ST04 Current Global Developments in Travel Medicine: Prevention is better than Cure

ST04.1 Travel-related Hepatitis Infections in Times of Increasing Population-wide Susceptibility

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Several hepatitis A outbreaks have occurred in Europe recently, in Latvia, the Czech Republic, Italy and England where hepatitis A virus (HAV) vaccination is not widespread.[1-3] In such countries where hepatitis A is generally uncommon among the native population, adults are highly susceptible to HAV infection due to an absence of naturally acquired immunity during childhood.[3-5] The greatest risk for HAV introduction is travel to endemic areas, as unvaccinated individuals who become infected subsequently ‚import' HAV into these susceptible populations upon return.[3,6-8] HBV infection is more difficult to predict, as it can occur following accidents in endemic areas requiring medical attention (with an estimated risk of ~10-20%).[9,10] Acute hepatitis A is serious and debilitating, while long-term sequelae of HBV infection include cirrhosis and hepatic cancer, for which there is no cure.[4,11] Risk of HAV transmission is increased by poor hygiene, ingesting contaminated foods, injecting drug use (IDU), sexual contact and travel to regions where hepatitis A is endemic.[1,2,12] Risk of HBV infection is increased mainly by sexual contact and IDU, blood transfusions and travel to endemic areas.[9,13] Routine immunization of children against HBV has substantially reduced hepatitis B prevalence in some European countries; however, routine HAV immunization is currently not implemented.[14-18] It is therefore recommended for all travelers to endemic areas to receive both HAV and HBV immunization.[8,19]

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ST04.2 An Update on Bivalent Vaccine: TwinrixTM

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The World Health Organization and many national authorities recommend immunization for all hepatitis A (HAV) and hepatitis B virus (HBV) non-immune travelers to endemic areas.[1] HBV immunization is often included in universal mass vaccination programmes and some also include HAV immunization.[2,3] This is a sensible approach, particularly in endemic areas where immunoprophylaxis would be eventually indicated in most individuals.[4] TwinrixTM provides dual protection and achieves at least comparable anti-HAV and anti-HBs titres to monovalent vaccines.[5] It has also recently been shown to achieve seroconversion in HBV vaccine non-responders.[6] Protection with TwinrixTM 7 and TwinrixTM paediatric[8] at completion of vaccination is close to 100% for both HAV and HBV for adults and children, respectively, and evidence suggests that this lasts longer than 10 years.[9,10] The usual administration schedule is 3 doses in both adults and children.[7,8] An accelerated administration schedule (0, 7, 21 days; booster injection at 12 months) provides rapid protection against both HAV and HBV in individuals aged 16 years and over.[7] One of the main concerns regarding immunization is that 40-50% of individuals travel without vaccination against HAV or HBV.[11] A key factor to improve protection and minimize transmission is to raise awareness that travelers from low prevalence countries in Europe can be at risk of HAV and HBV infection, even when they are traveling to nearby regions such as North Africa or Turkey.[12,13]
TwinrixTM and TwinrixTM Paediatric are trademarks of the GlaxoSmithKline group of companies.

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ST04.3 An Underestimated Life-threatening Risk for Travelers: Plasmodium Falciparum Malaria

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All types of malaria are associated with a debilitating febrile illness with varied symptomatology; in particular, P. falciparum malaria carries a substantial risk of neurological involvement and mortality.[1-3]
Tourists from Europe, the USA and Canada travelling to regions where malaria is endemic, such as Central and South America, Southern Asia and Sub-Saharan Africa are becoming infected in increasing numbers.[2,4,5] This may be due to travelers to such areas underestimating the risk of malaria and its severity, and therefore the need to take adequate control and/or chemoprophylactic measures.[6,7] Also travelers may disregard professional advice and discontinue chemoprophylaxis due to side-effects or lack of therapeutic knowledge.[7,8] Resistance of P. falciparum to certain antimalarial agents is also well-documented. Within regions such as sub-Saharan Africa, Southeast Asia and South America, resistance to chloroquine is widespread;[1,2] mefloquine resistance may also occur in Southeast Asia (first reported in 1982).[2,9] Inappropriate use of antimalarials as prophylaxis or absence of prophylaxis can result in considerable morbidity and may cause fatalities.[2,5,10,11] Healthcare professionals dealing with travel medicine should therefore ensure that patients are aware of the risks that remain regarding falciparum malaria and the importance of adequate chemoprophylaxis, including compliance with treatment.[6,8] This should be effectively communicated to all travelers visiting endemic regions.[4,7]

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