Communicable Diseases Communiqué

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Rift Valley fever update

In recent weeks we have observed a decreasing trend in the number of new cases of Rift Valley fever (RVF) confirmed in South Africa. Nevertheless, new acute infections continue to be detected, implying ongoing transmission. Therefore there is a need for continued vigilance among all health workers, as well as strengthening of the ongoing health education in RVF-affected areas. Clinicians must continue to suspect RVF in patients meeting the case definition and submit specimens to the NICD for testing.

As of 21 May 2010, the NICD has confirmed a total of 203 human cases, 20 of which were fatal. Direct contact with RVF-infected livestock remains the most common route of transmission. For more detailed information regarding the RVF outbreak in South Africa, please see the most recent interim report posted on the NICD website (www.nicd.ac.za).

Source: SA-FELTP, Special Pathogens and Outbreak Response Units, NICD; Departments of Health and Agriculture, Forestry and Fisheries

Updated guide for 2010 FIFA World Cup visitors to South Africa

We have recently updated the synopsis guide for visitors travelling to South Africa for the 2010 FIFA World Cup. This short guide, accessible on the NICD website (www.nicd.ac.za), covers important health topics, including: food and water safety, hepatitis A, influenza, malaria, measles, meningococcal disease, polio, rabies, Rift Valley fever, sexually transmitted infections, tick bite fever, tuberculosis and yellow fever. We provide general travel recommendations focussing on preventive measures that will assist visitors in experiencing a healthy World Cup.

Source: Travel Health and Outbreak Response Units, NICD

MRSA alert

Methicillin-resistant *Staphylococcus aureus* (MRSA) refers to strains of *S. aureus* that are resistant to all ß-lactam antimicrobial agents, and can cause a spectrum of infection and disease, from asymptomatic carriage to life-threatening focal infections and bacteraemia. In many countries worldwide, the proportion of *S. aureus* infections that are caused by MRSA strains is increasing, and in some South African hospitals, MRSA accounts for more than 50% of bacteraemic staphylococcal infections.

Although originally confined to the hospital environment, MRSA has emerged as a community-acquired infection over the last decade. Community-associated MRSA (CA-MRSA) differs from healthcare-acquired MRSA (HA-MRSA) both epidemiologically and on a molecular basis. HCA-MRSA produces mostly hospital-related pneumonia and bacteraemia in patients with associated risk factors (including recent hospitalisation or surgery, indwelling catheter/devices, living in a nursing

(Continued on page 2)

(Continued from page 1)

home). In contrast, CA-MRSA is not associated with any risk factors and produces skin/soft tissue infections primarily, but has also been associated with rapidly fatal necrotising pneumonia, necrotising fasciitis and bone/joint infections. Groups with high-intensity physical contact (e.g. athletes, military recruits, prison inmates and children in daycare centres) are at higher risk. Increasing rates of CA-MRSA cases and clusters are being identified in certain geographic regions; for example, the CDC reported that in 2007, 14% of people in the United states with MRSA infections had CA-MRSA.

Routine laboratory phenotypic procedures are not able to distinguish between CA-MRSA and HA-MRSA; only special epidemiological molecular typing methods performed in reference laboratories can provide important information on distribution of these MRSA clones. CA-MRSA strains are usually pauciresistant compared to HA-MRSA, and are often susceptible to clindamycin and cotrimoxazole. Prevention of CA-MRSA transmission in at-risk groups can be aided by strict personal hygiene, and environmental control (cleaning and disinfection policies) where applicable.

Source: Microbiology External Quality Assessment Reference and Outbreak Response Units, NICD

Measles outbreak

There have been 2,082 additional laboratory-confirmed measles cases since the last published Communiqué, bringing the total to 14,359 cases from the beginning of 2009 to 19 May 2010. Cases have been reported from all nine provinces, with Gauteng (34%, 4 823/14 359), KwaZulu-Natal (22%, 3,219/14,359) and Mpumalanga (10%, 1,509/14,359) provinces accounting for the highest proportions of the total. An increase in the number of new cases reported each week has been observed in some provinces, notably KwaZulu-Natal and Mpumalanga, while Gauteng reported a decline in the number of cases (Figure). It should be noted, however, that Western Cape Province has ceased testing of suspected measles cases. Children under five years accounted for 52% (7,071/13,709) of cases, with 25% occurring in those aged 6 to 11 months. The second round of the mass vaccination campaign is scheduled to take place this week, 24-28 May 2010 (second dose of polio, and vitamin A).

