EUROTRAVNET SCIENCE WATCH: FEBRUARY 2011


Scientific advances – Significant increase in travel associated Dengue Fever in Germany. Allwinn R. Medical Microbiology and Immunology Feb 2011. [Epub ahead of print]


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Scientific advances

Protracted Rheumatic Manifestations in Travelers.

Kivity S, Meltzer E, Bin H, Schwartz E.


Description:
A small retrospective observational study of Israeli travellers presenting to a tropical medicine clinic with a history of prolonged (>4 weeks), non-traumatic arthralgia or arthritis over a 5 year period. 14 out of 4666 travellers fitted the criteria. 9 cases proved to have an Alphavirus infection (6 Chikungunya, 2 Ross River virus and 1 Sindbis virus). The remaining 5 cases were diagnosed as reactive arthritis and all were associated with a gastrointestinal infection prior to the development of rheumatic symptoms. Some rheumatic disease manifestations may be linked to travel and can be associated with alphavirus or gastrointestinal infections. Most cases recover without chronic debilitating effects.

Link to the article: http://www.ncbi.nlm.nih.gov/pubmed/21325965

ECDC comment:
Increasing awareness among practitioners of the association of travel with some rheumatic disease manifestations could assist in treatment in the EU.

Public Health significance:
Might be appropriate to encourage primary care physicians and rheumatology clinics to consider the possibility of a travel related illness and assess cases with this in mind. Further research into this area could prove beneficial for future treatment of rheumatic disease manifestations.

Key Words:
Arthritis, Rheumatic disease, Ross River virus, Chikungunya virus, Reactive arthritis, Alphavirus.
Scientific advances

The use of Interferon-γ release assays for Tuberculosis Screening in International Travelers.

Apers L, Yansouni C, Soentjens P, Vekemans M, Bottieau E.

Current Infectious Diseases Report  Feb 2011.

Description:
A review of the published literature on the specificity and sensitivity of interferon-γ release assays (IGRAs), as compared to tuberculin skin test (TST), for the diagnosis of latent TB infection in a travel clinic setting. The specificity of IGRAs was shown to be higher than that of TST and Tspot TB tests in both meta-analyses referred to in the article. Though one criticism was that the comparison among non- BCG and BCG vaccinated individuals was not reported for all tests. The most sensitive test was the Tspot TB test (88%), next the IGRAs (81%), then TST (70%). The authors go on to review the current policies and guidelines for TB testing in the USA, UK, Canada and the Netherlands. They make the recommendation that the test used should reflect current policy guidelines, logistical and financial implications and most importantly, the patient’s medical and travel history.

Link to the article:  http://www.ncbi.nlm.nih.gov/pubmed/21312007

ECDC comment:
Getting a cohesive Europe wide policy on which test to use and when to use it, may be an important advance in the fight against TB.

Public Health significance:
IGRAs are increasingly replacing the TST in travel medicine practice and an understanding of their sensitivity and specificity limitations is important, for the correct interpretation of such tests.

Key Words:
Interferon-γ release assays, TB infection, Tuberculin skin test, Travel, Latent TB infection.
Scientific advances

Significant increase in travel associated Dengue Fever in Germany.

Allwinn R.

*Medical Microbiology and Immunology*  Feb 2011.

**Description:**
Investigation of the occurrence of Dengue Fever (DF), in returning travellers within the Frankfurt/Main area in Germany over a 5-year period.

A total of 594 returning travellers from 2005 to 2010, with suspected DF had their serum samples analysed using 3 main diagnostic assays to establish infection and serotype. There were more cases noted in 2010 (21), when compared to 5 cases in 2007.

The authors compared their results with those from a centre in Berlin and found similar trends. Likely causes of the increase in DF were proposed with the added reminder to practitioners to actively promote awareness of this disease and preventative measures.


**ECDC comment:**
Introduction of Dengue fever into Europe is possible due to the widespread presence of Aedes albopictus and increasing numbers of returning infected travellers.

**Public Health significance:**
Because of the public health implications, close observation of trends in imported dengue fever is necessary.

**Key Words:**
Dengue fever, Travel, Arbovirus.
Scientific advances

Travel patterns in China.


Description:
A population survey done in China in 2007 to look at travel patterns and how this can relate to the spread of infectious diseases. The survey examined the travel patterns of 20,000 randomly selected from 2 different provinces. One province had a predominantly rural population whilst the other was more urban. Various mathematical models and population predictors were used to analyse the data and predict possible disease movement. Overall, the data showed a lack of uniformity in travel patterns in these 2 provinces, which would necessitate adding regional variables when predicting disease outbreak and spread for the future.

Link to the article:
http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0016364

ECDC comment:
The relative paucity of data from China is constantly being improved by new publications from the area.

Public Health significance:
As the median income in China increases the importance of illnesses originating in China as well as the local transmission patterns will also gain in importance and have an impact on global epidemiological patterns.

Key Words:
Travel patterns, Demography, Disease spread, Population modelling, China.
Traveling abroad for aesthetic surgery: Informing healthcare practitioners and providers while improving patient safety.

Jeevan R, Birch J, Armstrong AP.


Description:
UK based survey of plastic and aesthetic surgeons regarding patients who had presented to National Health Service (NHS) hospitals with complications or concerns after surgery abroad. The survey revealed a trend in patients seeking plastic and aesthetic surgery abroad with little follow up care on return to the UK. These patients then presented to an NHS hospital (which provides care free at the point of delivery), with complications or complaints requiring treatment and or revision surgery. The authors used the survey results to get the Department of Health (DH) to clarify what services the NHS can provide in such circumstances. They also posed questions of adequate informed consent of patients seeking medical treatment abroad, risks of travelling soon after major surgery, abuse of the free at point of delivery health service and the provision of follow up care on return to the UK.

Link to the article: http://www.ncbi.nlm.nih.gov/pubmed/20462822

ECDC comment:
The number of European citizens returning from aesthetic and reconstructive surgery performed abroad is increasing and the burden of sub-standard medical practice will be born by the European health systems, unless the rules of healthcare provision are clarified in each European country.

Public Health significance:
Seeking medical treatment abroad brings with it the issue and added cost of follow up care on return home and dealing with any complications that may arise, in addition to risks associated with travel after major surgery.

Key Words:
Medical tourism, Aesthetic surgery, NHS, Plastic surgery.
Letter to the Editor

International travel with acquisition of multi drug resistant Gram negative bacteria containing the New Delhi metallo-beta-lactamase gene.

Arya SC, Agarwal N.


Description:
A short letter to the editor highlighting the growing issue of transmission of New Delhi metallo-beta lactamase (NDM-1), by returning travellers. The author stresses that there are currently no specific guidance on the detection of NDM-1 in returning travellers after receiving medical or surgical treatment abroad. Rather, practitioners are reliant on these individuals disclosing medical or surgical treatment received overseas which usually only occurs if there is problem either with the procedure or with aftercare.

Link to the article:  http://www.ncbi.nlm.nih.gov/pubmed/21269886

ECDC comment:
The patterns of antibiotic use in other countries have a direct impact in the European Union and discussions around international regulations would be useful, in the era of increasing resistance.

Public Health significance:
An understanding of travel patterns is necessary in order to predict and successfully treat common infections as well as to anticipate changes in local microbiology.

Key Words:
New Delhi metallo-beta lactamase, Travel, Medical treatment, Surgical treatment.