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Commentary

Clinical Parameters and Management Guidelines of Drug-Drug Interactions (DDI) in Malaria Effected Patients

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ABOUT THE STUDY

Malaria patients who are admitted to the hospital frequently have comorbid conditions or additional issues that require medication treatment. Drug interactions are frequently caused by multi-drug therapy (DDIs). In order to better understand potential DDIs (pDDIs) among malaria inpatients, we looked into their prevalence, levels, risk factors, clinical relevance, and monitoring parameters/management guidelines [1]. One of the infectious diseases that puts a strain on the healthcare system is malaria. In 2016, 91 countries reported 216 million cases of malaria, according to the WHO. This was a five million case rise over 2015. Additionally, in 2016, five nations, including Pakistan, were home to 85% of all cases of vivax malaria. Malaria continues to be one of the leading infectious disease killers on a global scale.

Malaria hospitalisation may be necessary to treat severe disease, control concomitant symptoms, or treat coexisting conditions. Patients with malaria who are hospitalised typically receive prescriptions for anti-malarial medications, antipyretics, and analgesics. In addition to these medications, a wide range of additional medications are also recommended to treat the comorbid conditions and their accompanying symptoms [2]. The likelihood of Drug-Drug Interactions (DDIs) influencing a drug's pharmacokinetic characteristics and pharmacodynamics profile increased when multiple medicines were taken concurrently. A number of harmful clinical consequences, including hospitalisation, diminished or eliminated therapeutic efficacy, lengthened hospital stay, toxicity, and unpleasant effects, can be brought on by DDIs. About 20% to 30% of negative side effects have been attributed to DDIs, of which 1% to 2% are life-threatening and 70% require medical attention [3].

Potential DDIs (pDDIs) issues have been discussed in general with hospitalised patients as well as with patients who have particular illnesses such liver cirrhosis, hypertension, Diabetes Mellitus (DM), bone marrow transplant, cancer, stroke, pneumonia, urinary tract infections, and hepatitis C. Even though they are the most common reasons for hospitalisation, DDIs, particularly among inpatients with malaria, are still a problem [4]. Additionally, literature has received the least attention in poorer nations, and improper use of medications is a prevalent problem. Studies evaluating pDDIs and their clinical value among hospitalised malaria patients must therefore take specific consideration into account. After that, this research will increase patient safety, aid medical personnel in managing pDDIs, and lessen the unfavourable clinical effects that go along with them.

One of the therapeutic challenges for inpatients continues to be DDIs. There aren't many studies looking at pDDIs problems among malaria patients being treated in hospitals. When compared to individuals with acquired immune deficiency (33.5%), liver cirrhosis (21.5%), and hypertension (21.1%), the prevalence of pDDIs revealed in the current study is greater (37.2%). On the other hand, it is lower (37.2%) when compared to patients with hypertension (48%), diabetes mellitus (52.2%), and bone marrow transplant (60%). Furthermore, compared to patients with cancer (16%), the prevalence of major-pDDIs in the current study is greater (19.3%). Comparatively speaking, it is lower than that found among individuals with liver cirrhosis (21.4%), hepatitis C (30%-44%), and stroke (61%) [5].

By taking into account the degrees of interactions, healthcare providers can manage negative interactions-related outcomes. In our investigation, pDDIs of major and moderate kinds were frequently seen, but pDDIs of fair and good types were more common in terms of documentation levels. These results don't line up with what was discovered in other investigations. This condition warrants concern because our findings indicate that malaria patients may be exposed to harmful pDDI effects. Therefore, it is essential for managing pDDIs, reducing the associated risk, and developing preventive measures for prevention that healthcare professionals determine the type of contact [6].

pDDIs are frequently seen in malaria patients. Healthcare professionals that are knowledgeable about the most prevalent pDDIs may be able to prevent pDDIs and the adverse symptoms

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that go along with them. Relevant clinical data, such as test results and signs/symptoms, should be examined, especially in patients who take many medications, require a longer hospital stay, or have diabetes mellitus. Significant steps can be taken to reduce the negative effects linked to DDIs, including careful monitoring for negative outcomes and the prescription of medications with a low risk for pDDIs.

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