

A close-up photograph of two zebras. The zebra in the foreground is in sharp focus, showing its distinctive black and white stripes. Its head is turned slightly to the right, and its ears are visible. The zebra in the background is out of focus, showing a similar pattern. The text "Assessing Travel Health Risks" is overlaid in yellow on the right side of the image.

Assessing Travel Health Risks

Lets get talking

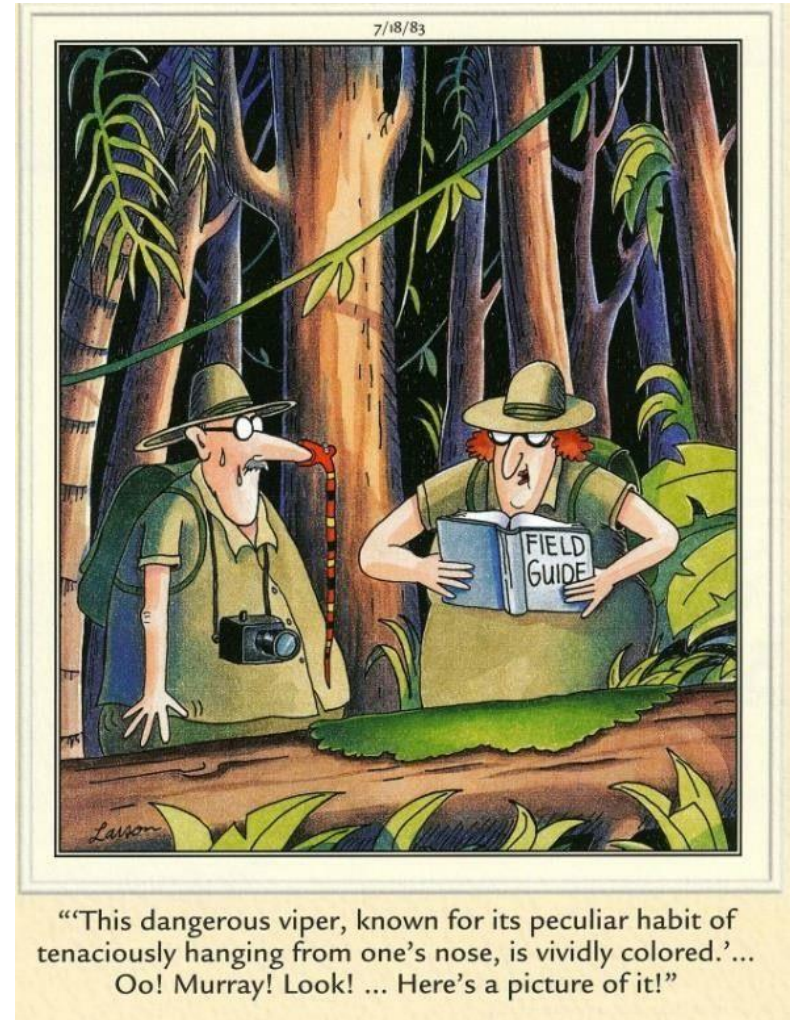
“Single most important thing about travel medicine is not shooting and prescribing, but rather the education of the traveller.”



Managing Risk

People travel

- Very young, elderly, pregnant, with chronic illness & disability
- Travellers get sick
- Risk gradients between home and destination
 - Travel itself (flying, being away from home, cultural shock)
 - Infectious diseases
 - Diseases of poor sanitation
 - Personal safety
 - Access to high quality medical care
- Modern travel is rapid
 - chance for acclimatisation is limited & travellers are vectors
- We can offer some protection from travel related risks



Its Fun!



Important in prevention of vaccine preventable diseases associated with travel

Help us get travellers through the door!

Statistically the risk of everything else is much greater!

What is the Biggest Risk?



Risky Business.....

