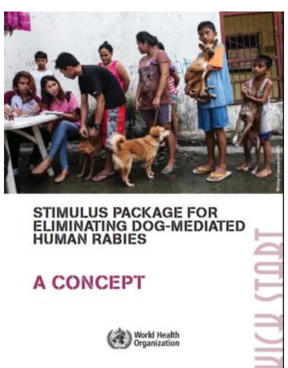
SPMV II REUNIÃO CIENTÍFICA 25 de Março de 2017

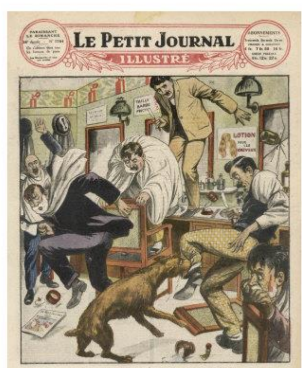

SPMV
II REUNIÃO CIENTÍFICA
25 de Março de 2017

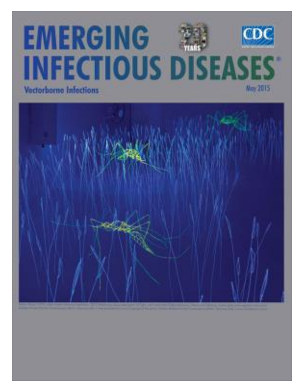
“Encefalite Japonesa e Raiva:
Aspetos atuais com enfoque na vacinação”

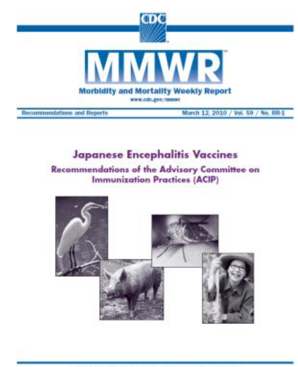
José M. D. Poças

Diretor do SDI CHS HSB Setúbal









I)- ASPETOS GERAIS

TRAVEL & HEALTH

Sociedade Portuguesa de Medicina do Viajante
SPMV

The NEW ENGLAND JOURNAL of MEDICINE

REVIEW ARTICLE

Dan L. Longo, M.D., *Editor*

Medical Considerations before International Travel

David O. Freedman, M.D., Lin H. Chen, M.D., and Phyllis E. Kozarsky, M.D.

Risk Assessment

Medical history, including medications, disabilities, immune status, immunizations, surgeries, allergies, and pregnancy or breast-feeding

Prior travel experience

Specific itinerary, including regions, season, and dates

Activities (e.g., adventure travel and events involving mass gatherings)

Type of accommodations

Travelers' risk tolerance

Financial challenges

Standard In-Office Interventions

Administration of immunizations
- Updating of routine vaccines — MMR, Tdap, pneumococcal, varicella, influenza
- Routine travel vaccines — hepatitis A, typhoid, hepatitis B
- Special travel vaccines — yellow fever, rabies, polio, meningococcal, Japanese encephalitis, cholera, tickborne encephalitis

Malaria chemoprophylaxis (if risk)
- Individualize to itinerary and patient

Travelers' diarrhea
- Food and water precautions
- Oral rehydration and use of loperamide and bismuth
- Antibiotic self-treatment options for severe diarrhea
- Prophylaxis with bismuth or antibiotic (only if high risk)

Focused Education before the Trip

Vectorborne diseases (if risk)
- Personal protection measures for malaria, dengue, chikungunya, Zika virus infection, leishmaniasis, rickettsial disease, sleeping sickness

Other travel-related illnesses (as applicable)
- Altitude illness
- Travelers' thrombosis
- Motor vehicle injury
- Bloodborne and sexually transmitted infections
- Swimming, water exposure, and marine hazards
- Transportation-associated illnesses
- Respiratory infection and tuberculosis
- Rabies and animal-associated illness
- Skin conditions and wounds

Medical kit and medical care abroad
- Personal health kit
- Available medical facilities
- Evacuation insurance; supplemental health insurance

Figure 1. Structured Approach to Medical Consultation before International Travel.

The consultation, conducted 4 to 6 weeks before departure, consists of an assessment of risk, interventions performed in the office (Tables 2 and 3), and education for the trip. MMR denotes measles–mumps–rubella, and Tdap tetanus–diphtheria–acellular pertussis.

A importância decisiva da promoção de uma cultura de educação cívica e para a saúde adequadas

International Society of Travel Medicine
Promoting healthy travel worldwide
Established 1991

Journal of Travel Medicine, 2016, 1–7
doi: 10.1093/jtm/taw075
Original Article

Original Article

Refusal of recommended travel-related vaccines among U.S. international travellers in Global TravEpiNet

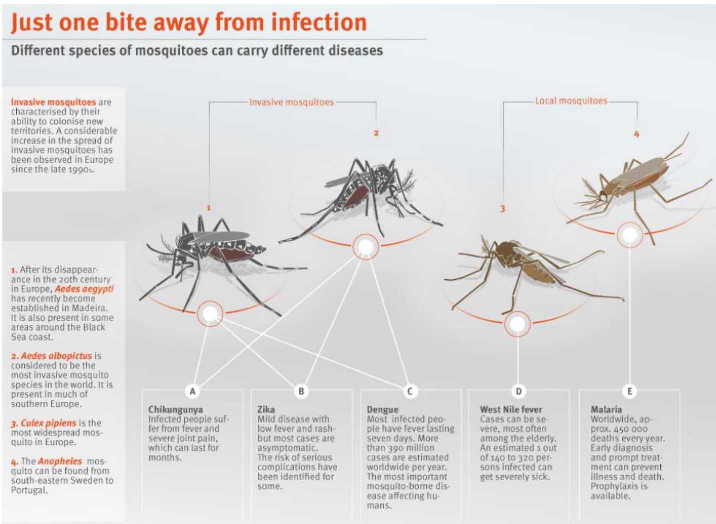
Sara M. Lammert[1], Sowmya R. Rao[2], Emily S. Jentes[3], Jessica K. Fairley[4], Stefanie Erskine[3], Allison T. Walker[3], Stefan H. Hagmann[5], Mark J. Sotir[3], Edward T. Ryan[1,6] and Regina C. LaRocque[1,6]

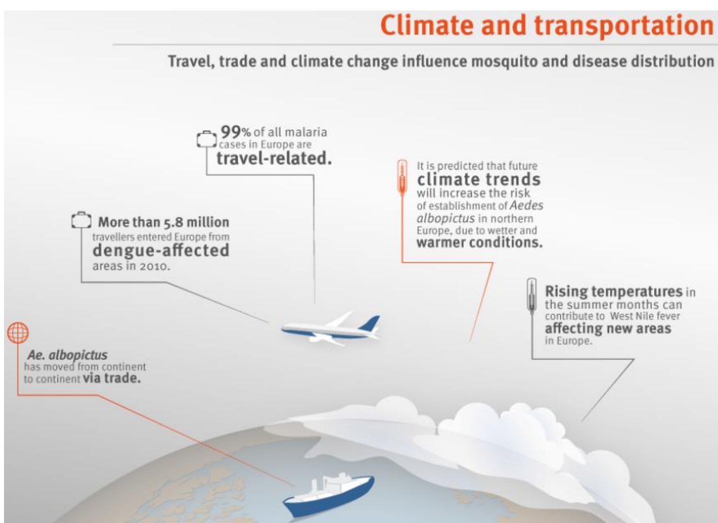
[1]Travelers' Advice and Immunization Center, Massachusetts General Hospital, Boston, MA, USA, [2]Department of Surgery, Boston University Medical Center, Boston, MA, USA, [3]Division of Global Migration and Quarantine, Travelers' Health Branch, Centers for Disease Control and Prevention, Atlanta, GA, USA, [4]Division of Infectious Diseases, Department of Medicine, Emory University School of Medicine, Atlanta, GA, [5]Division of Pediatric Infectious Diseases, Bronx-Lebanon Hospital Center, Bronx, NY and [6]Harvard Medical School, Boston, MA

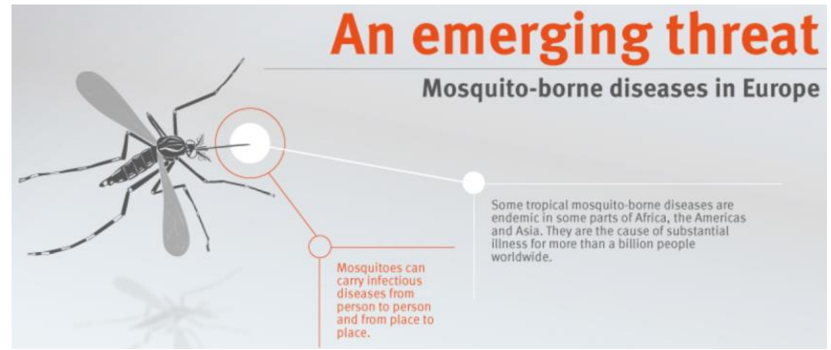
Table 3. Reason for refusing vaccines among travellers in the GTEN study population

