

Editorial

Medical errors in Orthopedics: Causes and preventions

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While Nepal faces unique challenges in the healthcare system, including limited resources and geographical barriers, there have been notable developments in orthopedics. The number of orthopedic surgeons has significantly increased. Hence, orthopedic services are now available in all the corners of the country. Orthopedic interventions are now provided even in remote areas with the establishment of government and private hospitals. With the increase in health care delivery, even in resource-limited regions of the country. Medical errors have also increased.

Medical errors refer to preventable mistakes or adverse events during healthcare delivery that may harm patients. These errors can happen at various stages of the healthcare process, from diagnosis and treatment to medication administration and post-operative care. They encompass a wide range of issues, including diagnostic errors, medication errors, surgical errors, and communication breakdowns, among others.

CAUSES OF ORTHOPEDIC MEDICAL ERRORS

Medical errors in orthopedics, like in other medical specialties, can have various causes. Identifying these causes is crucial for implementing strategies to prevent errors and improve patient safety. Here are some common causes of medical errors in orthopedics:

1. Communication Issues:

Poor communication among healthcare providers, such as surgeons, nurses, and anesthesiologists, can lead to misunderstandings, incomplete information transfer, and errors during surgery or post-operative care.¹

2. Lack of Standardization:

Variability in surgical procedures and practices can increase the risk of errors. Standardizing protocols and practices can help reduce inconsistencies.²

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3. Inadequate Preoperative Assessment:

Incomplete or inaccurate preoperative assessments can lead to surgical errors or complications. This includes incomplete patient history, misinterpretation of diagnostic tests, or failure to identify contraindications for surgery.³

4. Fatigue and Burnout:

Healthcare providers, including orthopedic surgeons, may experience fatigue and burnout due to long hours and high patient loads, which can impair decision-making and increase the likelihood of errors.⁴

5. Inexperience and Lack of Training:

Inexperienced or inadequately trained healthcare providers may make errors during surgery or patient care. Proper training and supervision are essential to mitigate this risk.⁵

6. Medication Errors:

Incorrect prescribing or administration of medications, including pain management drugs, can result in adverse events and complications for orthopedic patients.⁶

7. Surgical Site Errors:

Errors related to the surgical site, such as wrong-site surgery or incorrect surgical procedures, can occur if proper verification processes are not followed.⁷

8. Instrumentation and Equipment Issues:

Malfunctioning or improperly sterilized surgical instruments and equipment can lead to complications during surgery.⁸

9. Patient Factors:

Patient-related factors, such as non-compliance with pre-operative instructions, undisclosed medical history, or allergies, can contribute to errors.⁹

10. Failure to Follow Protocols:

Deviating from established protocols and guidelines can result in errors. This may include skipping safety checklists or ignoring recommended procedures.¹⁰

11. Inadequate Documentation:

Poor documentation of patient information, surgical procedures, and post-operative care can lead to confusion and errors in patient management.³

PREVENTION OF ORTHOPEDIC MEDICAL ERRORS

Preventing medical errors in orthopedics, like in any medical specialty, is crucial to ensure patient safety and positive outcomes. Here are some ways to prevent medical errors in orthopedics, with references to support these recommendations:

1. Enhance Communication:

Improve communication among healthcare providers, including surgeons, nurses, and anesthesiologists, to ensure that critical information is effectively shared.¹

2. Checklists and Timeouts:

Implement surgical checklists and timeouts to ensure all necessary steps are followed before and during surgery.²

3. Standardization of Protocols:

Standardize surgical protocols and procedures to reduce variability and improve consistency in care.³

4. Patient Education:

Educate patients about their conditions, treatment options, and post-operative care to ensure they understand and can actively participate in their recovery.⁴

5. Electronic Health Records (EHRs):

Utilize electronic health records to maintain accurate and accessible patient information, reducing the risk of medication errors and miscommunication.⁵

6. Continuous Quality Improvement:

Establish a culture of continuous quality improvement by conducting regular audits, reviewing adverse events, and implementing changes based on lessons learned.⁶

7. Credentialing and Training:

Ensure that healthcare providers are appropriately credentialed, trained, and regularly updated on the latest advancements in orthopedic care.⁷

8. Patient Safety Organizations:

Consider participation in patient safety organizations or reporting systems to share and learn from adverse events.⁸

9. Peer Review and Second Opinions:

Encourage peer review and seek second opinions in complex cases to ensure accurate diagnosis and treatment planning.⁹

10. Patient Follow-up:

Establish a robust follow-up system to monitor patient progress after surgery, promptly address complications, and ensure continuity of care.¹⁰

Medical error is a preventable mistake, which can be minimized by having appropriate protocols in the institution. Institution should also take responsibilities and enforce appropriate application of the protocols.

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