The Impact of the Updated FDA Quality Management System Regulation (QMSR)

ON MANUFACTURES OF MEDICAL DEVICES AND COMBINATION DEVICES; AND LABORATORY DEVELOPED TESTS (LDT).

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Introduction

It has been over 25 years since the last time the US FDA significantly amended the Quality System (QS) regulation (21 CFR part 820).

Published February 23, 2022, the FDA proposed amendments to the current Good Manufacturing Practice (cGMP) requirements of the Quality System (QS) regulations to incorporate by reference ISO 13485:2016 Medical devices – Quality management systems – Requirements for regulatory purposes.

On January 31, 2024, the Agency ruled to implement the proposed amendments, promulgating the Quality Management System Regulation (QMSR) in the Federal Register on February 2, 2024.

The QMSR is designed to align more closely with the international consensus standard for devices by converging with the quality management system (QMS) requirements used by international regulatory authorities. The implementation of the QMSR, presents a paradigm shift to approve or clear medical devices in the USA.

Rule Highlights

Withdraws most of the requirements in the current 21 CFR Part 820

- Retains the scope and several of the definitions from the current 21 CFR Part 820
- Amends the title to the Quality Management System Regulation (QMSR)

Incorporates by reference ISO 13485:2016

- Minimal called-out provisions to ensure consistency with other applicable FDA requirements
- Includes definitions, clarifying concepts, and requirements

Includes conforming edits to Part 4 (cGMPs for combination products)

- Does not have an impact on the CGMP requirements for combination products

Acknowledges that "ISO 13485 has a greater emphasis on risk management activities and risk-based decision making than the current part 820"

- The previous QMSR only addressed risk management in the risk analysis requirements within design validation in 21 CFR Part 820.30(g), however, risk management is far more integrated throughout ISO 13485.
- ISO 13485 places more emphasis on risk management throughout the entire life cycle of the device.
- While not required by FDA, the Agency strongly endorses the risk management guidelines in ISO 14971:2019.

Mapping of QMSR

The table below, published in the FDA guidance, outlines the similarities and differences between the previous QS Regulation and ISO 13485:2016 requirements:

PREVIOUS FDA QSR UNDER 21 CFR PART 820	REFERENCED SECTIONS OF ISO 13485:2016 APPLICABLE UNDER NEW QMSR
Subpart A - General Provisions	Clause 1 - Scope Clause 4 - Quality Management System
Subpart B - QS Requirements	Clause 4 - Quality Management System Clause 5 - Management Responsibility Clause 6 - Resource Management Clause 8 - Measurement, Analysis and Improvement
Subpart C - Design Controls	Clause 7 - Product Realization
Subpart D - Document Controls	Clause 4 - Quality Management System
Subpart E - Purchasing Controls	Clause 7 - Product Realization
Subpart F - Identification and Traceability	Clause 7 - Product Realization
Subpart G - Production and Process Controls	Clause 4 - Quality Management System Clause 6 - Resource Management Clause 7 - Product Realization
Subpart H - Acceptance Activities	Clause 7 - Product Realization Clause 8 - Measurement, Analysis and Improvement
Subpart I - Nonconforming Product	Clause 8 - Measurement, Analysis and Improvement

Mapping of QMSR Cont.

PREVIOUS FDA QSR UNDER 21 CFR PART 820	REFERENCED SECTIONS OF ISO 13485:2016 APPLICABLE UNDER NEW QMSR
Subpart J - Corrective and Preventive Action	Clause 8 - Measurement, Analysis and Improvement
Subpart K - Labeling and Packaging Control	Clause 7 - Product Realization
Subpart L - Handling, Storage, Distribution, and Installation	Clause 7 - Product Realization
Subpart M - Records	Clause 4 - Quality Management System
Subpart N - Servicing	Clause 7 - Product Realization
Subpart O - Statistical Techniques	Clause 7 - Product Realization Clause 8 - Measurement, Analysis and Improvement