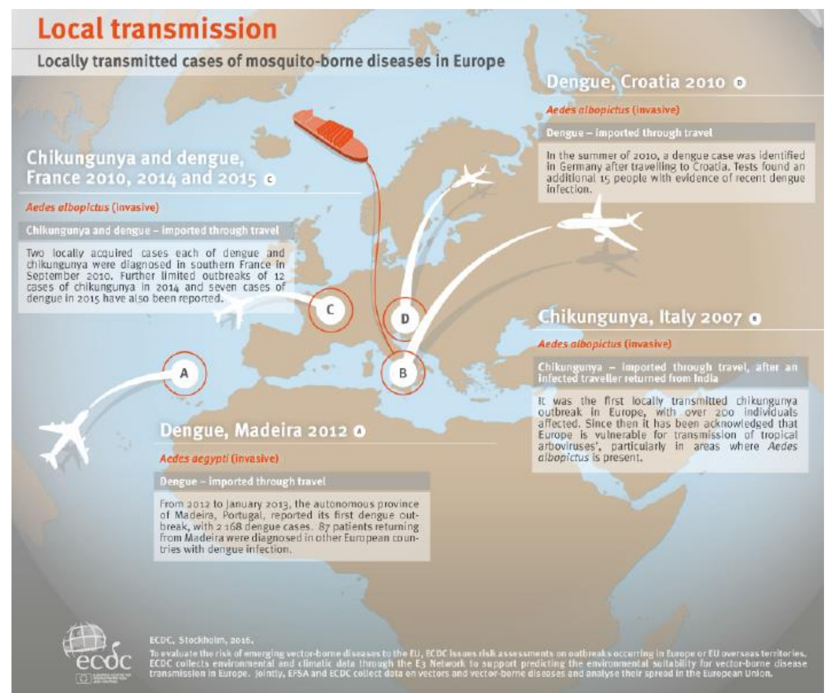
Vaccine (*N* refused)	Reason traveller refused vaccine		
	Not concerned with illness *N* (%)	Concerned with vaccine safety	Concerned with vaccine cost
Influenza (*N* = 3527)	2851 (81)	526 (15)	150 (4)
Meningococcal (*N* = 2232)	1744 (78)	311 (14)	177 (8)
Typhoid (*N* = 1690)	1230 (73)	171 (10)	289 (17)
Hepatitis A (*N* = 1598)	1169 (73)	245 (15)	184 (12)
Tetanus (*N* = 1498)	1140 (76)	257 (17)	101 (7)
Polio (*N* = 1367)	1098 (80)	181 (13)	88 (6)
Rabies (*N* = 1155)	3340 (78)	421 (10)	517 (12)
Yellow fever (*N* = 917)	612 (67)	225 (25)	80 (9)
Japanese encephalitis (N = 761)	460 (60)	35 (5)	266 (35)

As novas realidades que têm por base as alterações ecológicas









A importância decisiva das arboviroses no contexto das Infeções (Re)Emergentes

Come fly with me: Review of clinically important arboviruses for global travelers

Natalie Cleton, Marion Koopmans, Johan Reimerink, Gert-Jan Godeke, Chantal Reusken

JOURNAL OF CLINICAL VIROLOGY

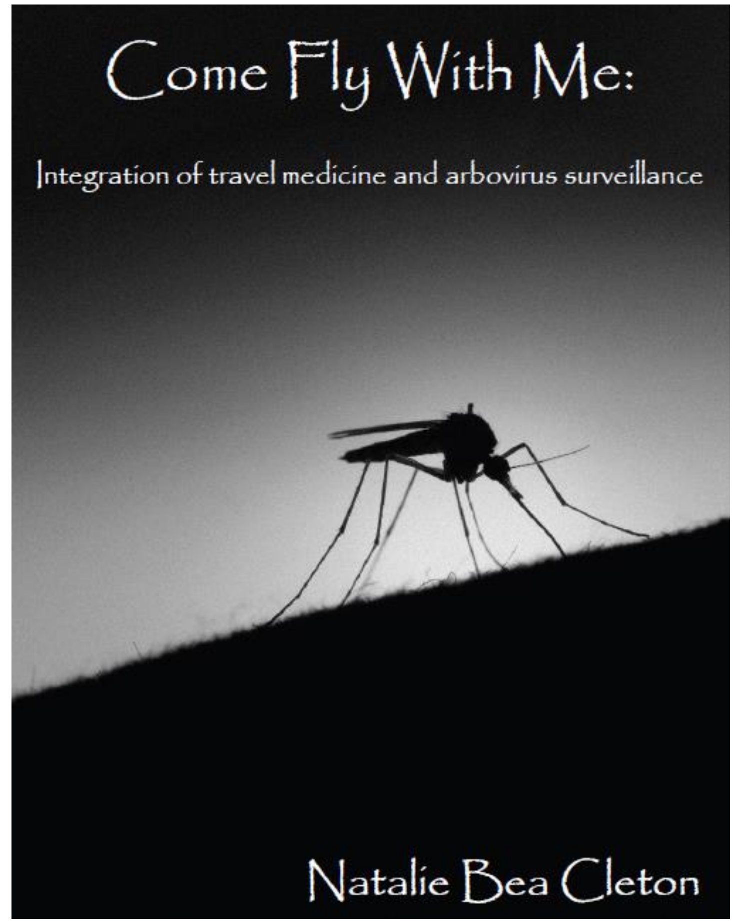
PLOS | NEGLECTED TROPICAL DISEASES

RESEARCH ARTICLE

Syndromic Approach to Arboviral Diagnostics for Global Travelers as a Basis for Infectious Disease Surveillance

Natalie B. Cleton[1,2]*, Chantal B. E. M. Reusken[1], Jiri F. P. Wagenaar[1], Elske E. van der Vaart[3], Johan Reimerink[2], Annemiek A. van der Eijk[1], Marion P. G. Koopmans[1,2]

1 Erasmus Medical Centre, Rotterdam, The Netherlands, 2 National Institute for Public Health and Environment (RIVM), Bilthoven, The Netherlands, 3 University of Reading, Reading, Berkshire, United Kingdom



Múltiplos agentes víricos para vários quadros clínicos possíveis…

Table 3
Assessment of probability of arbovirus infections in travelers returning with illness, by travel destination and by main presenting clinical syndrome.

