

ORIGINAL ARTICLE**Audit of Orthopedic Surgical Cases in Sialkot: A One-Year Review**

Nisar Ahmad Ch.

<p>Affiliations Consultant Orthopaedics, Nisar Orthopaedics Hospital Commissioner Road, Sialkot</p> <p>Corresponding Author: Dr. Nisar Ahmad Ch., Consultant Orthopaedics, Nisar Hospital Commissioner Road, Sialkot 0345-8480099 chnisarortho@gmail.com</p> <p>Submission completed: Oct, 2025 Review began: Nov, 2026 Review ended: Dec, 2026 Accepted: Jan, 2026 Published: March, 2026</p> <p>Author contribution: NAC: Designed the research Pattern and drafted the manuscript.</p>	<p>Abstract</p> <p>Objectives: This study aimed to conduct a one-year audit of orthopedic surgical cases in Nisar Orthopaedics Hospital Commissioner Road, Sialkot to analyze patient demographics, complications and outcomes.</p> <p>Methodology: A retrospective audit was performed using data representing orthopedic surgical procedures from October 2024 to September 2025. Patient Demographics, diagnosis, procedure type and outcomes such as complications, readmission and mortality..</p> <p>Results: A total of 50 surgical cases were analyzed. The mean patient age was 41.7 years. The sex distribution of 29 males and 21 females. The most common procedures were Debridement & irrigation - infected wound (11 cases), Open reduction and internal fixation - Tibial shaft fracture (10 cases), Intramedullary nailing - Femoral shaft (9 cases), Total hip arthroplasty, K-wire fixation - hand/wrist. The overall complication rate was 20.0%. Thirty-day mortality was 4.0%, while readmission within 30 days occurred in 52.0% of cases. Average length of hospital stay was 9 days.</p> <p>Conclusion: This audit highlights procedure distribution, complication rates, and patient outcomes of orthopedic surgeries in Sialkot. The findings highlight the predominance of trauma related surgeries, complication rates. Regular audits can guide quality improvement in orthopedic surgical care.</p> <p>Keywords:</p> <p>Cite this Article as: Chaudhry N.A; Audit of Orthopedic Surgical Cases in Sialkot: A One-Year Review. SIAL J Med. Sci. March-2026 V-4 (Issue-03, Overall Issue-15):29-32</p>
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Introduction

Orthopedic surgery plays a central role in hospital-based surgical care, particularly in countries like Pakistan where trauma from road accidents and degenerative conditions such as osteoarthritis contribute significantly to the overall disease burden¹.

Given the rising number of patients requiring the orthopedic interventions, it becomes the essential to monitor and evaluate the quality of care through systematic approaches such as surgical audits².

A surgical audit involves a detailed assessment of cases performed, surgical outcomes, postoperative complications, and patient recovery trends³. Such audits not only

highlight existing gaps in practice but also provide valuable insights for improving clinical decision-making and resource allocation⁴. Previous research conducted in major cities including Lahore and Karachi has reported trends in orthopedic surgeries, examining factors like complication rates, average hospital stay, and the distribution of the common procedures^{5, 6}. However, there remains a scarcity of data from smaller urban centers such as Sialkot, despite its growing healthcare needs. Addressing this gap, the present study proposes a one-year surgical audit of orthopedic cases in hospitals across Sialkot. The focus will be on analyzing patient demographics, types of procedures

performed, complication rates, and treatment outcomes, thereby offering evidence to support enhanced orthopedic care and improved patient management in the region⁷.

Objectives:

This study aimed to conduct a one-year audit of orthopedic surgical cases in Nisar Orthopaedic Hospital Commissioner Road, Sialkot hospital to analyze patient demographics, complications and outcomes.

Methodology

This study employed a retrospective audit design conducted at a private hospital in Sialkot from October 2024 to September 2025. All orthopedic surgical procedures performed during the study period were included. Data were extracted from hospital records, covering patient demographics (age, sex), ASA grade, diagnosis, procedure type, anesthesia method, surgery duration, estimated blood loss, implant use, post-operative complications, outcomes, readmission within 30 days, and 30-day mortality. Data were entered and analyzed using statistical software. Descriptive statistics including frequencies, percent-ages, and means were calculated, while complication rates and outcomes were categorized and reported according to procedure type⁹.