Source: Divisions of Epidemiology and Virology, NICD

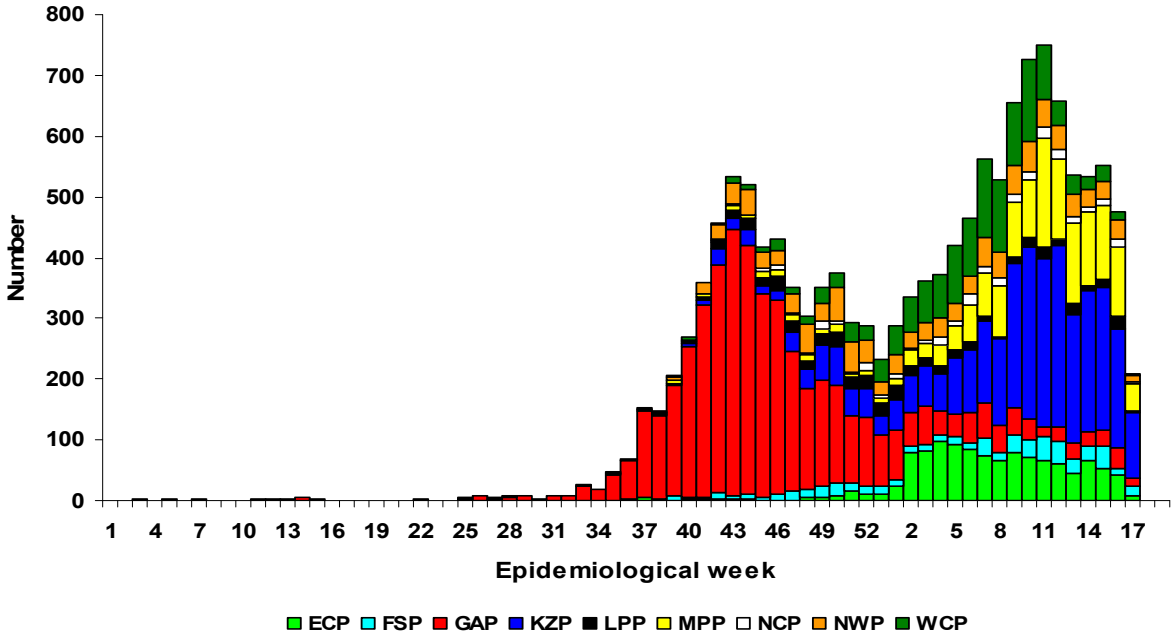

Figure: Measles IgM positive results per province, South Africa, January 2009 to 19 May 2010

Influenza

The Viral Watch surveillance programme has observed a steady increase in the number of specimens submitted from suspected influenza cases. From mid April 2010, three sporadic cases of influenza B infection have been detected. The first case was identified from Gauteng Province in week 15, and the other two from Northern Cape and Gauteng provinces in weeks 17 and 20 respectively. The South African influenza season typically begins in early June, peaking in early July. Clinicians are encouraged to remain vigilant and regularly check the NICD website (www.nicd.ac.za) for updates on influenza activity. As of 21 May 2010, the WHO reported pandemic influenza to be most active in the Caribbean and Southeast Asia. In the temperate zones of the southern and northern hemispheres, influenza activity remains low with sporadic cases detected. Increase in transmission of seasonal influenza type B virus was reported in central Africa.

Source: Epidemiology and Surveillance, Respiratory Virus, Virus Diagnostic and Outbreak Response Units, NICD

Rabies update

Rabies should be considered as a possible diagnosis for all encephalitis cases in South Africa. A dog- or animal- exposure history may not be reported in all cases, and accurate exposure histories are especially difficult to obtain in children. It is noteworthy that rabies virus may also be transmitted through superficial nicks and scratches. Rabies confirmation can only be achieved through specific laboratory tests. These include RT-PCR on saliva, nuchal biopsy and cerebrospinal fluid specimens. Rabies serology is of limited value in acute cases. Post-mortem confirmation of cases may be achieved through fluorescent antibody testing on brain specimens and RT-PCR of nuchal biopsies.

There has been a total of 6 laboratory-confirmed human rabies cases in South Africa for 2010 to date. These cases originate from Mpumalanga (n=1); KwaZulu-Natal (n=1), Eastern Cape (n=1) and Limpopo (n=3) provinces.

