CURRENT NOTES

High level azithromycin-resistant gonorrhoea


Since the emergence of the outbreak in England, several alerts describing the situation have been sent to relevant clinical, laboratory and public health colleagues. These have been used to recommend the same advice as that issued by PHE and the expert group, the British Association for Sexual Health and HIV (BASHH) regarding rigorous follow-up of patients and their partners while also highlighting the existence of the high level azithromycin resistance for microbiologists who are performing the antibiotic testing.

High level azithromycin-resistant gonorrhoea is rare in Scotland. Since 2010, there have been, to date, a total of seven isolates of gonorrhoea demonstrating high level azithromycin resistance in Scotland. This represents less than 1 in 1000 of the total number of isolates in Scotland during this time. The strains have been found among both men and women and across different NHS boards. These are different to that detected in England, and to each other, and thus, to date there are no links to the outbreak in England or evidence of spread in Scotland.

The first line treatment for gonorrhoea is currently with two antibiotics; ceftriaxone and azithromycin. Despite the emergence of these high level azithromycin-resistant strains and the low numbers in Scotland, individual patients are being treated and clinical staff are being vigilant for the possibility of treatment failures. We are working with colleagues in PHE and in the other devolved administrations to monitor this situation. At this time, colleagues in microbiology laboratories are reminded to send all their gonococcal isolates to the Scottish Bacterial Sexually Transmitted Reference Laboratory (SBSTIRL).

World Malaria Day - 25 April 2016

50/1702 Globally around 3.2 billion people - nearly half of the world’s population - are at risk of malaria. During 2015, there were
approximately 214 million cases and 438,000 deaths from malaria. Most cases and deaths occur in sub-Saharan Africa.

In the UK there are approximately 1,400-1,800 imported cases of malaria and an average of seven deaths annually. Most cases are in travellers who have been to Africa, particularly West Africa. A disproportionate number of cases are in travellers visiting friends and relatives.

Despite the statistics, the WHO’s World Malaria Report 2015 showed that there has been a decline in global malaria cases and deaths since 2000. This has been reflected in the information for healthcare professionals advising travellers on TRAVAX, generated through our systematic review of malaria advice and maps for all countries.

TRAVAX and fitfortravel malaria advice and maps (using http://www.travax.nhs.uk/malaria/awareness-of-risk.aspx and http://www.fitfortravel.nhs.uk/advice/malaria.aspx respectively) are produced based on the recommendations of the Scottish Malaria Advisory Group (SMAG). In recent years, this review has resulted in the downgrading of risk for some countries, mostly in south-east Asia and central and south America. Malaria risk in Africa remains significant.

Each year, WHO and partners unite around a common World Malaria Day theme. The theme this year is End Malaria for Good, through:

- reducing the rate of new malaria cases by at least 90%;
- reducing malaria deaths by at least 90%;
- eliminating malaria in at least 35 countries.

On World Malaria Day (see http://www.who.int/mediacentre/news/releases/2016/world-malaria-day/en/ for further details) the commitment of WHO and partners is to highlight advances in malaria control and to commit to continued investment and action to accelerate progress against this deadly disease.

World/European Immunisation Week 2016

During World Immunisation Week 2016, held 24-30 April, the World Health Organization (WHO) is highlighting recent gains in immunisation coverage, and outlining further steps countries can take to ‘Close the Immunization Gap’ and meet global vaccination targets by 2020.

Immunisation averts two to three million deaths annually; however, an additional 1.5 million deaths could be avoided if global vaccination coverage improved. Today, an estimated 18.7 million infants – nearly one in five children – worldwide are still missing routine immunisations for preventable diseases, such as diphtheria, pertussis and tetanus.

In 2012, the World Health Assembly endorsed the Global Vaccine Action Plan (GVAP – available at http://www.who.int/immunization/global_vaccine_action_plan/GVAP_doc_2011_2020/en/), a commitment to ensure that no one misses out on vital immunisations. Despite gains in vaccination coverage in some regions and countries during the past year, global vaccination targets remain off track.

Last year, the Strategic Advisory Group of Experts on Immunization (SAGE) identified five factors to achieving significant results in immunisation coverage:

- quality and use of data;
- community involvement;
- better access to immunisation services for marginalised and displaced populations;
- strong health systems;
- access to vaccines in all places at all times.

