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Healthcare Professionals' Perceptions and Clinical Experience with IBUCAP NIGHT for Pain-Associated Sleep Disturbances: A Cross-Sectional Survey in Angola

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Abstract

Introduction: Pain-induced sleep disturbances significantly impact quality of life. To address this, IBUCAP NIGHT, containing Ibuprofen 200 mg and Diphenhydramine Citrate 38 mg, offers a dual-action approach for pain relief and improving sleep. To address the limited real-world evidence regarding clinician experience with IBUCAP NIGHT in Angola, this Healthcare Professional Experience Research (HPER) survey was undertaken. The primary objective of this survey was to evaluate healthcare professionals' perceptions of the utilization, effectiveness, tolerability, and prescribing practices of IBUCAP NIGHT for the management of pain-associated sleep disturbances in routine clinical practice in Angola. Methodology: A descriptive cross-sectional HPER survey was conducted among 29 participating clinicians in Angola using a structured 20-item questionnaire. Results: Clinicians reported a median patient load of 175 per month, with 10% suffering from pain-induced sleeplessness. The most common sleep disturbances were difficulty in falling asleep (75.9%), inability to stay asleep (65.5%) & frequent awakenings (44.8%). Majority of these patients had acute dental pain (75.9%) and chronic back pain (65.5%). 75.9% responding physicians deemed two capsules as the optimal dose & 62.1% recommended treatment for less than one week. Side effects were mild, with drowsiness being the most frequent (82.8%). Clinicians rated the overall efficacy of IBUCAP NIGHT as "good to excellent" (89.6%), and 89.7% believed it effectively addressed the dual concerns of pain and sleeplessness. Conclusion: Participating clinicians perceived IBUCAP NIGHT as effective/or may improve pain management while also improving sleep quality, with most reporting favorable impressions of patients' quality of life. These findings reflect clinician-reported perceptions rather than direct patient out-

come assessment.

Keywords

IBUCAP NIGHT, Pain Relief, Sleep Disturbances, Dual-Action Therapy, Clinical Efficacy

1. Introduction

Pain is a complex and subjective experience that serves as a crucial warning signal to the body [1] [2]. It can vary in terms of intensity, nature, location, duration, and underlying triggers. Beyond its impact on routine activities, pain can significantly affect an individual's physical, mental, and social well-being [1] [3]. Notably, one of its most detrimental consequences is sleep disruption [4]. Sleep is vital for physical recovery, emotional endurance, and cognitive functioning [5]. When pain disrupts sleep, it has a negative impact on overall health and quality of life [6]. Moreover, the relationship between pain and sleep is bidirectional: pain often disrupts sleep, while poor sleep exacerbates pain perception. Individuals experiencing sleep deprivation complain of increased pain sensitivity, fatigue, irritability, and impaired cognitive ability [7] [8]. This complex interplay between pain and sleep is mediated by several chemical messengers. Among them, prostaglandins and histamine are the key regulators of pain perception and sleep-wake cycles, playing independent yet vital roles in these physiological processes [9] [10].

Prostaglandins, produced via the cyclooxygenase (COX) pathway, contribute to inflammation and amplify pain signaling [11]. Meanwhile, histamine, a neurotransmitter involved in wakefulness and attention, exerts its effects through H1 receptors in the central nervous system [10]. The interaction of these mediators establishes a link between pain and sleep disturbances, as heightened pain signaling disrupts sleep patterns, ultimately leading to poor sleep quality [5].

Addressing this dual challenge necessitates a therapeutic approach that not only alleviates pain but also promotes healthy sleep. IBUCAP NIGHT, a combination of Ibuprofen (200 mg) and Diphenhydramine Citrate (38 mg), provides an effective solution for managing both simultaneously. This formulation combines the pain-relieving properties of Ibuprofen, a widely used nonsteroidal anti-inflammatory drug (NSAID), with the sedative effects of diphenhydramine, an H1 receptor antagonist, which indirectly helps improve sleep initiation.

