

# Malaria as a Hospital Infection

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## Abstract

Malaria can occur as a hospital infection in essentially three ways. One, by the transmission of the Plasmodium parasite from a Malaria patient admitted in the hospital to another patient through the bite of a female Anopheles mosquito. Secondly, it can occur by the transfusion of blood containing the Plasmodium parasite that has not been properly screened. Third, Malaria transmission can occur from an infected patient to non-infected one via gloves and needles contaminated with blood of the infected patient that are used to handle intravenous lines and solutions for the non-infected patient.

**Keywords:** Malaria, Hospital, Infection.

## INTRODUCTION

Malaria as a hospital infection is not a common occurrence. However, it can occur under special circumstances which favor the transmission of the Plasmodium parasite from the infected patient to the non-infected patient. This article describes these situations and remedies to overcome them.

## MATERIALS AND METHODS

An internet-based search was made for hospital-acquired Malaria occurring anywhere in the world and relevant articles were selected.

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## RESULTS

Three articles were found to describe the transmission of Malaria in the hospital via the blood-borne method. However, no article was found that documented vector borne transmission of Malaria in the hospital.

## DISCUSSION

The vector-borne transmission of Malaria in the hospital is easily preventable but highly overlooked. What is required is that the Malaria patient must be kept in a room which has the windows and door screened. Thus, female Anopheles mosquitoes, if present in the hospital premises, will not gain access to the patient for a blood meal and therefore even if they bite other patients, will not transmit the Plasmodium parasite.

The injudicious use of the same syringes, needles, and gloves for a Malaria patient as well as non-Malaria patients leads to spread of the

Plasmodium parasite either through blood or infected erythrocytes.<sup>1-3</sup> Therefore, utmost attention to infection control practices is a must in order to prevent such instances from occurring. Similarly, if thorough screening of blood for the Plasmodium parasite is carried out prior to transfusion, then this mode of transmission of Malaria too can be controlled.

## CONCLUSION

Hospital acquired Malaria is preventable if careful attention is paid to the various modes of transmission of the disease.

## REFERENCES

1. Nasser A. Al. Hamdan. Hospital-acquired malaria associated with dispensing diluted heparin solution. *J Vector Borne Dis* 46, December 2009, pp. 313-314. Available at [https://www.researchgate.net/publication/40446861\\_Hospital-acquired\\_malaria\\_associated\\_with\\_dispensing\\_diluted\\_heparin\\_solution](https://www.researchgate.net/publication/40446861_Hospital-acquired_malaria_associated_with_dispensing_diluted_heparin_solution), Accessed on 20 June 2022.
2. Piro S. et. al. Hospital-acquired malaria transmitted by contaminated gloves. *J. Hosp. Infect.* 2001 Feb;47(2):156-8. Available at <https://pubmed.ncbi.nlm.nih.gov/11170781/> Accessed on 20 June 2022.
3. MB Hashim Alawi Abulrahi et. al. Plasmodium falciparum malaria transmitted in hospital through heparin locks. *The Lancet.* Vol. 349, Issue 9044, pg. 23-25. Jan 4, 1997. Available at [https://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(96\)03508-8/fulltext](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(96)03508-8/fulltext) Accessed on 20 June 2022.

