# EVALUATION OF NURSING PRACTICES RELATED TO INJECTION SAFETY

Mareae. A. Alihayni<sup>1</sup>, Salha. H. Alkenani<sup>2</sup>, Jawharah. S. Alzubaidi<sup>3</sup>, Fatemh. A. A. Alsafry<sup>4</sup>, Wedyan. A. Takroni<sup>5</sup>, Fatmah. A. Shook<sup>6</sup>, Ahmed. A. Albarakati<sup>7</sup>, Bander. G. S. Alzahrani<sup>8</sup>, Budoorna. N. Alharbi<sup>9</sup>, Atallah. R. F. Alanazi<sup>10</sup>, Rizq. A. M. A. Alzahrani<sup>11</sup>, Shahwan. M. S. Alzahrani<sup>12</sup>, Abdulaziz. K. J. Alzahrani<sup>13</sup>, Ibrahim. H. M. Alsuhaimi<sup>14</sup>, Ahmed. A. A. Alghamdi<sup>15</sup>, Shaker. A. M. Alghamdi <sup>16</sup>, Mohammed. H. Alsuhaymi<sup>17</sup>, Ahmed. S. Mohammed<sup>18</sup>, Mitebah. M. S. AlZahrani<sup>19</sup>, Mohammad. M. S. Alzahrani<sup>20</sup>, Tariq. S. D. Al ghamdi<sup>21</sup>, Rahma. I. A. Bahkali<sup>22</sup>, Mohammed. S. Alharbi<sup>23</sup>, Mashhour. S. F. Alharthi<sup>24</sup>, Reyof. A. Almalki<sup>25</sup>, Mohammad. O. Al-Asiri<sup>26</sup>.

#### **Abstract:**

The purpose of this study was to evaluate nurses' practices related to injection safety in a healthcare setting. Injection safety is critical to preventing infection and ensuring patient safety. Assessing nurses' compliance with injection safety practices can help identify gaps and initiate improvements. The study used a cross-sectional design and collected data through questionnaires and direct observation. The sample consisted of nurses working in different clinical areas of the healthcare facility. Data analysis included descriptive statistics and correlation analysis. Results identified strengths and weaknesses of nursing practices related to injection safety. Recommendations are made to improve compliance with injection safety practices, including targeted education, improving the availability of supplies, and creating a culture of safety within the organization. This study highlights the importance of ongoing assessment and continuous improvement of nurse injection safety practices.

Keywords: Humanistic Care, Nursing, Research Progress

\*Corresponding author: Mareae. A. Alihayni

\*Ministry of health-Health cluster in Makkah-Saudi Arabia

**DOI:** 10.53555/ecb/2022.11.12.371

<sup>&</sup>lt;sup>1-5</sup>\*Ministry of health-Health cluster in Makkah-Saudi Arabia

<sup>&</sup>lt;sup>6-8</sup>Ministry of health-Health cluster in Jeddah-Saudi Arabia

<sup>&</sup>lt;sup>9-10</sup>Ministry of health-Health cluster in Al-Qassim-Saudi Arabia

<sup>&</sup>lt;sup>11-21</sup>Ministry of health-Health cluster in Al-Baha-Saudi Arabia

<sup>&</sup>lt;sup>22\*</sup>Ministry of health-Health cluster in Jazan-Saudi Arabia

<sup>&</sup>lt;sup>23\*</sup>Ministry of health-Health cluster in Jeddah-Saudi Arabia

<sup>&</sup>lt;sup>26\*</sup>Ministry of health-Health cluster in Taif-Saudi Arabia

<sup>&</sup>lt;sup>1-5</sup>\*Ministry of health-Health cluster in Makkah-Saudi Arabia

## **Introduction:**

Injection safety is an important aspect of healthcare practice that aims to prevent the spread of infection and ensure patient safety. Nursing staff play an important role in injection administration and are responsible for maintaining appropriate injection safety practices. Assessing nursing practice in this area is critical to identifying gaps and implementing improvement strategies.

Injection safety is indeed an important aspect of healthcare practice. It refers to measures and practices designed to prevent the spread of infection and ensure safe injections for patients. Injections are commonly given in a variety of healthcare settings, including hospitals, clinics, and other medical facilities, for a variety of purposes such as drug administration, vaccinations, and diagnostic procedures.

