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**Risk Management and Patient Safety; The National Safety and Quality Health Service
(NSQHS) Standards**

Aisha Khali Juma and Prof. Nazik Suleiman



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 Aisha Khali Juma
Hamdan Bin Mohammed Smart University
 Prof. Nazik Suleiman

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Abstract

Purpose: The research aims at modifying two Standards of the National Safety and Quality Health Service (NSQHS) framework for UAE healthcare institutions which include both Clinical Governance and Medication Safety standards. This adaptation process is crucial for linking these standards to UAE regulations and healthcare infrastructure because of substantial cultural as well as legal technological and organizational differences between Australia and the UAE. Healthcare facilities in UAE will receive upgraded patient safety and quality of care through standards adaptations which reflect their specific operational needs.

Methodology: The analysis methodically evaluates healthcare systems in Australia and UAE by involving their governance structures along with their combination of diverse cultures and system capabilities. A structured framework development method guides standard alignment with the UAE's regulatory framework and adds suitable leadership strategies for diverse patient populations. The study delves into technology adoption mainly through artificial intelligence (AI) and digital health tools which enhance clinical decision-making ability and patient information retrieval. This analysis determines the implementation feasibility of electronic prescribing and medication tracking frameworks which will support the Medication Safety Standard within the UAE context due to its advanced technology infrastructure.

Findings: A comprehensive governance framework requires development in order to achieve compatibility between the Clinical Governance Standard and UAE healthcare framework standards and employee population diversity. A combination of healthcare analytics with AI capabilities leads to substantial improvements in governance decision processes and patient care programs and quality assessment activities. The standard needs effective solutions to address regulatory matching requirements and cultural adaptation needs in order to function properly. Tests show that implementing electronic prescribing systems with nation-wide medication reconciliation programs will improve provider accountability and healthcare professional communication while decreasing medication errors. Adequate technology infrastructure within the UAE promotes these initiatives though the healthcare systems experiences impedance because of technical inconsistencies and regulatory barriers across regions.

Unique Contribution to Theory, Practice and Policy: The UAE requires the development of a specific Clinical Governance Framework to fulfill legal requirements and address multicultural patient needs in the nation. Healthcare institutions must use AI and digital health technology to create data-driven decisions and enhance governance operation and quality assessment systems. It is crucial to establish nation-wide medication reconciliation standards across all healthcare facilities so care management remains consistent while minimizing medication errors in the UAE. The adoption of electronic prescribing systems and medication tracking platforms will boost healthcare provider communication by advancing patient protection measures. More research needs to be performed about AI and machine learning integration to expand the range of NSQHS standards and their application in UAE healthcare facilities.

Keywords: *The National Safety and Quality Health Service, Australian Commission on Safety and Quality, Healthcare Quality and Safety, Satisfy Local Regulations, Healthcare Strategy, Clinical Governance Standard*

JEL Classification: I18, L15, G38

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INTRODUCTION

The National Safety and Quality Health Service (NSQHS) Standards are essential guidelines developed by the Australian Commission on Safety and Quality in Health Care that have to ensure notable enhancement of the quality and safety of the delivered healthcare services. They are used as a guide for healthcare facilities to protect the population, enhance the quality of services delivered, and promote and maintain patient safety by integrating standardized procedures in several areas of health care.

It is crucial to apply all these standards to the healthcare context of the United Arab Emirates (UAE) due to certain differences connected with the population, the development of technologies, and the government's health agenda. In this way, with the help of these standards involving the UAE, the healthcare quality and safety can be increased, as the changes are required for better propensity, as well as the context should be adjusted for the UAE's expectations of the healthcare strategy. (ACSQHC. (2017).

Objective

The aim of this paper is to tailor two of the eight NSQHS Standards to create a strong theoretical foundation for patient safety and quality health care that is appropriate for use in UAE healthcare facilities and thus, satisfy local regulations, legislative requirements, and address specific needs in the sphere of healthcare; incorporate the technologies that are widely used in the given region, which will also help to enhance the level of safety, effectiveness and quality of the future healthcare system.

