4 SEASONAL DISEASES

a Clusters of odyssean malaria in Gauteng Province—December 2018

There were 11 cases of odyssean malaria at two separate locations during December 2018. The first cluster occurred in Orange Farm, south of Johannesburg, Gauteng Province. There were three confirmed cases in this cluster. The cases were sisters (21y, 14y, 7y) who became ill around the same time, and were treated at a hospital in Johannesburg. During our investigation, we confirmed no travel to malaria risk areas and no injections/drips/blood transfusions as possible causes. No *Anopheles* mosquito adults or larvae were found at the site. Thanks to a prompt diagnosis by the laboratory, which examined a blood smear when a low platelet count was observed, all three cases were treated immediately and recovered fully. Unfortunately, the same was not true for the eight cases (6 confirmed, 2 probable) observed in the second cluster in Munsieville, Mogale City, West Rand District. Delays in recognising odyssean malaria occurred due to unreliable histories and difficulty tracing family members. Again, no *Anopheles* mosquito adults or larvae were found. The Munsieville cluster, summarised in Table 1, had a very high case fatality rate of 50% (4/8), as is often the case with odyssean malaria.

In Gauteng Province, malaria cases imported from risk areas are well known, but malaria in persons who have not travelled to transmission areas is rare and always unexpected, leading to delayed diagnosis and a high rate of complications. Most of South Africa's odyssean malaria cases occur in Gauteng Province because it is a major destination. We urge healthcare workers to consider malaria as a differential diagnosis in patients with a fever and progressive 'flu-like illness, even if they have not travelled, as this can save lives.

Source: Centre for Emerging Zoonotic and Parasitic Diseases, NICD-NHLS, and West Rand District Health Office; johnf@nicd.ac.za

Table 1. Summary of confirmed and probable cases of odyssean malaria, November— December 2018

	Place	Person	Date of onset	Outcome	Comment
1*	Munsieville	M 41y	25 Nov	Recovered	No records
2	Munsieville	M 2y	26 Nov	Recovered	
3	Munsieville	F 34y	28 Nov	Recovered	
4	Munsieville	M 13y	1 Dec	Recovered	
5	Munsieville	M 40y	± 10 Dec	Demised 12 Dec	Diagnosis made after death
6	Orange Farm	F 21y	10 Dec	Recovered	
7	Orange Farm	F 14y	± 12 Dec	Recovered	
8	Orange Farm	F 7y	± 12 Dec	Recovered	
9	Munsieville	F 21y	10 Dec	Demised 22 Dec	
10*	Munsieville	4m		Demised ± 20 Dec	No records
11	Munsieville	M 27y	24 Dec	Demised 29 Dec	Diagnosis made after death

*Probable cases.

b Update on influenza in the northern hemisphere

Influenza activity has been increasing in the temperate zone of the northern hemisphere. In Europe, almost equal proportions of influenza A(H1N1) pdm09 and A(H3N2) have been detected, whereas in North Africa, mainly influenza A(H3N2) has been detected.

Detections of influenza A(H1N1)pdm09 predominated in the United States of America and Canada, as well as in East Asia.

Although our influenza season has not started, clinicians should have a high index of suspicion for influenza in returning travellers from the northern hemisphere.

Source: Centre for Respiratory Diseases and Meningitis, NICD-NHLS; cherylc@nicd.ac.za

5 ALERT FOR RETURNING TRAVELLERS

The end of year is a popular time for many people to travel, visiting friends and family. Healthcare providers and travellers returning from within the southern African region and further afield should be aware of the infectious disease risks related to travel.

Travellers returning from the southern African region should be aware of malaria, cholera, typhoid, African tick bite fever, East African trypanosomiasis and various mosquito-borne viruses (e.g. dengue, chikungunya, West Nile).

