In the last decade, a major increase in international travel has been seen. Each year, more than a billion international tourist arrivals are counted. 15-65% of those experience some sickness and 5-15% need to seek medical care. About 1/100.000 travelers die during their journey. Of travel related deaths 50% are due to accidents (car, drowning, …), 40% due to a cardiovascular event, 9% secondary to neoplasms or other underlying diseases and only 1% due to an infectious cause.

A pre-travel consultation is a perfect example of preventive medicine. It is more than delivering vaccinations and prescribing antimalarial pills. The aim of a pre-travel consultation is to inform the traveler about potential health risks while travelling and to discuss possible interventions (like vaccinations, antimalarial pills).
Taking a glance at the above figures, the importance of safe travel vehicles with seat-belts cannot be underestimated: this advice might be much more cost-effective than any pre-travel vaccine given. Making sure that people with underlying conditions travel in their best possible health-status is also of major importance.

Possible health risks depend on several factors:

- The traveler: pre-existing conditions, risk behavior, vulnerable travelers like the elderly, pregnant and young children
- Destination
- Type of travel: expat, backpacking, cruise…
- Special activities: diving, high altitude, biking…

Each pre-travel consultation should include:

1. Discussion about **pre-existing conditions**: is the traveler fit enough for this travel? What about travel insurance? Especially in case of vulnerable travelers, the risks of traveling should be discussed. In any case, it is always a shared decision, but sometimes, the traveler may want to postpone the travel or to change the destination after being informed. E.g. people who have a contra-indication for yellow fever vaccine, pregnant women may not go to a country with an ongoing Zika virus outbreak.

2. **Prevention of travel-related infectious diseases**

- **Malaria risk**: is there malaria, which precautions to take? Only mosquito bite prevention or also prophylactic antimalarial drugs? Continuous malaria pills or only during shorter periods ("on demand") when entering a higher-risk region (e.g. South-East Asia)? No preventive measure protects 100%, so in case of fever up to 3 months after return, malaria needs to be ruled out.
- Risk for **other diseases transmitted by mosquitos**? Think of dengue, chikungunya, zika, Japanese encephalitis…?
- **Travelers diarrhea**: how to prevent, what to do when diarrhea occurs, whether or not to prescribe antibiotics, when and how to take them?
- **Sexually transmittable diseases**: always to be discussed when people travel without their partner. Take condoms! Even though it is generally not "planned", many travelers have sex occasionally while traveling.
- **Other infectious diseases**: schistosomiases, larva migrans, tunga penetrans, …

3. Vaccinations:

- **Mandatory vaccines**?
  - Yellow fever: this vaccine is subject to the International Health Regulations. Proof of vaccination – written down in the" yellow vaccination card"- can be a requirement for entry in some countries. Since 1/7/2016 the vaccination is lifelong valid, however, for some people, the duration of protection might not be lifelong: a single reinforcing vaccination is recommended when returning to an endemic region.
  - Meningitis ACW135Y (pilgrimage to Mekka)
  - Polio in Afghanistan and Pakistan if staying longer than 4 weeks
- **Are standard vaccinations updated**?
  - tetanus-diphtheria-whooping cough;
  - measles
  - hepatitis B when risk behavior or social volunteer work or medical sector
  - What about flu and Covid-19 vaccination in vulnerable travelers?
- **Travel-related vaccines:**
  - Hepatitis A,
  - Japanese encephalitis

- Tick-borne encephalitis
- BCG: seldom necessary, but sometimes mandatory in young children of expats (in e.g French Lycee or American Lycee). In some European countries, this vaccine is not available anymore.

References:

Guidelines can change in each country; the Belgian Guidelines can be found on the website www.wanda.be from the Institute of Tropical Medicine. Wanda is also available as an App: all information is offline available.

ALWAYS USE THE LATEST UPDATE!!! ESPECIALLY YELLOW FEVER RECOMMANDATIONS AND RECOMMANDATIONS ABOUT MALARIA CHANGE!

International guidelines:

WHO guidelines of travel medicine: http://www.who.int/ith/en/

CDC yellow book (cave malaria guidelines are very “American” and in Europe we prescribe usually less frequently anti-malarial pills):
http://wwwnc.cdc.gov/travel/yellowbook/2016/table-of-contents

Polio recommendations: http://www.polioeradication.org/

General information

Travel medicine: Travel medicine 3rd edition, Keystone

General information about vaccines: Vaccines, 6th edition, Plotkins

Info about travel equipment, survival: Field guide to wilderness medicine, P S Auerbach, 4th edition

Ongoing epidemics: Promed: http://www.promedmail.org/, CDC, ECDC