Working Group.

At the time this document was published, the **AAMI Application of Quality Systems to Medical Devices Working Group** had the following members:

Cochairs:	Scott Sardeson Marc-Henri Winter
Members:	David Amor, Pear Therapeutics Inc Kathie Bardwell, STERIS Corporation Healthcare Edwin Bills, ELB Consulting Daniel Brown, DB Performance Solutions LLC Nicholas Brydon, Nick Brydon Consulting Ujjal Chakravartty, Avanos Medical Michael Checketts, Omnex Lena Cordie-Bancroft, Qualitas Professional Services LLC Heather Crawford, ASQ Biomedical Division Mary Dadone, Noxilizer Inc Vijay Damodaran, Eli Lilly & Company Theresa Dennis, Sotera Health LLC Thomas Dold, Vista Regulatory Solutions Kevin Dummer, Micro Systems Engineering Inc Aaron Dumbar, Boston Scientific Corporation Thomas Feldsien, AbbVie Christine Flahive, Chris Flahive Associates Helen Forsdyke, Johnson & Johnson Kesley Gallagher, Amgen Inc David Geraghty, Spacelabs Healthcare Karoll Gonzalez, Stryker Instruments Division Matt Graf, Cook Inc Richard Granquist, NAMSA Michael Groendyk, Arthrex Inc Laila Gurney, GE Healthcare Casey Haley, LivaNova PLC Earnonn Hoxey Joshua Kim, Hill-Rom Holdings Dan LaBelle, Nonin Medical Inc Daniel Larrimore, Alcon Laboratories Inc Peter Lee, Kimberty-Clark North America Jeffrey May, Adventist Health Clinical Engineering Elizabeth Nichols, Abbott Laboratories David Otro, NxStage Medical Inc B Park, Christine Park & Associates Eric Peterson, Smiths Medical Frank Pokrop, Sotera Wireless Inc Mike Powers, Christiana Care Health Services Joseph Raciti, Tech Group North America Joseph Raciti, Tech Group North America Joseph Raciti, Tech Group North America dba West Pharmaceutical Services Maria Samuel, WL Gore & Associates Inc Scott Sardeson, 3M Healthcare Christopher Sczublewski, Department of Veterans Affairs Joseph Sener, ICU Medical Inc Marka Shamsi, Deloitte Advisory Vipul Sheth, Medtronic Inc Campus

Alternates: Krisann Anderson, Abbott Laboratories Paul Brooks, ASQ Biomedical Division Timothy Connor, Regulatory and Quality Solutions LLC Joe Cowart, Arthrex Inc Joseph Del Rossi, Tech Group North America dba West Pharmaceutical Services Carl Dover, Johnson & Johnson Lisa Foster, Adiuvo QS & SA Consulting Elisabeth George, Philips Thomas Hoffman, Medtronic Inc Campus Chad Kymal, Omnex Matthew McMahon, Siemens Healthineers Michael Murphy, Hill-Rom Holdings Susumu Nozawa, Siemens Healthineers Marcia Orozco, Alcon Laboratories Inc Jasmine Poeppel, Getinge USA Kanar Rabah, Sanofi Russell Rainey, Avanos Medical Omar Richards, Becton Dickinson & Company James Shene, LivaNova PLC Melissa Torres, FDA/CDRH

NOTE—Participation by federal agency representatives in the development of this document does not constitute endorsement by the federal government or any of its agencies.

© 2019 Association for the Advancement of Medical Instrumentation = AAMI TIR102:2019

Foreword

As used within the context of this document, "should" indicates that among several possibilities, one is recommended as particularly suitable, without mentioning or excluding others, or that a certain course of action is preferred but not necessarily required, or that (in the negative form) a certain possibility or course of action should be avoided but is not prohibited. "May" is used to indicate that a course of action is permissible within the limits of the TIR. "Can" is used as a statement of possibility and capability. Finally, "must" is used only to describe "unavoidable" situations, including those mandated by government regulation.

Suggestions for improving this technical information report are invited. Comments and suggested revisions should be sent to Standards, AAMI, 901 N. Glebe Road, Suite 300, Arlington, VA 22203 or standards@aami.org.

