of cases in RS increased by 204%, reinforcing the association with extreme climate events that affected the region in 2024. Monthly analysis showed that approximately half of the cases in the period occurred in May (266 cases; 48.36%), coinciding with the time of floods that broadly impacted the state. Regarding mortality, 211 deaths were reported in Brazil in the first half of 2024. Of these, 42 occurred in RS (19.90%), representing an 82.6% increase compared with the same period in 2023.

Conclusion: This study demonstrates the direct impact of floods on the rise in leptospirosis cases and deaths in RS in 2024, pointing to relevant consequences for the health system. The findings highlight the importance of structural preventive actions by public managers, including improvements in basic sanitation and urban drainage. In a scenario of increasingly frequent extreme climate events, such measures are essential to mitigate the health and economic effects associated with the disease.

Keywords: Leptospirosis, Floods, Public health, Basic sanitation.

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CONGENITAL MALARIA DUE TO PLASMODIUM VIVAX MIMICKING LATE-ONSET NEONATAL SEPSIS IN A NON-ENDEMIC AREA: CASE REPORT

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Malaria is a disease transmitted mainly through the bite of Anopheles mosquitoes, which inoculate Plasmodium sporozoites into the human host. Congenital malaria rarely occurs, via vertical transmission of the parasite's blood forms in utero or during delivery. We report the case of a Venezuelan pregnant woman with Plasmodium vivax malaria treated with chloroquine and primaquine in the first trimester, before pregnancy was confirmed. After pregnancy diagnosis, she was followed at a tertiary hospital in southern Brazil, a region without parasite circulation. She experienced a recurrence of P. vivax and received chloroquine (loading dose for 3 days) and weekly prophylaxis; primaquine was postponed due to contraindication in pregnancy. She remained asymptomatic with negative tests until vaginal delivery, when the newborn had Apgar scores of 3/8 and required resuscitation, but then stabilized clinically. Initial tests such as complete blood count and thick smear for parasites were normal, and the infant was discharged without symptoms. At 21 days of life, the newborn returned with intermittent fever, hepatosplenomegaly, severe anemia, and thrombocytopenia. Late-onset neonatal sepsis was considered, but based on the clinical and epidemiological history, direct testing for Plasmodium and a rapid test were performed, confirming severe P. vivax infection in a non-endemic region. The mother and the newborn were tested for G6PD deficiency, and both results were negative. The case was reported to surveillance authorities, and treatment with intravenous artesunate was initiated, followed by oral artemether-lumefantrine, with favorable evolution, laboratory normalization, and hospital discharge. The mother completed treatment with chloroquine and primaquine 40 days after delivery. The baby was followed as an outpatient until 18 months of age, with adequate neuropsychomotor development. Although rare, congenital malaria should be considered even in non-endemic areas, especially in pregnant women with a migratory history. The clinical picture can mimic neonatal sepsis and other congenital infections, thereby delaying diagnosis. Early suspicion is essential to ensure appropriate treatment. It is emphasized that, in congenital P. vivax malaria in a non-endemic region, infection results from blood forms without hepatic hypnozoites, making primaquine unnecessary for the newborn. Follow-up is important given the risk of alterations in child development.

Keywords: Congenital malaria, Plasmodium vivax, Artemether-lumefantrine, Vertical transmission, Neonatal sepsis.

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SEVERE MALARIA DUE TO PLASMODIUM FALCIPARUM: A DECADE OF HOSPITALIZATIONS, OUTCOMES, AND PUBLIC SPENDING IN ENDEMIC REGIONS OF THE BRAZILIAN LEGAL AMAZON

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Introduction: Malaria, transmitted by Anopheles mosquitoes, remains a serious public health problem in tropical regions. Among the infecting species, Plasmodium falciparum is the main cause of the most severe forms of the disease, associated with a higher risk of complications and death. In the Brazilian Legal Amazon, a highly endemic region, hospitalizations due to this infection represent a significant burden for the Unified Health System (SUS), affecting mortality, length of stay, and healthcare costs.

Objectives: To analyze the frequency, clinical outcomes, and economic impact of hospitalizations for Plasmodium falciparum malaria in the Legal Amazon between 2014 and 2024.

