



Assessment of Hospital Practices in Aligning with NICE Guidelines for Headache Diagnosis and Management in Individuals Over 12 Years of Age: A Comparative Pre- and Post-Audit Study

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Abstract

Headaches constitute a pervasive neurological condition globally, exerting a profound influence on an individual's quality of life and productivity. Effective headache diagnosis and management are imperative to alleviate symptoms, reduce recurrence, and mitigate associated impairments. This research article presents a comprehensive pre- and post-audit study, focusing on the alignment of hospital practices with the National Institute for Health and Care Excellence (NICE) guidelines for headache diagnosis and management in patients over 12 years of age. In this study, we employ a systematic approach, encompassing data collection, analysis, and interpretation, to assess healthcare practices, identify areas of adherence, and pinpoint potential deviations from NICE guidelines. The methodology involves a meticulous review of patient records, structured interviews with healthcare professionals, and the use of a checklist derived from specific NICE recommendations relevant to headache care. By analyzing and comparing pre-audit and post-audit data, this study unveils significant improvements in critical aspects of headache management, indicating a commitment to evidence-based practices and patient-centered care. The findings underscore the importance of ongoing quality improvement initiatives and adherence to evidence-based guidelines in optimizing patient outcomes and enhancing the healthcare experience for individuals seeking relief from headaches.

Keywords: Headaches; NICE Guidelines; Diagnosis; Management; Healthcare Practices; Patient Care; Preaudit; Post-Audit; Evidence-Based Guidelines

Introduction

Headaches are among the most prevalent and debilitating neurological conditions affecting individuals worldwide, with a profound impact on quality of life and productivity. Proper diagnosis and effective management of headaches are essential to alleviate symptoms, reduce recurrence, and mitigate associated impairments. Recognizing this critical need, the National Institute for Health and Care Excellence (NICE) has developed evidence-based guidelines for the diagnosis and management of headaches in individuals over the age of 12 [1]. These guidelines serve as a com-

prehensive framework to ensure optimal patient outcomes and streamline healthcare practices.

In order to uphold the highest standards of patient care and align with the latest advancements in medical knowledge, it is imperative for healthcare institutions to adhere rigorously to established clinical guidelines. Therefore, this audit has been initiated with the overarching goal of assessing the extent to which hospital practices align with the NICE recommendations for headache diagnosis and management in individuals over 12 years of age. By

conducting a thorough examination of current practices, this audit aims to identify areas of adherence and potential deviations from NICE guidelines, ultimately driving improvements that enhance patient care and outcomes.

Methodology

To comprehensively evaluate the alignment of hospital practices with the National Institute for Health and Care Excellence (NICE) recommendations for headache diagnosis and management in individuals over 12 years of age, a systematic and structured methodology has been employed. This audit follows a multi-step approach that encompasses data collection, analysis, and interpretation.

Firstly, a selection of patients was made based on predefined criteria to ensure a representative sample. Patient records, including medical charts, diagnostic reports, and treatment plans, were meticulously reviewed to assess the various facets of headache management. Structured interviews with healthcare professionals involved in headache care were conducted to gain insights into their practices, challenges, and perspectives on guideline adherence.

The audit team employed a checklist derived from the specific NICE recommendations relevant to headache diagnosis and management. This checklist formed the basis for the assessment of key indicators, such as adherence to diagnostic criteria, utilization of recommended diagnostic tests, alignment with pharmacological and non-pharmacological treatment options, patient education practices, and documentation standards.

Data collected from medical records and interviews were quantified and analysed, facilitating the identification of patterns, trends, and discrepancies between observed practices and established guidelines. This methodology enables a comprehensive evaluation of healthcare practices, pinpointing areas of alignment and potential deviations while providing a foundation for evidence-based recommendations for improvement.

Results

The study yielded the following results

- **Sex Distribution:** Pre-audit: Female 68.75%, Male 31.25%; Post-audit: Female 68.75%, Male 31.25%
- **Age Group Distribution:** Consistent between pre-audit and post-audit data

- **Enquired regarding Red Flag Signs:** Significant improvement in post-audit data (81.2% compared to 25% in pre-audit)
- **Use of Headache Diary:** Equal distribution in post-audit data (50% yes, 50% no)
- **Diagnosis According to Headache Classification:** Significant improvement in post-audit data (87.5% compared to 12.5% in preaudit)
- **Suspect Menstrual Related Migraines in Women:** Increased awareness in post-audit data (62.5% compared to 37.5% in preaudit)
- **Possibility of Medication Overdose Headache Considered:** Slight increase in post-audit data (31.25% compared to 6.2% in pre-audit)
- **Neuroimaging for Primary Headache:** Consistent with pre-audit data (93.75% no neuroimaging)
- **Discussion of Diagnosis and Management:** Significant improvement in post-audit data (87.5% compared to 12.5% in preaudit)
- **Consideration of Acute Treatment:** Consistent with pre-audit data (87.5% considered)
- **Do Not Offer Ergots or Opioids for Acute Treatment of Migraine:** Consistent with pre audit data (100% do not offer)
- **Benefits and Risks of Prophylactic Treatment of Migraine Discussed:** Significant improvement in post-audit data (93.75% compared to 6.25% in pre-audit)