Ibuprofen is widely used as an analgesic and anti-inflammatory agent, which works by inhibiting COX-1 and COX-2 enzymes, thereby reducing prostaglandin synthesis and alleviating pain. Diphenhydramine, an H1 receptor antagonist, acts on the central nervous system to block histamine-induced wakefulness and promotes sleep [12]. Both are available as prescription and over the counter medications. The dual-action mechanism of IBUCAP NIGHT makes it particularly beneficial for individuals experiencing pain-induced sleep disturbances. By simulta-

neously reducing pain intensity and improving sleep quality, it helps break the cycle of pain and sleep disruption, ultimately enhancing overall well-being.

2. Material and Methods

A cross-sectional survey was conducted to assess healthcare professionals' perceptions of the effectiveness, tolerability, and utilization patterns of IBUCAP NIGHT in managing pain-induced sleep disturbances in clinical practice. A structured, peer-reviewed 20-item questionnaire was developed to capture clinician-reported insights on brand awareness, prescribing patterns, perceived effectiveness, and satisfaction with IBUCAP NIGHT. The questionnaire included both closed-ended and open, perspective-based items; for various factors influencing prescribing decisions, respondents could select more than one applicable option. The full questionnaire is provided in the annexure.

The survey targeted 30 healthcare general practitioners in Angola practising in private clinics and public hospitals, of whom 29 healthcare professionals consented to participate and completed the survey (response rate 96.7%). Eligible participants were licensed clinicians who were prescribing IBUCAP NIGHT within their routine clinical practice. Clinicians were identified and recruited via a prescriber list maintained by the sponsor and convenience sampling. Data were entered into a spreadsheet and summarized using descriptive statistics. Continuous variables were summarized using the median and range, while categorical variables were presented as frequencies and percentages. No inferential statistical analyses were performed.

3. Results

A total of 29 clinicians participated in the survey, providing data on their in-clinic preferences and perception toward the combination of Ibuprofen 200 mg and Diphenhydramine Citrate 38 mg (Ibucap® Night) in Angola. The median number of patients seen per month by these clinicians was 175, whereas it ranged from 10 to 1302. Among these patients, the median percentage experiencing sleeplessness due to pain was 10%, with a maximum of 80%. The percentage of patients receiving treatment for sleeplessness and pain was 11.5%, with a range up to 50%.

The most frequently reported sleep disturbances associated with pain were difficulty in falling asleep (75.9%) followed by inability to stay asleep (65.5%), frequent awakenings during the night (44.8%), daytime fatigue or drowsiness (27.6%). Adults and elders were the most common age group affected by pain-related sleep disturbances, comprising 93.1% of cases. In terms of gender distribution, 34.5% of clinicians reported prevalence of pain induced insomnia was more common among males, 20.7% reported it was more common in females, whereas 44.8% clinicians reported no significant gender difference in prevalence. Among patients with acute pain, 27.6% received IBUCAP NIGHT for pain relief very frequently & 48.3% sought it occasionally, whereas, for chronic pain 17.2% & 37.9% of patients requested IBUCAP NIGHT for pain relief very frequently & occasionally, respec-

tively. Among patients looking for treatment of pain-induced sleep disturbances, the most common profile was of homemakers (48.3%) then office associates (10.3%), artisans (6.9%) & post-surgical cases (20.7%).

