

ADVANCING QUALITY CARE: A COMPREHENSIVE REVIEW OF SURGICAL AUDIT PRACTICES

¹*Dr. Kiran Kulkarni and ²Dr. Sharad Kumar Salunkhe

¹Final Year PG Scholar in Shalya Tantra Department, G.D Pol Foundation YMT Ayurvedic Medical College and Hospital.

²Associate Professor in Shalya Tantra Department, G.D Pol Foundation YMT Ayurvedic Medical College and Hospital.

Article Received on
20 March 2024,

Revised on 10 April 2024,
Accepted on 30 April 2024

DOI: 10.20959/wjpr20249-32294



*Corresponding Author

Dr. Kiran Kulkarni

Final Year PG Scholar in
Shalya Tantra Department,
G.D pol Foundation YMT
Ayurvedic Medical College
and Hospital.

ABSTRACT

Advancing Quality Care: A Comprehensive Review of Surgical Audit Practices" offers a meticulous exploration of the role and significance of surgical audit in enhancing healthcare quality. This review underscores the pivotal role of surgical audit as an unbiased, systematic, and critical analysis of surgical care quality, conducted against recognized standards. With a focus on continuous improvement, the article delineates the aims of surgical audit, including identifying opportunities for enhancing patient care, supporting surgeon education, and optimizing resource allocation. Through a blend of empirical evidence and expert insights, the review elucidates the multifaceted benefits of surgical audit, ranging from improved patient outcomes to systemic enhancements within healthcare systems. Additionally, the abstract highlights the distinction between surgical audit, clinical review, and research endeavors, emphasizing the holistic nature of surgical audit as a catalyst for

advancing quality care. Overall, this review serves as a comprehensive resource for healthcare professionals seeking to leverage surgical audit practices for continual quality enhancement.

KEYWORDS: Surgical Audit, Quality Care, Comprehensive Review, Practices, Advancing.

INTRODUCTION

In the relentless pursuit of excellence within healthcare, the concept of quality care stands as

a fundamental pillar, driving efforts to optimize patient outcomes and enhance overall healthcare delivery. Central to this endeavor is the practice of surgical audit, a systematic and critical analysis of surgical care quality against established benchmarks and standards. As healthcare systems worldwide grapple with the complexities of modern medical practice, the importance of surgical audit in fostering a culture of accountability, continuous improvement, and patient-centered care cannot be overstated.^[1]

The article titled "Advancing Quality Care: A Comprehensive Review of Surgical Audit Practices" embarks on a journey to dissect the intricacies of surgical audit and its profound impact on healthcare quality. Through a comprehensive examination of empirical evidence, expert insights, and best practices, this review endeavors to elucidate the multifaceted nature of surgical audit and its role in shaping the future of healthcare.

At its core, surgical audit represents an unbiased and systematic approach to evaluating the quality of surgical care delivery. By subjecting clinical activities and outcomes to rigorous scrutiny, surgical audit enables healthcare professionals to identify areas for improvement, refine surgical practices, and ultimately elevate the standard of care provided to patients. Moreover, surgical audit serves as a catalyst for continuous learning and professional development, empowering surgeons to stay abreast of evolving clinical paradigms and technological advancements.^[2]

NEED OF STUDY

Understanding the need for surgical audit practices is essential for optimizing patient care, enhancing surgeon education, and improving resource allocation within healthcare systems.

MATERIALS AND METHODS

1. What is surgical audit?^[3]

- Surgical audit involves an impartial, systematic, and critical analysis of surgical care quality.
- Reviewed by peers against explicit criteria or recognized standards.
- Aims to ensure actual outcomes align with perceived practices and meet existing standards.

2. Aims of surgical audit

- Identify ways to improve and maintain patient care quality.

- Assist in ongoing surgeon education.
- Optimize resource utilization for surgical services provision.

3. Why conduct a surgical audit?

- It serves as a quality improvement and educational activity.
- Helps participants analyze performance and plan effective responses to enhance surgical outcomes.
- Improves patient care and outcomes.
- Offers various educational opportunities for surgeons.

4. Key benefits of surgical audit

- Enhances collaboration and modifies approaches to clinical problems.
- Supports the development of required standards of care.
- Provides opportunities for systemic improvements in healthcare systems.

5. What does a surgical audit involve?

- Collection and measurement of clinical activities and outcomes.
- Analysis and comparison against standards and performance indicators.
- Peer review process with feedback mechanisms to address issues.

6. Differentiating surgical audit from clinical review and research

- Surgical audit compares against recognized standards to improve care quality.
- Clinical review focuses on detailed case presentations for educational objectives.
- Research generates new knowledge, whereas audit and review enhance existing practices.

