**Seasonal Influenza**

Influenza A virus, not yet further characterized, was isolated from the respiratory specimen of a 31 year old male from Gauteng, who presented to his GP with typical influenza-like symptoms on 10 April (week 15). This is the first local isolate this year. The previous 3 isolates made were all from patients who had either traveled, or had contact with someone from the northern hemisphere. The average onset of the influenza season in South Africa over the past 23 years is week 23 – the first week of June – with a range of week 15 (mid-April) to week 28 (mid-July).

Sporadic isolates of influenza are often made both before and after the annual influenza outbreak. To date (13 April), 97 specimens have been received for respiratory virus isolation. The majority (72) were from the active Viral Watch surveillance programme. Over the past 8 weeks the number of specimens received per week has ranged between 12 and 17.

**Source:** Epidemiology, Respiratory virus and Viral diagnostic units, NICD

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**Rabies update**

Two further cases of rabies were confirmed for 2007 in an adult female and a 11 year old boy, both from the Eastern Cape (3 cases from KwaZulu Natal; 3 cases from Eastern Cape and 1 case from Limpopo Province). One of these patients was part of a cluster of three individuals attacked by a rabid dog in February 2007. The patient presented with acute encephalitis mid-March 2007, was hospitalized in Kokstad, KwaZulu Natal and later transferred to a Pietermaritzburg hospital. Serology on the patient’s serum was positive and presence of rabies virus nucleic acid was detected by PCR on mouth swab specimens. PCR on sputum specimen was negative (not a recommended specimen for testing). Another of the three victims died presumably of rabies but without confirmation.

Although post mortem laboratory testing of brain tissue remains the gold standard, ante mortem testing of patients with suspected rabies should be considered. PCR on saliva is the preferred test for this purpose. Obtaining accurate patient histories remains a major problem in rabies diagnosis and all cases of viral encephalitis should be considered for rabies testing to detect ambiguous cases.

**Source:** Special Pathogens and Epidemiology Units, NICD

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**Measles and Rubella**

During April to date (13 April) 41 specimens from patients with suspected measles were tested for measles and rubella IgM. Measles IgM antibodies were not detected in any of these patients. However, measles was detected by PCR in a 9 year old from the Northern Cape in whom measles IgM was equivocal. Rubella IgM antibodies were detected in 6 patients bringing the total for 2007 to 122 confirmed cases. Patient’s ages ranged from 11 months to 34 years (median 7 years). 4.9% of the positive specimens were from females aged 12 and older.

**Source:** Epidemiology and Viral Diagnostic Units, NICD
Focus On: Hepatitis A Outbreak

An outbreak of Hepatitis A in an institution for mentally challenged adults in the South of Johannesburg was reported this month, and was notified to the health authorities. The first case, an adult with jaundice, was admitted to hospital on Thursday 5th April, and was subsequently laboratory confirmed as Hepatitis A IgM positive. Six (6) additional suspected cases became symptomatic the following day, three (3) of which have to date been confirmed as Hepatitis A acute infection. Its likely that there is a point source. Immunoglobulin has been offered to close contacts of cases. Hepatitis A is a notifiable condition in SA. It is usually a self limiting disease. Person to person spread is the most common method of transmission via the fecal-oral route. However, infection may also result from exposure to a common vehicle such as contaminated food or water. The incubation period of HAV is 15 – 50 days (average = 28 days). Individuals are most infectious two weeks before onset of jaundice and may remain infectious for 1 – 2 weeks following the onset of jaundice. Clinical presentation may vary and is influenced by factors such as age and presence of underlying risk factors for severe disease. Several clinical presentations are recognized and include:

- Asymptomatic infection – most children
- Symptomatic hepatitis with jaundice (40-80%)
- Symptomatic hepatitis without jaundice
- Fulminant hepatitis with acute liver failure

In 85% of individuals who develop jaundice this is preceded by sudden onset of a prodromic illness characterized by non-specific symptoms including one or more of the following: loss of appetite, fatigue / malaise, diarrhea, abdominal pain, nausea or vomiting, fever, arthralgia and myalgia, flu-like symptoms – cough, coryza, pharyngitis, photophobia, and headache.

Response to an outbreak of hepatitis A:
General considerations:
Response to an outbreak will depend on a number of factors.

These include:

- The site of the outbreak
- The likely source of the outbreak i.e. person-to-person vs. common source
- The affected population
- Availability of resources
- The time since the identification of the last case.

Outbreaks in closed institutions
Closed institutions, in particular those in which individuals are unable to maintain personal hygiene, are incontinent or in nappies, are at high risk for spread of infection. Aggressive use of immunoglobulin in such settings amongst individuals who are part of the exposed group may prevent further cases and should be provided to non-immune staff and residents if within 14 days of the last identified case. If > 14 days, further secondary cases are unlikely to be prevented and active surveillance for new cases should be introduced. High risk individuals may still benefit from immunoglobulin up to 4 weeks post exposure. In such settings screening of residents and staff for hepatitis A immunity (hepatitis A IgG) may be cost effective prior to widespread use of immunoglobulin. However, it is essential that results are obtained rapidly to avoid unnecessary delays in the intervention. In addition to immunoglobulin use, such institutions should consider hepatitis A vaccination of non-immune staff and residents to ensure long term protection.

All hepatitis A outbreaks should prompt a thorough environmental assessment including inspection of food sources, water quality and general hygiene. If a common source outbreak is suspected and the source is unknown further epidemiologic investigation may be required to determine the common source.

Source: Epidemiology Unit, NICD