Dual mechanism of action is the most influential factor to gain faith in prescribing doctors (Figure 1). More than half of doctors rated efficacy & side effects profile of IBUCAP NIGHT as excellent (Figure 2). Factors taken into consideration while determining prescription of IBUCAP NIGHT for patients were patient's age and health status (65.5%), severity of pain symptoms (58.6%), severity of sleep disturbances (20.7%), potential drug interactions (17.2%), patient preferences and lifestyle (17.2%). The most prescribed dosage was 2 capsules (75.9%), while 17.2% found 1 capsule effective, and 6.9% preferred 3 capsules. Majority (89.7%) of clinicians observed differences in IBUCAP NIGHT'S effectiveness for

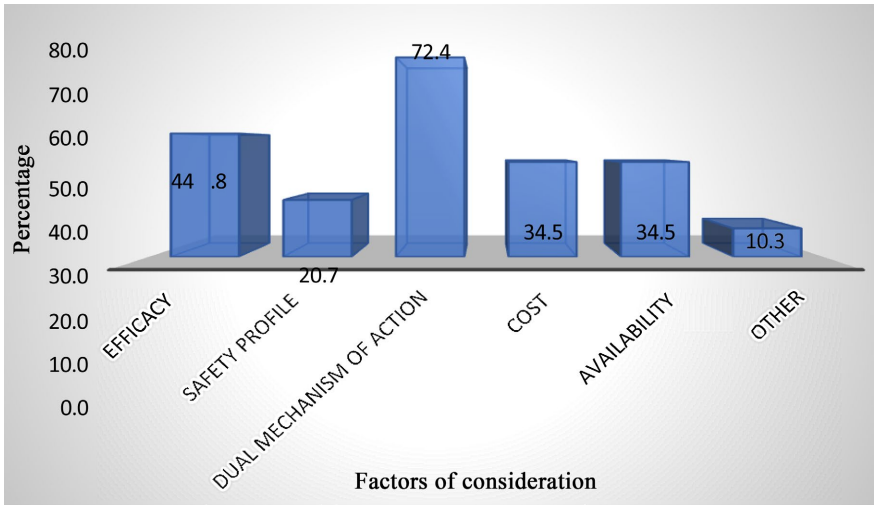

Figure 1. Factors clinicians consider when deciding whether to prescribe IBUCAP NIGHT over alternative treatments for sleeplessness associated with pain.

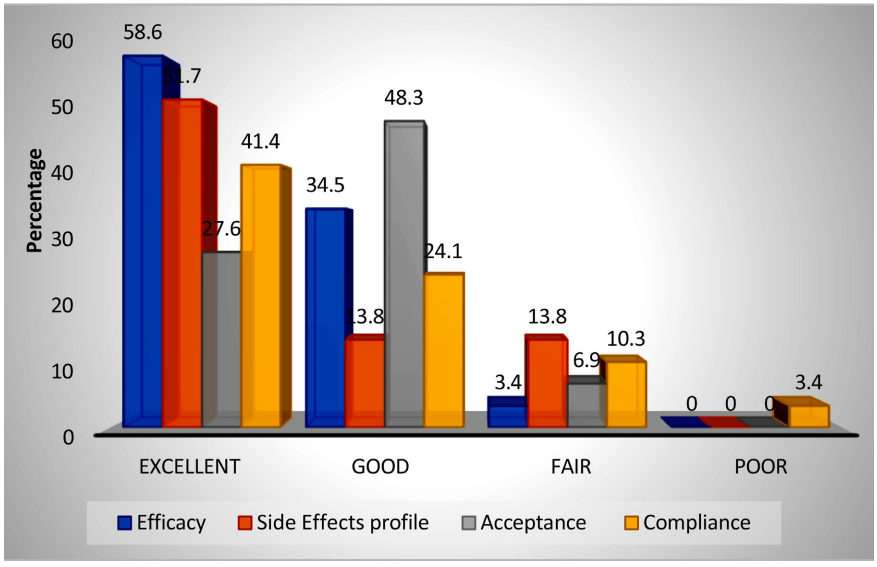

Figure 2. Rating of parameters for IBUCAP NIGHT.

pain relief and sleep improvement across different types of pain. Most clinicians perceived that patients' improvement in quality-of-life following treatment with IBUCAP NIGHT as "good to excellent" (Figure 3).