Types of Surgical audit^[4]

1. Hospital Surgical Quality Audit

- This audit assesses the overall quality of surgical care provided within a hospital setting.
- It evaluates factors such as infrastructure, surgical equipment, infection control measures, staffing levels, and adherence to best practices and guidelines.
- The audit aims to identify areas for improvement at the hospital level to enhance patient safety and outcomes.

2. Hospital Infection Control Audit

- This audit specifically focuses on evaluating the effectiveness of infection control measures within the surgical department of a hospital.

- It examines practices related to sterilization, aseptic techniques, surgical site preparation, and post-operative infection surveillance.
- The goal is to minimize the risk of surgical site infections and other healthcare-associated infections among surgical patients.

3. Surgeon Surgical Performance Audit

- This audit assesses the performance of individual surgeons or surgical teams within a hospital.
- It evaluates factors such as surgical outcomes, complication rates, patient satisfaction, and adherence to clinical guidelines.
- The audit aims to identify areas for improvement in the surgical practice of individual doctors and provide feedback for professional development.

4. Surgical Mortality and Morbidity Audit

- This audit focuses on analyzing surgical mortality and morbidity rates within a hospital.
- It examines factors contributing to adverse outcomes, such as surgical complications, anesthesia-related events, and post-operative care issues.
- The audit aims to identify opportunities for quality improvement in patient care and safety practices.

5. Surgical Equipment and Instrument Audit

- This audit evaluates the availability, functionality, and maintenance of surgical equipment and instruments within a hospital.
- It ensures that surgical instruments are properly sterilized, calibrated, and in good working condition to support safe and effective surgical procedures.
- The audit aims to prevent equipment-related errors and ensure the smooth functioning of surgical services.

6. Surgical Process Adherence Audit

- This audit assesses the adherence of surgical teams to standardized processes and protocols during various stages of patient care.
- It includes pre-operative assessment, intraoperative practices, post-operative care, and documentation procedures.
- The audit aims to promote consistency and reliability in surgical care delivery and minimize deviations from established protocols.

These types of surgical audits play a crucial role in monitoring and improving the quality of surgical care provided by hospitals and doctors in India, ultimately leading to better patient outcomes and safety.

Who conduct Surgical audit^[5]

In India, the authority to conduct surgical audits of hospitals and surgeons can vary depending on several factors, including regulatory requirements, institutional policies, and accreditation standards. Generally, the following entities or stakeholders may have the authority to perform surgical audits:

1. Hospital Management/Administration

- Hospital management or administration typically holds responsibility for ensuring the quality and safety of healthcare services provided within the facility.
- They may establish internal audit committees or quality assurance teams tasked with conducting surgical audits to assess hospital performance and compliance with standards.

2. Medical Councils and Regulatory Bodies

- Medical councils and regulatory bodies, such as the Medical Council of India (MCI) or state medical councils, play a role in overseeing the practice of medicine and ensuring adherence to ethical and professional standards.
- These bodies may mandate hospitals and individual practitioners to undergo periodic audits or assessments to evaluate the quality of surgical care and maintain licensure or accreditation.

3. Healthcare Accreditation Organizations

- Accreditation organizations, such as the National Accreditation Board for Hospitals & Healthcare Providers (NABH) or the Joint Commission International (JCI), provide accreditation programs that assess the quality and safety of healthcare facilities.
- These organizations may require hospitals to undergo comprehensive audits, including surgical audits, as part of the accreditation process to demonstrate adherence to standards and best practices.

4. Professional Associations and Societies

- Professional associations and societies representing surgeons and other healthcare professionals may develop guidelines and recommendations for conducting surgical audits.

- They may offer educational resources, training programs, and peer review processes to support surgical audit initiatives and professional development.

5. Government Health Departments and Agencies

- Government health departments and agencies at the national, state, or local levels may establish regulations, guidelines, or initiatives aimed at promoting quality improvement and patient safety in healthcare settings.
- These entities may conduct audits or inspections of hospitals and surgeons to monitor compliance with regulatory requirements and ensure the delivery of high-quality surgical care.

Overall, the authority to conduct surgical audits of hospitals and surgeons in India may be shared among various stakeholders, including hospital management, regulatory bodies, accreditation organizations, professional associations, and government agencies, each playing a role in promoting quality assurance and patient safety in surgical practice.

Phases of Surgical audit^[6]

The phases of a surgical audit typically involve several sequential steps, each aimed at assessing different aspects of surgical care quality and performance evaluation. Here are the common phases:

1. Planning Phase

- **Define objectives:** Clearly establish the goals and objectives of the surgical audit, including areas of focus, outcomes to be measured, and criteria for evaluation.
- **Establish audit team:** Formulate a multidisciplinary team comprising surgeons, nurses, quality improvement specialists, and other relevant stakeholders to oversee the audit process.
- **Develop audit protocol:** Create a standardized protocol outlining the methods, tools, and procedures to be used during the audit, including data collection methods, timelines, and responsibilities.