Malaria is the most important travel-related infection to consider at this time, given that it is high season in southern Africa for both residents of malaria transmission areas and travellers, and the need for rapid diagnosis and urgent treatment to prevent severe malaria and deaths. Most persons presenting with malaria in South Africa either acquire the infection in malaria risk areas within the country or have a history of travel to neighbouring countries, with the highest risk in Mozambique. Malaria risk areas within South Africa are the lowveld areas of Limpopo, Mpumalanga and northern KwaZulu-Natal provinces. Any person who develops a fever, chills, headache, and muscle/joint pain within 10 – 30 days of returning from a malaria-endemic area must seek medical attention urgently and have a malaria blood test as soon as possible. Travellers must inform their health practitioners of recent travel. Medication to prevent malaria, while highly effective, may not be 100% protective. Rarely, malaria-infected mosquitoes may travel surprisingly far (by road, rail or air transport) and can cause infection in distant places (called 'odyssean malaria'). In December, two clusters of odyssean malaria were reported in Gauteng Province (NICD Communiqué, January 2019, Vol.18(1)). Healthcare workers should be aware of malaria as a possible diagnosis in persons with fever and unexplained progressive illness, whether or not there is history of recent travel to a risk area. Immediate notification of all malaria cases is mandatory in South Africa.

Typhoid and cholera outbreaks are ongoing in Zimbabwe. Any person who develops sudden, severe watery diarrhoea within 5 days of returning from a cholera-endemic area should be tested for cholera. Typhoid fever symptoms (intermittent fever, headache, abdominal pain, nausea, and diarrhoea or constipation) are less specific, but can resemble malaria. Any person presenting with these signs within 2-4 weeks of returning from a typhoid-endemic area should be tested for typhoid. Both cholera and typhoid cases should be notified immediately.

African tick bite fever is a common and potentially dangerous infection that can be acquired when visiting the bush or farms anywhere in Africa. Clinically, tick bite fever can resemble malaria (fever, headache) at first, but is usually accompanied by an eschar (black mark or scab surrounded by inflamed skin at the site of infected tick bite), and painful regional lymph nodes. Sometimes a skin rash may be present. Doxycycline is the treatment of choice and is highly effective.

East African trypanosomiasis (sleeping sickness) is an uncommon but potentially fatal infection caused by a blood parasite transmitted by tsetse flies. The infection is occasionally seen in visitors to game parks along the Zambezi Valley in Zimbabwe, the Luangwa Valley in Zambia, and various game parks in Malawi and other East African countries. An inflamed local skin lesion at the bite site and malaria-like symptoms are typical, disease progression is very rapid and urgent specialised management is required.

Some **mosquito-borne viral infections** (e.g. dengue, chikungunya, West Nile) circulate periodically in southern Africa and can resemble malaria. Any person who develops a fever, headaches, muscle/joint pain or a skin rash should see a healthcare practitioner. Although there is no specific treatment, it is important in these cases to rule out malaria, which is frequently fatal without treatment.

Dengue should also be considered in persons with fever, muscle pain and on occasion a rash, who have travelled to Thailand, India, others countries in Southeast Asia, East and West Africa, as well as to Central and South America. Most infections are mild and will resolve in a few days.

The temperate countries in the northern hemisphere (United Kingdom, Europe, North America) are experiencing their **influenza** season, and influenza should be considered in any person who develops upper respiratory tract symptoms, fever, and muscle/joint pain within a week of return from that region.

The resurgence of **measles** globally is a serious concern. The Americas, Eastern Mediterranean region and Europe experienced protracted outbreaks recently. For returning travellers, this means that any unvaccinated person (of any age) can become infected and then spread the infection to other susceptible people as they travel. It is usually seen in children or adolescents, and symptoms are a rash, fever, conjunctivitis and coughing. Healthcare workers are advised to test for measles if it is suspected so that the case can be isolated to prevent disease spread. Cases should be immediately notified so that ring vaccination can be performed in the affected community.

For more information, please refer to Diseases A – Z on the NICD website: www.nicd.ac.za

Source: Centre for Emerging Zoonotic and Parasitic Diseases, NICD-NHLS; johnf@nicd.ac.za