Discussion

The comprehensive audit conducted to evaluate the alignment of hospital practices with the National Institute for Health and Care Excellence (NICE) recommendations for headache diagnosis and management in individuals over 12 years of age has yielded valuable insights into the effectiveness of clinical care before and after the implementation of interventions.

Sex distribution and age group demographics

The analysis of sex distribution and age group demographics remains consistent between the pre-audit and post-audit stages. The higher representation of females seeking treatment for headaches underscores the need for tailored approaches to address gender-specific factors influencing headache occurrence and management [2]. The consistent age distribution reaffirms the wide prevalence of headaches across various age groups, with a significant representation among older adults.

Enquiry about red flag signs

One of the most significant improvements is evident in the enquiring about red flag signs. The post-audit data reveals a substantial increase in healthcare professionals' diligence, with 81.2% of cases now involving enquiring about red flag signs, as compared to 25% in the pre-audit phase. This shift signifies enhanced awareness of potential serious underlying conditions and a commitment to ensuring patient safety.

Utilization of headache diaries and diagnosis classification

The post-audit data indicates that the use of headache diaries to aid the diagnosis of primary headaches remains consistent at 50%. However, alignment with headache classification has notably improved, with 87.5% of cases now having accurate diagnoses in accordance with the classification, up from 12.5% in the pre-audit data. This reflects a substantial stride towards accurate and targeted treatment strategies.

Awareness of menstrual-related migraines and medication overdose consideration

The post-audit data demonstrates increased awareness of menstrual-related migraines, with 62.5% of cases now suspecting this trigger, compared to 37.5% in the pre-audit stage.

Conversely, consideration of medication overdose headache has decreased to 31.25% from 6.2% in the pre-audit data. While this suggests a need for further attention, it also highlights the potential success of interventions in other areas [3].

Neuroimaging, acute treatment, and patient education

The consistent avoidance of ergots and opioids for acute migraine treatment suggests a sustained adherence to best practices [4]. Additionally, the pre-audit practice of not ordering neuroimaging for primary headaches solely for reasons remains unchanged at 93.75%. Patient education shows notable improvement, with 87.5% of cases now involving positive discussion about diagnosis, management, and the benefits and risks of prophylactic treatment, up from 12.5% in the preaudit stage.

Conclusion

The comprehensive audit evaluating hospital practices in alignment with the National Institute for Health and Care Excellence (NICE) recommendations for headache diagnosis and management in individuals over 12 years of age has illuminated the journey to-

wards enhanced patient care and adherence to evidence-based guidelines. The findings from both the pre-audit and post-audit data provide a comprehensive picture of the impact of interventions aimed at optimizing headache management practices.

The audit has revealed a substantial shift in healthcare practices, marked by commendable improvements across various facets of headache diagnosis and management. The marked increase in enquiring about red flag signs, a crucial step to detect underlying serious conditions, exemplifies the dedication of healthcare professionals to patient safety. The enhanced alignment of diagnoses with headache classification signifies a transition towards accurate treatment strategies tailored to individual needs, ultimately contributing to better patient outcomes.

The audit has underscored the pivotal role of awareness and education. The notable increase in awareness regarding menstrual-related migraines demonstrates the success of initiatives in recognizing gender-specific triggers. Moreover, the improved patient education, highlighted by discussions about diagnosis, management, and treatment options, reflects an emphasis on informed decision-making and patient engagement.

While the audit identifies areas for celebration and success, it also sheds light on opportunities for further progress. The consideration of medication overdose headaches remains an aspect that warrants focused attention to ensure a comprehensive approach to headache management. The data reinforces the dynamic nature of healthcare practices, emphasizing the need for ongoing training, education, and interventions to uphold the highest standards of patient care.

In conclusion, this audit serves as a testament to the dedication of healthcare providers towards advancing the quality of headache diagnosis and management. The integration of evidence-based practices and the commitment to continuous improvement stand as cornerstones of effective patient care. The insights garnered from this audit provide a roadmap for refining clinical practices, enhancing patient experiences, and achieving optimal outcomes. By adhering to NICE guidelines and maintaining a vigilant approach to quality improvement, healthcare institutions demonstrate their commitment to providing the best possible care for individuals seeking relief from headaches.

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