Malaria – Experience of a Paediatrics Department in an Underdeveloped Country

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Introduction Malaria is a parasitic disease (Plasmodium) transmitted by Anopheles mosquitoes. The diagnosis is made after a positive result in the rapid diagnostic test or the presence of the parasite in the blood smear. Complicated malaria, classified with clinical and laboratory criteria, is a medical emergency and presupposes injectable treatment. In endemic countries it is a serious problem of public health and resource consumption. The objective of this study was intended to the reality of Paediatrics of a hospital in Mozambique.

Material and Methods Retrospective and descriptive review of hospitalizations in paediatric age (0–14 years) for malaria in a general hospital of an underdeveloped and endemic country from July 2017 to June 2018.

Results Five hundred and fifty-one children were admitted - 22% of hospitalizations in the pediatric ward, 54% were male, with 3 years of median ages. They presented with complications 53.4% of patients - mainly cytopenias and convulsive episodes - and 17.4% with other concomitant infections. Initially, artesunate intravenous was administered to all patients, they were discharged, on average 3 days later, with oral therapy; registered 10 cases of drug resistance. One patient was transferred to the central hospital (cerebral malaria). There were no deaths.

Discussion Data obtained are concordant with published epidemiology, reinforcing the impact of this pathology in the health services. Paediatric age is one of the risk groups, which always requires hospitalization under 5 years. Non-endemic countries should take advantage of recently updated strategies of the World Health Organization and Public Health departments of high-prevalence countries to do properly in importation cases.

A Pain in the Neck: A Completed Audit of Use of Throat Cultures in a Paediatric Emergency Department

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Background The National Institute for Clinical Excellence (NICE) published an innovation briefing on ‘point-of-care diagnostic testing for suspected strep A infection in sore throat’ in May 2018. This suggested that use of these tests in additional to clinical scoring systems could assist in rapid decision making, reduce unnecessary antibiotic use and provide additional patient reassurance compared with throat culture.

Aims To audit use of throat culture and rate of positive results in the paediatric emergency department of a secondary paediatric hospital. To raise awareness of the importance of using clinical scoring systems in assessing the need for throat culture. To determine whether the introduction of point of care testing for Group A streptococcal infection (GAS) would be feasible in this setting.

Methods Emergency department records were used to retrospectively identify patients with acute sore throat who had a throat culture taken over a three month period. This was followed by interventions in the form of education sessions and visual reminders placed in the emergency department on the modified centor criteria clinical scoring system for GAS. We then re-audited throat cultures taken over a one month period.

Results In the initial three month audit period 53 throat cultures were taken. Of these one (1.8%) was positive for GAS. Following the interventions 31 throat cultures were taken in the one month period of which four (12.9%) were positive for GAS.

Conclusion Throat cultures were used in the assessment of children with acute sore throat despite their limited assistance in clinical decision making in the emergency department setting. There was a very low yield of positive throat culture results in these patients. Raised awareness of clinical scoring systems did increase the yield of positive throat culture results. Further interventions are needed to reduce the rate of negative throat cultures before the benefit of introducing rapid antigen tests can be assessed.

The Public Health Response to a Blood Exposure Incident in a Local Secondary School

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The Public Health Department (PHD) was contacted by a local secondary school of an incident regarding a shared needle exposure the previous week. A group of students undertook a project to investigate the effects of exercise on blood glucose levels, as part of a national school science competition. The students undertook the experiments during three consecutive lunch breaks. A student with diabetes carried out the testing and used the same lancing devices on all children, with no hygiene or infection control considerations. On the final day a teacher became aware of the incidents. After several days, Public Health were contacted by the school for advice.

Public Health urgently visited the school in question to discern further details. After an initial risk assessment, an incident management team (IMT) was convened within the PHD to best manage the acute response to the incident, and to take actions as required. Our incident entailed all children being both potentially recipient and donor of a blood borne infection. No national or international guidelines consulted offered advice for this scenario. The clinical team returned to the school the following day to meet the parents of the children involved, to assess further the child’s risk of being a donor of a bloodborne virus, and to explain that their child might be both a source and a recipient of a blood borne virus. Nationally produced information sheets were tailored by the IMT for this setting, to give to all students and parents. All children consented to have their Hepatitis B, C and HIV serology tested and were offered early vaccination against Hepatitis B by the IMT in school. The outcome for all children was uneventful.