- International travel can pose various health risks
 - depends on the health needs of the traveller
 - the type of travel to be undertaken
- Travellers often encounter sudden and significant changes:
 - exposure to a variety of infectious diseases
 - altitude
 - humidity
 - temperature
 - accidents
 - primitive accommodation
 - medical services ?quality
 - availability of clean water
 - inadequate hygiene and sanitation



Accidents Happen

- Approximately 2 million kiwi's travel offshore every year
- 15 – 20 do NOT come home
- Accidents most common cause of morbidity & mortality
- Theft
- Assault
- Rape
- MVA's
- Drowning
- Natural Disasters
- Misadventure



Australian woman gored on final day of Pamplona's bull running festival

Updated Mon Jul 15, 2013 10:10am AEST

A 23-year-old Australian woman was gored in the chest on the final day of Spain's San Fermin week-long bull-running festival, where bulls chase people down the cobbled streets of Pamplona.

The woman, who was only identified by her initials J.E., was taken to hospital for surgery and was in a "very serious" condition, local authorities said.

She suffered several fractured ribs and damage to her right lung, according to a medical report





**The Smoke that
Thunders...**





NEW ZEALAND

Kenya crash victims tell of ordeal

8:43 pm on 24 January 2013

Share this



Members of a volunteer group from a Tauranga college involved in a fatal accident in Kenya have spoken of what happened before and after the minivan crashed.

The van rolled into a ditch on 15 January, killing former Bethlehem College pupil Caitlin Dickson, Brian and Grace Johnston, and Kenyan driver Christopher Mmata.

The group of 19 were travelling from the port city of Kisumu to the small village of Mahanga and were in Africa as part of the college's missionary programme.

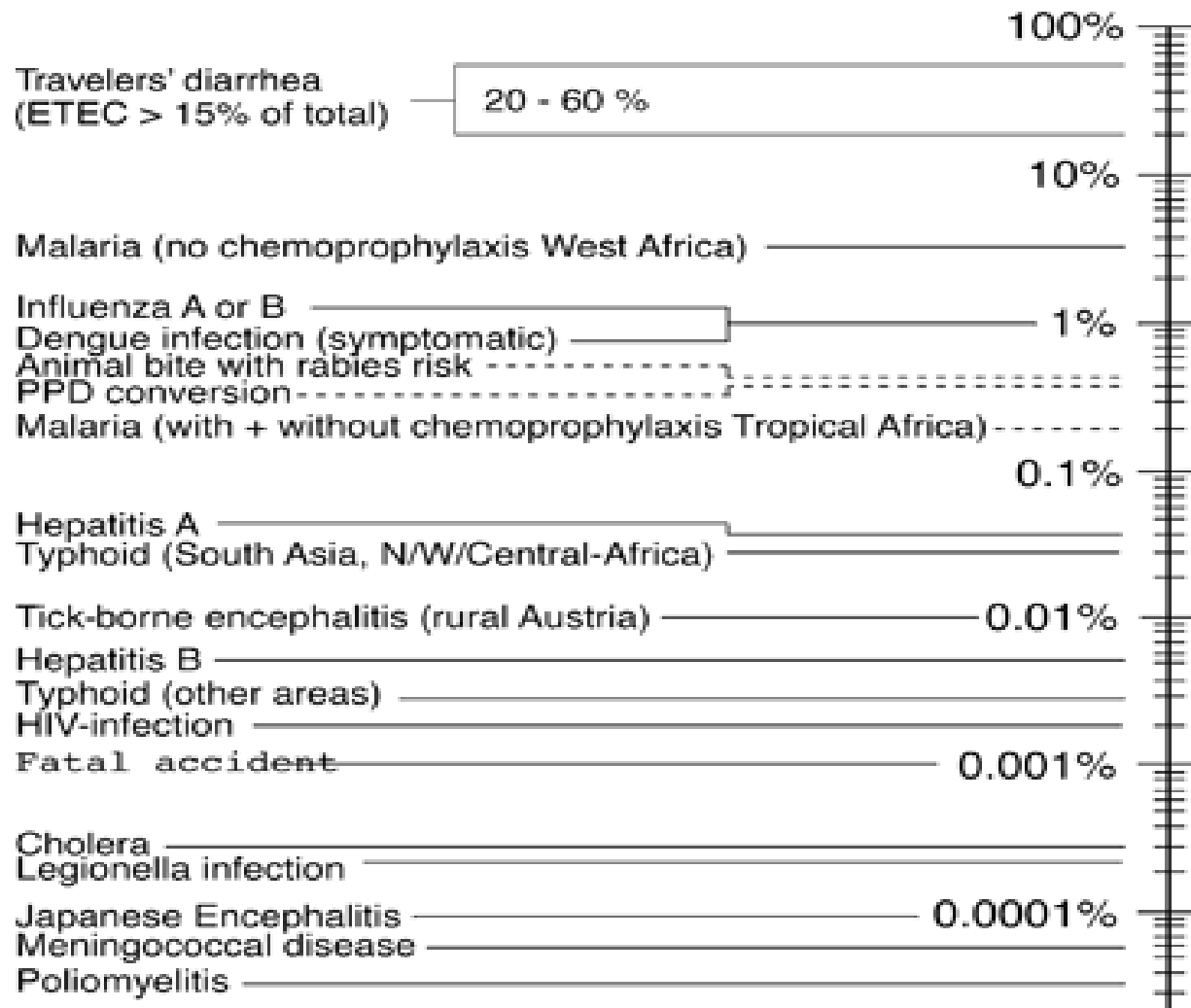
Teacher Jan Dean told of being trapped in the overturned minivan and being pulled free. She said she had very little memory of the crash itself and suffered a broken collarbone.

