Macedonian Pharmaceutical Bulletin, 72 (Suppl 1) 371 - 372 (2026)
Online ISSN: 1857-8969
DOI: 10.33320/maced.pharm.bull.2026.72.03.179
Short communication

Internal audits and the effectiveness of food safety and quality management systems

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Introduction

Food safety and quality management system (FSQMS) play a crucial role in ensuring that food products meet regulatory requirements and are safe for consumer use. With increasing complexity in production processes and supply chains, maintaining system control and effectiveness has become a significant challenge.

Internal audits represent a fundamental component of this system, enabling systematic and independent evaluation of processes, documentation, and compliance with established standards. In addition to verifying conformity, internal audits contribute to continuous improvement by identifying system weaknesses, process inefficiencies, and deviations that may affect product quality and safety.

Therefore, effective implementation of internal audits is essential for maintaining system reliability, supporting quality assurance activities, and ensuring the protection of consumer health.

Internal audit framework and frequency in food safety and quality management system

Within food safety and quality management system, internal audits are applied as a structured approach for evaluating compliance, identifying non-conformities and ensuring ongoing system effectiveness. They are integrated within the Integrated Management System (IMS) and closely connected with corrective and improvement actions (CAIA) and change control processes.

In practice, the food safety and quality management system (FSQMS) is systematically reviewed at least once per year through a comprehensive internal audit, ensuring full evaluation of all relevant processes and compliance with applicable standards and regulatory requirements, including ISO 22000:2018 (International Organization for Standardization ISO 22000:2018)

In addition to the annual internal audit of the FSQMS, prerequisite programs (PRPs) are verified more frequently in accordance with FSSC 22000. (Foundation FSSC, 2023).

In practice, PRPs are internally verified at least twice per year, based on a risk-based approach and internal audit planning, considering process criticality, previous audit findings, and system performance. This structured audit frequency, driven by risk assessment and operational priorities, ensures continuous monitoring of operational conditions and enables timely identification of potential deviations. As a result, it contributes to improved system control, early detection of risks, and enhanced effectiveness of the overall food safety quality management system.

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Internal audits in identifying non-conformities and supporting CAIA

Through systematic evaluation of documentation and operational activities, internal audits enable identification of non-conformities such as deviations, gaps in documentation, and inadequate process control. Audit findings support a structured root cause analysis process, leading to the implementation of corrective and improvement actions (CAIA), which are essential for minimizing risks and preventing recurrence of identified issues.

Practical experience from internal audit activities indicates that system deviations are often linked to gaps in process implementation and control. Systematic audit findings initiate root cause analysis and lead to targeted corrective and improvement actions, resulting in improved process consistency and reduced recurrence of similar issues.

Impact of internal audits on system performance and KPI achievement

The impact of internal audits is also reflected in system performance through defined quality objectives and key performance indicators (KPIs), such as production compliance, product quality targets and reduction of non-conformities. Consistent audit implementation supports the achievement of these objectives and ensures a high level of system reliability. Overall, structured internal audit programs enhance process control, improve system performance and increase organizational readiness for external audits and regulatory inspections.

Altogether, the integration of risk-based internal auditing with systematic monitoring of key performance indicators provides a robust framework for proactive quality management, ensuring sustained system effectiveness and long-term compliance with food safety standards.

Conclusion

Internal audits represent a key mechanism for ensuring the effectiveness of food safety and quality management system. Through systematic evaluation of processes, identification of non-conformities, and implementation of corrective and improvement actions (CAIA), they contribute to maintaining compliance, improving system performance, and reducing potential risks. By supporting continuous improvement and evidence-based decision-making, internal audits strengthen quality assurance practices, and ensure consistent production of safe and high-quality food products. Furthermore, the application of risk-based audit approaches, combined with regular monitoring of key performance indicators, enables early detection of system weaknesses and supports proactive management of food safety risks.

In addition, internal audits enhance communication and coordination across organizational units by providing structured feedback and clear insights into system performance. This facilitates better understanding of process interdependencies and promotes a culture of quality and accountability within the organization.

The continuous cycle of audit evaluation, analysis as well as corrective and improvement actions ensures that the system remains dynamic, adaptable, and aligned with evolving regulatory requirements and industry expectations. Over time, this contributes to increased process stability, improved operational efficiency, and reduced variability in product quality.

References

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