### Novel Coronavirus (MERS-CoV)

Novel Coronavirus is a new virus, first identified in 2012 in a patient from the Middle East who had died from a severe respiratory illness. To date there have been 70 confirmed cases worldwide and 39 deaths. The majority of cases have been in the Middle East. There have also been cases in Tunisia, France, the UK and Italy, but these cases all had direct or indirect contact with the Middle East.

#### MERS Cases and Deaths, April 2012 - May 2013

<table>
<thead>
<tr>
<th>Countries</th>
<th>Cases (Deaths)</th>
</tr>
</thead>
<tbody>
<tr>
<td>France</td>
<td>2 (1)</td>
</tr>
<tr>
<td>Italy</td>
<td>3 (0)</td>
</tr>
<tr>
<td>Jordan</td>
<td>2 (2)</td>
</tr>
<tr>
<td>Qatar</td>
<td>2 (0)</td>
</tr>
<tr>
<td>Saudi Arabia</td>
<td>55 (33)</td>
</tr>
<tr>
<td>Tunisia</td>
<td>2 (0)</td>
</tr>
<tr>
<td>United Kingdom (UK)</td>
<td>3 (2)</td>
</tr>
<tr>
<td>United Arab Emirates (UAE)</td>
<td>1 (1)</td>
</tr>
<tr>
<td>Total</td>
<td>70 (39)</td>
</tr>
</tbody>
</table>

**Mode of Transmission**

The virus is capable of spreading from person to person but it appears that prolonged close contact with an infected person is necessary; the virus has been transmitted between family members and to healthcare workers. In France, a patient who shared a hospital room with an affected patient was also infected. Transmission appears to be by droplet spread and possibly also by direct contact.

**Symptoms**

Symptoms include a fever >38 °C, cough and clinical signs of pneumonia or of a severe respiratory illness. Patients who are immunocompromised may have atypical symptoms. A history of recent travel to the Middle East prior to the onset of symptoms should raise the suspicion of Novel Coronavirus. If a case is suspected, infection prevention and control measures should be followed and the admitting team and local department of public health contacted. Treatment is supportive.

**Travel Advice**

There are currently no recommendations restricting travel to the Middle East as the risk of acquiring Novel Coronavirus is considered to be low.


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**The Emergency Management of Injuries (EMI) Toolkit**

New guidelines have been developed by the Scientific Advisory Committee of the Health Protection Surveillance Centre (HPSC) for managing potential exposures to bloodborne viruses. The EMI guidelines are intended for use in emergency medical settings (e.g. GP or emergency department) where a patient first presents with an injury (including needlestick or other sharps injury, sexual exposure, human bite, exposure of broken skin or of mucous membranes) where there is a risk of transmission of infection, in particular bloodborne viruses (BBV). These guidelines are relevant to injuries occurring to members of the public in a community setting and also to injuries sustained occupationally (such as to healthcare workers (HCW) or members of the Garda). The BBVs considered in these guidelines are hepatitis B virus (HBV), hepatitis C virus (HCV) and human immunodeficiency virus (HIV).

**Influenza H7N9**

A new Influenza sub-type, H7N9, has been identified in humans. Cases were first reported in China in February 2013. This is an avian Influenza which has never previously been seen in humans. To date there have been 131 cases and 36 deaths. All cases have occurred in north eastern China, with one case imported from China into Taiwan.

**Transmission:** The source and mode of transmission remain unknown, but there is increasing evidence that contact with live poultry is a significant factor. At this stage, there is no evidence of spread from person to person.

**Risk Groups:** Older adults appear to be at greater risk, particularly older men - possibly due to their having greater contact with live poultry.

**Symptoms:** Most cases of H7N9 have had a severe illness with the majority of cases needing hospitalisation and admission to ICU. H7N9 Influenza should be suspected in patients with a history of recent travel to China presenting with fever $>38^\circ$ and clinical signs of a severe respiratory illness or pneumonia. Patients who are immunocompromised may have atypical symptoms. If a case is suspected, infection prevention and control measures should be followed and the admitting team and local department of public health contacted.

**Why is it of Concern?** Firstly, this Influenza virus causes severe symptoms with a high fatality rate. However, it is causing very mild disease in birds, making it difficult to track in the bird population where it may be circulating to a significant extent. Secondly, the virus is also particularly well adapted to infect humans, but, because this is a new sub-type of Influenza, there is no immunity in the human population. Thirdly, while at present there is no evidence of spread from person to person, if the virus does become transmittable from person to person, an influenza pandemic is possible.

**Vaccine:** No vaccine exists but work is ongoing to develop a vaccine.

**Travel Advice:** There are currently no recommendations restricting travel to or trade with China but visitors are advised to avoid live animal and bird markets and to follow hand hygiene advice.

Further information is available from:
http://www.hpsc.ie/hpsc/A-Z/Respiratory/Influenza/AvianInfluenza/InfluenzaAH7N9virus/

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**National Increase in invasive Group A Streptococcus**

Nationally there has been a significant increase in invasive Group A *Streptococcus* (iGAS) cases notified to the HPSC in the first quarter of 2013, similar to the increase noted in 2012. Of note, there has been an increase in the number of paediatric cases reported in the first quarter of 2013. Six iGAS-associated deaths were reported during the first 16 weeks of 2013.

No significant increase has been seen to date in Cork and Kerry (2010: 12 cases, 2011: 12 cases, 2012: 14 cases, 2013 to date: 7 cases).

iGAS infections are acute, frequently life-threatening infections ranging from the more commonly encountered bacteraemia (bloodstream infection), cellulitis and pneumonia to the rarer meningitis, puerperal sepsis and septic arthritis. Two of the most severe forms of iGAS are necrotizing fasciitis and Streptococcal Toxic Shock Syndrome (STSS).

Patients with symptoms or physical findings consistent with iGAS infection should be immediately referred to hospital. These may include high fever, chills, rigors, sweats, myalgia and localised pain (suggesting septicaemia and invasive bacterial infection). The most common initial symptoms of streptococcal toxic shock syndrome (STSS) are fever and severe pain, which is abrupt in onset and usually precedes tenderness or physical findings. Clinical findings of necrotising fasciitis are more prominent in the later stages and include pain and tenderness out of proportion to the appearance of the area, oedema, erythema, skin anaesthesia and bullae formation.

Routine chemoprophylaxis of close contacts of iGAS cases is not recommended. However, close contacts should be informed of the symptoms of iGAS infection, and seek immediate medical care if these occur. Close contacts who develop symptoms or signs consistent with a non-invasive Group A streptococcal infection (e.g. pharyngitis) within 30 days of contact with an iGAS case should receive antibiotic chemoprophylaxis (oral penicillin for 10 days is the treatment of choice). Antibiotic chemoprophylaxis should also be given to mother and baby if either develop iGAS within 28 days after the baby’s birth.

Specific guidance, including guidance on the management of common infections caused by Group A *Streptococcus* can be found at http://www.hpsc.ie/hpsc/A-Z/Other/GroupAStreptococcalDiseaseGAS/Guidance/

Current guidelines for antibiotic prescribing in primary care settings can be found at http://www.antibioticprescribing.ie/