"I must have lost consciousness, because I remember the first roll of the van and they said it rolled four times. I don't know how long I wasn't conscious ... I was just waiting until someone came and got me and I had no idea how awful it was outside."

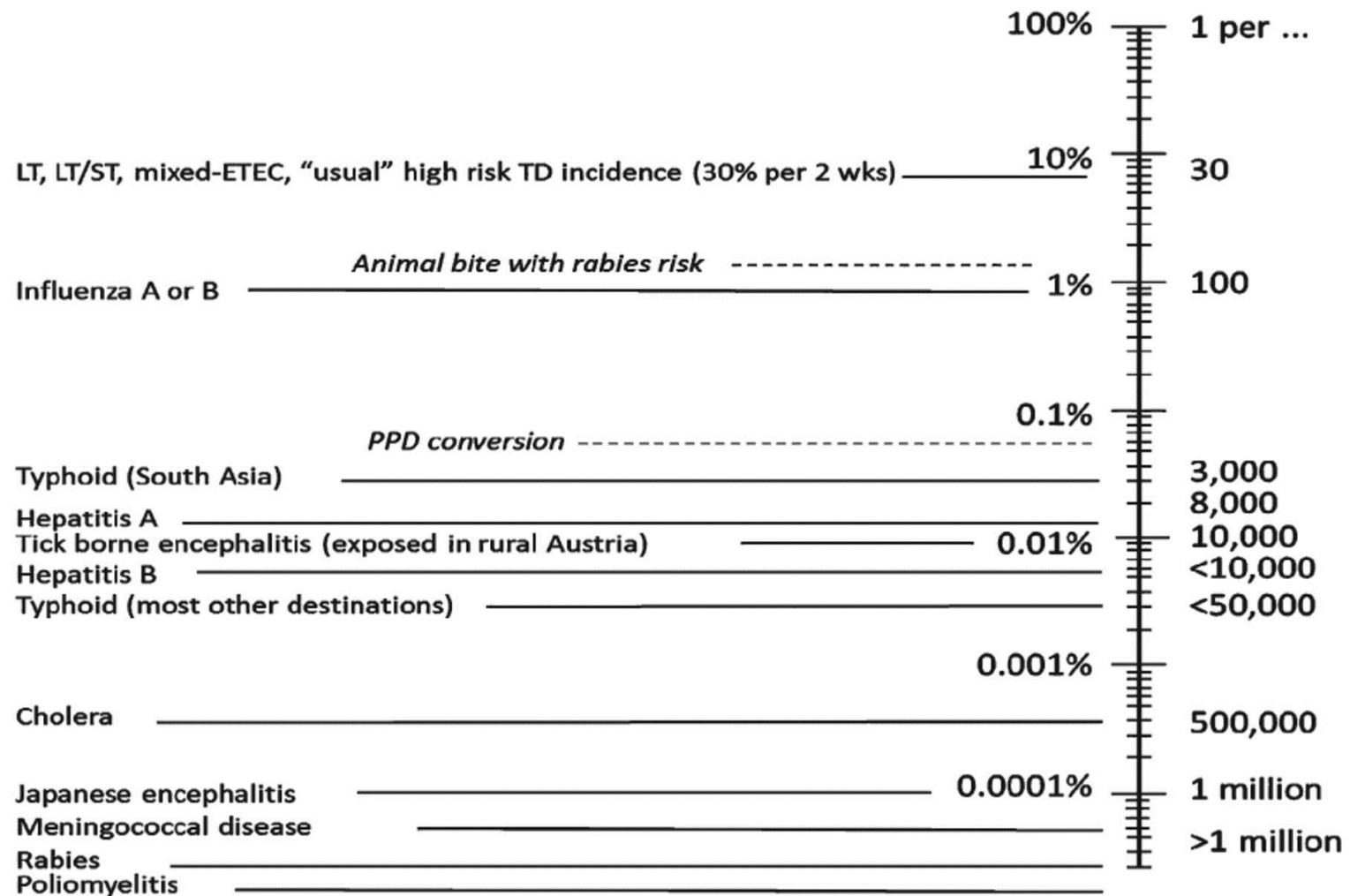


KEEP
WELL
LEFT

Incidence rate/month of health problems while staying in developing country



Estimates on vaccine-preventable disease incidence among Western travellers absolute risk of disease/month of travel



Limitations of Actual Risk

- Lack of or limited traveller specific and denominator data
- Few prospective studies – ethical constraints of RCTs
- Cases series/Case studies (often small numbers)
- Uncertainty of diagnosis
- Risk profile may be different – data often outdated & incomplete
- Risk to traveller often extrapolated from local populations



What are the odds?

100,000 travellers to a developing country for 1 month:

- 50,000 – 75,000 will develop a health problem*
- 8,000 will see a physician
- 5,000 will be confined to bed
- 1,100 will be incapacitated in their work
- 300 will be admitted to hospital
- 50 will be air evacuated
- 1 will die

Steffen R et al. J Infect Dis 1987; 156:84-91



Travellers get sick

- Between 20-70% of international travellers suffer some illness
- About 5% need to seek medical care
- About 1% hospitalised

Steffen R, Amitirigala I, Mutsch M. Health Risks Among Travelers — Need for Regular Updates.

Journal of Travel Medicine. 2008;15(3):145-6.



Risk Perception

The chances of us getting out of here are a million to one.....

Then there's still a chance!





Baboons

‘People have to know you care before they
care what you know’



Vincent T Covello, Director, Center for Risk Communication, New York, USA

The Pre-Travel Consultation

Assessing Risk

Hazard+Exposure+Susceptibility



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graph TD; A[Hazard+Exposure+Susceptibility] --> B[Individualised Risk Assessment]; B --> C[Risk Management/Health Promotion];
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Individualised Risk Assessment

Risk Management/Health
Promotion

The travel health consultation

- Aims
 - To make a risk assessment, provide advice, vaccines and medications appropriate to each individual travel
- Requires
 - Up to date knowledge of disease risks and outbreaks
 - Knowledge of vaccines including scheduling, contraindications, adverse events, interactions
 - Real time resources
 - Adequate time
 - Communication skills
 - Confidence and awareness of own limitations



Pre-Travel Consultation: Assessing the Risk

- Is an integral part of the pre and post travel consultation
- It determines what health and safety advice interventions are given
- Needs up to date information
- Involves inter-professional team
- Takes time +/- multiple visits
- Must be documented



What needs to be Discussed?