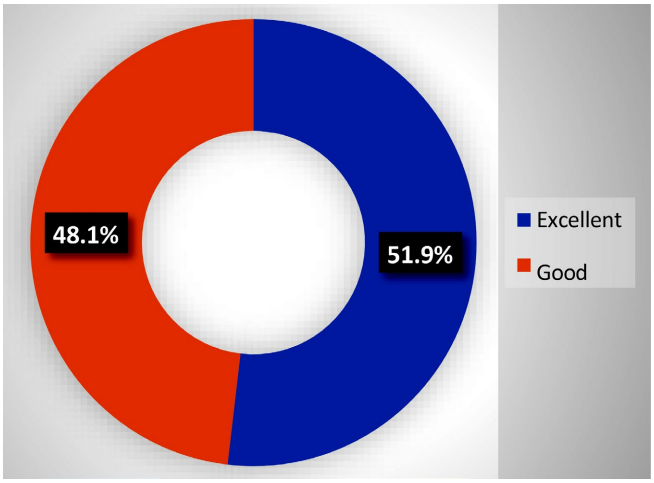

Figure 3. Rating by patients for quality-of-life following treatment with IBUCAP NIGHT.

4. Discussion

Pain induced sleep disturbances present a significant challenge in clinical practice (6). This HPER survey provides real-world insight into clinicians' experience with IBUCAP NIGHT (Ibuprofen 200 mg + Diphenhydramine Citrate 38 mg) in addressing this dual burden in Angola.

In a study comparing ibuprofen 400 mg/diphenhydramine 50 mg with ibuprofen 400 mg alone, total sleep time, as measured by actigraphy, was significantly longer in the combination group. Among the secondary endpoints, wake time after sleep onset was significantly reduced with the combination therapy compared to ibuprofen alone, whereas sleep latency showed no significant difference [13].

Rebound insomnia refers to the deterioration of sleep following the discontinuation of certain hypnotics. It is commonly linked to sleep aids with a short half-life, such as short-acting benzodiazepines, particularly when used at higher doses [14] [15]. In contrast, multiple studies evaluating diphenhydramine as a sleep aid, administered in both single and multiple-dose regimens, including in elderly subjects, have reported no instances of rebound insomnia [16]-[21]. IBUCAP NIGHT contains Diphenhydramine Citrate and Ibuprofen Tablets 38 mg/200mg. Insomnia leads to distress in people with chronic pain, many of whom seek treatment for sleep problems. Studies show that 50% to 88% of people with long-term pain also have insomnia, and at least 40% of people with insomnia have with chronic pain [22]. Bad Sleep leads to worsening sleep quality [22]. Research demonstrates that sleep loss increases pain sensitivity, while pain disrupts sleep, creating a cycle that worsens chronic conditions [23]. Abruptly stopping short-term sedatives or hypnotics used for pain-related sleep disturbances frequently triggers rebound insomnia—where sleep becomes worse than before treatment [22]. IBUCAP NIGHT

contains diphenhydramine, and is meant for short term therapy. Multiple randomized trials and clinical reviews show no clear evidence of worsening or rebound sleep disturbances immediately after discontinuing short-term diphenhydramine use. Guidelines demonstrate diphenhydramine is meant only for short-term or acute sleep issues (typically restricted to a maximum of two to four weeks) [21]. The study demonstrated that 10% of patients experience sleeplessness. Hence, since IBUCAP NIGHT contains diphenhydramine, patients receiving IBUCAP NIGHT would not experience rebound insomnia.

The survey findings confirm that pain induced sleep disturbance is a common concern among patients seeking medical care. Physicians reported that 10% of their patient population experiences sleeplessness due to pain, yet only 50% of these patients were receiving any treatment. This suggests that pain-induced sleep disturbances remain underdiagnosed and undertreated.

Physicians identified difficulty in falling asleep (75.9%), inability to stay asleep (65.5%), and frequent nighttime awakenings (44.8%) as the most reported sleep disturbances in their patients. Additionally, daytime fatigue (27.6%) was a significant complaint, indicating the far-reaching impact of pain induced insomnia on daily functioning. Most affected individuals were adults and older peoples (93.1%), further supporting the need for a safe and effective treatment option suitable for these patient groups.