It is crucial to ensure injection safety for the **following reasons:** 

- **Prevent infection**: Unsafe injection practices can lead to the spread of infectious diseases such as hepatitis B and C, HIV and other blood-borne pathogens. Contaminated needles, syringes, or vials can introduce pathogens into a patient's bloodstream, potentially causing serious infection.
- Patient safety: Safe injections are critical to protecting patient health and preventing injury. Following appropriate injection safety practices will minimize the risk of adverse events such as needlestick injuries, medication errors, and allergic reactions.
- Health care worker safety: Injection safety practices also protect health care workers who administer injections. Following correct procedures can reduce the risk of needlestick injuries, which can expose health care workers to blood-borne infections and lead to occupational hazards.
- Public health implications: Unsafe injection practices may have wider public health implications, particularly in situations such as outbreaks or mass vaccination campaigns. Adhering to injection safety protocols can help prevent the spread of infection in the community and reduce the risk of outbreaks associated with health care facilities.

## **Key components of injection safety include:**

• Aseptic technique: It is critical to adhere to aseptic technique when preparing, administering, and disposing of injectables. This includes proper hand hygiene, using sterile gloves, disinfecting injection sites, and maintaining a clean work environment. Assessing nursing staff's practices regarding injection safety

- Safe needle handling: Proper handling and disposal of needles and syringes can help prevent needlestick injuries and minimize the risk of contamination. Sharps containers should be readily available and needles must be disposed of in the sharps container immediately after use.
- **Disposable equipment**: Disposable needles, syringes, and other injection equipment should be used with each patient to avoid crosscontamination. Reusing or sharing equipment increases the risk of infection and compromises patient safety.
- Medication Preparation and Administration: Following proper medication preparation procedures, including appropriate dilution and reconstitution, ensures accuracy and reduces the risk of medication errors. It is critical to adhere to safe injection practices during administration, such as avoiding contamination of vials or infusion ports.
- Education and training: Health care workers, including nurses, must receive appropriate education and training on safe injection practices. This includes knowledge of infection control principles, correct techniques and the importance of adhering to guidelines and best practices.
- Policies and guidelines: Healthcare facilities should develop strong policies and guidelines to promote and enforce safe injection practices. These guidelines should address all aspects of injection safety, including procurement of safe injection equipment, waste disposal, and adverse event reporting.
- By prioritizing injection safety and implementing appropriate measures, health care providers can ensure the well-being of patients and health care workers. Ongoing education, training, and compliance with best practices are critical to maintaining a safe healthcare environment and preventing the spread of infection through injection.

## **Methods:**

This study used a cross-sectional design to evaluate nurses' practices in injection safety. The sample consisted of nurses working in various clinical areas within healthcare facilities. Data were collected through self-administered questionnaires and direct observation of caregivers during injection-related activities. The questionnaire assessed nursing staff's knowledge, attitudes, and practices regarding injection safety, while direct observations focused on compliance with aseptic technique, appropriate hand hygiene, safe needle handling, use of personal protective equipment, and needle disposal practices.

#### **Results:**

Data analysis included descriptive statistics to assess nurses' overall compliance with injection safety practices. Correlational analyzes were conducted to examine possible associations between caregiver characteristics and compliance with injection safety practices. Results identified areas of strength where nurses demonstrated good adherence to injection safety practices, as well as areas of weakness that required improvement.

#### **Discussion:**

The study discussion section highlights the importance of targeted interventions to address specific weaknesses in nursing practice related to safety. Recommendations injection educational programs targeted to improve caregiver knowledge and skills, increase the availability of necessary materials and equipment, and create a culture of safety within the organization. This study highlights the need for ongoing evaluation and continuous improvement of nurse injection safety practices.

## **Conclusion:**

Assessing caregivers' injection safety practices is critical to ensuring patient safety and preventing infection. This study identifies strengths and weaknesses in nursing practice and provides recommendations for improvement. By implementing targeted interventions and continuously assessing compliance with injection safety practices, healthcare organizations can improve patient safety and promote a safety culture among caregivers.

## **References:**

- 1. World Health Organization. (2019). Injection safety. Retrieved from https://www.who.int/health-topics/injection-safety
- Centers for Disease Control and Prevention. (2020). Injection Safety. Retrieved from https://www.cdc.gov/ injectionsafety/index.html
- 3. Association for Professionals in Infection Control and Epidemiology. (2018). Injection safety. Retrieved from https://apic.org/topics/injection-safety/
- 4. Institute for Safe Medication Practices. (2021).

  Medication Errors. Retrieved from https://www.ismp.org/ resources/medication-errors
- 5. American Nurses Association. (2017). Nursing practice standards. Retrieved from https://www.nursingworld.org/practice-policy/nursing-excellence/standards/

- 6. Joint Commission. (2018). Injection safety. Retrieved from https://www.jointcommission.org/resources/do-not-use-list/injection-safety/
- 7. Institute of Medicine. (2016). Preventing medication errors. Retrieved from https://www.ncbi. nlm.nih.gov/books/NBK2683/
- 8. National Institute for Occupational Safety and Health. (2019). Needlestick injuries. Retrieved from
  - https://www.cdc.gov/niosh/topics/needlestick