SCIENTIFIC STUDY GROUP ON TRAVEL MEDICINE

WETENSCHAPPELIJKE STUDIEGROEP REISGENEESKUNDE/GROUPE D'ETUDE SCIENTIFIQUE DE LA MEDECINE DES VOYAGES

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Presided by *Patrick Soentjens*

Report by *Rembert Mertens*

Update on occurrence of infectious diseases worldwide

Tinne Lernout - SCIENSANO - again presented an overview on recent epidemiological data on several infectious diseases and current outbreaks.
The current ***Ebola outbreak*** (data from 08/2018 until 10/2019) in North-Kivu and Ituru province, Democratic Republic of Congo, has grown to the largest outbreak in the country (and the second largest outbreak in history). 3205 cases, and 2142 fatalities, have been reported, with case fatality reaching almost 70%. Although the number of cases seem to be declining (after a public health emergency of international concern was declared in July 2019 by WHO), significant challenges remain to control the outbreak in a region that has suffered from a humanitarian and a security crisis. Three cases were exported to Uganda; fortunately there has been no documented transmission in neighbouring countries, but the fact that the outbreak is ongoing in areas with cross-border population with Rwanda, Burundi, Uganda and South Sudan remains of particular concern. In Belgium the procedures and guidelines are being updated.
The WHO country list, in regard to the requirements for yellow fever and poliomyelitis vaccination, and the countries malaria profile, has been published on July 1st.
Recently the ***yellow fever epidemic in Nigeria*** (since 09/2017), has also spread to previously unaffected regions (Bauchi state and Yankari National Park, 231 cases), and has counted over 2200 cases in 2019.

The ***wild type polio virus - type 1*** (type 1 is the only remaining wild type virus) continues its transmission in Afghanistan en Pakistan; most cases were detected in Pakistan, significantly more cases where reported, when compared to 2018.
The ***circulating vaccine derived poliovirus (cVDPV type 1 and type 2)*** continues to circulate in mainly DR Congo (cVDPV2), Niger, Somalia and Nigeria, but has resurfaced in Angola, Benin, Central African Republic, Ethiopia, Ghana; type 1 has resurfaced in China, Phillipines, Myanmar (in 2018 cases were detected in Indonesia and Papua, but so far in 2019 no cases

in those countries). ECDC has published a convenient interactive world map in regard to polio epidemiology.
There were increased reports of ***Crimean-Congo haemorrhagic fever (CCHF)*** in the southern part of Africa, with several cases in Namibia, Angola and South Africa. This disease is known to be endemic in the Balkans, where every year some cases are reported; the fact that the principal vector - *Hyalomma marginatum* tick - has been detected (introduced) in several western European countries was mentioned in the Belgian press last year.
The global increase in ***measles*** cases, due to insufficient vaccination coverage, was discussed. In the European union an alarming number of cases in the first six months of 2019 was observed (most cases in Romania, France and Poland); but also in Belgium almost 400 patients were diagnosed with measles (01/2019-08/2019), most cases in Brussels and Wallonia. Surprisingly 12 cases of measles were diagnosed in patients born before 1970; in most European countries measles was highly endemic before the '70s, and people born before 1970 are usually considered to be immune, through past infection.

Since 2012, over 2464 cases (850 deaths) were diagnosed globally (mainly in the Middle-East, or related to recent travel to that region) with ***MERS -Coronavirus*** infection. The demographic and epidemiological characteristics of the patients diagnosed in 2019 do not seem to differ from previous years, but in Saudi-Arabia there was a significant proportion of nosocomial transmission of the detected cases so far in 2019.
In 2018, the few imported cases of ***Chikungunya-fever*** in Belgium acquired the infection during travel in Africa; when compared to previous years, fewer cases in Belgium are being reported from Latin America. The virus is widely spread in the Americas, but most cases of chikungunya (worldwide, in 2019) are reported in Brazil, Honduras, Thailand end Ethiopia. In 2018 the reported cases of ***Dengue-fever*** in Belgium again seemed to be mostly imported from South-East Asia, South Asia and South-America. Transmission of Dengue in the EU was documented in Spain and France, were the *aedus albopictus* vector is established.

The unusual high number of locally acquired ***West Nilevirus infections*** that was observed in 2018 (more than 2000, due to) in the European Union, was not seen in 2019.. so far 392 cases were documented, mainly in Greece.

Travel health course and certificate

Mieke Croughs presented the pilot project that shall be organized at ITM in 2020.
Many travelers receive the pre-travel advice from their general practitioner, but so far no certified travel medicine course existed in Belgium. The aim of the course that will be held at ITG is to increase the quality of pre-travel health advice given by the GP's. From March until June, six (evening) courses shall be scheduled, for a limited number (20-25) of participants.

The concept of this course will be interactive, with casuistry based lessons and e-learning modules, and an examination after completion of the course.
For each discussed case, the most important risk factors should be identified, also the required vaccinations and other preventive measures should be evaluated, for the different types of travelers (tourist, VFR, children, pregnant). The exam will be an 'open book' exam, and to the participants will receive a certificate after completion of the exam.

New Belgian recommendations in travel medicine - consensus 2019

Ula Maniewski presented the changes in 'travel medicine policy' in Belgium for the upcoming year. This summary report highlights the major points of discussion.