- Vaccinations
- Fitness to Fly Issues
- Preventing travellers diarrhoea and food and water-borne illnesses.
- Prevention of Vector-borne Diseases
 - Malaria
 - Dengue
 - Chikungunya
 - Zika
- Sexual & Reproductive Health
- Other Infectious Diseases
 - Schistosomiasis, TBE
- Activity specific advice
 - Altitude
 - Trekking
 - Scuba diving
- Management of ongoing medical conditions
- Psychological preparedness
- Safety & Security Issues
- Medical Kit
- Post Travel visit
- Insurance

Anything Else??



DOG FENCE
THIS GATE IS
TO BE CLOSED
AT ALL TIMES
Chickadee Dog Fence Project



POISON BAIT
BUTTER RUMBLE & CO.
AT ALL TIMES

What information do we need?

- Host factors
 - Demographics
 - Travelling hx
 - Medical hx
 - Ongoing medical conditions
 - Recent illness/hospitalisation
 - Medications
 - Vaccination hx
 - Allergies
 - DVT hx
 - Pregnancy/contraception
 - Frequency of travel
 - Financial considerations
 - Perception of risk
- Environmental factors
 - Destination (Macro & Micro)
 - Urban or Rural
 - Infrastructure, Political Stability
 - Medical Facilities
 - Reason & length of travel
 - VFR, Business, Holiday
 - Healthcare/Aid worker
 - Type of travel
 - Independent or organised
 - Planned activities
 - SCUBA, Trekking.....
 - Seasonal Patterns
 - Monsoons, flood irrigation JE risk
↑
 - Recent/Current disease activity
 - Measles, Ebola, Ross River Virus
 - **Departure date**

How are you going to fit this into your busy practice?

- Identify pre-travel consultations
 - Book extra time
 - Submit itinerary before
- Multiple visits
- Team approach
- Written material/online traveller resources
- Consider referring challenging itineraries and travellers
 - Yellow Fever know your nearest approved vaccinator
 - Rabies/Japanese Encephalitis
- Pre-travel questionnaire filled in advance



Information retention.....?

‘pre-travel consultations perceived to have only little impact because **travellers are “flooded” with.... advice**, and choosing two or three priority elements with regard to the specific traveler or travel type might have greater efficiency’

Leder K, Bouchaud O, Chen L; Training in Travel Medicine and General Practitioners: A Long-Haul Journey! ; JTM 2015; 22:357-360

Most travellers will remember a maximum of 10 points

- Assess greatest risks
- Keep it simple
- Reinforce with written information / links

Bauer I, Educational Issues and Concerns in Travel Health Advice: Is All the Effort a Waste of Time?; JTM 2005; 12:45-52

Conflicting advice reduces adherence

- Ensure information is up to date and evidence based
- Avoid anecdotes

Risk Minimisation Strategies

- **What **we** do before they leave -**
 - Health education e.g. behaving responsibly, food and water, insect avoidance, prevention of DVT, environmental stressors...
 - Optimal stabilisation of any medical conditions
 - Pre-travel input e.g. vaccinations
 - Commencing chemoprophylaxis e.g. anti-malarials
 - Medical kit & accessing care overseas
 - Appropriate insurance
- **What **they** do while they travel -**
 - Remembering and acting on advice!
 - Continuing appropriate chemoprophylaxis
 - Use of medical kit
- **What **they** do on return -**
 - Assessment of risk exposures and appropriate testing/treatment if indicated

Strategy Summary

- The pre-travel consultation should be an individualised risk assessment
 - there is a lot to cover
 - easy to overload
- Written/web-based resources
- Spread over >1 visit
- Use the team
- For some risks we have good interventions, others we don't
- Don't forget accident prevention & Insurance