Source: Special Pathogens and Outbreak Response Units, NICD

Gonorrhoea

Gonorrhoea has typically been treated with single-dose therapy of an agent that cures >95% of cases, but has repeatedly developed resistance to antimicrobial agents including sulphonamides, penicillin, tetracyclines and fluoroquinolones. As a result, third-generation cephalosporins remain the only class of antimicrobials recommended as first-line therapy for gonorrhoea in some regions of the world, including South Africa. The emergence of cephalosporin-resistant *N. gonorrhoeae* is no longer a theoretical possibility, as strains resistant to oral cephalosporins such as cefixime and cefpodoxime have already been identified in the Far East. In April 2010, the World Health Organization and the Centers for Disease Prevention and Control jointly convened an expert meeting in Manila, Philippines, to develop recommendations for a global action programme to address the threat of multi-drug resistant gonorrhoea. Preventing the spread of resistant strains relies on appropriate antimicrobial management programmes, strengthening and expanding surveillance networks, and efforts towards sexually transmitted disease control and prevention. Since 2004, the NICD in collaboration with the National Department of Health have been conducting a national microbiological surveillance programme which monitors antimicrobial susceptibility patterns of *N. gonorrhoeae*. Clinicians should bear in mind that sexually transmitted infections are an important risk for international visitors to the upcoming FIFA World Cup.

To view a précis of the revised National Guidelines for First-line Comprehensive management and control of Sexually Transmitted Infections, go to: http://www.sajei.co.za/index.php/SAJEI/article/view/161/171

Source: Sexually Transmitted Infections Reference Centre, NICD

Beyond Our Borders: infectious disease risks for travellers

The "Beyond Our Borders" column focuses on selected and current international diseases that may affect South Africans travelling abroad.

Disease & Countries	Comments	Advice to travellers
Polio: Tajikistan	As of 18 May 2010, 108 confirmed cases of polio have been reported in Tajikistan since January 2010. No restrictions on travel have been implemented; however, visitors are advised to consider pre-travel immunisation.	Travellers who have previously received three or more doses of OPV or IPV should be offered a booster dose of polio vaccine before departure. Non-immunised individuals require a complete course of vaccine. It is also important to note that vaccination does not guarantee the travellers safety. Travellers are additionally advised to follow safe food and water practices, and practice good hand hygiene to prevent infection.
Rabies Indonesia (Bali)	In November 2008, an outbreak of rabies was detected on the island of Bali. As of 17 May 2010, the number of fatal human cases varies from 50 to 79 in official and media reports. Nonetheless, the majority of cases have occurred near the popular tourist destinations on the southern tip of the island.	Travellers should avoid animal bites - avoid contact with all wild animals, and domestic animals with unknown rabies exposure or vaccination history. Health workers should inform travellers of post-exposure measures if bitten or scratched (including thorough washing of the wound with soap and water) and to seek immediate medical treatment to receive vaccine and/or rabies immunoglobulin (depending on the exposure). Pre-travel rabies vaccination may be considered if activities in Bali will result in close contact with potentially rabid animals.
Hand, foot, and mouth disease (HFMD) China	Outbreaks of HFMD have become common in the spring and summer months in China. In 2010, an increasing number of HFMD cases have been reported in China. In March 2010, the Ministry of Health reported 77,000 cases and 40 deaths.	There is no vaccine available to prevent HFMD, and management of disease focuses on the treatment of symptoms (esp. fever). Travellers to countries currently experiencing outbreaks are advised to wash hands often with soap and water, especially before eating, after coughing or sneezing and after going to the bathroom. Consider packing and regularly using an alcohol-based hand gel (minimum 60% alcohol). Avoid sharing eating utensils / cups.

Source: Travel Health and Outbreak Response Units, NICD.
References: ProMED-Mail (www.promedmail.org), World Health Organization (www.who.int), Centers for Disease Prevention and Control (www.cdc.gov), Europe Media Monitor (http://medusa.jrc.it/medisys/helsinkiedition/en/home.html); last accessed 2010/05/24.

This communiqué is published by the National Institute for Communicable Diseases (NICD) on a monthly basis for the purpose of providing up-to-date information on communicable diseases in South Africa. Much of the information is therefore preliminary and should not be cited or utilised for publication.