Problem Statement

The healthcare system in the UAE faces critical changes in maintaining safety and quality standers that align with international practices. Non-compliance with global standers negatively impacts patient satety and creats inconsistencies in health service quality. This study seeks to address these challenges by tailoring two of the NSQHS standers to create a comprehensive framework for improving patient safety and healthcare quality, while incorporating local regulations and adanced technologies.

METHODOLOGY

A systematic approach was used to source the articles for this study using standard search engines and databases such as PubMed, Scopus, Google Scholar, and the Cochrane Library. The keywords used in the search included "Clinical Governance Standard", "Medication Safety Standard", "NSQHS Standards", "UAE healthcare system", "Integration of digital health" and "Medication reconciliation". Subgroup searches of using the keywords were conducted using Boolean operators of AND/OR in order to narrow the coice of articles.

Screening Process

- **Initial Screening:** The article search criteria identified a total of 150 articles with respect to the present research theme.
- **Further Evaluation:** When excluding duplicate articles and examining the abstracts to exclude unrelated studies, 75 studies were selected for further evaluation.

- **Final Selection:** Out of the identified journals, 25 articles were used in the study depending on how relevant they were to the study goals.

Inclusion Criteria

- Original research and review articles only, limited to the time frame of 2014–2024.
- Research articles, systematic reviews where available and original research papers available in peer reviewed journals.
- Articles selected mainly from three headings namely Clinical Governance, Medication Safety and other standards related to healthcare.
- Research carried out in contexts related to UAE health care or similar countries to UAE.

Exclusion Criteria

- Case Sources consist of articles that are not in full text format.
- Research that has methodological drawbacks that leaves out crucial samples or has a small number of participants.
- Non-English publications.
- Articles that discussed other NSQHS Standards but not Clinical Governance or Medication Safety.

Selection of Standards

For this adaptation, the following two standards have been selected due to their broad implications and foundational importance in healthcare:

1. **Clinical Governance Standard:** The fourth standard is central to the strategy of establishing and maintaining a sound health-care organization in the provision of quality services. Implementing this standard will assist UAE healthcare organization in developing sustainable governance structures that improve the healthcare organization's leadership and constant quality improvement. (Ghavamabad, L. H., Vosoogh-Moghaddam, A., Zaboli, R., & Aarabi, M. (2021).
2. **Medication Safety Standard:** Since medication management entails several factors and given the sensitiveness of medication errors, the standard has to be adapted. It will aim at safe prescription and administration of drugs which is imperative in a geographical area that has many cases of chronic ailments besides putting into consideration the many types of drugs in the market. (Meyer-Masseti, C., Cheng, C. M., Schwappach, D. L., Paulsen, L., Ide, B., Meier, C. R., & Guglielmo, B. J. (2011).

LITERATURE REVIEW

Clinical Governance Standard

Contextual Overview: Clinical governance as one of the significant components of the healthcare system in the UAE needs to be developed and modified constantly. Short, D. (2018) also noted that the medical workforce governance in the UAE is a challenge majoring in recruitment and retention of international health care workers. Of equal importance, this research reveals the

essence of continuing the policy reforms to address the ways of regulating and integrating HPS in the UAE. (Short, S. (2018).

Khan and Khan (2023) it is recommended to stress the necessity of continued strong adherence to corporate governance principles and frameworks among private healthcare organizations in Dubai to ensure the optimization of organizational objectives and performance enhancement. Major findings of Their study They found that there is high interest of the healthcare workers in governance standards. (Khan, B., & Khan, N. (2023).

Relevance and Importance: Improving clinical governance in the UAE is necessary because of the differences in cultural, legal, and organizational conditions. Thus, Short (2018) still advises for the implementation of policies that should take into consideration the background status of the working health care professionals. According to Khan and Khan (2023), the practices concerning governance also bear significance, as the enhancement of these aspects can improve the results of the overall healthcare services and organizational efficiency in Dubai. On this basis, increasing the focus on clinical governance can significantly reduce potential risks and improve the quality and safety of patient care in the UAE's dynamically developing health care market.

Medication Safety Standard

Contextual Overview: Regarding medication safety practices in the UAE healthcare institutions, the present state of affairs with many challenges is still in the infancy stage. While Al-Worafi (2020) highlight different aspects of medication safety during the early practice in the UAE, he talks about the pharmacovigilance process, adverse drug reactions reporting, and medication errors milestones achieved. The study also focuses on the possible increased accuracy of the medication ordering, communication safety features, and the significance of professional development and public awareness. (Al-Worafi, Y. (2020).