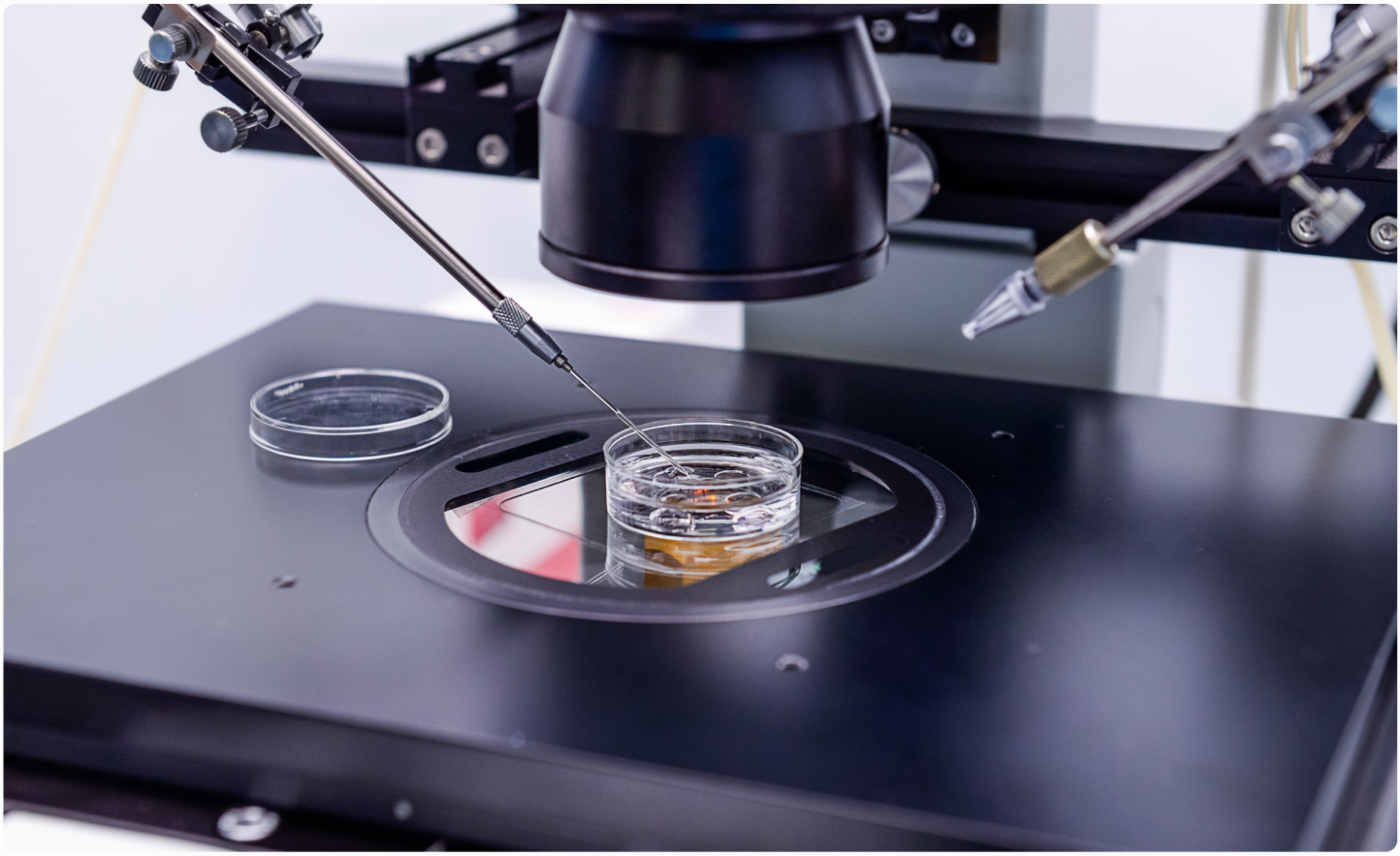
Many of the requirements are substantially similar, however, it is important to note that the FDA is adding several new sections on top of what is documented in ISO 13485:

- Section 820.7 - Incorporation by reference
- Section 820.10 - Requirements for a quality management system
- Section 820.15 - Clarification of concepts
- Section 820.35 - Control of records
- Section 820.45 - Device labeling and packaging controls

Impact on Laboratory Developed Tests (LDTs)

While the changes will have a significant impact on manufacturers of medical device and combination device products, clinical laboratories involved with the subset of in vitro diagnostic devices (IVDs) referred to as laboratory developed tests (LDTs) will likely be impacted by QMSR as well.

Published October 03, 2023, the FDA is proposing to amend 21 CFR Part 809 to make it explicit that IVDs are devices under the Federal Food, Drug, and Cosmetic Act (FD&C Act) including when the manufacturer of the IVD is a clinical laboratory. If approved, this change would force clinical laboratories to perform a mass overhaul of their regulatory operations.