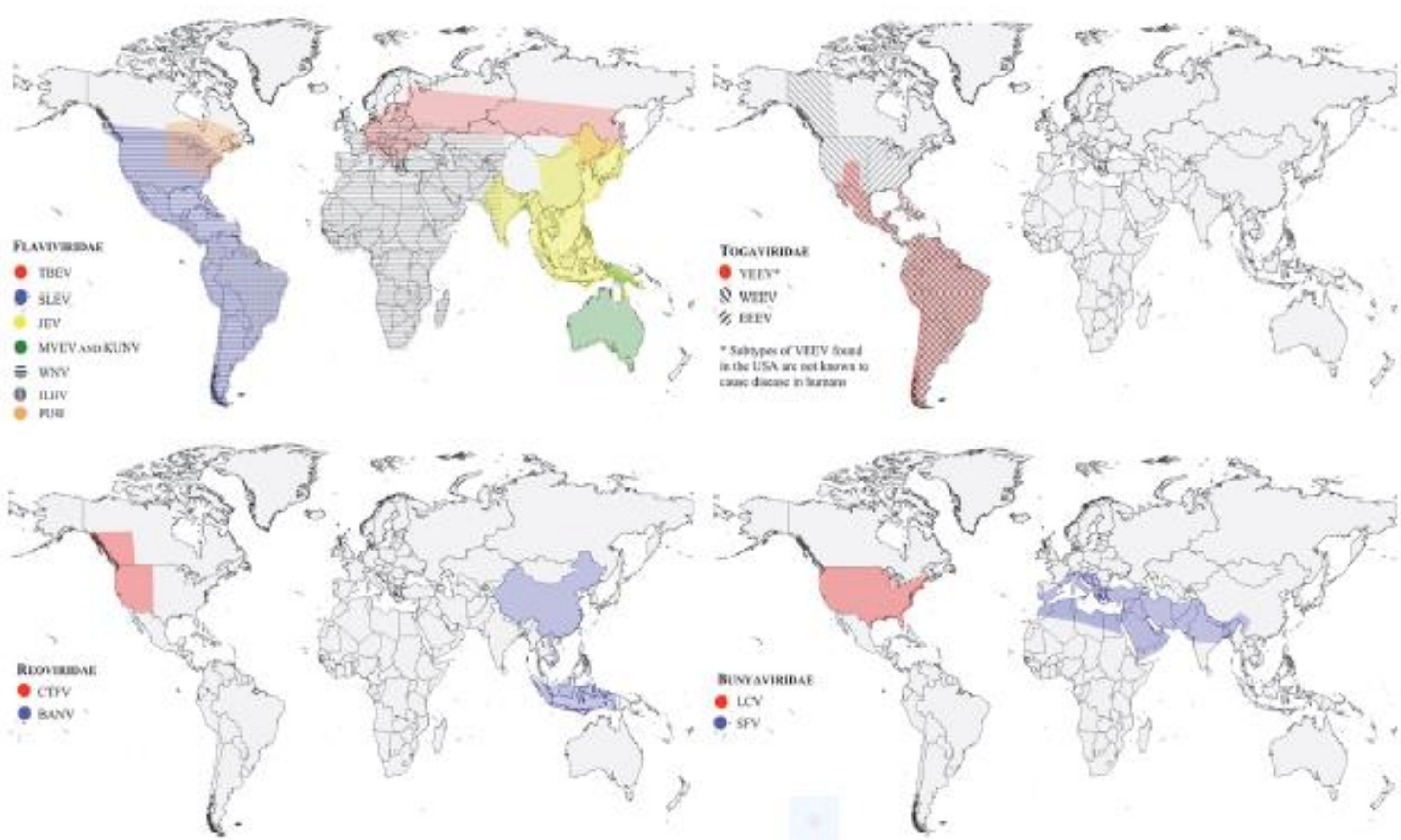
Sub-region	Risk to travelers	FD	NS	HS	AR
North America (excluding, Porto Rico and Hawaii)	More likely	WNV, SLEV, LCV	WNV, SLEV, LCV		
	Less likely	WEEV, EEEV, DENV, CTFV	WEEV, EEEV, CTFV	DENV, CTFV	DENV, CTFV, WNV
	Unknown				
Central America and Caribbean	More likely	DENV, OROV		DENV	DENV, OROV
	Less likely	WNV, SLEV, WEEV, VEEV, EEEV	WNV, SLEV, OROV, WEEV, VEEV, EEEV		WNV
	Unknown	GROV, ILHV	ILHV		GROV
South America	More likely	DENV, YFV, OROV		DENV, YFV	DENV, OROV
	Less likely	WNV, WEEV, VEEV, EEEV, SLEV	WNV, VEEV, WEEV, EEEV, SLEV, OROV		WNV
	Unknown	MAYV, GROV, ILHV	ILHV	MAYV	MAYV, GROV
North Africa	More likely	YFV, CHIKV, SFV		YFV	CHIKV
	Less likely	DENV, RVFV, WNV, CCHFV	WNV, RVFV, CCHFV	DENV, RVFV	DENV, CCHFV, WNV
	Unknown	BUNV, TAHV	BUNV, TAHV		BUNV, TAHV
Sub-Saharan Africa	More likely	DENV, YFV, CHIKV	WNV, RVFV	DENV, YFV	DENV, CHIKV
	Less likely	WNV, ONNV, SINV, CCHFV, RVFV	CHIKV	RVFV, CCHFV, CHIKV	SINV, ONNV, WNV
	Unknown	BWA, ILEV, TATV, TAHV, BUNV, NRIV	TAHV, ILEV, BUNV	ILEV, NRIV	TATV, TAHV, ILEV, BUNV, NRIV
Western and Central Asia	More likely	WNV, SFV, CCHFV		CCHFV	
	Less likely	RVFV, DENV, KFDV, AHFV, SINV	RVFV, KFDV, AHFV, CCHFV	RVFV, DENV, KFDV, AHFV	DENV, SINV
	Unknown	TAHV	TAHV		TAHV
South-East, South and East Asia	More likely	DENV, CHIKV		DENV	DENV, CHIKV
	Less likely	JEV, WNV, KFDV, AHFV, SFV	JEV, WNV, KFDV, AHFV, CHIKV	KFDV, AHFV, CHIKV	WNV
	Unknown	BANV, CCHFV, TAHV	BANV, CCHFV, TAHV	CCHFV	BANV, TAHV
Oceania	More likely	RRV, BFV, MVE	MVE		RRV, BFV
	Less likely	DENV, JEV, KUNV	JEV, KUNV	RRV	DENV
	Unknown				
Northern Europe	More likely	SINV, TBEV	TBEV		SINV
	Less likely			TBEV	
	Unknown	TAHV	TAHV		TAHV
Southern Europe	More likely	TOSV, SFV, WNV	TOSV, WNV		
	Less likely	CHIKV, DENV, CCHFV	CCHFV	DENV, CCHFV	DENV, CHIKV, WNV
	Unknown	TAHV	TAHV		TAHV
Central Europe	More likely	TBEV	TBEV		
	Less likely			TBEV	
	Unknown	TAHV	TAHV		TAHV
Western Europe	More likely	TOSV, SFV (Southern France)	TOSV		
	Less likely	DENV, CHIKV, (Southern France)		DENV	DENV, CHIKV
	Unknown	TAHV	TAHV		TAHV
Eastern Europe (inc. Russia)	More likely	TBEV, WNV, SINV	WNV, TBEV		SINV
	Less likely	CCHFV	CCHFV	TBEV	CCHFV, WNV
	Unknown	TAHV	TAHV		TAHV

FD: Febrile disease; NS: neurological syndrome; HS: hemorrhagic syndrome; AR: Arthralgia and/or Rash. For full virus names see Table 1.

… um diagnóstico diferencial nem sempre fácil de estabelecer!

Map 1: Arboviruses that cause Neurological symptoms

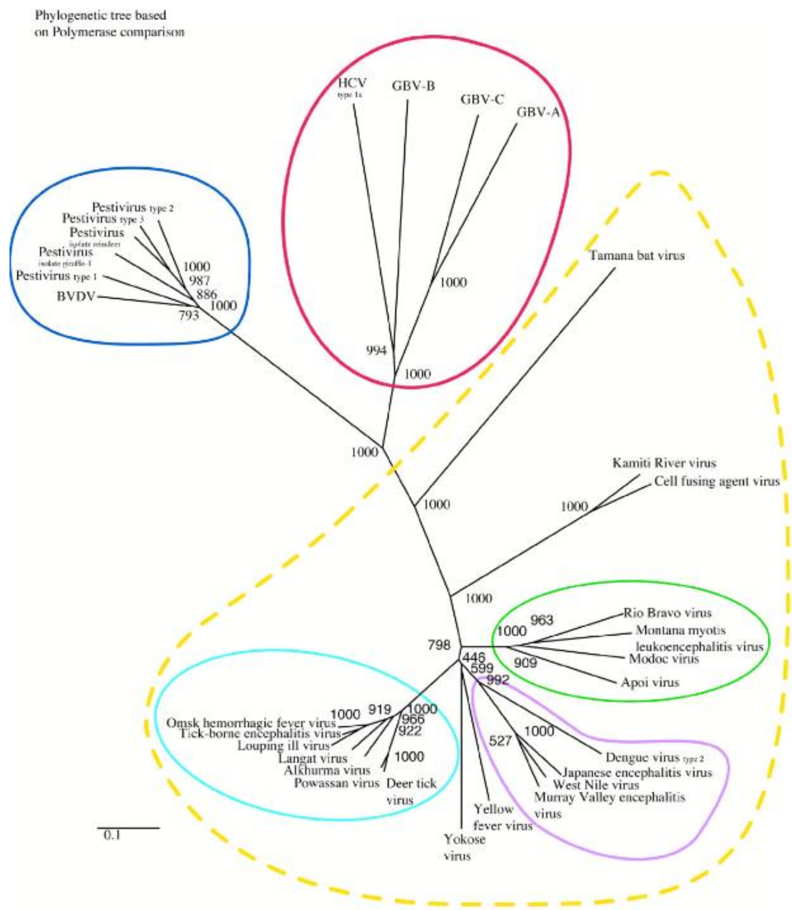
General geographical overview of medically important arboviruses that cause neurological symptoms in humans based on Tables 1 and 2.