Alkhalidi et al. (2019) Primary research was conducted among the public of Dubai to discover their understanding of medication safety, identifying a lack of knowledge and reporting of ADRs. The paper draws attention to the fact that pharmacists and physicians do not collaborate with each other, thus preventing proper medication safety management. (Alkhalidi, D., Jamshed, S., Elkalmi, R., Baig, M., Aslam, A., & Hassali, M. (2019)

Relevance and Importance: The experiences and prospects related to medication in the UAE remain important for the improvement of practices concerning patient safety and care. According to Al-Worafi (2020) there is a need to promote effective medication safety measures and enhance health care practitioners or systems and public knowledge. Also, Alkhalidi et al. (2019) emphasized on the need for adequate communication and cooperation among the practitioners to enhance medication safety. The solution to these problems can focus on the improvement of medication management practice and on the successful construction of a safety healthcare system in the UAE.

Adaptation

Clinical Governance Standard

Adapted Tasks/Actions:

Task 1: Establish a Comprehensive Governance Framework for UAE Healthcare

- **Action:** Provide suitable solutions: The following solutions relate to the suggested strategies that the UAE's governing authorities should implement as a means of achieving increased efficiency: This should involve developing frameworks on how organizational and/or departmental responsibilities and decisions will be responded to.
- **Action:** Incorporate elements that reflect the UAE's legal and regulatory environment, ensuring compliance with both local and international healthcare standards. (Hussain, M., Al Hammadi, F., & Adebajo, D. (2020))

Task 2: Integrate Continuous Quality Improvement with Digital Health Technologies

- **Action:** Expand on UAE's well-developed digital framework to launch a centralized e-Health record that can synch patient information across practitioners and monitor patients' clinical feedback on a live basis.
- **Action:** Develop digital tools for quality improvement, such as AI-driven analytics for patient data to identify trends, predict outcomes, and suggest improvements.

Discussion

Relevance and Modification from Original Standards

The application of these aspects to the UAE means the adaption of the Clinical Governance Standard to prevalent conditions of the local context involving highly developed information technologies and a population that is rather diverse in terms of ethnicity and culture. However, when comparing with the original NSQHS standard, this adapted version for the UAE defines significant components that focus on digital incorporation and multicultural contexts because the structure and organization of the healthcare sector in Australia are not as diverse as in the UAE.

This includes:

- **Leadership and Legal Compliance:** The UAE's management structure will directly take into consideration issues related to multinational leadership and regional legal frameworks, for the country serves not only Emirati citizens but also provides services to numerous expats.
- **Technology Integration:** The original standards' use of technology is supported by the UAE adaptation by including the modern technologies in digital health. This comprises artificial intelligence and big data whereby the UAE aims at being among the top nations in matters concerning health. (Egwar, A. A., Amiyo, M. R., & Nabukenya, J. (2024))

Addressing Local Challenges

- **Cultural Sensitivity and Inclusivity:** One branch of the governance framework will be the training and policies that embrace the cultural competency, as far as caring for the individuals, taking into account the cultural backgrounds of both the patients and the medical professionals operating in the UAE.
- **Innovation in Healthcare:** This way, the adaptation of continuous quality improvement to digital health technologies fosters innovation in the delivery of care and makes it more accessible, responsive to patient's needs, and ready to face future problems.

Such modifications are even directed to improve not only the approachability of the given standard for the complicated and diverse healthcare setting of the UAE but also to guarantee that the context provided is up to the technological incorporation and cultural demands which can be expected when it comes to the UAE. (Button, E., Baniahmedi, S., Chambers, S., & Yates, P. (2023)

Medication Safety Standard

Adapted Tasks/Actions

Task 1: Develop a Standardized Electronic Prescribing and Medication Tracking System

- **Action:** Standardize the medication order communication processes across the healthcare facilities in the UAE by establishing a common electronic prescribing system so as to strengthen the process of prescribing medicines and bring down the possibility of errors in such processes while at the same time improving the medicine distribution procedures.
- **Action:** Combine this system with medication history real time tracking feature that helps practitioners and patients to view patient's medication records in real time, hence should improve accountability.

