

## When 'B' becomes 'A': The emerging threat of influenza B virus

Influenza is a serious condition that affects millions of people (and especially children) annually, around the world and in South Africa. Many people (including many children) die of the disease annually. Last year, the death toll from influenza was estimated to be 80 000 in the USA alone, making it the most lethal of the infectious diseases. And yet, despite effective vaccines, most South Africans decline to be vaccinated. This is a public health concern, and we as doctors are among the greatest culprits for driving down influenza vaccination rates. We do not get vaccinated ourselves, and we listen to, and share, the negative excuses we hear.

Influenza outbreaks are caused by either of two strains of the virus, A and B. Influenza A virus is well known, and annual changes in viral genomics make annual tweaking of the vaccine necessary. Influenza B virus emerged in the early 1940s, and by 1983 had separated into two lineages, the Yamagata-like and Victoria-like strains.

Medicine has always viewed the B viruses as the cause of milder disease, but this is a fallacy. In fact, a number of recent results have suggested that the B viruses may be at least as important as the A virus:<sup>[1]</sup>

- Multiple studies have suggested an increased potency of the influenza B virus in causing severe disease and mortality.
- Influenza B infections were found to carry higher risks of hospitalisation in HIV-infected patients than influenza A infections.
- Influenza B has been described as having significantly higher mortality rates than influenza A strains.
- During the flu season in 2010 - 2011, influenza B was responsible for 38% of deaths in the paediatric population.

- A Canadian study of the period from 2004 to 2013 found significantly higher mortality rates due to influenza B compared with influenza A in children aged <16 years.

Consistent with the epidemiological data showing that influenza B contributes to a significant number of pathological events, most of the strains tested were found to have comparable infectivity to influenza A strains. Lokesh *et al.*'s<sup>[1]</sup> editorial reflects on animal experimentation to understand the mechanisms of infectivity and pathology.<sup>[1]</sup>

The ultimate answer to the influenza problem is that the best vaccine should contain the two (current) A strains, H1N1 and H3N2, and the two B strains, to offer the best protection.

My plea is that we start to become a nation of influenza-vaccinating healthcare professionals, and ensure that our patients are directed, in the strongest possible way, towards being vaccinated annually.

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1. Sharma S, Rebaza A, Dela Cruz CS. When 'B' becomes 'A': The emerging threat of influenza B virus. *Eur Respiratory J* 2019;54:1901325. <https://doi.org/10.1183/13993003.01325-2019>