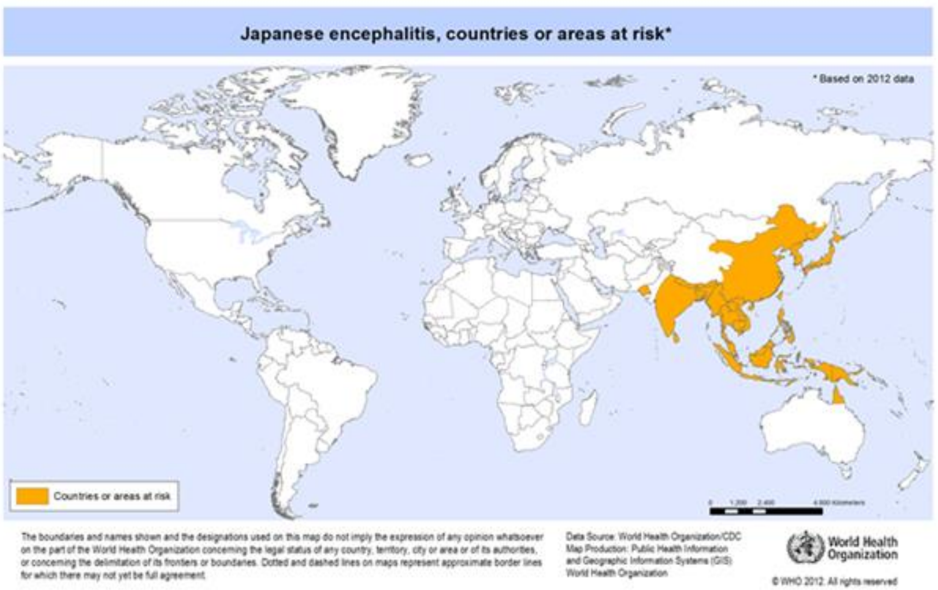
II)- ENCEFALITE JAPONESA

Vírus / Diagnóstico

- **Primeiras descrições da doença**
  - **1871**
- **V. RNA de cadeia simples**
  - **Isolamento**
    - **1935**
  - **Género Flavivírus**
  - **5 genótipos**
- **Doença**
  - **Imunização**
- **Outros flavivírus**
  - **Alguma imunidade cruzada**
- **Serologia**
  - **Sangue (+ após o 7º d.)**
  - **LCR (+ depois do 4º d.)**
- **PCR (pouco sensível p/ baixa viremia e transitória)**
  - **Sangue**
  - **LCR**



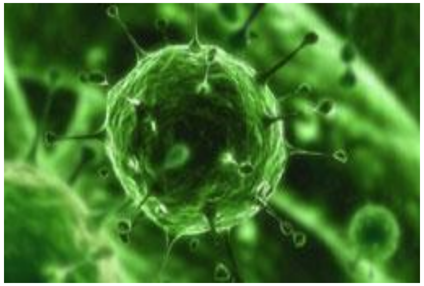
Epidemiologia I



Data Table: Countries in which Japanese encephalitis virus has been identified			
Australia	India	Pakistan	Sri Lanka
Bangladesh	Indonesia	Papua New Guinea	Taiwan
Brunei*	Japan	Philippines	Thailand
Burma	Laos	Russia	Timor-Leste
Cambodia	Malaysia	Saipan	Vietnam
China	Nepal	Singapore	
Guam	North Korea	South Korea	

Epidemiologia II

- **Incidência anual**
  - **50.000 – 70.000 casos**
- **Reservatórios animais**
  - **Porco, Morcegos**
  - **Aves (lamícolas)**
    - **Narceja, galinhola, alfaiate, maçarico, garça, etc.**
- **Homem**
  - **Hospedeiro acidental**
  - **(cavalo, gado *vacum*)**
- **Transmissão pessoa – pessoa**
  - **Ausente**
- **Transfusional / Transplantação**
  - **(teórica…)**
- **Idade**
  - **Crianças**
  - **(Adolescentes / Adultos)**
- **Vector**
  - **Mosquito**
    - ***Culex***
      - ***(Tritaeniorhynchus)***
    - ***(Aedes)***
  - **Picada**
    - **Do pôr ao nascer do sol**
- **Estação**
  - **Zonas temperadas**
    - **Primavera (final), Verão e Outono (início)**
  - **Zonas intertropicais**
    - **Todo o ano**
- **Zonas**
  - **Rurais**
  - **Sub-Urbanas**
  - **(Megacidades)**



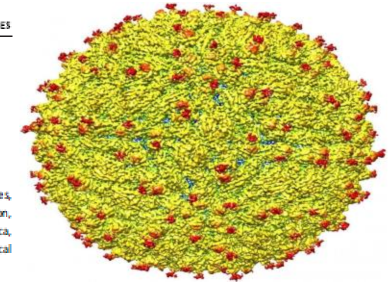
OPEN ACCESS Freely available online

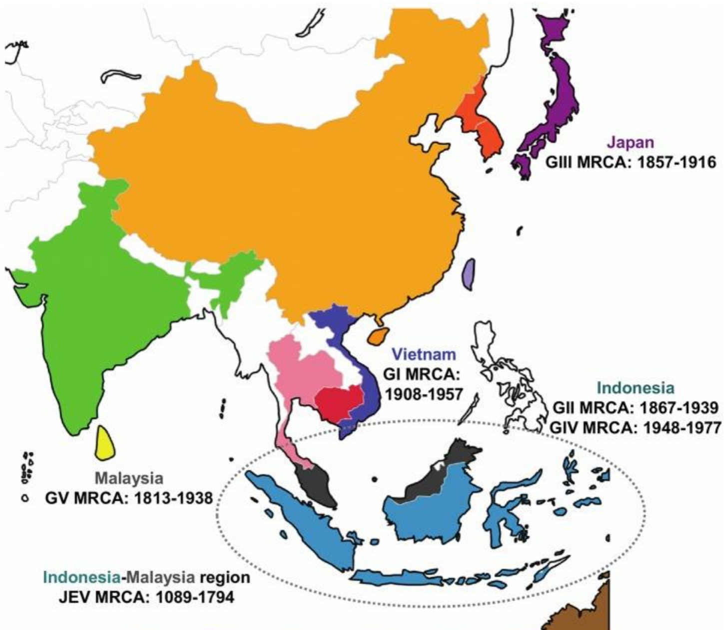
PLOS | NEGLECTED TROPICAL DISEASES

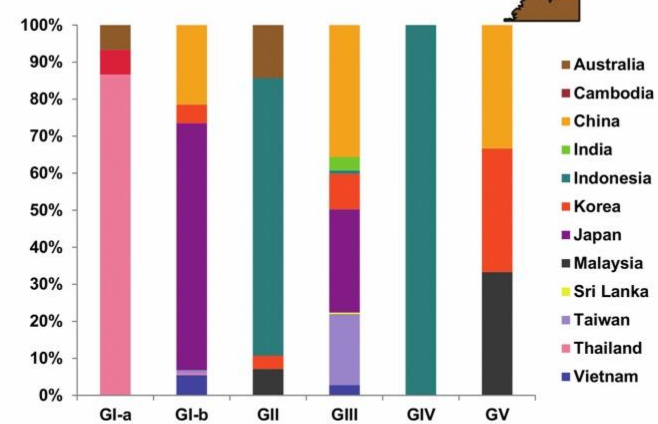
Phylogeography of Japanese Encephalitis Virus: Genotype Is Associated with Climate

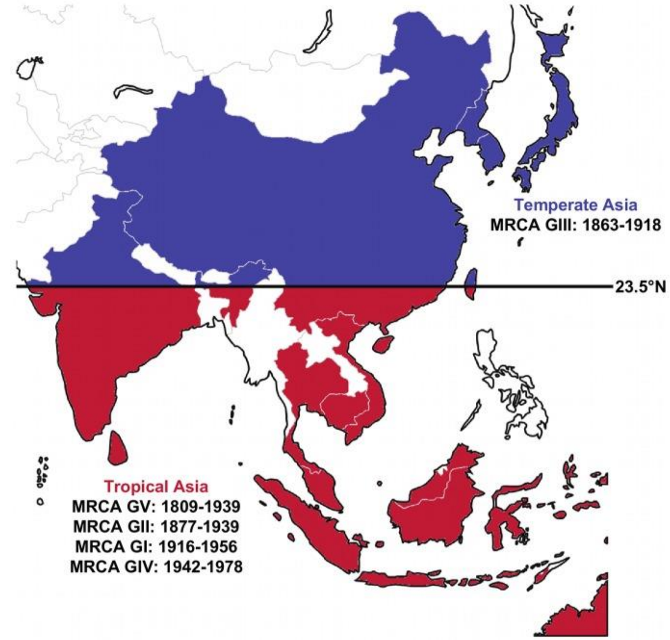
Amy J. Schuh[1,2,3,4,5], Melissa J. Ward[6], Andrew J. Leigh Brown[6], Alan D. T. Barrett[1,2,3,4,5]*

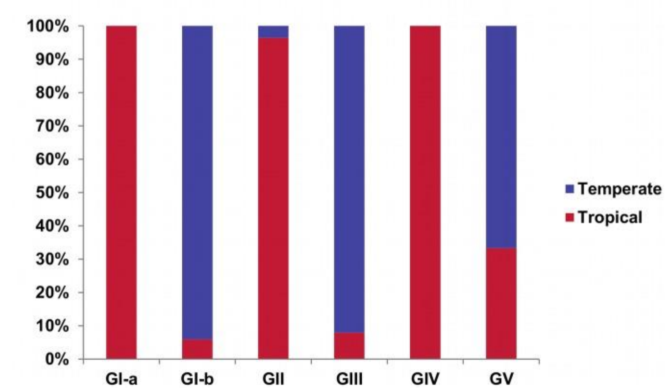
1 Center for Biodefense and Emerging Infectious Diseases, University of Texas Medical Branch, Galveston, Texas, United States of America, 2 Center for Tropical Diseases, University of Texas Medical Branch, Galveston, Texas, United States of America, 3 Sealy Center for Vaccine Development, University of Texas Medical Branch, Galveston, Texas, United States of America, 4 Institute for Human Infections and Immunity University of Texas Medical Branch, Galveston, Texas, United States of America, 5 Department of Pathology, University of Texas Medical Branch, Galveston, Texas, United States of America, 6 Institute of Evolutionary Biology, School of Biological Sciences, University of Edinburgh, Edinburgh, Scotland