Methods: Cross-sectional study using data from the SUS Hospital Information System (SIH/SUS), obtained via DATASUS. Hospitalizations related to P. falciparum malaria in the Legal Amazon regions between January 2014 and December 2024 were included. Variables assessed included number of

hospitalizations, deaths, mortality rate, mean length of stay, total and average costs, as well as seasonality and temporal autocorrelation (lag-1).

Results: A total of 6,188 hospitalizations for P. falciparum malaria were recorded during the period. Total expenditure was R$ 5,860,696.77, with an average cost per hospitalization of R$ 714.79. The mean length of stay was 8.61 days. There were 496 in-hospital deaths, with an average mortality rate of 5.74%. The year with the highest number of hospitalizations was 2024 (1,157 cases; 18.7%), and the lowest was 2016 (205 hospitalizations; 3.3%). October had the highest number of hospitalizations (556; 8.99%) and January the lowest (488; 7.89%). Lag-1 autocorrelation showed stability in length of stay ($r = 0.76$) and a downward trend in mortality ($r = 0.74$).

Conclusion: Hospitalizations for P. falciparum malaria in the Legal Amazon had a substantial impact on SUS over the last decade, with relevant mortality and significant costs. The downward trend in case fatality may reflect advances in early diagnosis and hospital care, although the stability in length of stay points to persistent challenges in clinical management. These findings reinforce the need for continued investment in epidemiological surveillance, hospital infrastructure, and public policies targeted at region-specific malaria control in the Amazon.

Keywords: Malaria, Plasmodium falciparum, Hospitalizations, Legal Amazon.

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MALARIA IN BRAZIL: AN EPIDEMIOLOGICAL COMPARISON BETWEEN THE AMAZON REGION AND ATLANTIC FOREST AREAS

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Introduction/Objectives: Malaria is a disease caused by different Plasmodium protozoan species, transmitted by the bite of infected female Anopheles mosquitoes. In Brazil, most cases occur in the Amazon region, where transmission is intense and continuous; however, new and sporadic forms have been observed in Atlantic Forest areas, especially in states in the South and Southeast regions. In these locations, cases attributed to the zoonotic species P. simium have been identified, with potential transmission between primates and humans. Thus, this study aimed to analyze epidemiological data on malaria cases recorded in the Amazon region and Atlantic Forest areas, involving the South and Southeast of Brazil.

Methods: Data were provided by the Centro Nacional de Inteligência Epidemiológica e Vigilância Genômica (CNIE) of the Ministério da Saúde on malaria in Brazil. Parameters analyzed included sex, age group, and parasite species in the Amazon, South, and Southeast regions, between 2012 and 2024.

Results: In the Atlantic Forest region, in the South and Southeast states, 720 malaria cases were recorded during the study period. Of these, 573 were caused by P. vivax, and P. simium was not observed in the search system. Regarding patient profile, there was a higher occurrence among men (538 cases), while women accounted for 182 cases, suggesting a possible relationship with occupational exposure. As for age, most infections occurred in the economically active population aged 20 to 59 years, totaling 550 records. There were also 61 cases in children and adolescents aged 0 to 19 years and 109 cases in people over 60 years old. In the Amazon region, there were 2,062,302 total cases, with 1,769,135 caused by P. vivax, 269,659 by P. falciparum, and 23,499 by mixed infection. By sex, 1,245,329 cases occurred in men and 816,964 in women. The 20 to 59 age group was also the most affected (672,222 cases), followed by 0 to 19 years (518,326 cases), and then those over 60 years (89,640 cases).

Conclusion: This overview reinforces the importance of active, continuous, and up-to-date epidemiological surveillance both in high-transmission areas and in historically non-endemic regions such as Atlantic Forest areas, given the identification of zoonotic species like P. simium occurring in the region.

Keywords: Notification, Plasmodium, Zoonotic malaria.

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NEUROLOGICAL MANIFESTATIONS ASSOCIATED WITH A CHIKUNGUNYA OUTBREAK: A CASE SERIES DURING AN EMERGENCY IN AN AREA ENDEMIC FOR DENGUE

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Neurological manifestations of chikungunya virus infection are rare and underdiagnosed. Clinical recognition is challenging due to the nonspecific spectrum of symptoms, limited availability of specific tests, and similarity to other etiologies. In addition, establishing causality with concomitant acute infection is complicated by the patient profile, which often includes atypical presentations, comorbidities, and advanced