Task 2: Implement a National Medication Reconciliation Program

- **Action:** Implement medication reconciliation procedures that are required each time a patient is transferred between clinical areas such as the hospital admission, within-hospital transfer, discharge or others as may be applicable. This way, a complete and technically correct list of prescribed medicines could be maintained, thereby reducing the incidence of medical complications that could erupt out of incorrect dosages or omitted medicines.
- **Action:** Educate healthcare providers on the proper conduct of medication reconciliation and implement gadgetry like mobile applications and Healthcare information systems to ensure medication Reconciliation processes are optimally conducted.

Discussion

Implementation Challenges

- **Technological Integration:** Although the UAE has well-developed technology facilities, implementing a smart electronic prescribing as well as medication administration record system in different types of healthcare organizations is a great concern. These are compatibility of various HISs and safeguarding of patient data as per privacy act.

- **Training and Compliance:** A national medication reconciliation implementation involves a process of developing work-flow changes for the contracted healthcare providers to undergo practice. Maintaining equal levels of compliance across the country and particularly in the rural or non-technologically developed regions poses another challenge. (Jairoun, A. A., Al-Hemyari, S. S., Abdulla, N. M., El-Dahiyat, F., Jairoun, M., & Al-Tamimi, S. K. (2021).

Potential Impacts

- **Enhanced Patient Safety:** Such initiatives can contribute to the increased safety for patients by minimizing the number of medication mistakes and increasing the clarity regarding the processes of managing medications. Through prompt documentation of administered medications and comparison of orders against those ordered earlier, we ensure our patients receive safe medications, decrease risks connected with polypharmacy and incorrect prescription of related medications.
- **Improved Healthcare Efficiency:** They can establish more coordinated and efficient medication processes that decrease patients' waiting time and relieve the administrative overload to general concentrate on caring for their patients.

Modifications from Original Standards

- **Focus on Digital Solutions:** This is in contrast to the general guidelines presented in the format of the old NSQHS standards ; the version aligned to the UAE is considerably oriented to the digital means for boosting medication safety. This is in line with the UAE's digital transformation objectives regarding healthcare services.
- **Cultural and Regulatory Adjustments:** The adaptations take into consideration the current/likely UAE's regulatory requirements and cultural understanding so that the systems developed meet the regulatory requirements of the country and at the same time respects/diversity of patients.

That is why it is possible to say that all these adaptations of the Medication Safety Standard are related with an intention to apply the UAE advance technological platform and legislation system to cope with potentially existing local threats to improve substantially the medication safety and the overall healthcare quality for the entire nation. (Sallam, M., & Hamdan, A. (2023)

Conclusion

The recommendations provided to the UAE health care system distinctly concerned with adaptations to Clinical Governance and Medication Safety Standards contain ideas in utilizing elaborated electronic tools and better compliance with the legislation. Through the creation of a strong governance structure that incorporates sound leadership roles and the continual improvement concept in tandem with applications of information communication technologies in health, the UAE stands to see enhanced delivery of health care, safety and quality immensely. In the same way, such measures as the introduction of an electronic prescribing and medication administration record system together with a national medication reconciliation service will prevent errors in the ordering and administration of drugs as well as enhance the clear and safe hand-off of patients in care continuity settings. Such alterations are considered expected to

improve the quality of care together with patients' safety and contribute directly towards the UAE's strategic healthcare goals and technologies.

Future Research and Adaptation Suggestions

Future research can be undertaken to find out how AI and machine learning technology can be incorporated into the adapted standards especially in the use of predictive modeling for patient's health status and the use of algorithms in medication administration information systems. Furthermore, future adjustment of the other NSQHS standards, for example, the Preventing and Controlling Healthcare-Associated Infections Standard, can be used to overcome such factors as population density and migrants' movements characteristic of the UAE. Understanding the efficiency of such adaptations and their further development depending on the new empiric finding will play a significant role in strengthening the healthcare system in UAE as a flexible, adaptive, and highly effective organizational system. (Shaikh, Z. M. (2020).

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