TROPICAL DISEASES AND TRAVEL MEDICINE IN ROMANIA

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Geographical particularities of Romania

- Temperate climate
- Carpathian mountains
- Danube Delta
- Black Sea Coast
Local pathology

- Hepatitis A, B, C (genotype 1)
- Influenza (this season A/H1N1 and B type)
- Measles (last outbreak in 2004/2005 due to vaccination gap)
- West-Nile encephalitis (last outbreak in 1996)
- Meningococcal meningitis
- Leptospirosis
- Tick borne diseases: Lyme disease, Boutonneusse fever
- Trichinelosis
Hepatitis A – multianual incidence

Incidenta cazurilor de hepatita virală acuta tip A, Romania 2000-2009

Source: National Center for Communicable Disease Surveillance and Control
Hepatitis A – county distribution 2009

Incidența cazurilor de hepatita acuta tip A pe județe, Romania 2009

Source: National Center for Communicable Disease Surveillance and Control
Hepatitis B – multianual incidence

Source: National Center for Communicable Disease Surveillance and Control
Hepatitis B – county distribution 2009

Source: National Center for Communicable Disease Surveillance and Control
Meningococcal menigitis – multianual incidence

Source: National Center for Communicable Disease Surveillance and Control
### Meningococcal meningitis – serotypes of isolates from 2009

<table>
<thead>
<tr>
<th>Judet</th>
<th>Serotype</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>Total</th>
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<tr>
<td>Bihor</td>
<td>B</td>
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<td><strong>Total</strong></td>
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<td>3</td>
<td>26</td>
<td>6</td>
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</table>

Source: National Center for Communicable Disease Surveillance and Control
Epidemic of West Nile meningoencephalitis 1996: 393 cases

Fig. 1. The epidemic area for West Nile virus in the south of Romania in 1996.

ISSN1460-6127A general characterisation of the mosquito fauna (Diptera: Culicidae) in the epidemic area for West Nile virus in the south of Romania, Gabriela Nicolescu, Medical Entomology Laboratory, Cantacuzino Institute
West-Nile meningo-encephalitis

Source: National Center for Communicable Disease Surveillance and Control
West-Nile meningo-encephalitis – county distribution

Repartitia cazurilor confirmate de meningita West Nile pe județe, România 1997-2009

Source: National Center for Communicable Disease Surveillance and Control
West Nile meningoencephalitis: 2010

Rapid communications, "Outbreak of West Nile virus infection in humans, Romania, July to October 2010"  
A Sirbu, C S Ceianu, R I Panculescu-Gatej, A Vázquez, A Tenorio, R Rebreanu, M Niedrig, G Nicolescu, A Pistol
Tick borne diseases

Boutonneuse Fever                        Lyme disease

Source: National Center for Communicable Disease Surveillance and Control
Trichinelosis – annual incidence

Trichineloza, rata incidentei anuale, Romania, 2000-2009

Source: National Center for Communicable Disease Surveillance and Control
Trichinelosis – multiseasonal incidence 2009

Trichineloza, rata incidentei lunare, Romania, 2009

Source: National Center for Communicable Disease Surveillance and Control
Leptospirosis – multianual incidence

Leptospiroza, rata incidentei anuale, Romania, 2000-2009

Source: National Center for Communicable Disease Surveillance and Control
## National Immunization Program

<table>
<thead>
<tr>
<th>Age</th>
<th>Vaccin</th>
<th>Comments</th>
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<tr>
<td>24 hours-7 days</td>
<td>BCG. Hep B</td>
<td>maternity</td>
</tr>
<tr>
<td>2 months</td>
<td>DTP - Hep B, IPV, Hib</td>
<td>together</td>
</tr>
<tr>
<td>4 months</td>
<td>DTP –IPV, Hib</td>
<td>together</td>
</tr>
<tr>
<td>6 months</td>
<td>DTP - Hep B, IPV, Hib</td>
<td>together</td>
</tr>
<tr>
<td>12 months</td>
<td>DTP –IPV, Hib</td>
<td>together</td>
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<td>12-15 months</td>
<td>MMR</td>
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<td>30-35 months</td>
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<tr>
<td>7 years</td>
<td>MMR</td>
<td>School campaigns</td>
</tr>
<tr>
<td>9 years</td>
<td>IPV</td>
<td>School campaigns</td>
</tr>
<tr>
<td>14 years</td>
<td>DT, rubella (girls)</td>
<td>School campaigns</td>
</tr>
<tr>
<td>18 years</td>
<td>Hep B</td>
<td>School campaigns</td>
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</tbody>
</table>
Optional vaccines

