Risk assessment of vector borne diseases in Malta

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Aims: identify the main vector borne diseases with public health relevance occurring in the Maltese islands.

Methods: Collection of already published data on vector borne diseases in Malta and further information obtained through meetings held with local specialists working in these fields. Field missions were also done in different sites in Malta and Gozo for mosquito and sandfly surveillance.

Results and Conclusions: The vector borne diseases were prioritized according to current public health impact, proven presence of the vector and like hood for vector presence.

Priority 1: Leishmaniasis, Rickettsial disease, West Nile fever.

The causative agents, Leishmania infanntum are transmitted by sandflies in Malta, the vectors phlebotomus papatasi and p perniciosus have been found to be present in Malta. Leishmaniasis is an increasing threat in Mediterranean countries including Malta and further investigations need to be done to understand the aetiology of Cutaneous Leishmaniasis.

Rickettsia conorii which causes Mediterranean spotted fever is transmitted by Rhipicephalus sanuineus or dog tick. The small number of reported cases locally is due to lack of biological confirmation of clinical cases as well as limited diagnostic capacity.

West Nile fever has never been diagnosed in Malta but mosquito vectors like Culex pipiens are present locally. The virus may be introduced by migratory birds. With the vector present and outbreaks of WNF occurring in neighbouring countries it is reasonable to assume that the disease may occur in Malta.

Priority 2: Sandlfy fevers

Sandfly fevers caused by phleboviruses such as Toscana or Sicilian sandfly viruses, which clinically present as mild neuro-invasive illness have never been diagnosed on the islands however the vector Phlebotomus papatasi has been found to be present on Malta.

Priority 3: Crimean Congo Haemorrhagic fever, Rift Valley fever, Chikungunya, Dengue, Malaria

The potential presence of these vectors occurring in Malta need further investigation.

What Health Research Does Malta Need?

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Aims: A great deal of research has been done in the health field in Malta over the years. Much of this research has been driven by the interests of the researcher. The primary author has begun to compile this work into a fully searchable online database (http://staff.um.edu.mt/ista1/MHSRD/index.htm). The purpose of this study was to identify the priorities that Health Care Practitioners and researchers believe should be tackled. The ultimate goal is to have a list of research projects that should be undertaken in order to facilitate locally-relevant evidence-based clinical decisions.

Methods: The list of health practitioners and administrators working at the Health Division was obtained from the Personnel section of the Department of Health after obtaining permission from the Director General Health. Invitations to participate were also circulated through the relevant professional associations. Subjects were asked to respond to a short structured questionnaire listing the research areas that they believe are important in order for evidence-based decisions to be made about health care in the Maltese Islands. Subjects were asked to add as many research questions as they felt were appropriate. Responses were coded and analysed using descriptive statistics generated with SPSS version 13.

Results: Topics such as "What services do we need to put into place to reduce hospital length of stay?"; "What is the prevalence of specific diseases such as mental illness, cardiovascular disease, diabetes etc in Malta?"; "Which health promotion activities are most effective in the local setting?"; What are the patient's expectations of their family doctor?" exemplified the responses obtained. The latter study has now been completed and the data are the subject of another presentation at this conference.

Conclusions: The main priorities that Health Care Practitioners and researchers believe should be tackled are issues of great relevance to our health care economy.

Illness perceptions and degree of adherence for a chronic disease sample

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Aims: To determine whether chronic disease patients who vary with respect to their degree of adherence to treatments, differ significantly by illness perceptions. The theoretical basis of the study was the common-sense model (CSM), which states that patients construct cognitive representations to understand and cope with their disease

Methods: CSM constructs regarding perceived causal attributes of a disease were collated for the final cross section component of a 3 way panel design study. Illness perception data were obtained from the Illness Perception questionnaire-revised (Moss-Morris et al., 2002) which assessed dimensions such as: timeline nature (acute/chronic/cyclical), treatment control beliefs and the perceived consequences of a disease. For adherence scores participants rated their degree of adherence on a 5-point Likert scale (1 = no adherence; 5 = full adherence). Full adherers were individuals who adhered all the time, good adherers for a good amount of time whilst poor adherers adhered sometimes/a little/never. Thirty-eight individuals with single gene (thalassaemic, dystrophy) and 77 with multigene (coeliac, psoriasis) diseases were interviewed. A one way ANOVA and post-hoc Tukey tests demonstrated the direction of any significant relationships.

Results: A principal components analysis with varimax rotation was computed on the perceived causes of their disease index and the following factors identified: psychosocial (e.g., stress), lifestyle (e.g., poor diet) and environmental (e.g., smog). Full adherers had higher treatment control beliefs than the poor adherers (F (2,