Longbottom *et al. Parasites & Vectors* (2017) 10:148
DOI 10.1186/s13071-017-2086-8

Parasites & Vectors

RESEARCH Open Access

Mapping the spatial distribution of the Japanese encephalitis vector, *Culex tritaeniorhynchus* Giles, 1901 (Diptera: Culicidae) within areas of Japanese encephalitis risk

Joshua Longbottom[1*], Annie J. Browne[1], David M. Pigott[2], Marianne E. Sinka[3], Nick Golding[4], Simon I. Hay[5,2], Catherine L. Moyes[1] and Freya M. Shearer[1]

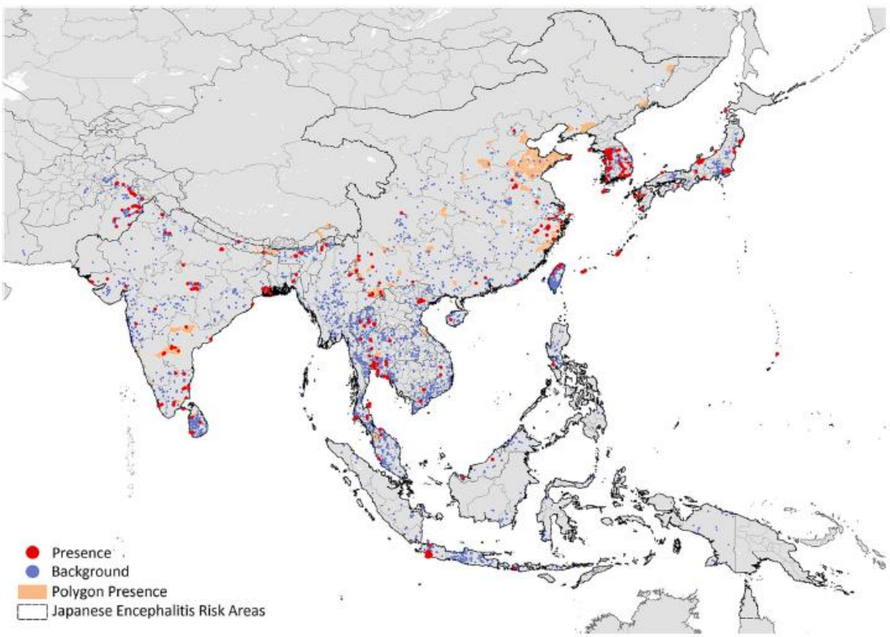


Fig. 2 Location of presence and background data used in the model. The map shows the *Culex tritaeniorhynchus* presence points (*red*) and background mosquito species points (*blue*) within the study extent. An extent for Japanese encephalitis limits is also shown (*black*), as published online by the CDC, and provided on an unrestricted basis [17]

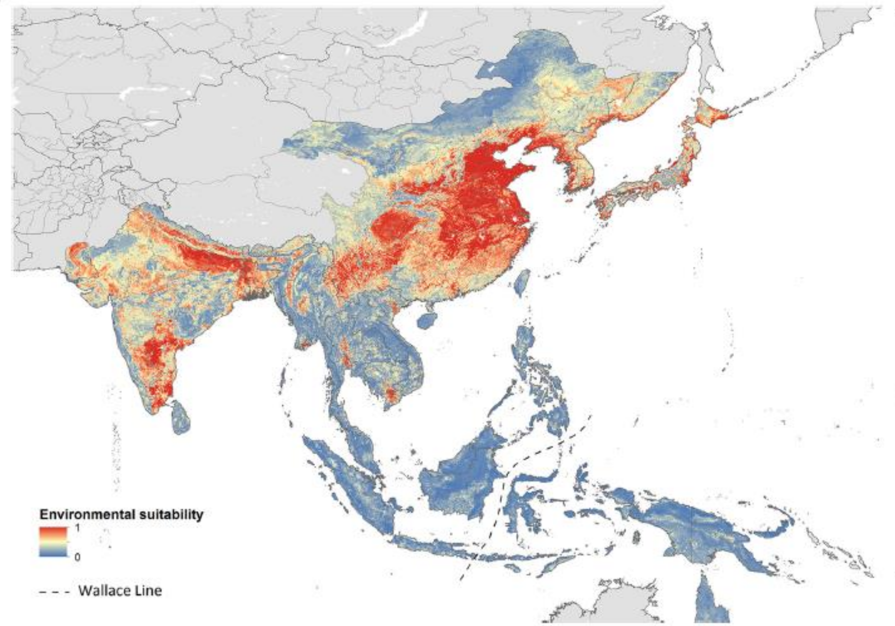


Fig. 3 Predicted environmental suitability for *Culex tritaeniorhynchus* within areas at risk of Japanese encephalitis transmission. The map shows the predicted relative environmental suitability for *Culex tritaeniorhynchus* at each 5 × 5 km gridded cell within the limits of Japanese encephalitis [17], on a scale of low environmental suitability (0) to high environmental suitability (1.0)

Ciclo de transmissão do vírus

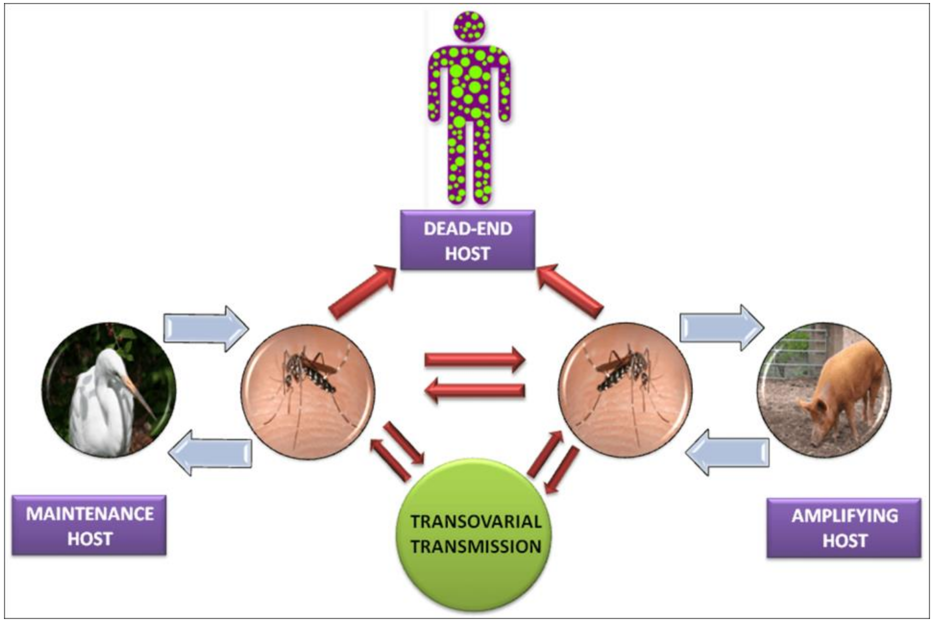
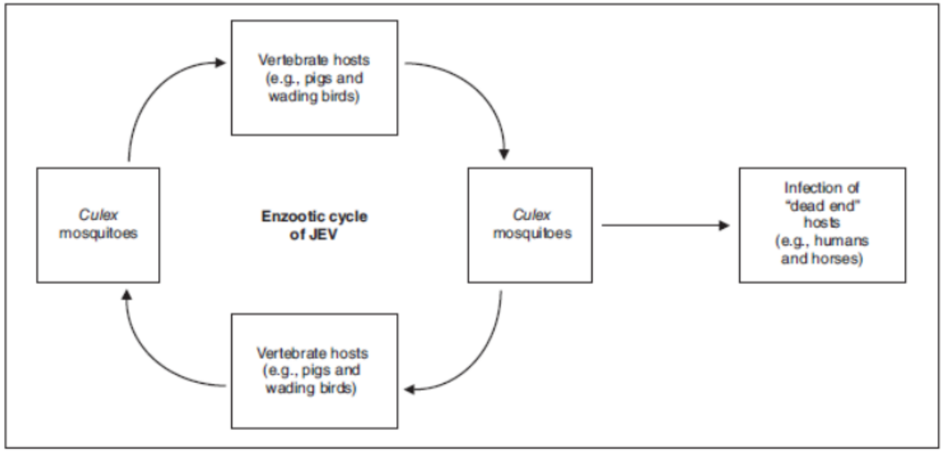


FIGURE 1. Transmission cycle of Japanese encephalitis virus (JEV)*



*JEV is transmitted in an enzootic cycle between *Culex* mosquitoes and amplifying vertebrate hosts, primarily pigs and wading birds. Humans are a dead-end host in the JEV transmission cycle with brief and low levels of viremia. Humans play no role in the maintenance or amplification of JEV, and the virus is not transmitted directly from person to person.