Timelines

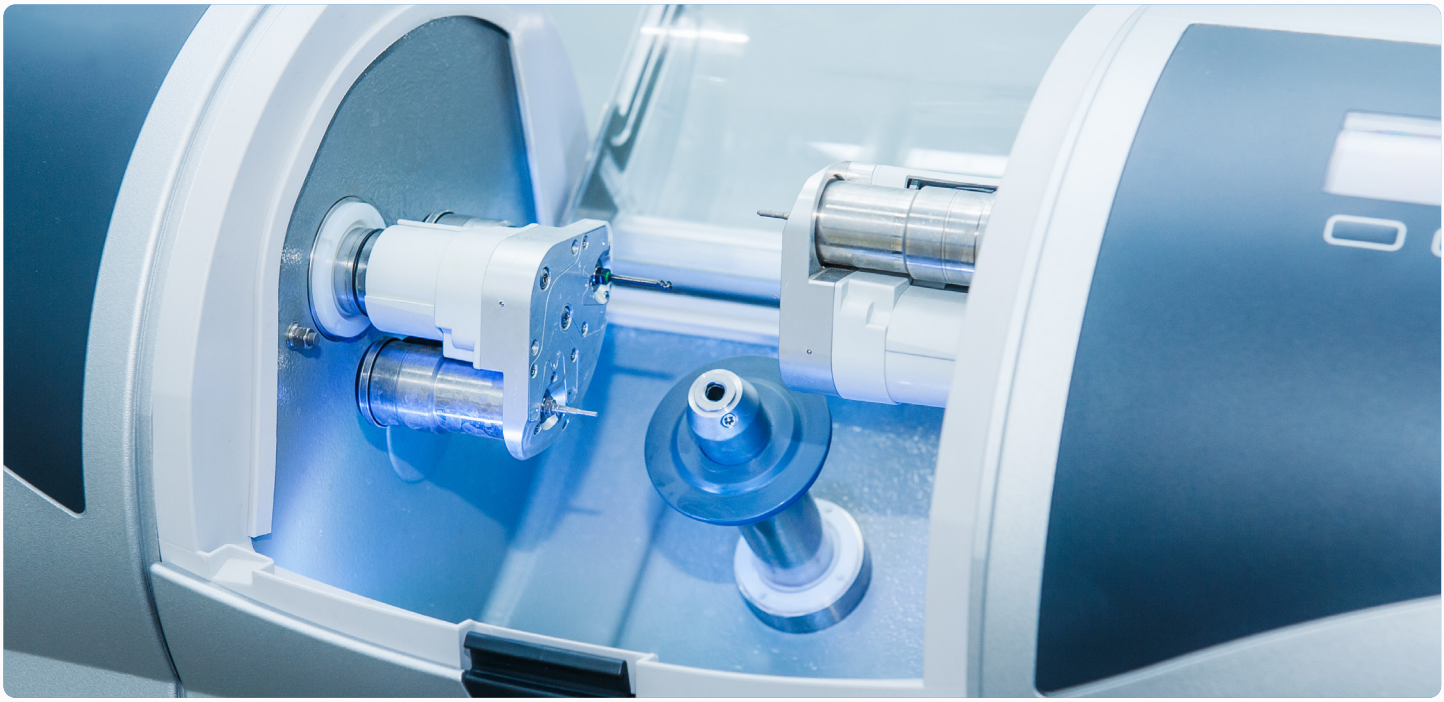
QMSR

The rule is effective two (2) years after publication in the Federal Registrar. FDA will begin to enforce the QMSR requirements upon the effective date, February 2, 2026.

LDT

If the rule and related LDT policy are finalized as proposed by April 2024, high-risk LDTs may be called in for pre-market review as early as October 1, 2027.

Subsequently, low-to-moderate risk LDTs may be called in for pre-market review as early as April 1, 2028.



Paths to QMSR Success

For Organizations Not ISO 13485:2016 Certified:

- Consider utilizing the expertise of a consulting group to perform a gap assessment and expedited remediation of your organization's quality management system.
- Although not required in the U.S., consider pursuing ISO 13485 certification as harmonization approaches. Conformance to the standard will also help when submitting your product for approval in the global market.

For ISO 13485:2016 Certified Organizations:

- While your organization is theoretically in better shape for QMSR compliance, your organization's quality management system will need to be revised to comply with the new definitions, Sections 820.7, 820.10, 820.15, 820.35, and 820.45, and to ensure that risk management principles span throughout the entire life cycle of your devices.
- Consider utilizing the expertise of a consulting group to perform a gap assessment and expedited remediation of your organization's quality management system.

Conclusion

In conclusion, the FDA's Quality Management System Regulation marks a significant paradigm shift in the approach to medical device regulation.

By adopting a risk-based approach to QMSR and continuing to harmonize quality management system requirements used by many other regulatory authorities around the world, the FDA aims to ensure that medical devices are safe, effective, and reliable. While the implementation of the new regulation may present challenges for manufacturers, it ultimately benefits patients by promoting the development of high-quality medical devices. As the FDA continues to refine and update its regulatory framework, it is essential for manufacturers to stay informed and proactive in their compliance efforts.

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For more resources on this topic, or to learn about solutions Azzur Group provides to organizations in the life science community, visit our website.

About the Author

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Mark has quality assurance and compliance expertise and also performs gap assessments and provides guidance to help clients succeed.

Mark has nearly 30 years of experience in the medical device, pharmaceutical, and biotechnology industries, working with companies that range from start-ups in pre-clinical phases to fully established entities. Leveraging his experience in GCP, GLP, GCLP, GMP, and GDP, he has helped organizations implement effective quality systems. He has also helped organizations address warning letters, consent decrees, and other regulatory actions.

His key medical device domains include IVDs, Class II, and III implantable grafts and stents, combination products including injectable drug devices, medical imaging devices and software, hematology, and urinalysis devices.

Mark received his Bachelor of Science in Biology from Benedictine University, his Master of Science in Medical Informatics from Northwestern University, is a Lean Six Sigma Green Belt, is an ASQ Certified Quality Auditor (CQA), is an ASQ Certified Medical Device Auditor (CMDA), and most recently, a graduate of the Executive Leadership Program at Oxford University – Saïd Business School.

References

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