2. Data Collection Phase

- **Gather relevant data:** Collect data related to surgical procedures, patient demographics, clinical outcomes, complication rates, and adherence to protocols from medical records, surgical logs, and other sources.
- **Ensure data accuracy:** Verify the accuracy and completeness of the collected data to

ensure its reliability for analysis and decision-making purposes.

3. Analysis Phase

- **Analyze collected data:** Utilize statistical methods and data analysis techniques to examine trends, patterns, and discrepancies in surgical care quality indicators.
- **Compare against standards:** Compare audit findings against established benchmarks, clinical guidelines, quality metrics, and regulatory requirements to assess compliance and identify areas for improvement.
- **Identify root causes:** Identify underlying factors contributing to performance gaps, adverse outcomes, or deviations from standards through root cause analysis and qualitative assessment.

4. Reporting Phase

- **Prepare audit report:** Compile audit findings, observations, and recommendations into a comprehensive report format suitable for presentation to Concern Authority
- **Communicate results:** Present audit findings and recommendations to relevant stakeholders, including hospital administrators, surgical teams, quality improvement committees, and regulatory authorities.
- **Solicit feedback:** Encourage open dialogue and feedback from stakeholders to foster transparency, accountability, and buy-in for implementing audit recommendations.

5. Action Planning and Implementation Phase

- **Develop action plan:** Collaborate with stakeholders to develop an action plan outlining specific interventions, strategies, and timelines for addressing identified issues and improving surgical care quality.
- **Implement improvements:** Execute the action plan by implementing changes in clinical practice, protocols, training programs, infrastructure enhancements, or quality assurance initiatives as needed.
- **Monitor progress:** Monitor the implementation of improvement initiatives, track performance metrics, and evaluate outcomes to ensure sustained improvements in surgical care quality over time.

6. Follow-up and Evaluation Phase

- **Conduct follow-up audits:** Periodically conduct follow-up audits to assess the effectiveness of implemented interventions, monitor progress towards improvement

goals, and identify any new areas for focus.

- **Evaluate impact:** Evaluate the impact of audit-driven interventions on patient outcomes, surgical team performance, resource utilization, and overall hospital quality metrics.
- **Continuous improvement:** Continuously review and refine audit processes, methodologies, and quality improvement strategies based on feedback, lessons learned, and evolving best practices to support ongoing quality improvement efforts.

Surgical Audit team

The composition of a surgical audit team can vary depending on the size and complexity of the healthcare facility, the scope of the audit, and specific institutional requirements. However, a multidisciplinary approach is typically recommended to ensure comprehensive coverage of different aspects of surgical care quality and performance evaluation.

A typical surgical audit team may include the following members

1. **Surgeons:** Surgeons play a central role in the audit process, providing expertise on surgical procedures, clinical standards, and patient care practices.
2. **Nurses:** Operating room nurses or perioperative nurses contribute valuable insights into pre-operative, intra-operative, and post-operative care practices, as well as infection control measures.
3. **Anesthesiologists:** Anesthesiologists provide expertise in perioperative care, anesthesia management, and patient safety during surgical procedures.
4. **Quality Improvement Specialists:** Quality improvement specialists or healthcare quality professionals bring expertise in data analysis, quality metrics, and improvement methodologies to the audit team.
5. **Hospital Administrators:** Hospital administrators or healthcare managers provide leadership, administrative support, and resources to facilitate the audit process and implementation of improvement initiatives.
6. **Clinical Support Staff:** Additional clinical support staff, such as pharmacists, laboratory technicians, or infection control practitioners, may be involved based on the specific focus areas of the audit.
7. **Patient Representatives:** In some cases, patient representatives or advocates may participate in the audit process to provide perspectives on patient experiences, preferences, and needs.
8. **External Consultants:** Depending on the complexity of the audit or the need for

specialized expertise, external consultants or subject matter experts may be enlisted to provide guidance, training, or support to the audit team.

Advantages and disadvantages of surgical audit^[7]

Advantages

1. **Enhanced Patient Safety:** Surgical audit helps identify areas for improvement in surgical practices, leading to enhanced patient safety through the reduction of adverse events and complications during surgical procedures.
2. **Improved Clinical Outcomes:** By identifying best practices and implementing quality improvement initiatives, surgical audit contributes to improved clinical outcomes, such as reduced mortality rates, lower complication rates, and better patient recovery.
3. **Quality Assurance:** Surgical audit ensures that surgical care meets established standards, guidelines, and regulatory requirements, promoting consistency and reliability in the delivery of surgical services.
4. **Professional Development:** Participation in surgical audit provides valuable opportunities for professional development and continuous learning among surgical teams, fostering a culture of accountability, collaboration, and lifelong learning.
5. **Resource Optimization:** Surgical audit helps healthcare facilities allocate resources more effectively by identifying inefficiencies, streamlining processes, and optimizing resource utilization, thereby improving operational efficiency and cost-effectiveness.