Elimination of measles and rubella in Europe

50/1704 According to the conclusions of the European Regional Verification Commission for Measles and Rubella Elimination (RVC), released on 5 April, 32 countries in the European Region have interrupted transmission of endemic measles and/or rubella.

The independent RVC assesses member states’ progress towards elimination of measles and rubella by reviewing epidemiological and laboratory surveillance data submitted by each country’s national verification committee, now established in 50 of the 53 member states.

At its fourth meeting, in October 2015, the RVC was able to assess, for the first time, the performance of each country over 36 consecutive months (at http://www.euro.who.int/en/health-topics/communicable-diseases/measles-and-rubella/publications/2016/4th-meeting-of-the-european-regional-verification-commission-for-measles-and-rubella-elimination-rvc-2016). According to the Framework for the verification process in the WHO European Region and conclusions of the European Technical Advisory Group of Experts on Immunization, once a country has demonstrated the absence of endemic measles or rubella virus transmission for at least 36 consecutive months, the RVC can verify that the disease has been eliminated.

The RVC was pleased to confirm that 32 countries interrupted transmission of endemic measles and/or rubella in 2014, and to verify that 21 member states had eliminated measles and 20 had eliminated rubella within their borders during the period 2012-2014. High-quality surveillance to detect cases and monitor chains of virus transmission and very high immunization coverage (≥ 95%) with two doses of vaccine against measles and rubella were essential to attain this goal.

In addition to commending countries for achieving these objectives, the RVC made recommendations to help under-performing countries catch up. They identified gaps in surveillance, coverage and annual reporting, which they argue demonstrate that greater commitment and support are urgently needed to achieve elimination throughout the European Region.

Eliminating measles and rubella is a core goal of the European Vaccine Action Plan 2015–2020 and an important part of global efforts to improve health and reduce inequalities (Sustainable Development Goals 3 and 10, respectively). The RVC and WHO are committed to the verification process and will continue to provide support until measles and rubella elimination has been achieved. [Source: WHO Regional Office for Europe Press Release, 5 April 2016. http://www.euro.who.int/en/media-centre/sections/press-releases/2016/04/europe-is-closer-than-ever-to-eliminating-measles-and-rubella-remaining-countries-urged-to-catch-up]

FSA Campylobacter retail survey - update

50/1705 Campylobacter is the most common cause of food poisoning in the UK and is frequently associated with raw chicken. Food Standards Scotland (FSS) works in partnership with the Food Standards Agency (FSA) to monitor Campylobacter in retail food through their Campylobacter retail survey. This survey provides valuable data on Campylobacter contamination in retail food throughout Scotland.


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Standards Agency (FSA) to tackle *Campylobacter*, and has been publishing results from an FSA survey on the amounts of contamination on fresh chickens bought from shops and supermarkets across the UK. The way the FSA has conducted testing for *Campylobacter* in retail chicken (see Current note 50/0903 at [http://www.hps.scot.nhs.uk/ewr/redirect.aspx?id=67125](http://www.hps.scot.nhs.uk/ewr/redirect.aspx?id=67125)) has been to measure the amount of the bacteria on the neck skin - the most highly contaminated area of skin.

The survey was based on measuring the amount of bacteria on the neck skin of the chicken, which is the most heavily contaminated part of the bird. In the drive to reduce the levels of contamination, the industry has started to remove the neck skin from whole fresh chickens before they are placed on supermarket shelves. This is good news for the consumer but means that the FSA is unable to measure the levels of *Campylobacter* in the same way as before. It has therefore taken the decision to temporarily suspend the survey until a new protocol can be developed which provides a more consistent way of determining *Campylobacter* levels on retail chicken. It hopes to be able to restart sampling in the summer. Additionally, in the longer-term, the FSA will be asking industry to conduct its own testing and to publish results to an agreed set of FSA-prescribed and maintained standards.

The results of the third quarter of this survey will be published on May 26 2016. As with previous quarters, publication of the data follows Office of National Statistics rules. However, because of the issues outlined above, it will give an overall figure for the amount of *Campylobacter* on chicken and will in this case be breaking the figures down by retailer. Since sampling is being temporarily suspended, a final quarter set of results within this survey will not be published.


