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Pr Eric Caumes (eric.caumes@psl.aphp.fr), Paris, France
Imported Methicillin-Resistant *Staphylococcus aureus*, Sweden.


*Emerging Infectious Diseases* 2010; 16(2): 189–196.

**Description.** The authors analyzed 444 imported cases of methicillin-resistant *Staphylococcus aureus* (MRSA) in Sweden during the period 2000-2003. The risk for MRSA carriage or infection in returning travellers ranged from 0.1 per million travellers returning from Nordic countries to 59.4 per million travellers returning from North Africa and the Middle East. The regions associated with a risk for MRSA carriage or infection greater than 3 per million travelers were in order of importance: UK/Ireland, North America, Northeastern Mediterranean, South America, East Asia, Oceania/Pacific islands, Sub-Saharan Africa, and North Africa/Middle East. Most imported MRSA cases were healthcare-acquired, but regions with the highest risk for MRSA in travellers also had the highest percentage of community-acquired MRSA. The characteristics of the MRSA isolates depended on the region of origin and whether they were community- or healthcare-acquired.

**Link to the article:**
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2957988/pdf/08-1655_finalR.pdf

**Public Health significance:** Skin and soft tissue infections (SSTI) are the leading cause of consultation in returning travellers with skin disease. Most of SSTI are due to *Staphylococcus aureus*. Travellers to countries with a higher prevalence of MRSA than their own country have a greater risk of acquiring MRSA. Countries with a low prevalence of MRSA such as Sweden offer the opportunity to study the epidemiology of imported MRSA cases. Knowledge of differences in the risk of MRSA acquisition during foreign travel may lead to improved control measures to prevent further transmission from imported cases.

**Key Words.** Methicillin-resistant *Staphylococcus aureus*, travel
Scientific advances – Panton-Valentine Leukocidin-Positive *Staphylococcus aureus* Infections in Returning Travelers.


*American Journal of Tropical Medicine & Hygiene* 2010; 83(4): 748–750.

**Description.** The authors present data on 15 individuals infected by Panton-Valentine leukocidin (PVL) -producing strains of *Staphylococcus aureus*. Intra-familial spread was documented in one case, and occupational transmission was most likely in another case. *spa* typing of the strains revealed a broad range of variants, though some were clonally related. Methicillin-resistant *Staphylococcus aureus* (MRSA) was found in three cases.

**Link to the article:**

**Public health significance:** *Staphylococcus aureus* may produce highly pathogenic toxins such as PVL. PVL-producing strains of *Staphylococcus aureus* are emerging as a cause of skin and soft tissue infection in European travelers returning from the tropics or North America. It is noteworthy that these strains may subsequently be transmitted by returning travellers to other members of their household.

**Key Words.** *Staphylococcus aureus*, Panton-Valentine leukocidin, travel
Scientific advances – First two autochthonous dengue virus infections in metropolitan France, September 2010


Description. In September 2010, two cases of autochthonous dengue fever were diagnosed in metropolitan France for the first time. The cases occurred in Nice, southeast France, where the vector Aedes albopictus is established.

Link to the article: http://www.eurosurveillance.org/ViewArticle.aspx?ArticleId=19676

Other links:
ECDC fact sheet for health professionals on dengue fever.
ECDC Aedes albopictus distribution maps (VBORNET maps).
Institut Veille Sanitaire: Dengue general
Aedes albopictus distribution in France

Public Health significance: This event was not unexpected, as this part of the country where Aedes albopictus, a known competent vector of dengue virus (though less efficient than Aedes aegypti), is established, receives a high number of imported dengue cases every year. French authorities have enhanced surveillance, active case finding and vector control measures to reduce the spread of the virus and the risk of an epidemic next summer. Communication campaigns for the general public and health workers are also in place. Nevertheless, physicians should be aware returned travellers from southern France may become infected with dengue virus or other Aedes bite transmitted arboviral infections (i.e.: chickungunya) next summer.

Key Words. Dengue, France, Aedes albopictus
Description. The authors investigated travel-associated illnesses in French travelers to Senegal by comparing results of a prospective cohort follow-up study (conducted in 358 travelers recruited at a pre-travel visit in Marseille) with data from ill returning travelers (collected from the GeoSentinel data platform [http://www.istm.org/geosentinel/main.html] in two clinics in Marseille). In the cohort survey, 87% of travelers experienced health complaints during travel, which most frequently included arthropod bites, diarrhea, and sunburns. Severe febrile illness cases, notably malaria and salmonella, were detected only through the surveillance system, not in the cohort follow-up. Arthropod bites were more frequent in younger patients and in patients with pale phototypes. Sunburns were also more frequent in younger patients.

Public Health significance: Evaluating health complaints in returning travellers through surveillance system does not always reflect the spectrum of health problems that occur during travel. In this paper, the comparison of cohort surveys and sentinel surveillance data is used to better describe the epidemiology of health complaints during and after travel. Although travellers' diarrhoea was the leading cause of consultation after return in the sentinel surveillance data, the cohort survey showed that skin diseases (arthropod bites and sunburns) were the leading cause of health impairment during travel.

Key Words. Senegal, Travel, Cohort, GeoSentinel
**Scientific advances – Artemisinin resistance—the clock is ticking**

Nicholas J White


**Description.** Artemisinin resistance in falciparum malaria has emerged in western Cambodia exactly where chloroquine resistance arose 50 years ago. Similarly to the resistance to chloroquine that spread to Africa, the experts are wondering whether artemisinin resistance will spread as widely. In such a case the consequences would be disastrous. No-one knows today if artemisinin-resistant parasites will spread westward to India and Africa. In addition we do not understand the molecular mechanisms underlying artemisinin resistance. And we do not know if these artemisinin-resistant malaria parasites could spread beyond southeast Asia and establish themselves in other human populations.

**Link to the article:**

**Public Health significance:** Drug resistance may arise from inadequate or inappropriate use of anti-infectives. Artemisinin resistance has emerged in falciparum malaria in limited areas of Southeast Asia. One important clue for prevention of this resistance is to avoid the use of artesunate derivates as monotherapy. This information should be taken into account for disease surveillance, strategic planning and formulation of policy guidelines. Limiting the spread of this resistance beyond the Thai borders is a key issue. The author of the editorial estimates that it would be prudent to expect the worst even assuming this global threat might still be preventable.

**Key Words.** Artemisinin resistance; falciparum malaria
Review – Travel Medicine Research Priorities: Establishing an Evidence Base

Talbot EA, Chen LH, Sanford C, McCarthy A, Leder K; Research Committee of International Society of Travel Medicine.


**Description.** This article is intended for an audience of researchers and research funding agencies. The authors, a working group from The Research Committee of the International Society of Travel Medicine, discuss the numerous published studies that provide evidence for the practice of travel medicine. They identified an initial list of research priorities through an interactive process that included e-mails, phone calls, and smaller meetings. Twenty-five research priorities were identified and categorized as pre-travel interventions, safety during travel, and post-travel management.

**Link to the article:**

**Public Health significance:** The study of travellers’ health poses unique challenges. Travellers generally have a defined and identifiable period of risk (eg, their trip) which makes some research questions easier to address. The authors have described a list of possible research interventions that will help to expand the evidence base in travel medicine, which in turn will support decision-making in this field of public health. The list is not exhaustive, but is a good starting point to promote independent evidence based research in the field. As part of its commitment to research activities, ISTM advocates creation and distribution of this statement of research priorities.

**Key Words.** Travel medicine, research, evidence-based medicine