Clínica

- **PI**
  - **5 - 15 dias**
- **Encefalite**
  - **1% dos infetados**
- **Mortalidade**
  - **Até 35%**
  - **Até 25.000 / ano**
- **Morbilidade**
  - **Até 50% c/ sequelas neurológicas**
- **Fatores de prognóstico**
  - ***Score de Glasgow***
  - **Hiponatremia**
  - **Idade < 10 a.**

- **Sintomatologia**
  - **Febre elevada**
  - **Calafrios**
  - **Cefaleias**
  - **Mialgias**
  - **Astenia / Adinamia**
  - **Confusão mental / Coma**
  - **Convulsões**
  - **Sinais focais**
    - **Paresia de pares cranianos**
  - **Sínd. Meníngeo**
  - ***Sind. Polio-Like* (Paresia flácida aguda)**
  - ***Sínd. Parkinson-Like***
  - ***GEA-Like***
- **Transmissão transplacentária**
  - **Morte fetal *in útero***
  - **Abortos espontâneos**

Review

Travel-acquired Japanese encephalitis and vaccination considerations

Androula Pavli, Helena C Maltezou

Travel Medicine Office, Department for Interventions in Health-Care Facilities, Hellenic Center for Disease Control and Prevention, Athens, Greece

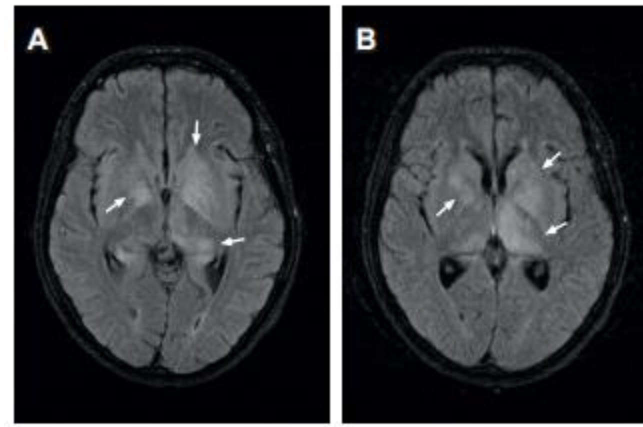
Table 1. Characteristics of published Japanese encephalitis cases among travelers, 1992-2014

Year (ref.)	Age (years)	Gender	Country of origin	Country of JE acquisition	Duration of travel	Purpose of travel	Outcome	Laboratory confirmed	JE vaccine
1992 (16)	19	M	United States America	Singapore	N/A	Recreation	Survived	N/A	N/A
1992 (17)	21	F	United Kingdom	Thailand	Few days	Recreation	Survived	Yes	No
1993 (15)	3	F	Australia	Indonesia	N/A	Expatriate	Survived	Yes	N/A
1994 (18)	60	F	Sweden	Indonesia	10 says	Recreation	Survived	Yes	No
1995 (19)	51	M	Denmark	Indonesia	12 days	Recreation	Fatal	Yes	No
1996 (20)	59	F	France	Thailand	12 days	Recreation	Survived	Yes	No
1997 (21)	30	F	Netherlands	Thailand	>3 weeks	Recreation	Survived	Yes	No
1997 (22)	25	M	Norway	Southern Thailand	2 weeks	Recreation	Sequelae	Yes	No
1998 (22)	65	M	Norway	Philippines	3 years	Expatriate	Fatal	Yes	N/A
1998 (22)	57	M	Norway	Philippines	Long-term	Recreation	Fatal	Yes	N/A
2000 (23)	80	M	Sweden	Bali, Java,Indonesia	3 weeks	Recreation	Sequelae	Yes	No
2000 (24)	22	M	France	Indonesia	5 weeks	Recreation	Survived	Yes	No
2001 (25)	56	M	Sweden	Southern Thailand	2 weeks	Recreation	Sequelae	Yes	No
2001 (26)	N/A	M	Finland	China	4 weeks	Expatriate/permanent stay	Sequelae	yes	No
2002 (22)	41	M	Sweden	Thailand	2 weeks	Recreation	Sequelae	Yes	N/A
2002 (22)	65	F	Sweden	Thailand	< 4 weeks	Recreation	Survived	Yes	N/A
2003 (27)	32	F	New Zealand	Malaysia	8 weeks	Recreation	Survived	Yes	No
2003 (28)	30	F	United States America	Thailand	7 months	Expatriate	Survived	Yes	No
2004 (29)	66	M	Germany	Papua New Guinea	34 years	Expatriate	Survived	Yes	No
2004 (30)	22	F	United States America	Thailand	4 weeks	Recreation/Study	Survived	Yes	No
2004 (31)	48	F	New Zealand	China	5 weeks	Recreation	Sequelae	Yes	No
2004 (32)	60	M	Finland	Thailand	2 weeks	Recreation	Sequelae	Yes	No
2005 (21)	29	F	Netherlands	Indonesia	6 weeks	Recreation	Survived	Yes	No
2005 (28)	68	F	United States America	Philippines	3 months	VFR	Survived	Yes	No
2005 (21)	30	F	Netherlands	Thailand	3 weeks	Recreation	Survived	Yes	No
2006 (33)	49	M	Italy	Northern Vietnam	3 weeks	Recreation	Survived	Yes	No
2006 (34)	59	F	Germany	China	2 weeks	Recreation	Survived	Yes	No
2008 (22)	36	F	Sweden	Thailand	5 weeks	VFR	Survived	Yes	N/A
2008 (22)	37	F	Sweden	Thailand	8 weeks	Recreation	Survived	Yes	N/A
2008 (22)	91	M	Italy	Thailand	3 months	Recreation	Fatal	N/A	N/A
2008 (28)	9	M	United States America	Vietnam/Cambodia	4 weeks	VFR	Survived	Yes	N/A
2009 (35)	43	F	Belgium	Philippines	3 weeks	VFR	Survived	Yes	No
2010 (36)	26	F	Canada	Thailand	4 weeks	Recreation	Sequelae	Yes	No
2010 (37)	61	M	Denmark	Cambodia	2 weeks	Recreation	Fatal	Yes	No
2010 (38)	11	F	United States America	Philippines	3 weeks	VFR	Fatal	Yes	No
2010 (38)	6	M	United States America*	Thailand	6 years	Migrant	Survived	Yes	Yes**
2010 (39)	76	M	Germany	Thailand	Long-term	Recreation	Sequelae	Yes	No
2011 (39)	54	F	Germany	Indonesia	2 weeks	Recreation	Sequelae	Yes	No
2012 (40)	22	M	France	Nepal	4 months	Aid worker	Sequelae	Yes	No

*Japanese Encephalitis, ** Japanese Encephalitis Virus

Imagiologia

- **RMN**
  - **Tálamo**
  - **Núcleos da base**
  - **Medula**



Images in fluid attenuated inversion revovery (FLAIR) sequence.
Extensive patchy lesions in left basal nuclei and both hippocampi are visible (white arrows).

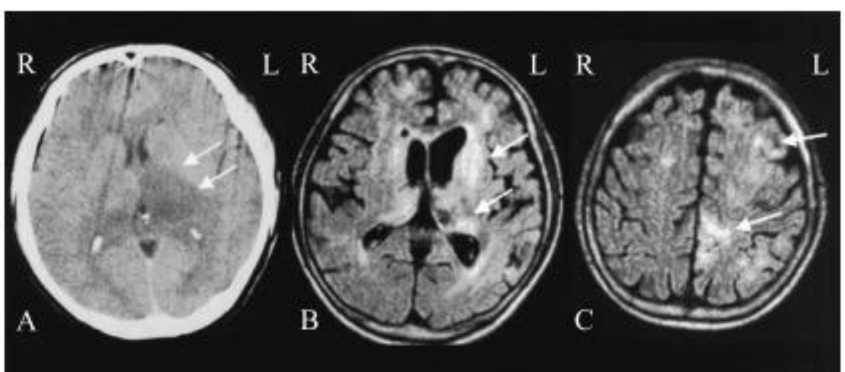


Fig. 2. CT and MRIs of Patient 6 with Japanese encephalitis.
A: Five days after onset, an axial plain CT demonstrating bilateral thalamic lesions, with severe brain edema (arrows shows only the left side). B: Two months after onset, axial FLAIR MRI revealing widespread high signals bilaterally in the thalami and basal ganglia (arrows) and C: High-intensity lesions in the left frontal and parietal cortices (arrows).