NOTE—This foreword does not contain provisions of the AAMI TIR102, U.S. FDA 21 CFR mapping to the applicable regulatory requirement references in ISO 13485:2016 Quality Management Systems (AAMI TIR102:2019), but it does provide important information about the development and intended use of the document.

© 2019 Association for the Advancement of Medical Instrumentation AAMI TIR102:2019

Introduction

This Technical Information Report (TIR) is intended to demonstrate alignment of regulatory requirements for quality management systems applicable to organizations involved in one or more stages of the life-cycle of a medical device.

This TIR is a comparison of the requirements of 21 CFR 820 and ANSI/AAMI/ISO 13485:2016. Within this TIR, 21 CFR 820 may be referred to as the Quality System (QS) Regulation. In addition, ANSI/AAMI/ISO 13485:2016 may be referred to as ISO 13485:2016 or the standard.

AAMI Quality Management working group (AAMI QM/WG 01) has completed an analysis to identify differences between the requirements of 21 CFR 820 and the clauses of ISO 13485:2016, as well as some key considerations in the evolution of global quality management system for the medical device industry.

© 2019 Association for the Advancement of Medical Instrumentation = AAMI TIR102.2019

U.S. FDA 21 CFR mapping to the applicable regulatory requirement references in ISO 13485:2016, Quality management systems

1 Scope

This document is a comparison of requirements between 21 CFR 820 and ANSI/AAMI/ISO 13485:2016 that demonstrates similarities, highlights differences, and discusses key considerations for medical device manufacturers. It is not a word-for-word literal identification of differences; thus, the reader must be familiar with quality management system requirements along with the statutory definitions to apply this report.

This document provides the basis for interpretation of the associated requirements and applicable U.S. FDA rules. Users must be aware that this analysis provides a comparison of the QS Regulation and the standard only. It is not inclusive of all global regulatory requirements applicable to medical device quality systems.

The comparison covers all parts of 21 CFR 820 including appropriate references to the Preamble to the QS Regulation and ANSI/AAMI/ISO 13485:2016. Other standards or parts of the U.S. regulations may be referenced but are not explicitly included in this report.

2 Using this technical information report

This document was produced by AAMI QM/WG 01 comprised of representatives from the medical device sector. For the proper use of this TIR, readers should have full understanding of both 21 CFR 820 and ISO 13485:2016. Although the information contained in this document has been carefully considered, it is up to the individual organization to ensure compliance with all regulatory requirements. This document is intended for manufacturers and it is expected that the reader is familiar with regulatory quality management system requirements and definitions within the medical devices sector and regulations. It is intended for informational purposes and it is not intended to be used to assess or audit compliance with regulatory requirements.

- The working group has listed the primary and some secondary core references, not all referenced sections of the standard or QS Regulation are listed.
- The users of this document should keep in mind that a quality management system is a set of interrelated processes. Since both the QS Regulation and ISO 13485:2016 require the organization to define the interrelationships of quality management system, the user should keep in mind that there may be additional linkages connections that an organization must consider as you define your quality management system.

The Key Considerations section discusses notable differences between the QS Regulation and ISO 13485:2016. This part also includes narrative relative to any systemic differences between the U.S. FDA QS Regulation and ISO 13485:2016, which may have impact beyond a specific section.

The second section of the TIR consists of two mapping tables: 21 CFR 820 to ISO 13485:2016; and ISO 13485:2016 to 21 CFR 820. The mapping is provided in two directions purposefully. When evaluating the two quality management systems, the full intent and similarities can only be determined by comparing in both directions. Therefore, both tables should be reviewed in their entirety.

An example of this is 21 CFR 820 supplier controls compared to ISO 13485:2016 outsourced suppliers and purchasing controls and the need for quality agreements. While there are no incongruities among the requirements for the quality management systems, there may be some verbiage or directed differences. This difference may not have been noticed reviewing the requirements in only one direction. The requirements of both the QS Regulation and ISO 13485:2016 require quality agreements and allow a risk-based approach to meet this requirement (i.e. contracts, purchase orders, drawings, or specifications). The requirements of both the QS Regulation and ISO 13485:2016 can be met with flexible risk-based solutions and fulfill the obligation of both quality management systems.

© 2019 Association for the Advancement of Medical Instrumentation = AAMI TIR102:2019