

Protect yourself and help your colleagues

Malaria continues to be one of the deadliest diseases in the world — and seafarers are often working in some of the riskiest areas. A series of recent shipboard cases has prompted Nautilus, shipowners and marine insurers to issue new advice to keep crew members safe.

Although preventable and treatable, malaria continues to kill more than 600,000 people a year. It remains endemic in a total of 97 nations and the World Health Organisation estimates that there were more than 200 million malaria cases in 2012 alone. The horrors of the Ebola virus dominated the headlines late last year — but in the first seven months following its emergence, some 70 times as many Africans were killed by malaria.

Shipping industry concerns have been renewed following a number of incidents — including two cases of crewmen contracting malaria following a port call in the Congo, one of which proved fatal and the other, while not fatal, caused severe illness for the seafarer.

Both the London and American P&I Clubs have recently issued special alerts in response to concerns that the risks for seafarers are often not fully appreciated and that many crew fail to take proper precautions.

Nautilus has discussed the problem at the UK's national maritime occupation health and safety committee. Senior national secretary Allan Graveson commented: 'It is clear that malaria remains a significant threat to seafarers in many parts of the world.'

While the world has made significant progress in combatting malaria, it remains one of the biggest killers around. Following some recent cases involving seafarers, the shipping industry is being warned to guard against complacency...

'Although precautions should be taken before going into these areas, the problem is that you can get late notification or ships receive a change in orders,' he pointed out.

'Similarly, the symptoms of malaria may sometimes be hard to spot, but we would advise that immediate medical attention or advice should be sought if any type of fever develops after a visit to endemic areas.'

Alarm over awareness of the risks and about the medicines available to treat seafarers on their ships had been raised in an earlier report on the death of a rating onboard a Maersk tanker. The 32-year-old Filipino AB fell ill during a voyage between the Indian port of Mumbai and the United Arab Emirates.

Four days before his death, the seafarer had complained about a headache and had been given paracetamol tablets by the chief officer. On the day of his death, he had helped to clean the cargo control room and install anti-piracy razor wire before going to his cabin to rest after colleagues noticed that he was shaking.

When the chief officer went to the AB's cabin an hour later, he found the crewman to be feverish and shivering, with a temperature of 42°C.

Tests conducted after radio-medical advice showed he was suffering from malaria, but it proved difficult to give him tablets for the condition as he was vomiting frequently.

Despite extensive efforts to keep the AB alive — including an adrenaline injection, CPR and the use of the onboard automated external defibrillator — the man died later in the day.

Investigators concluded that the crewman must have contracted plasmodium falciparum — the most dangerous type of malaria — during the ship's previous visit to Mumbai. The Danish Maritime Authority (DMA) pointed out that the Indian port was officially categorised as a 'no or low risk' malaria area and the lack of an onboard malaria risk assessment before entering Mumbai reflected 'ambiguity' in the official guidance and a 'lack of realisation that local conditions can make parts of an area a malaria risk area'.

Malaria is endemic to large areas of Africa, Asia, Latin America, the Middle East, and the South Pacific, and is caused by a parasite transferred by the bite of the Anopheles mosquito. The parasites enter the bloodstream, multiply in the liver and infect the red blood cells.

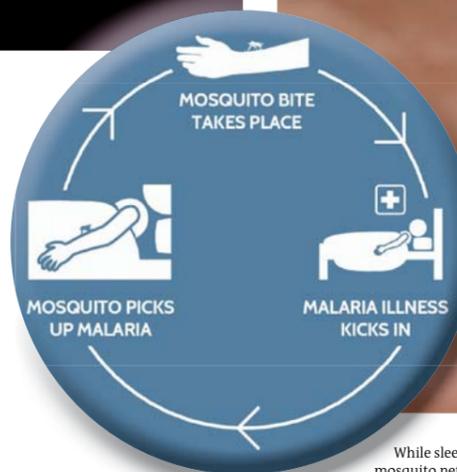
This can cause acute anaemia and can also affect the lungs, kidneys and brain. A major complication is cerebral malaria, which can lead to coma, as well as transient, or permanent, neurological effects, and may also cause death.

The symptoms of malaria may appear as early as seven days and as late as three months after the infective mosquito bite. The first symptoms — flu-like fever (often exceeding 40°C), headache, chills and vomiting — may be mild and difficult to recognise as malaria. However, if not treated promptly, the disease can progress to severe illness and even death.

