Similarly, higher LGBT-RI values were significantly associated with higher Mpox incidence rates (cases/100,000 pop) (r2 = 0.5062; p < 0.0001). The number of deaths notified and the Mpox mortality rate were also associated with the LGBT-RI (r2 = 0.0636; p = 0.0328 and r2 = 0.1390; p = 0.0005, respectively). Notably, the %CFR was not associated with LGBT-RI (r2 = 0.0216; p = 0.3287), as expected. Discussion: These findings underscore the significant influence of stigma and discrimination that may be associated with Mpox. In particular, LGBT+ rights allow trust in the health system, diagnosis and management. At the same, the proper notification of a Mpox case and its associated outcomes. Even in 2024, 88 countries or territories, especially in Africa, the Middle East, and Asia, have not yet reported even a single case of Mpox. Even in Latin America and the Caribbean, ten countries are included in that list. Despite the epidemics of 2022-2024, Mpox remains a neglected condition worldwide, with a resurgence in countries like the Democratic Republic of Congo in 2023-2024.

LYME'S DISEASE, AN IMPORTED ZOONOSIS. CRITICAL ANALYSIS OF PRESENCE IN ARGENTINA

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Introduction: Lyme disease (LD) is caused by bacteria of the Borrelia burgdorferi sensu lato complex and transmitted by the bite of ticks of the Ixodes ricinus complex. To date, no autochthonous cases have been reported in Argentina. Its diagnosis involves serological tests included in a two-step algorithm. The study proposes to report the results of laboratory tests, describe the clinical-epidemiological characteristics of consultations received due to suspected LD, and critically evaluate the scientific evidence on alleged autochthonous cases of Lyme in Argentina.

Materials and methods: From 09/2014-05/2022, a study was carried out that included 53 individuals who consulted due to suspected LD at a reference laboratory. Serum samples were obtained and referred to the Centers for Disease Control and Prevention (CDC) for determination of IgM and IgG antibodies. The samples met one or both inclusion criteria: -Travel to an area where the transmitting vector circulates; -Positive diagnostic tests reported by national and international laboratories.

Results: According to the data collected from the epidemiological form, it was evident: 36% of the patients presented non-specific neurological symptoms and 64% reported rheumatological symptoms; 57% of the patients did not report traveling to the area of circulation of the transmitting vector; 46% reported having suffered multiple bites. According to the aforementioned selection criteria, 43% (n = 23) of the patients met both criteria, which would suggest 23 possible imported cases of LD. The remaining 57% only showed positive results in at least one diagnostic technique for EL, which represented 30 "autochthonous" cases. Only 5 cases (9%), with positive results issued by national and international laboratories, were confirmed as positive by the CDC. These individuals had an epidemiological history of traveling to the tick vector circulation area. The remainder of the cases were reported as negative by the CDC and were ruled out as possible indigenous Lyme cases. The comparison of the results sent by private laboratories and those obtained by the CDC showed 91% (n = 48) false positives.

Conclusions: The diagnosis of LD should only be considered based on the presence of typical symptoms of infection in patients with a history of exposure to the vector. Always use FDA-approved assays and recommended interpretation criteria.

MODELAGEM DA CARGA DE SAÚDE PÚBLICA DO VÍRUS SINCICIAL RESPIRATÓRIO E O IMPACTO DA VACINA VSR ADJUVANTADA (RSVPREF3) EM ADULTOS COM 60 ANOS OU MAIS NO BRASIL

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Introdução/objetivos: Dados brasileiros sobre a carga do vírus sincicial respiratório (VSR) em adultos são limitados. As vacinas contra o VSR recentemente aprovadas visam reduzir a carga do VSR em adultos mais velhos. Este estudo tem como objetivo usar uma abordagem de modelagem para estimar a carga do VSR e projetar o potencial impacto na saúde pública da introdução da Vacina VSR Adjuvantada (RSVPreF3) para imunização de adultos com 60 anos ou mais no Brasil.