**DNA vaccine recommended for use in salmon**

50/1706  The European Medicines Agency (EMA) has recommended granting a marketing authorisation in the European Union (EU) for Clynav, a DNA vaccine to protect Atlantic salmon against salmon pancreas disease (SPD) caused by salmon alphavirus subtype 3.

SPD is a serious infectious disease which causes damage to the heart, pancreas and skeletal muscle and can lead to the death of salmon. The disease has become established in some member states and outbreaks of SPD cause significant losses in salmon farms in the EU.

Clynav is the first DNA vaccine to be recommended for marketing authorisation in the EU. A DNA vaccine consists of a genetic sequence that triggers the production of proteins directly in the cells of the vaccinated animal. These proteins stimulate a protective immune response, in the case of Clynav against salmon alphavirus subtype 3, thereby preventing or reducing the impact of the disease should the fish subsequently be exposed to this virus.

The vaccine has been tested in fresh water and sea water trials that showed that an intramuscular injection reduces mortality and the damage to the heart, pancreas and muscle tissue that is associated with the disease. EMA’s Committee for Veterinary Medical Products (CVMP) considered that the protection provided by the vaccination is clinically relevant and provides direct benefit to the salmon in terms of improved health and welfare.

On the basis of a detailed environmental risk assessment, the committee was satisfied that any potential risk to the environment from use of the product in salmon was negligible. Likewise,
as any vaccine residues are rapidly degraded in the gastrointestinal tract after ingestion, the committee concluded that vaccinated salmon are safe to eat.

Clynav was classified as a medicine for minor use minor species (MUMS) / limited market because it is intended for a disease affecting a major species (Atlantic salmon) that has a limited geographical distribution. EMA’s MUMS policy aims to stimulate the development of new veterinary medicines for minor species and for diseases in major species for which the market is limited and that would otherwise not be developed under current market conditions.


Divers’ emergency breathing gas

50/1707 A report recently published by the Health and Safety Executive (HSE) examined the diving industry guidance provided to divers and supervisors in the amount and method of determining how much emergency gas a diver can require. A literature search was carried out into the human gas consumption rate as measured in scientific studies of workers, divers and athletes. Data was also sourced from operators and divers using dive computers with gas integration.

The data from the guidance, scientific studies, operators and live data from divers are compared to provide a recommended gas consumption rate that industry can use to plan the volume of gas to be available to a diver in an emergency. It was found that some industry sectors could increase the recommended gas consumption rate to provide sufficient gas to a diver in an emergency.

How the gas is provided to the diver in an emergency is discussed. Current industry practices across the different sectors use a wide range of methods, some of which could be improved. The sizes of gas containers, the pressure that containers can be charged to, along with how gas can be passed to the diver are covered. A standardised coupling is recommended to allow connection between a diver and an emergency gas supply.

Research report RR1073 ‘The provision of breathing gas to divers in emergency situations’ (available at http://www.hse.gov.uk/research/rrhtm/rr1073.htm?eban=govdel-research-reports&cr=02-Mar-2016) and the work it describes were funded by the HSE. Its contents, including any opinions and/or conclusions expressed, are however those of the authors alone and do not necessarily reflect HSE policy.

Environmental incidents - SEISS reports (carbon monoxide incident – Carrbridge)

50/1708 The Scottish Environmental Incident Surveillance System (SEISS) recorded the following incident in the past week:

• On 22 April, two men and two women were taken to hospital suffering from suspected carbon monoxide poisoning after a possible gas leak at a hotel. A total of 90 guests were evacuated from rooms at the Carrbridge Hotel in the village of Carrbridge. Emergency services were called shortly after 5am. The Scottish Fire and Rescue Service said the incident was being treated as a possible gas leak. The guests involved in the evacuation were later able to return to the hotel (http://www.bbc.co.uk/news/uk-scotland-highlands-islands-36108907).

For more detailed information on SEISS please go to http://www.hps.scot.nhs.uk/enviro/ssdetail.aspx?id=107 or contact either Ian Henton or Colin Ramsay at HPS on 0141 300 1100.
NHS BOARD ABBREVIATIONS

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