- Hepatitis A
- Varicella
- Rotavirus
- Pneumococcal

Bought by the parents
Travel vaccination in Romania

- Follows recommendations from CDC and WHO

- Yellow fever vaccine in
  - WHO approved private specialized centers with the Ministry of Health approval
  - One public center of Ministry of Health

- The vaccine against Japanese encephalitis or TBE is not available

- Only in few centers is available the vaccine for cholera
Antimarial prophylaxis

- Follows the recommendations from CDC and WHO
- Only in the specialized centers with the Ministry of Health approval
- Available Mefloquine, Doxycycline, Chloroquine
- Not available Malarone
Clinical Hospital for Infectious and Tropical Diseases “Dr. Victor Babes” Bucharest

Structure:

- Founded in 1976
- 450 beds (111 for HIV/AIDS patients and 154 for TB infection), 185 beds for infectious diseases patients, both children and adults
- Laboratory for virology, bacteriology and parasitology
Clinical Hospital for Infectious and Tropical Diseases “Dr. Victor Babes” Bucharest

Teaching activities

- 150 students per year attending tropical diseases course;

- Postgraduate training for general practitioners and other specialities
Pre- and post-exposure prophylaxis for travelers (excluding vaccinations, vaccines not available in the hospital).
Clinical Hospital for Infectious and Tropical Diseases “Dr. Victor Babes” Bucharest
Clinical activity related to travel and tropical pathology in the last 11 years

► **Malaria** 91 patients (80 from Africa):
  - Falciparum (61)
  - Vivax (16)
  - Malariae (3)
  - Ovalae (1)
  - Mixed (10)

► **Visceral leishmaniasis** (14 cases) from Spain (6), Italy (6) and Greece (2)
In Romania for now: only imported cases of malaria

“Biodiversity of malaria in the world”, Jean Mouchet, Pierre Carnevale, Sylvie Manguin, p.240
Leishmaniasis distribution in Europe compared with the distribution of vectors

From Elisabeth Lindgren „Climate Variability and Visceral Leishmaniazis in Europe”
In the 50’s, Romania had an outbreak of local cases of visceral leishmaniasis in the southern region called Oltenia.

In the southern districts we have species of sandfly that theoretically could become involved in local transmission if the human and/or animal reservoir establishes here.
Malaria treatment

- **Quinine** (57 cases),
- **Artemisia derivatives** (26 cases),
- **Hydroxychloroquine** (4 cases),
- **Malarone** (2 cases),
- **Mefloquine** (1 case);
- 10 cases received primaquine to prevent relapse
Clinical Hospital for Infectious and Tropical Diseases “Dr. Victor Babes” Bucharest
Clinical activity related to travel and tropical pathology in the last 11 years

- **Amebiasis** (3) two intestinal and one with liver abcess

- **Larva migrans cutaneous** (from Jamaica and Africa)

- **Lymphatic filariasis**: one case from India (2008)

- **Cholera**: one case from India (2009)

- **Schistosomiasis**: one case from Etiopia (mansoni, 2009)
The major challenges

► Medication is difficult to obtain because of:
  ▪ lack of legislation regarding the import authorisation;
  ▪ specific drugs not-registered, need special import authorisation and a lot of paper work
► Information for those who travel in tropical areas are available only through special centers, and are not oriented by GP’s
► Training health professionals-only starting for now
► Climate change – creates the possibility of emergence of new ID /reemergence of eradicated ones
THANK YOU!

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