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# In the News

**Hepatitis B vaccination**
Public Health England has recently taken the rare step of advising doctors to limit prescriptions of the hepatitis B vaccine, citing a global shortage. However the World Health Organisation which is responsible for monitoring stocks of vaccines worldwide stated that there was no global lack. The chief executive of the British Liver Trust has s called for more clarity from Glaxo Smith Kline Pharmaceuticals on what has happened to deliveries, as supplies to the United States appear to be unaffected. There are concerns that GSK has been prioritising supply to the US, and Public Health England seeks evidence to support this contention.

**Tick disease app**
A smart phone app has been launched in France to track ticks responsible for 30,000 cases of Lyme disease in the country this year. There have been warnings that the growing numbers of disease-carrying ticks in France were moving north as a result of global warming, and approaching Britain. Faced with this tripling of cases in the last decade, the French Institute for Agricultural Research has launched a smartphone application. Members of the public are being asked to pinpoint geographic locations where bitten and to send photographs of the specimen and/or attach the insect to a piece of sticky tape, so that researchers can track which species are infesting which areas. There is obviously a risk of bites occurring with foreign tourists who should be made aware of ticks. The app is currently only available in French although an English language version will be launched this year. French authorities have also recently warned British tourists to avoid contact with chipmunks in the French countryside as they can transmit the disease.

**Tick disease in dogs**
Vets taking part in the Big Tick project studied 12,000 dogs over 16 weeks, finding that 31% were carrying the parasite - an increase of 15% from the previous year. Nearly 90% of infested dogs were carrying Ixodes ricinus the principal carrier of Lyme disease .This disease in dogs can lead to lethargy, swollen joints and fatal kidney disease. The data show that the greatest prevalence of tick infestation is in the south-west of England, East Anglia and in Scotland, but levels are high in central and northern England. In a separate study by the University of Bristol, it was found that 30% of British public parks are infested with ticks.

**Leishmaniasis**
This tropical disease caused by the protozoa parasite leishmania remains a major global health problem with an estimated 12 million active cases and 2 million new cases occurring this year. Most treatment modalities are toxic and require systemic administration. Vaccine development remains unsuccessful.

**Human transmission of bird flu**
A strain of avian flu may have passed between people for the first time. The avian influenza A (H7N9) virus is thought to have been transmitted between a 60-year-old father and his daughter in eastern China according to a BMJ article. Findings provide supportive evidence of H7N9 passing between humans, although experts believe its ability to transmit itself is limited and non-sustainable.

**Sea Travel**
Shipping companies are reducing the risk from passive smoking with many cruise ships banning smoking in all public areas, internally in the ship as well as on balconies. There will be heavy fines for transgressions. This precaution is intended to reduce fire risk a serious hazard on cruise ships, but will have obvious health benefits for cruisers.

**Cognitive decline in climbing to high altitude**
A study published in the journal PLOS One of climbers scaling Mt. Everest, where there is only one third the amount of oxygen available to climbers than at sea level, showed significant cognitive decline after descent. Tasks associated with speech and language, learning, planning, focusing and organising were severely affected, with performance falling by nearly 20% in tests taken before and after ascent. Adverse effects were still present in climbers who returned to normal altitude 11 days later. This may partially explain why more climbers die coming down from Everest than on ascent. There seems to be a relation between levels of hypoxaemia and brain function. Tests were administered at sea level in London and under 11,400 feet on the approach to Everest and at 17,000 feet at Everest base camp. The group was compared with a control group.

**Hyperthermia prevention**
A report in the journal Science may help people to reduce the risk of hyperthermia and heat stroke in very warm climates. Material has been invented that can help keep the body cool. The new material reflects sunlight by letting heat escape and can reduce body temperature by 4° F (2.2°C). Because the body emits

radiation in the wavelength that partially overlaps the visible light spectrum, any cloth that blocks visible light also traps in body heat. The new material devised at Stanford University and dubbed nanoPE, resembles cling film with holes 100 times smaller than a human hair and it causes visible light with a different wavelength to bounce off but allows infrared radiation to pass through.

**Risk to frequent long haul flyers**
A trial reported in the journal Cancer Cell found that chronic jetlag may disrupt metabolic rhythms in the liver leading to dangerous build-ups of fat and bile, factors known to heighten cancer risk. Researchers used light to control sleep patterns in mice to simulate the disruption to humans caused by regularly crossing multiple time zones. The mice developed fatty liver disease which can progress to cancer in humans. Cancer Research UK reports liver cancer deaths have tripled since the 1970s and only about 10% of the 6000 Britons diagnosed, survive beyond 5 years.

