

Public Health II

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Investigating the seroprevalence of Chikungunya virus antibodies in new rheumatoid arthritis patients at two rheumatology clinics in Kingston, Jamaica

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Objective: To confirm the presence of CHIKV IgG antibody among newly diagnosed rheumatoid arthritis (RA) patients presenting to the two clinics under investigation; to determine the frequency of newly diagnosed RA patients who experienced musculoskeletal symptoms before or after the 2014 CHIKV outbreak through self-reporting; to compare the results of self-reporting with the presence of the CHIKV IgG antibody; to determine if, among the study participants, there was any association between the appearance of symptoms of RA and the 2014 CHIKV outbreak in Jamaica.

Methods: The project was a cross-sectional study between September 2016 and February 2017, involving the recruiting of adult RA patients (age ≥ 18 years), diagnosed with RA after August 2014, presenting to the clinics under investigation. The patients were assessed by clinical rheumatologists for RA using the American College for Rheumatology (ACR)/ The European League Against Rheumatism (EULAR) 2010 Classification Criteria for RA and patients fitting the criteria were recommended to the study. Fifty-two patients were recruited to the study.

Records of participants in the study were assessed using a data abstraction form to determine whether symptoms appeared prior to or after August 2014 and to collect data on the co-morbidities, blood test results and drugs prescribed. All 52 recruited patients were serologically tested for CHIKV IgG antibodies.

Results: Eighty-four per cent of the participants in the study were found to be seropositive for CHIKV IgG. However, there was no statistical significance between the time of appearance of RA symptoms and the CHIKV outbreak. All participants (100%) who believed they had

contracted CHIKV were tested positive for CHIKV IgG antibody ($p < 0.001$).

Conclusion: This is the first study to our knowledge from the Caribbean that specifically reports on the relationship between CHIKV infection and RA. There was a high seroprevalence (84%) of CHIKV IgG among study participants, although there was no significant association found with CHIKV infection and RA. However, we did find that the percentage of participants that were infected during the 2014 CHIKV outbreak was significantly higher in the study population of RA patients as compared to that found by self-report in the general population. It was also found that self-report of CHIKV infection in this population had high specificity (100%), with all participants who diagnosed themselves with CHIKV testing positive for CHIKV antibodies. There was also no temporal association found between the appearance of joint pain in CHIKV infection and the development of RA. The study was, however, limited by its small sample size and insufficient follow-up time. Further studies should be considered in the future with a larger sample size and a longer follow-up period and a nationally representative seroprevalence study.

There is also scope for research evaluating the impact that CHIKV infection may have on severity of rheumatoid arthritis and its possible effects on joint involvement.

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Zika virus outbreak in 19 English- and Dutch-speaking Caribbean countries and territories, 2015–2016

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Objective: To describe the epidemiology of laboratory-confirmed Zika cases reported to the Caribbean Public Health Agency (CARPHA) from 19 English- and Dutch-speaking countries from October 1, 2015 to December 29, 2016.

Methods: Caribbean Public Health Agency member states reported clinically suspected cases of Zika and submitted serum specimens to the Agency for laboratory investigation. A patient was considered a confirmed case if Zika virus was detected by real-time reverse-transcriptase-polymerase

chain-reaction assay (qRT-PCR) or serological test. Due to the documented link between Zika virus and congenital syndrome and Zika virus and Guillain-Barré syndrome (GBS), data on these disease outcomes were extracted and presented.

Results: During the epidemic period of October 1, 2015 to December 29, 2016, 5614 cases from 19 English- and Dutch-speaking Caribbean countries and territories were tested for arboviral pathogens. Of these, 1447 cases tested positive for Zika virus. The majority of cases were female (83%), of which 614 (51%) were pregnant. Fifty-nine per cent of cases were aged 20–39 years (median 30 years, range: 5 days to 90 years). Rash, fever and arthralgia affected 87%, 63% and 60% of all reported cases, respectively. Four confirmed cases of congenital syndrome associated with Zika virus infection were reported from three countries during the period. One hundred and twenty-one cases of GBS were reported from 10 countries with 13 reported cases laboratory confirmed for Zika virus.

Conclusion: The emergence of Zika virus in the English- and Dutch-speaking Caribbean underscores the ongoing challenge posed by arboviral infections, the need for vigilance across all areas of surveillance and innovative prevention and control strategies.

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A qualitative exploration of the experiences and perceptions of women living with a diagnosis of breast cancer in Barbados: The need for empowerment

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Objective: This qualitative study sought to examine the factors influencing cancer survivorship in Barbados, with a view to identifying health system, societal and individual characteristics that facilitate or inhibit care access.

Methods: Female participants, aged 27–69 years, were purposively selected with the assistance of a cancer charity on the Island. Individual, face-to-face semi-structured interviews were conducted until the point of saturation (n = 12). All interviews were audio-taped and transcribed verbatim. Data were analysed using thematic analysis with constant comparison. ATLAS.ti (8) data management software used.

Results: A major theme that emerged was that of the need for empowerment of patients through the care pathway.

Factors affecting empowerment included the need for frank humane communication between healthcare personnel and patients, and for information and guidance in navigating the healthcare system.

Conclusion: These results highlighted the need for training and sensitization of healthcare personnel who relate with cancer patients and for the development of communication standard operational procedures (SOP). The aim of the SOP would be to empower patients to navigate healthcare access.

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Knowledge, attitudes and practices regarding rabies in Grenada

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Objective: This study was conducted to assess knowledge, attitudes and practices regarding rabies in Grenada as well as to receive feedback from the public about the rabies control programme conducted by the Ministry of Health.

Methods: A cross-sectional survey was administered to 996 households on the mainland. A semi-structured questionnaire was administered *via* face-to-face interviews in July 2017. The survey focussed on knowledge of rabies and prevention, vaccination practices, perception of institutional responsibilities for rabies control and evaluation of the anti-rabies programme.

Results: More than half of the households, 62%, had animals that were susceptible to rabies. Respondents were very aware of rabies as a disease that can infect animals and humans. The rate of participation in the vaccination programme was 51.6% for pets and 38.0% for livestock. About 40% of respondents were knowledgeable about the extent of protection by rabies vaccine. Respondents did not demonstrate exceptionally high levels of knowledge about animals that were susceptible to the disease. School/work and the electronic media were the primary sources of initial knowledge about rabies. The three most frequent recommendations made to improve the rabies-control programmes were: increase education programmes, control the mongoose population and expand the vaccination period each year.

Conclusion: The anti-rabies programme is critical for Grenada to maintain a zero-rabies status for humans and reduce the risk of epizootic transmission. A comprehensive revision of the rabies control programme is warranted, focusing on a national education programme and policy revision to improve the public health response systems.