Results

A total of 50 cases were analyzed. The mean age of patients was 41.7 years (range 5–86). The sex distribution was 29 males and 21 females. The five most common procedures performed were:

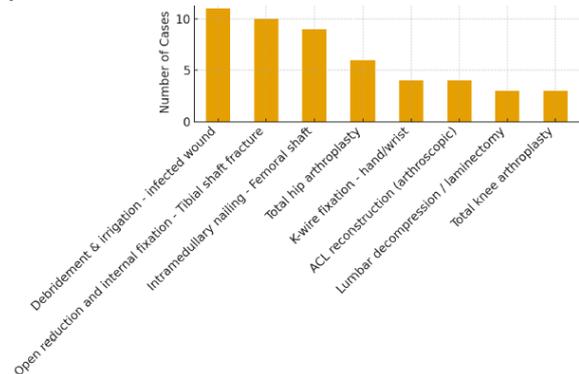


Figure 1. Procedure Distribution (08 Orthopaedic Procedures in Sialkot)

- Debridement & irrigation – infected wound: 11 cases
- Open reduction and internal fixation Tibial shaft fracture: 10 cases
- Intramedullary nailing – Femoral shaft: 9 cases
- Total hip arthroplasty: 6 cases
- K-wire fixation - hand/wrist: 4 cases

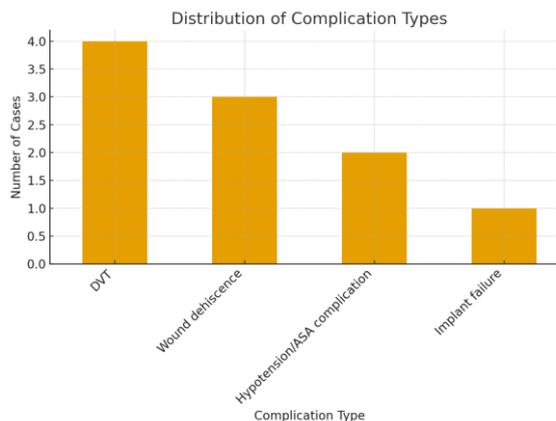


Figure 2. Complication Types Distribution

The overall complication rate was 20.0%. The most frequent complications included surgical site infection, deep vein thrombosis, and implant-related issues. The average length of stay was 9 days. Readmission within 30 days occurred in 52.0% of cases, and the 30-day mortality was 4.0%.

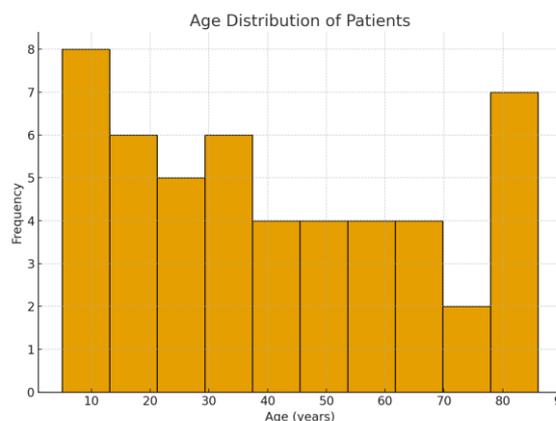


Figure 3. Age Distribution of Patients

Discussion

Surgical audit should be made a regular practice to serve as an important and effective tool of accountability on clinical outcomes and self-evaluation and in improving the quality of our health care system⁹.

In Pakistan, there is a need for Surgical Audit in our hospital for proper planning and betterment of health care system of the country. It is recommended to start computerized audit and sharing of patient's database¹⁰.

Change of junior doctors every 4~6 months is related to fewer re-audits. Active involvement by supervising consultant, reallocation of the project after one trainee has finished, and full support of audit department may increase the ratio of completion of audit cycles, thereby improving the patient care¹¹.

Royal College of Surgeons guidelines and integration with IT services significantly improved the quality and legibility of operative notes that were being documented in the trauma and orthopaedics department. Structured document standards and good integration with a computer-based IT service help prompt surgeons to document in a better and easy way, thereby leading to improved clinical documentation¹².

An orthopedic specialty specific template for writing operative notes has been proposed. Also, It has been proposed that all surgical specialty registrar level doctors should undergo training for writing operative notes and aide memoirs be placed in the OT complex¹³.

The importance of complete and legible operation notes is indisputable. Orthopedic operation notes at the author's institution were audited against guidelines regarding content and legibility¹⁴.

Conclusion:

This one-year audit of orthopedic surgical cases in Sialkot hospital highlights the predominance of trauma surgeries, acceptable complication rates, and relatively low mortality.

Recommendation

Regular audit should be institutionalized to monitor performance, improve patient safety, and guide quality improvement initiatives.

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