**Effects of jetlag**
Jet lag appears to have an adverse effect on worker productivity immediately after travel. Research commissioned by Kayak, a travel search engine company, found that 29.6 million long-haul trips are taken annually resulting in 53 million working days being affected adversely. In the survey of 1000 adults travelling long-haul air trips in the past year, it was found that travellers feel affected by jetlag an average of 1.8 working days after the trip. The typical worker estimated they were only able to operate at 61% of the normal level of productivity when suffering from jetlag.

**Leprosy**
Leprosy was eradicated in humans in Britain centuries ago, but it appears to occur in the country's red squirrel population. Researchers at Edinburgh University tested 110 dead squirrels collected from around the British Isles. A third were carrying the leprosy bacteria but many had no clinical signs of the disease. The team identified two strains; one found in squirrels in Dorset, which was once responsible for outbreaks of the disease in mediaeval Europe. In the other (in squirrels from Scotland, England and Ireland), was a strain that has affected humans in Mexico. This is the first time leprosy has been found in squirrels. Until now, it has only been detected in primates and armadillos and it is unclear how they become infected .There is no evidence of British squirrels passing on the disease to humans, but people are being warned not to stroke red squirrels or handle carcasses without gloves.

**Malaria-free Sri Lanka**.
WHO has certified Sri Lanka as a malaria-free nation. This country was one of the most malaria-affected countries in the mid-20th century. WHO began an anti-malaria campaign targeting the mosquito-borne parasite causing the disease in a campaign of health education surveillance and mosquito control which has proved highly effective.

**Modified mosquitos**
Large trials are to take place in Colombia and Brazil where an army of mosquitos will be infected with the Wolbachia bacteria, which is harmless to humans but stops mosquitos transmitting Zika virus. Scientists hope that the millions of modified insects will mate with local mosquitos and spread the Wolbachia bacteria throughout the world population. Release locations will be monitored for three years to see if cases of Zika fall. It is thought that the modified insects will also halt the spread of dengue and chikungunya diseases. Wolbachia works in two ways, by boosting the immune system of the mosquitos to make them more resistant to viruses and then using up the resources in the insect's body that the virus relies on to replicate. The technique was developed by Monash University in Australia, where researchers have spent the last decade conducting field trials. The project has now been taken up by WHO. Zika has spread through 50 countries and is believed to be responsible for nearly 2200 cases of microencephaly and brain damage.

**Malaria drug resistance**
Between 1500 and 2000 people are treated for malaria in the UK annually. Treatment involves a drug combination which has been very effective, but recent clinical reports shown that the therapy failed in four patients recently. Doctors believed that treatment had been successful but all cases were readmitted to hospital month later after the infection returned. It was eventually successfully treated using other therapies. Clinicians are demanding an urgent appraisal of drug resistance levels in endemic countries.

**WHO achievements**
WHO has done sterling work with health crises such as Ebola and Zika outbreaks. Its most important accomplishments are however contributions to the achievement of United Nations millennium development goals. There has been progress: the percentage of underweight children less than five years old in developing countries fell from 28% in 1990 to 17% in 2013. The number of children who died before their fifth birthday also fell from 12.7 million in 1990 to 6.3 million, in part because WHO made

unprecedented investment in immunisations in poorer countries. Over the same time, the number of women dying from pregnancy or childbirth fell from 532,000 to 300,000 and the number of people dying from HIV fell by 43% between 2003 and 2015. Malaria deaths also fell, partly because WHO provided access to medicine and clean drinking water.

**Travel health insurance for winter sports**

An insurance company has recently analysed its claims relating to ski injuries. About one million people leave Britain for the ski slopes each winter and 17,000 return home on crutches. The company found that most accidents resulted in broken shin bones or torn ligaments. Three and a half thousand skiers required ambulation to get them back to UK each year and 22 died from their injuries. There is evidence that skiers of all ages often travel without adequate health insurance especially cover for injury. Winter sports cover usually has to be added to normal travel health insurance. It is important for the purchaser to read any exclusions carefully, as many policies do not pay for accidents resulting from skiing off piste, and end of trip races. Snowboarding is often not included.

The use of helmets on the slopes can now be problematic. Widely recommended as a safety measure, their wear is now becoming compulsory by law in some resorts. Not wearing a helmet can invalidate an injury claim. Many insurance policies require holders to abide by the laws and regulations of the resorts but laws and rules vary with age, some applying only to children but others to all ages. The onus is on skiers to familiarise themselves with local laws. Senior skiers should also check contracts for age cut-offs as some remove cover over the age of 70 years.

EH IC protection will meet some medical costs if a state hospital is used but will not provide cover in private clinics. It can cost £1000 per night in a European hospital and £1500 in intensive care, a figure soaring to £10,008 for intensive care in USA and Canada. An ambulance transfer in Europe will cost up to £500 for a short trip and a short helicopter airlift starts at £2000 stretcher. An ambulatory return can cost £22,000 from Europe and £65,000 from the US.