Profilaxia: Imunização ativa

- **Vacinação (> 90% eficácia)**
  - **Inativada (disponível em Portugal)**
    - **<u>IXIARO</u>** **(JESPECT / TC-JEV / ENCEVAC / JEBIK)**
      - **1 inj. X 2 (d. 0 e 28)**
      - ***Booster* aos 12 m.**
  - **Viva atenuada (descontinuada desde 2011)**
    - **JEVAX**
      - **1 inj x 2 ou 3 (d. 0, (7) e 30)**
      - ***Booster* aos 12 - 24 m**
  - **Quimérica recombinante (não disponível em Portugal)**
    - **(F. Amarela)**
      - **CHIMERIVAX-JE, JE-CV, IMOJEV, etc.**
        - **1 inj**
- **Vacina inativada**
  - **Efeitos secundários ligeiros (< 10%)**
    - **Cefaleias, Mialgia, Astenia, Nausea, "*Flu-Like Syndrome*"**
  - **Gravidez e Amamentação**
    - **Não são CI absoluta**
  - **Imunodeprimido**
    - **Não está CI**
- **Vacina atenuada**
  - **Reação acessórias graves: ADEM e Reações alérgicas**
  - **CI Grávida**
  - **s/ CI na amamentação**
  - **< eficácia em imunodeprimidos**
  - **(Custo-eficácia?)**

Vacinação: Fatores a considerar (CDC/MMWR)

BOX 1. Factors to consider when evaluating a traveler's risk for Japanese encephalitis virus (JEV) exposure

Destination

- JE occurs in areas throughout most of Asia and parts of the western Pacific.
- The highest risk of JEV exposure occurs in rural agricultural areas, often associated with rice production and flooding irrigation.
- JE can occur in large, focal outbreaks indicating extensive active JEV transmission in that area.

Duration of travel

- Most reported travel-associated JE cases have occurred among expatriates or long-term travelers (i.e., ≥1 month).
- Although no specific duration of travel puts a traveler at risk for JE, a longer itinerary increases the likelihood that a traveler might be exposed to a JEV-infected mosquito.

Season

- In most temperate areas of Asia, JEV transmission is seasonal, and human disease usually peaks in summer and fall.
- In the subtropics and tropics, JEV transmission patterns vary, and human disease can be sporadic or occur year-round.

Activities

- The mosquitoes that transmit JEV feed on humans most often in the outdoors, with peak feeding times after sunset and again after midnight.
- Extensive outdoor activities (e.g., camping, hiking, trekking, biking, fishing, hunting, or farming), especially during the evening or night, increase the risk of being exposed to a JEV-infected mosquito.
- Accommodations with no air conditioning, screens, or bed nets increase the risk of exposure to mosquitoes that transmit JEV and other vector-borne diseases (e.g., dengue and malaria).

BOX 3. Recommendations for the use of Japanese encephalitis (JE) vaccine

Recommended

- Laboratory workers with a potential for exposure to infectious JE virus (JEV)
- Travelers who plan to spend a month or longer in endemic areas during the JEV transmission season

Consider

- Short-term travelers (<1 month) to endemic areas during the JEV transmission season if they plan to travel outside of an urban area and have an itinerary or activities that will increase their risk of JEV exposure
- Travelers to an area with an ongoing JE outbreak
- Travelers to endemic areas who are uncertain of specific destinations, activities, or duration of travel

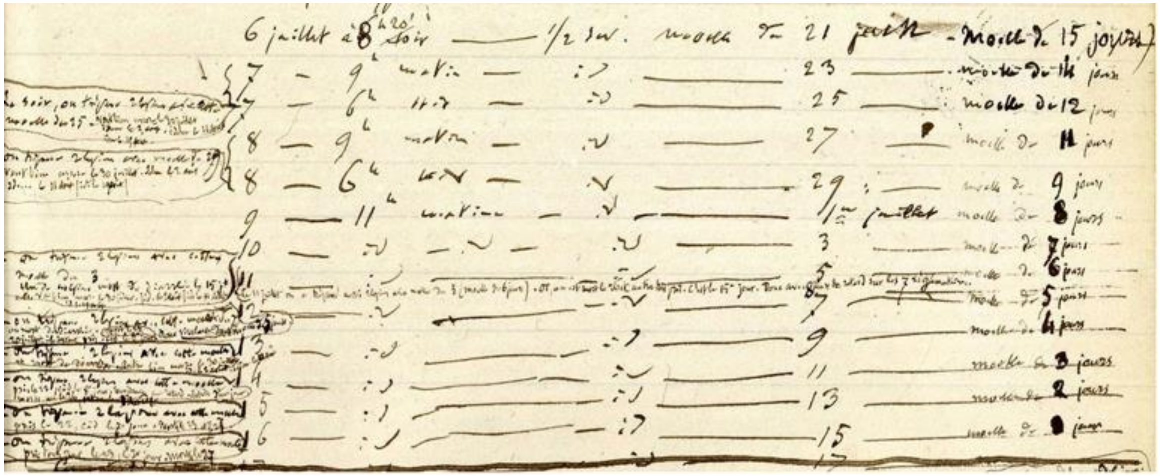
Not recommended

- Short-term travelers whose visit will be restricted to urban areas or times outside of a well-defined JEV transmission season.

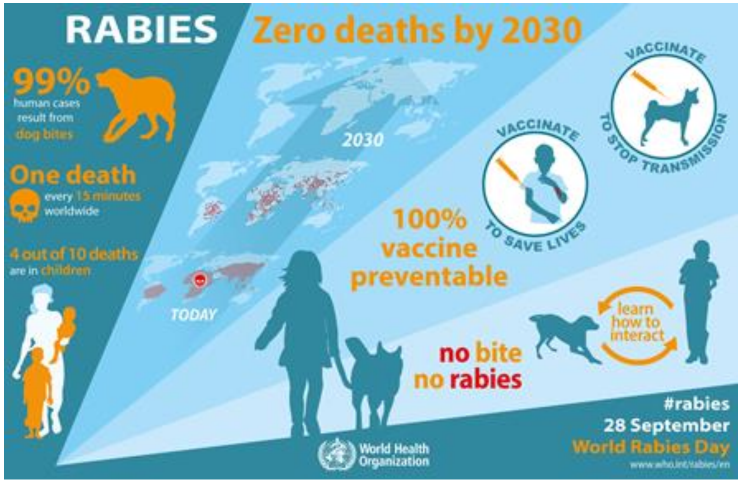
A Vacinação na Prática Clínica

- **Quando**
  - **Tempo de estadia**
    - **> 1 m. (s/ risco elevado)**
    - **< 1 m. (c/ risco elevado)**
  - **Avaliação do risco**
    - **Época do ano**
      - **Estação das chuvas**
    - **Locais e países a visitar**
      - **Zonas rurais**
    - **Tipo de viagem**
      - **Ar livre**
- **Como**
  - **Até 10 dias antes da viagem**