Disadvantages

1. **Resource Intensive:** Conducting comprehensive surgical audits requires significant time, personnel, and financial resources, which can be challenging for healthcare facilities to allocate, particularly in resource-constrained environments.
2. **Resistance to Change:** Implementing audit-driven changes in clinical practice may face resistance from surgical teams or healthcare professionals accustomed to existing routines or practices, hindering the adoption of improvement initiatives.
3. **Data Collection Challenges:** Collecting accurate and reliable data for surgical audits can be challenging, particularly in healthcare environments with limited electronic health record systems or standardized data collection protocols, affecting the accuracy and completeness of audit findings.
4. **Complex Analysis:** Analyzing audit data and drawing meaningful conclusions may be complex, particularly when dealing with large datasets or multifaceted surgical

procedures, requiring expertise in data analysis and statistical methods.

- 5. Risk of Blame Culture:** Surgical audits may inadvertently foster a culture of blame or finger-pointing, where individuals or teams are unfairly criticized or penalized for adverse outcomes, undermining morale and teamwork within the surgical department.

CONCLUSION

In conclusion, the surgical audit stands as a powerful tool for evaluating, improving, and ensuring the quality and safety of surgical care. Through its systematic and unbiased analysis of surgical practices, outcomes, and adherence to standards, the surgical audit enables healthcare organizations to identify areas for enhancement, implement targeted interventions, and drive continuous improvement in patient care delivery.

As demonstrated throughout this study, the benefits of surgical audit are manifold, encompassing improved patient safety, enhanced clinical outcomes, resource optimization, and professional development for surgical teams. Despite encountering challenges such as resource intensity and resistance to change, the advantages of surgical audit far outweigh its drawbacks when approached with diligence, collaboration, and a commitment to excellence.

Moving forward, it is imperative for healthcare organizations to embrace the principles of surgical audit as a cornerstone of quality assurance and performance improvement initiatives. By fostering a culture of transparency, accountability, and continuous learning, surgical audits have the potential to revolutionize surgical practice, elevate patient care standards, and ultimately enhance the overall healthcare experience for patients worldwide.

REFERENCES

1. Abu-Jeyyab M, Al-Jafari M, El Din Moawad MH, Alrosan S, Al Mse'adeen M. The Role of Clinical Audits in Advancing Quality and Safety in Healthcare Services: A Multiproject Analysis from a Jordanian Hospital. *Cureus*, Feb. 23, 2024; 16(2): e54764. doi: 10.7759/cureus.54764. PMID: 38523943; PMCID: PMC10961103.
2. Davies MG, Shine MF, Lennon F. Surgical audit under scrutiny--a prospective study. *Ir J Med Sci.*, Oct. 1991; 160(10): 299-302. doi: 10.1007/BF02957856. PMID: 1810892.
3. Surgical Audit and Peer Review [Internet]. [cited 2024 Apr 23]. Available from: https://www.surgeons.org/-/media/Project/RACS/surgeons-org/files/reports-guidelines-publications/manuals-guidelines/GDL-3110_Surgical_Audit_and_Peer_Review.pdf?rev=59db6046a3fa4a2c8c18cf3a04cffe4

0&hash=8A78593FBB057A72C50D732AE806A56B#:~:text=Surgical%20audit%20is%20a%20systematic

4. Surgical Audit & Research [Internet]. SlideShare. 2021 [cited 2024 Apr 23]. Available from: <https://www.slideshare.net/slideshow/surgical-audit-research/249951611>
5. SURGICAL AUDIT & PEER REVIEW Guide to Surgical Audit and Peer Review - Continuing Professional Development -2 [Internet]. [cited 2024 Apr 23]. Available from: <https://ranzco.edu/wp-content/uploads/2019/07/GUIDE-Surgical-Audit-and-Peer-Review.pdf>
6. Surgical Audit [Internet]. SlideShare. 2015 [cited 2024 Apr 23]. Available from: <https://www.slideshare.net/akinbodeog/surgical-audit-55109683>
7. Nundy S, Kakar A, Bhutta ZA. Clinical Audit. How to Practice Academic Medicine and Publish from Developing Countries? [Internet], Oct. 24, 2021; 441–7. Available from: https://link.springer.com/chapter/10.1007/978-981-16-5248-6_46