Materiais e métodos: Um modelo de Markov estático de ciclo mensal foi desenvolvido para avaliar o número de casos sintomáticos de VSR com e sem vacinação. O modelo captura casos de VSR em pacientes com doença respiratória aguda (DRA-VSR), doença do trato respiratório inferior (DTRI-VSR), doença do trato respiratório superior (DTRS-VSR),

complicações de pneumonia devido à DTRI-VSR, hospitalizações (assumidas conservadoramente apenas às DTRI-VSR) e mortes em um período de três anos. A cobertura vacinal para uma dose única considerada no modelo foi de 30% a 70%. Os dados demográficos são valores específicos do Brasil (2024) provenientes das Nações Unidas. Os dados epidemiológicos foram recuperados de banco de dados público (FluNet) e complementados por revisão sistemática da literatura. A eficácia da vacina foi obtida do estudo clínico de fase 3 AReSVi-006 (NCT04886596).

Resultados: No Brasil, a coorte incluiu 33.859.754 adultos ≥ 60 anos. Na ausência de vacinação, o modelo projetou 6.641.784 casos de DRA-VSR (3.480.113 de DTRS-VSR e 3.161.671 de DTRI- VSR), 243.205 casos de pneumonia, 264.214 hospitalizações e 25.083 mortes por VSR em três anos. Com a cobertura aumentando de 30% para 70%, o modelo projetou que a vacinação pode prevenir de 780.189 a 1.820.442 casos de DRA-VSR (264.146 a 616.341 de DTRS-VSR e 516.043 a 1.204.101 de DTRI-VSR), 39.696 a 92.623 casos de pneumonia, 43.125 a 100.624 hospitalizações e 4.094 a 9.553 mortes por VSR. O número necessário para vacinar para prevenir um caso de DRA-VSR e um caso de DTRI-VSR foi estimado em 13 e 20, respectivamente.

Conclusões: Os resultados revelam que aproximadamente 20% da população brasileira com idade ≥ 60 anos está em risco de infecção por VSR nos próximos três anos, e a carga ao sistema de saúde é substancial. A prevenção por meio da vacinação com RSVPreF3 tem o potencial de produzir consideráveis benefícios, reduzindo a morbidade, a utilização de serviços de saúde e a mortalidade associadas às infecções por VSR.

Palavras-chave: Vírus Sincicial Respiratório, Vacina VSR Adjuvantada, ≥ 60 anos.

RELATIONSHIPS BETWEEN MORBIDITY AND MORTALITY FROM MPOX AND THE HUMAN DEVELOPMENT INDEX (HDI) GLOBALLY DURING 2022-2024 EPIDEMICS

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Introduction: Multiple aspects of the epidemics of mpox during 2022-2024 have been explored, including clinical features, diagnostic aspects, therapies and vaccines. However, socioeconomic aspects have been poorly assessed in terms of the epidemiologically associated factors. No studies have been published on the relationships between the human development index (HDI) and the morbidity and mortality from Mpox.

Methods: An ecological study for 104 countries was done using HDI data that were obtained from the United Nations Development Program (UNDP), and the cases, calculating the incidence rates (cases per 100,000 pop.), from the U.S. Centers for Disease Control (CDC) and the World Health Organization (WHO). Also, mortality rates (cases per 100,000 pop.) and case fatality rates (deaths per 100 cases, %CFR) were calculated. The annual variation of the variables was assessed, and non-linear regression models (exponential) were done at Stata/MP® v.14.0.

Results: The non-linear regression models revealed significant findings. The relationship between epidemiological factors and HDI was found to be significant. During this epidemic, a higher incidence was observed in countries with high HDI ($r2 = 0.4132$; $p < 0.0001$), while mortality rates were significantly lower in these countries ($r2 = 0.1317$; $p = 0.0007$). Conversely, the case fatality rate (%CFR) was significantly higher in countries with lower HDI ($r2 = 0.1595$; $p = 0.0001$).

Discussion/conclusions: These findings underscore the significant influence of socioeconomic indicators such as the HDI on the Mpox incidence and mortality rates and on %CFR globally, particularly in endemic countries. Despite the epidemics of 2022-2024, Mpox remains a neglected condition worldwide, with a resurgence in countries like the Democratic Republic of Congo in 2023-2024. Therefore, the need for further studies on multiple epidemiological factors of Mpox is paramount.

Keywords: Mpox, Epidemics, Human Development, Global, Surveillance.

RELATIONSHIPS BETWEEN MORBIDITY FROM MPOX AND INTERNATIONAL TOURISM GLOBALLY DURING 2022-2024 EPIDEMICS

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Introduction: Multiple aspects of the Mpox epidemics during 2022-2024 have been explored, including clinical features, diagnostic aspects, therapies, and vaccines. However, socioeconomic aspects have been poorly assessed regarding the