Prevention is clearly preferable to cure, and there are simple steps that can be taken onboard when transiting, or at port, in areas affected by malaria.

Staying informed about the disease is an important form of prevention. Consult the World Health Organisation (www.who.int) website or the US Centers for Disease Control and Prevention (www.cdc.gov) which includes a database of malaria-affected countries. Further information is also available at www.fitfortravel.nhs.uk

Check the risks not only of the countries you are due to visit but also the individual ports.



Take the appropriate anti-malarial medicines before, during and after your time in the endemic areas.

Use an effective mosquito repellent applied to exposed parts of the skin. A permethrin-containing product may also be applied to bed nets and clothing for additional protection.

Air conditioning helps to keep the mosquitoes away: it is important that it is left on all day.

While sleeping, use undamaged impregnated mosquito nets, put under the mattress, fixed on the four corners of the bed.

If a case of malaria is suspected onboard, it should be treated as an emergency and radio medical advice should be called for immediately.

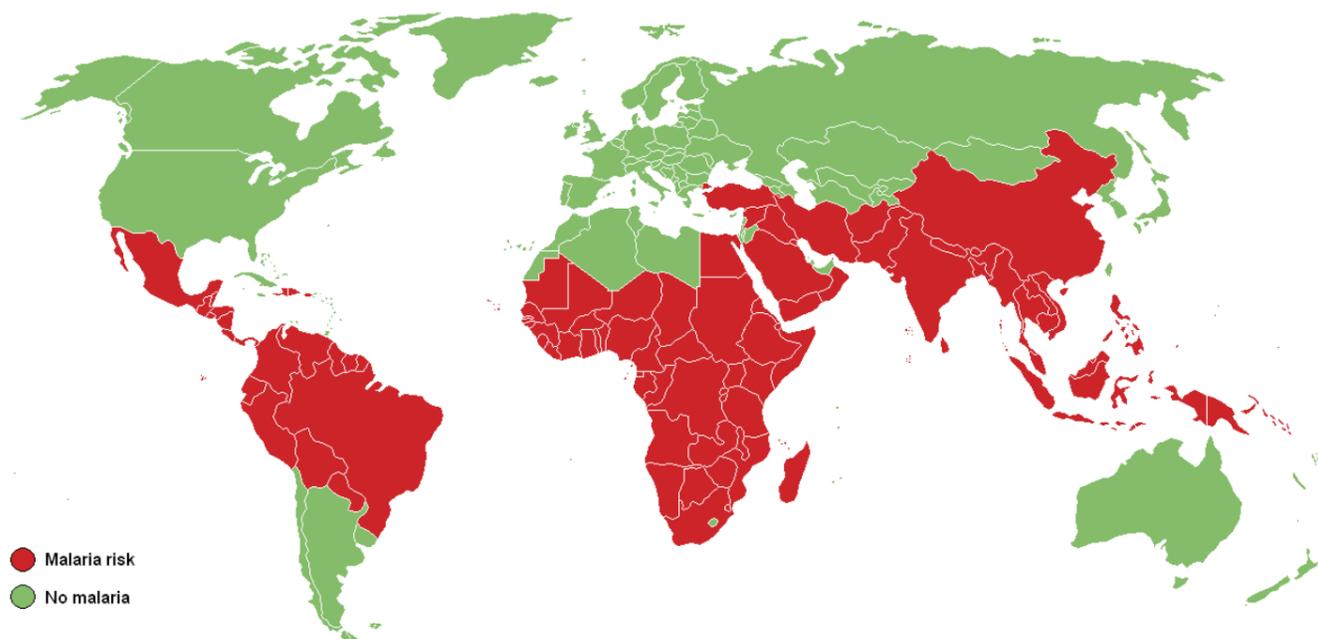
Anopheles mosquitoes are most active between dusk and dawn, and within two miles of a malaria shore it is important that:

- doors and windows are kept closed after dusk

- any mosquitoes entering compartments are killed
- insect spray is used, also under tables and chairs and in dark corners
- long-sleeved shirts and trousers are worn
- pools of stagnant water, dew or rain are removed
- refuse bags and bins are sealed properly
- porchholes, ventilation and other openings are covered with fine wire mesh
- lights are screened to avoid attracting mosquitoes

Malaria stats

- in 2014, 97 countries and territories had ongoing malaria transmission
- an estimated 3.3 bn people are at risk of malaria, of whom 1.2 bn are at high risk
- around 90% of deaths from malaria worldwide occur in Africa
- more than one-third of clinical malaria cases occur in Asia and 3% occur in the Americas
- as many as 30,000 travellers fall ill with the disease each year
- 1,378 Britons returned to the UK in 2012 having contracted malaria



● Malaria risk
● No malaria

Graphic: Wikimedia Commons

'Delayed treatment contributed to my son's death'

Dani Dagnan's son Lee died of malaria while employed in shipboard vessel security for an oil tanker. She believes his death was preventable, and recently approached Nautilus to help her warn other maritime professionals about the dangers of the illness...

