

## News from other pages

**Shantavasinkul P, Tantawichien T, Wilde H, Sawangvaree A, Kumchat A, Ruksaket N, Lohsoonthorn V, Khawplod P, Tantawichien T. Post-exposure rabies prophylaxis completed in 1 week: preliminary study. Clin Infect Dis. 2010; 50:56-60.**

This seminal study from Thailand may significantly shorten the time, reduce costs, and increase compliance for rabies post-exposure (PEP) treatment. If confirmed by a second independent study, it could replace other intradermal schedules approved by WHO, such as the Thai Red Cross and 8-site Oxford protocols. This study received considerable attention at the WHO rabies expert meeting in France in October 2009 (See Asian Biomed. 2009; 3:751-4), and the CID article referenced above has been selected by the Faculty of 1000 Medicine based on its scientific merit ([www.f1000medicine.com](http://www.f1000medicine.com)). (See review by Carlos Seas. Faculty of 1000 Medicine. 2010. <http://f1000medicine.com/article/id/1418963/evaluation>).

The PubMed abstract (PMID 19995217) is quoted below:

**Background:** Patients exposed to a rabid animal often travel long distances to receive postexposure prophylaxis (PEP), which requires 4 or 5 visits. Reducing the number of clinic visits would not only reduce costs for the patient but may also help increase compliance to receive complete PEP. We made an effort to develop PEP completed in 1 week.

**Methods:** We administered the 4-site intradermal injections of 0.1 mL of purified Vero cell rabies vaccine to the deltoids and thighs on days 0, 3, and 7, with and without equine rabies immunoglobulin (40 IU/kg). A control group received the World Health Organization-approved and widely used Thai Red Cross regimen (2-site intradermal injections on days 0, 3, and 7 and 1 injection on days 28 and 90) with equine rabies immunoglobulin. We then determined rabies neutralizing antibody (NAb) up to day 360.

**Results:** Geometric mean titers for subjects receiving the 4-site intradermal regimen, with or without equine rabies immunoglobulin, had significantly higher NAb values than did the control group on day 14 and 28 ( $p < .001$ ). All subjects in all groups had a NAb value  $> \text{or} = 0.5 \text{ IU/mL}$  on days 14 and 28. The percentages of subjects who had a NAb value  $> \text{or} = 0.5 \text{ IU/mL}$  from days 0 through 360 were not significantly different among the 3 groups. **CONCLUSIONS:** After any PEP regimen, World Health Organization

recommendations require a NAb value  $> \text{or} = 0.5 \text{ IU/mL}$  on days 14 and 28. The 1-week PEP regimen, therefore, appears promising. It increased immunogenicity over the 2-site intradermal schedule, it is convenient, and can be used in small clinics because it consumes almost the entire supplied vaccine ampoule volume.

**Tonellato DJ, Guse CE, Hargarten SW. Injury deaths of U.S. citizens abroad: new data source, old travel problem. J Travel Med. 2009; 16:304-10.**

Utilizing data from the US Department of State web site, which anonymously reports US citizen deaths of unnatural causes (i.e. injury) while traveling or residing abroad, these authors have updated their previous findings from the Injury Research Center, Department of Emergency Medicine, Medical College of Wisconsin, Milwaukee, USA. They analyzed data from 2004-2006 for 2,361 deaths due to injury ([http://travel.state.gov/law/family\\_issues/death/death\\_600.html](http://travel.state.gov/law/family_issues/death/death_600.html)). The site reports individual deaths separately by country/location, date, and cause of death, but does not give demographic or other relevant data. The analysis used WHO major regions and World Bank classification of income for each region.

The authors identify limitations to the study, such as incomplete reporting, and lack of age/sex data, which would be of particular interest to university groups, church groups, or the Peace Corps that send young people abroad for study and/or service. Since denominator data was lacking, comparisons were made using the Proportional Mortality Ratio (PMR) statistic. The PMR was determined by dividing the percentage of injury deaths for US citizens by the corresponding percentage for native citizens of the same region.

Based on their analysis, they concluded that 'US citizens should be aware of regional variation of injury death in foreign countries, especially, for motor vehicle crashes, drowning, and violence can further inform travelers and the development of evidence-base prevention programs and policies...'

Drowning was especially prominent in 46 unclassified countries, 40 of which are island nations. It behooves travel medicine providers to know about these major risks in addition to infectious disease and other health-related issues, especially with the rise of 'adventure-travel' and students going to non-traditional countries for study. Death from injuries is second to

death from cardiovascular disease in travelers. However, for young travelers it is the top cause of death.

Motorcycle accidents in young people in Southeast Asia and the Western Pacific Regions are especially troublesome. Having traveled to Bangkok on several occasions and observed motorbikes weaving in and out between cars during rush hour, I am not surprised.

This reviewer's experience underscores the importance of injury prevention in international travel. Two tragic examples during my tenure as medical director of a large international corporation:

1. The wife of an employee on temporary assignment to the UK was killed in a head-on collision with a lorry on a roundabout. This may have been related to her lack of experience in driving on the opposite side of the road as compared with the USA.

2. In China, one of our company executives was riding in the front passenger seat in a van. The van was hit head-on by a truck and he received multiple injuries. Apparently, the truck driver fled the scene. The injured man was evacuated to Hong Kong, had partial amputations of an arm and leg, was in coma for 6 weeks in a major (and excellent!) teaching hospital, and finally evacuated back to the USA for rehabilitation. In addition to the human cost, over \$1million-U.S. was expended in these efforts.

Finally, during my tenure with the above, a number of US corporations required their expatriate executives to have a private car and local driver for both safety and legal reasons. This was true of not only my own

employer, but also a number of other company executives I met during my Asian travels.

For those interested in further detail, I suggest visiting the U.S. Department of State web site mentioned above. I checked reports in injury deaths for selected Asia-Pacific locations (accessed 11 Nov 2009), and included all injury deaths between October 2002 and June 2009. These are raw data reflecting area differences, not rates.

1. Australia: 80 deaths, several motor vehicles, drowning, and suicide.

2. China: 88 deaths, motor vehicle, and other accident.

3. Hong Kong (SAR): 15 deaths, seven suicides, two homicides, two drowning, and one vehicle accident.

4. India: 72 deaths, six terrorist (Mumbai), numerous motor vehicle, and some drowning.

5. Indonesia: 22deaths, seven terrorists (Bali), five motorcycles, and six drowning.

6. Singapore: seven deaths, five suicides, one drug-related, and two other accident (fall).

7. Thailand: 174 deaths, 22 disaster (2004 Tsunami), 32 suicides, and 29 motorcycles.

This latest work from the Milwaukee group is an important contribution to understanding and preventing death from injury in international travel. One remaining challenge is determining what preventive measures really work over time.

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