This survey has several important limitations that should be considered when interpreting the findings. First, the sample size was relatively small (29 clinicians), which limits the generalizability of the findings beyond the participating physicians. In addition, the descriptive cross-sectional design without a comparator group precludes causal inferences or comparisons with alternative therapeutic approaches.

Selection bias is another important consideration. Participating clinicians were identified from a prescriber list provided by the study sponsor and recruited through convenience sampling. Consequently, the survey population may not be fully representative of all physicians managing pain-associated sleep disturbances in Angola and may have included clinicians who were already familiar with or more likely to prescribe IBUCAP NIGHT.

The survey also relied entirely on retrospective physician self-reports, making the findings susceptible to recall bias, as clinicians may not accurately remember prescribing practices or patient responses. Furthermore, because respondents were asked to evaluate a product they had prescribed, social desirability bias and response bias cannot be excluded.

Another important limitation is the absence of blinding and objective outcome assessment. Physicians were aware of the product being evaluated, and no validated clinical instruments or objective measures, such as standardized pain scales, validated sleep-quality questionnaires, actigraphy, or polysomnography, were used to assess treatment outcomes. Consequently, the findings represent clinician perceptions rather than objectively verified clinical effectiveness.

Finally, although the survey provides valuable real-world insight into physi-

cians' experiences with IBUCAP NIGHT, the cumulative effect of these methodological limitations means that the results should be interpreted as preliminary clinician impressions rather than definitive evidence of clinical efficacy or safety. Larger, independently conducted prospective studies incorporating representative sampling, comparator groups, blinding where feasible, direct patient-reported outcomes, and validated objective assessment tools are required to confirm these observations.

The dual action mechanism of IBUCAP NIGHT, combining Ibuprofen for pain relief and Diphenhydramine for sleep induction, emerged as an important factor influencing prescribing decisions. IBUCAP NIGHT was perceived by 89.7% of the physicians to be effective in managing both pain and sleep disturbances, making it their commonly preferred treatment option for patients experiencing pain induced insomnia.

In addition to its efficacy, physicians highlighted the convenience of a single formulation that effectively addresses both conditions simultaneously, which may reduce the need for multiple medications. This streamlined approach not only improves patient adherence but also simplifies treatment decisions, making IBUCAP NIGHT a practical and efficient solution for managing pain induced insomnia in routine clinical practice.

5. Conclusion

This survey provides insight into healthcare professionals' perceptions regarding the use of IBUCAP NIGHT in routine clinical practice in Angola. Participating clinicians generally reported favourable perceptions of its perceived effectiveness, tolerability, and convenience. Further prospective clinical studies are warranted to validate these clinician-reported findings.

Acknowledgements

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Ethics Statement

This survey was conducted in accordance with applicable local ethical standards. Participation was voluntary and anonymous. As the study collected opinions and experiences of healthcare professionals without involving patient-identifiable information, formal ethics committee review was not required according to local regulations.

Informed Consent

All participating clinicians were informed of the purpose of the survey via email

invitation letter, and they provided consent before completing the questionnaire.

Role of Sponsor and Funding

This survey was supported by Shalina Healthcare Angola. Shalina Healthcare Angola supported the study and was involved in survey development, data collection, data analysis, and manuscript review and publication.

Conflicts of Interest

The author declares no conflicts of interest regarding the publication of this paper.

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Annexure: Survey Questionnaire and Invitation to Participate in the Survey

1. Introduction Ibucap Night Angola.docx
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2. Ibucap Night HPER Questionnaire Angola.docx
https://shalina.sharepoint.com/:w:/s/MEDICALAF-FAIRS/IQC2nwB11tNBSY09MA8hCPfMAVoxL_ThthnI_cY-aGr6r2kQ?e=hhfKd3