Lee Dagnan was a fit and healthy young man who had spent five years in the Royal Marines and was a successful amateur boxer. On leaving the armed forces, he used his skills and contacts to take up freelance work in marine security. 'It was well-paid work, and he was helping to support me and his sisters because his dad had died,' explains Lee's mum Dani. 'That was the main reason he left the forces. And he did like the vessel protection work, travelling around on oil and gas tankers on three-month tours.'

It was on one of those tankers that Lee fell ill in 2012. He boarded the Hong Kong-flagged Song Lin Wan in Sri Lanka on 10 March, having spoken to his mother via Skype the night before. 'He said he had a headache then,' says Dani, 'which was unusual for him, but we didn't think any more of it at the time.'

Onboard the ship, though, it became obvious that Lee really wasn't well, and he was put on bed rest straight away. Six days later, he died, aged just 26. Dani has been piecing together what happened during the period of his illness, and she believes his death could have been prevented if crew members had been better trained and different actions had been taken. 'I want everyone who works on ships to know his story so this doesn't happen to anyone else,' she says.

Lee died from multiple organ failure caused by malaria. But the illness wasn't diagnosed until he was eventually taken ashore to a hospital in Djibouti, shortly before he died. 'On the ship, they just didn't seem to realise how ill he was,' explains Dani. 'He had blood in his urine and a soaring temperature — he

was even delirious. But they just gave him paracetamol and Night Nurse.'

From what she has been able to find out, there was no doctor onboard the vessel and very little medical equipment; neither was there a system in place for the crew to consult a shore-based doctor via a video link. 'I understand that a helivac [helicopter evacuation] was considered at one point,' she says, 'but for whatever reason this didn't happen, and when they eventually decided to get Lee to a hospital, they took him off the ship in Djibouti using a basket. Everyone seemed to be in a state of panic, and nobody seemed to know what to do. They didn't contact me until it was too late. I know what his first words were in his life, but I don't know what his last words were.'

So how had Lee contracted malaria, and was he aware of the risks? 'He was a sportsman; he always took care of his health,' says Dani. 'He knew he was going to a malaria hotspot on the job before the Song Lin Wan, and he'd had the right vaccinations. But we know now that the vaccinations are not 100% effective, and that being fit and strong like Lee doesn't necessarily help you in the case of malaria.'

What would have helped Lee, she reiterates, is for his colleagues onboard the vessel to have recognised the seriousness of his condition. 'I know they're all feeling awful now, but they hadn't had the right training and information. If somebody had realised what was wrong with Lee — or even that he urgently needed a doctor — he would have had a

chance. Malaria is treatable if you catch it in time.'

It's important for employers to foster a culture where people come first and crew members are encouraged to seek medical advice, she adds, even if this slows down the ship. But it's not always easy to tell who the employer is. 'Lee's ship was owned in one country, it was registered in another, and the personnel were employed through a crewing agency based in yet another country. And I understand that Lee was considered self-employed. It seems to me that it's hard to know who is responsible for anything in the shipping industry, but it's easy to see where the priorities lie. The cargo got to where it was going, but my son didn't.'

In the three years since Lee died, Dani has become very much aware of the huge challenge involved in making changes to the global shipping industry. But she is determined to try. 'I would like to see laws changed in my son's name,' she says, 'so that ships have to carry certain medical equipment and they have to have a clear procedure about what to do when someone onboard becomes seriously ill.'

And it's not just employers and policy-makers who can make a difference, she argues; individual maritime professionals can also help prevent future deaths from malaria. 'Six days was a long time for Lee to be lying there before anyone took the right action,' she points out. 'It's so important for everyone onboard a ship to inform themselves about malaria and speak up if they or a colleague need help. We have to move away from this situation where a vessel is protected, but people aren't.'



Lee Dagnan