

Japanese Encephalitis Vaccine: Recent Issues affecting the Australian Defence Force

Flight Lieutenant Christina
Halvorsen



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Virology

- ◆ Mosquito-borne flavivirus (*Culex*)
- ◆ Control measures relatively ineffective



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Prevalence

- ◆ China, SE Asia, Indian subcontinent
- ◆ Torres Strait Islands 1995
- ◆ Cape York, mainland Australia 2 fatal cases 1998



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Clinical Features

- ◆ Typically asymptomatic
- ◆ Neurological syndrome 1 in 200
- ◆ No specific treatment
- ◆ Prevention via vaccine



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‘Biken JE-Vax’ Dosage & Administration

- ◆ **3 dose regimen (Days 0, 7 & 28)**
- ◆ **Booster every 3 years**
- ◆ **Accelerated schedule possible**



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Recommendations

- ◆ Travellers spending >1 month rural Asia
- ◆ Travellers spending >1 year Asia
- ◆ Residents over 1 year old Torres Strait
- ◆ ADF

28 days or less NTM

Deploying to JE endemic areas

Not routinely required for navy personnel



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Production Issues

- ◆ Mid 07 Biken ceased production
- ◆ Initial investigation of supply solutions
- ◆ Possibility of period where no vaccine available



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The Stockpile

- ◆ Nov 07: ADF held approx 5700 courses
- ◆ ~12 mth supply based on usage data
- ◆ Sanofi Pasteur stocks earmarked for Qld Dept Health
- ◆ ADF stocks not to be made available to others
- ◆ Initial investigation of solutions



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Alternate Suppliers

- ◆ Alternate vaccine options
- ◆ Require TGA (Therapeutic Goods Administration) approval & ADF Ethics committee support – up to 6 month wait
- ◆ Access under subsections of Therapeutic Goods Act 19(1)(a) & 41HB(1)(d)
- ◆ Special Access Scheme (SAS)
- ◆ Access dependent on availability & capacity to manufacture large quantities



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Alternate Vaccines Explored

- ◆ Chimerivax-JE
- ◆ Intercell – comparable to JE Vax
- ◆ Link Pharmaceuticals – Korean vaccine
- ◆ Japanese vaccine – ‘in-house’ product
- ◆ Chinese vaccine
- ◆ Predicted that supply unavailable before mid 09



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Options to reduce current usage

- ◆ **Strict stock control**
- ◆ **Prioritisation**
 - Land based personnel on 14 days or less NTM**
 - Accelerated dosing schedule for rapid mobilisation**
 - Aircrew 28 days or less notice to move**
- ◆ **Appropriate advice for travellers**
- ◆ **Just in time boosting**
- ◆ **Use of intradermal administration**



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Latest Update

- ◆ 'Intercell' in FDA registration process
- ◆ CSL have distribution rights in Aust
- ◆ Application submitted to TGA Mar 08
- ◆ Section 19 exemption
- ◆ ADF use requires member's informed consent



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Conclusion

- ◆ ADF strategies effective
- ◆ Currently 5000 courses JEV

“JEV is a mission-critical product for deployment health in Asia, as essential to the success of the military mission as adequate armour and weapons”.

US Defense Health Board memorandum to Assistant Secretary of Defense (Health Affairs), 24 May 2004.



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