

The Older Traveller

A guide for the health professional

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South African Society of Travel Medicine

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Chapter 6

YELLOW FEVER VACCINATION AND THE OVER 60s

Visser, LG

Attenuated yellow fever vaccine is highly effective in preventing yellow fever.¹ As there is an increased risk of severe adverse events at older age, risks and benefits of vaccination should be carefully assessed. The effect of ageing on the immune response to the attenuated 17D-yellow fever (17D-YF) vaccine will be discussed and a few guidelines will be provided to guide clinical decision-making.

The normal immune response after vaccination

Vaccination with live-attenuated 17D-YF vaccine is followed by viral replication at the site of inoculation and in the mononuclear phagocytes. A vigorous innate and adaptive immune response controls the ensuing viraemia and provides a long-lasting, potentially life-long protective immunity.² The virus is usually cleared from the blood within the first week after vaccination. However, in some healthy vaccinees viral RNA can be found in the urine for up to 6 months, which may indicate prolonged viral replication in some tissues.³

Attenuated 17D-YF virus activates antigen-presenting cells, such as dendritic cells and possibly B cells, through intracellular cytosolic and membrane-bound viral-RNA-sensing receptors.⁴ This results in the production of pro-inflammatory cytokines and interferon- α , the activation of natural killer and T cells, and the formation of T and B cell memory.⁵ The central importance of interferons in this early control of infection is illustrated in a knock-out mouse infection model with 17D-YF virus.⁶

Chapter 12

VENOUS THROMBOEMBOLISM AND ANTICOAGULATION IN THE OLDER TRAVELLER

Jacobson, BF and Benade, EL

Long distance travel has been associated with venous thromboembolism (VTE), with several studies showing an increased risk. The true incidence remains unknown, especially in view of 'silent' venous thromboembolism and the prolonged time period after travel in which patients can present with this complication, often up to 30 days.¹ Many travellers have additional comorbidities which increase their risk of venous thromboembolism as shown in Table I.²

Longer duration of travel increases the risk of VTE, with journeys greater than four hours associated with particularly increased risk. It has been shown that the risk of deep vein thrombosis (DVT) is increased two to four times during long distance travel with an absolute risk of a symptomatic event after a flight longer than four hours being 1 in 4600 flights.³ The risk increases with duration of flight, the number of flights and decreases with time after the flight. Other risk factors include particularly short (<1.65 m) or tall (>1.85 m) people and those with a BMI greater than 25 kg/m² as seen in Table II.³

Chapter 15

THE OLDER TRAVELLER: MINIMISING HEALTH PROBLEMS WHILST AWAY AND ON RETURN

Brink, GK

Common things occur commonly, and so it is no different for the older traveller. The older traveller will be as susceptible, if not more, to viral and other infections as the younger traveller. An acute illness at home is anxiety provoking, but when away from the security of familiar support systems, such an episode can be extremely stressful.

There are specific aspects of the older traveller that can result in a different disease profile whilst travelling as well as a greater degree of susceptibility. These factors are:

- Physiological changes that occur as a result of ageing
- Immunosenescence
- Underlying comorbid and chronic conditions
- Medication
- Past medical history, physical fitness
- Purpose of travel
- Risk-taking behaviour
- Season of year
- Vaccination history

An awareness of these factors will greatly assist in the pre-travel consultation to ensure that the risk of a problem arising whilst away is minimised.