Since July 2016, Belgian guidelines clearly follow the statement made by WHO, that after a single dose of **yellow fever vaccination**, the certificate is 'valid for life'. The certificate may be valid for life, but since 2016 more and more *questions were raised regarding the possible exceptions to this 'validity for life',* and what do we know about the subgroups who still require additional booster doses ? The 2016 Belgian consensus guidelines had few exceptions to this 'validity for life' : children vaccinated under the age of 9 months, YF/measles concomitant (<28days interval) vaccination, pregnant women, hiv-patients and the 'immune suppressed'. In 2017 the age for children to be revaccinated was raised to 24 months, and booster doses were also offered for 'high risk exposure'. By 2018 we suggested in the consensus guidelines 'a low threshold to revaccination', because in clinical practice it turned out to be very hard to define this 'elevated risk'.
In several publications declining antibody titers over time have been observed, and even a few breakthrough infections - despite vaccination - were documented (although these breakthrough infections were not seen in travelers).
In analogy with other live attenuated vaccines, *the Belgian consensus in the future shall recommend a single booster vaccination for all travelers, on the occasion of planned travel to an endemic region. (with a minimum interval of one month between the first and second dose).*
It is advised to add a leaflet (available www.travelhealth.be --- > info for professionals) that mentions this recommended booster dose, to the last page of the international yellow certificate. For most of the travelers we shall continue to write 'lifelong'; only for hiv-infected patients and immune suppressed patients a *temporary validity for 10 years* shall be stated (in immune suppressed patients it is advised to measure antibody titers when feasible); for children younger than 24 months, pregnant women and in the situation where a measles vaccine was administered within 4 weeks after/before YF vaccination, *a validity for only one year* will be written down.

The South African ministry of Health has changed its policy regarding travelers arriving from Zambia, Tanzania, Eritrea, Somalia, Sao Tome/Principe and Rwanda (countries with low potential for exposure to yellow fever virus). *Therefore travelers to South Africa, with planned excursion to the Victoria falls, will no longer require proof of yellow fever vaccination.*

The available data in regard to **concomitant vaccination against yellow fever with measles/mumps/rubella** vaccination (of course this data is in children) was reviewed; because a lowered immune-response was observed in several studies on concomitant vaccination, *it is still advised (when feasible) to administer the YF and MMR vaccine with an interval of at least 28 days*.
In situations where this is not feasible, administration on the same day is preferred (do not administer the vaccines in the same limb); the international certificate shall than specify a validity for one year. When the interval was less than 28 days, and it was not possible to vaccinate on the same day, both vaccines can be offered (but the validity on the certificate shall be for only one year).

For people travelling with *infants (children younger than 1 year) to regions with **measles outbreak*** (eastern Europe, Africa and Asia ; the complete list is available at travelhelth.be) an earlier measles vaccination between 6 and 12 months is highly recommended.
It offers only short term protection (the vaccination is for free, via vaccinnet.be). Of course the infant still needs to receive two doses after the age of 12 months according to the vaccination schedule. An early second dose is also recommended, but a free vaccination by vaccinnet cannot be used for this indication.

ECDC has published a convenient interactive world map in regard to **poliomyelitis epidemiology**. Circulating VDPV type 1 has resurfaced in Asia (China, Philippines and Myanmar) and cVDPV type 2 was observed again in Angola Benin, Central African Republic, Ethiopia, Ghana.
The list of <u>countries were polio revaccination is **required**</u> for travelers (spending more than 4 weeks in that specific country): *Afghanistan, Pakistan, Nigeria, Somalia, Papua New Guinea, Indonesia and Myanmar.*
The list of <u>countries were polio revaccination is **recommended**</u> (but not obliged), has also been updated: *DR Congo, Niger, Mozambique, Cameroon, Benin, Ghana, Ethiopia, Philippines, China, Angola and the Central African Republic.*
The routine practice in Belgian travel clinics, of revaccinating any traveler (>16years) to Africa or Asia (once in their lifetime) is a 'practical attitude', with of course specific attention for those destinations where revaccination in the last 12 months is required (for travelers spending more than 4 weeks).

In regard to **pre-exposure rabies vaccination**, no specific changes were proposed. Two doses of Rabipur© vaccination (with a minimum interval of 7 days) will induce a cellular immunity, follow by a lifetime 'boostablility'. Intradermal or intramuscular administration are considered to be equivalent and interchangeable. It is advised to add a specific stamp after completed pre-exposure vaccination that states :
"Rabies Prep completed ; additional vaccines needed after bite". When the vaccine is offered via the intradermal route, it is best to use a separate line (in the vaccination certificate) for each of the (0.1 ml Rabipur©) 4 doses injected.

No areas are currently reporting **Zika** outbreaks; We refer to the zika map of CDC. It is no longer advised to perform a serology in the preconception setting (because of a relative high proportion of false positive testing since the lower incidence last year). *Only in pregnant women (or their exposed male partners) or in symptomatic (and exposed) patients testing for Zika virus is advised (PCR versus serology will dependent the time of presentation and presence or absence of fever).*

The **'malaria world map'** has been updated for 2019. Since 2018 (Nivaquine© was no longer available in Belgium since 2017) the maps no longer shows zone A, B or C, but shows *risk stratification ("different shades of red")* with recommended precautions (mosquito prevention +/- chemoprophylaxis).
The 2019 version also includes a new stratification that is specified as a 'seasonal risk' (southern Africa and parts of Afghanistan and Pakistan and Senegal). 'Zoomed-in' maps of the central American, south-east Asian and southern African region and Senegal are available atWanda website.
In the Wanda application specific country maps, even more detailed are available (for some countries).