SPMV
II REUNIÃO CIENTÍFICA
25 de Março de 2017



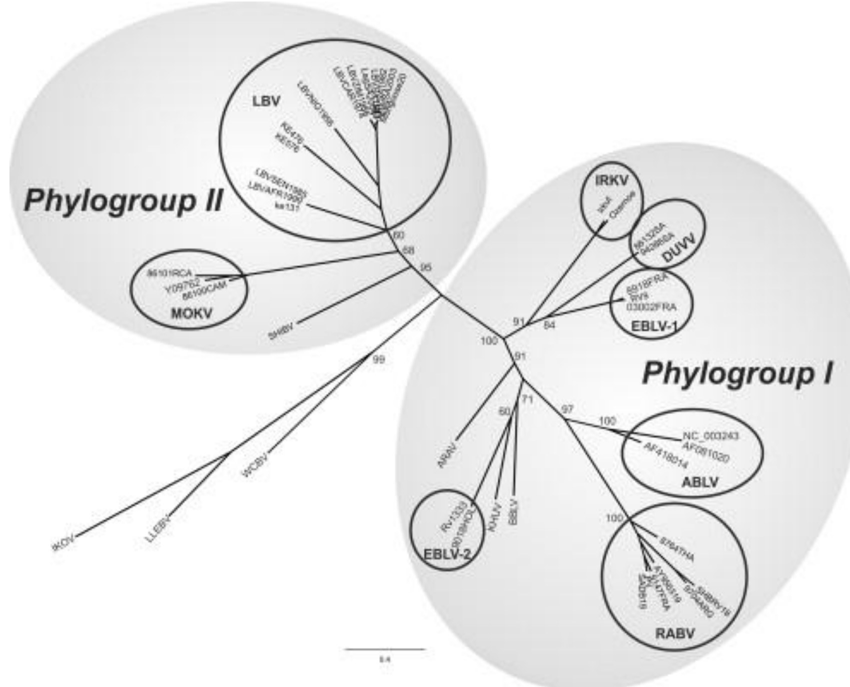
III)- RAIVA



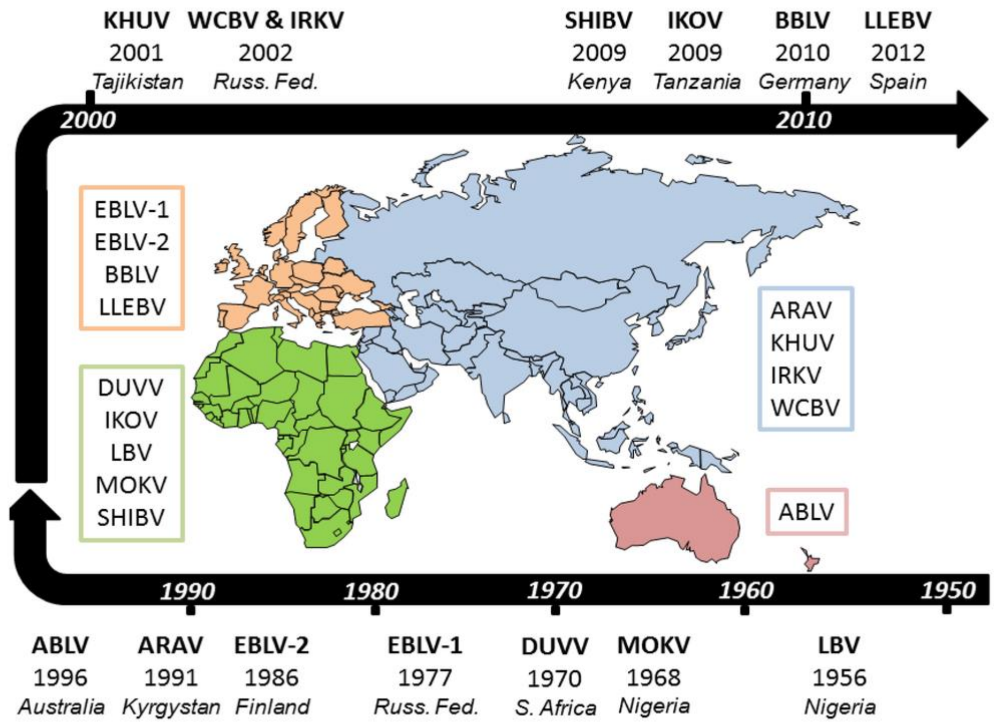
II REUNIÃO CIENTÍFICA
25 de Março de 2017
SPMV

Vírus

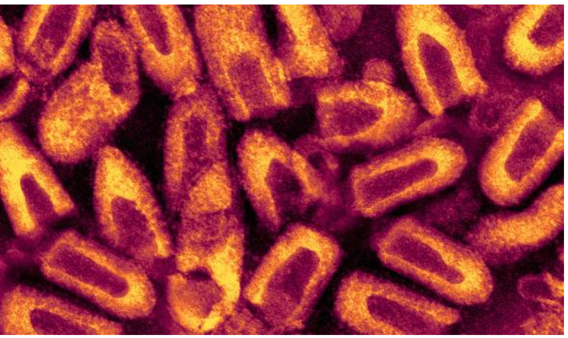
- **Vírus RNA de cadeia simples**
  - **Ordem**
    - ***Mononegavirales***
  - **Género**
    - **Lissavírus**
  - **Família**
    - **Rabdovírus**

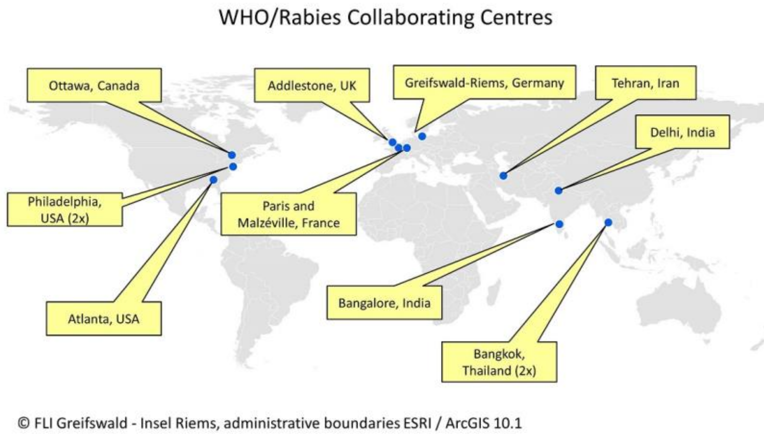


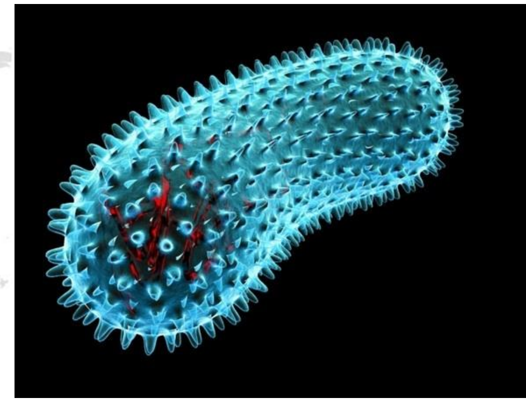
Species (ICTV)[a]	Abbreviation	Potential vector(s)/reservoirs	Distribution
Rabies virus	RABV	Carnivores (worldwide); bats (Americas)	Worldwide (except several islands)
Lagos bat virus	LBV	Frugivorous bats (*Megachiroptera*)	Africa
Mokola virus	MOKV	?	Sub-Saharan Africa
Duvenhage virus	DUVV	Insectivorous bats	Southern Africa
European bat lyssavirus 1	EBLV-1	Insectivorous bats (*Eptesicus serotinus*)	Europe
European bat lyssavirus 2	EBLV-2	Insectivorous bats (*Myotis daubentonii, M. dasycneme*)	Europe
Australian bat lyssavirus	ABLV	Frugivorous/insectivorous bats (*Megachiroptera/Microchiroptera*)	Australia
Aravan virus	ARAV	Insectivorous bats (*Myotis blythi*)	Central Asia
Khujand virus	KHUV	Insectivorous bats (*Myotis mystacinus*)	Central Asia
Irkut virus	IRKV	Insectivorous bats (*Murina leucogaster*)	East Siberia
West Caucasian bat virus	WCBV	Insectivorous bats (*Miniopterus schreibersi*)	Caucasian region
Shimoni bat virus	SHIBV	*Hipposideros commersoni*	East Africa
Bokeloh bat lyssavirus	BBLV	Insectivorous bats *Myotis nattereri*	Europe
Ikoma virus	IKOV	? (isolated from *Civettictis civetta*)	Africa
Lleida bat lyssavirus[#]	LLBV	Insectivorous bats (*Miniopterus schreibersi*)	Europe (Spain)

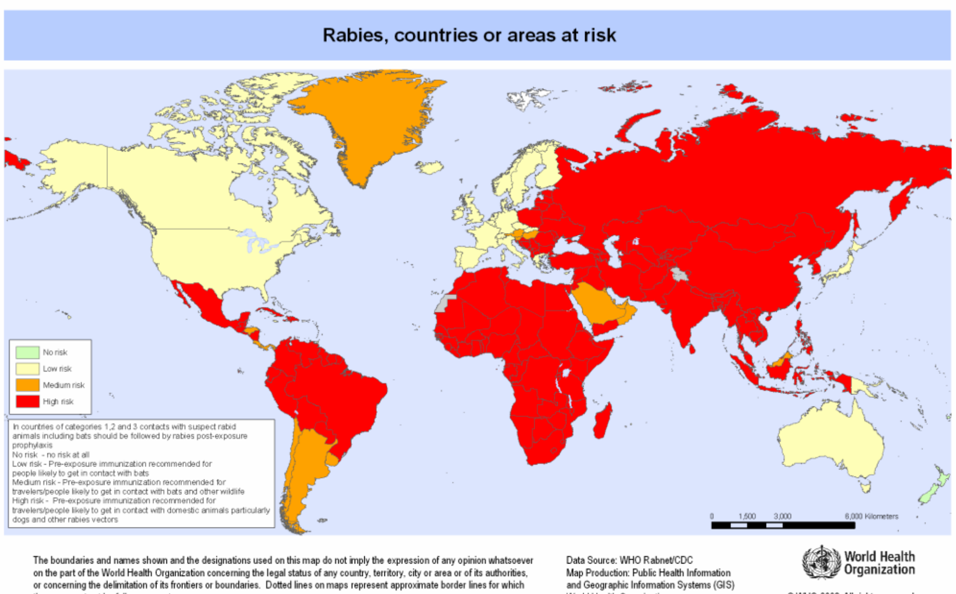


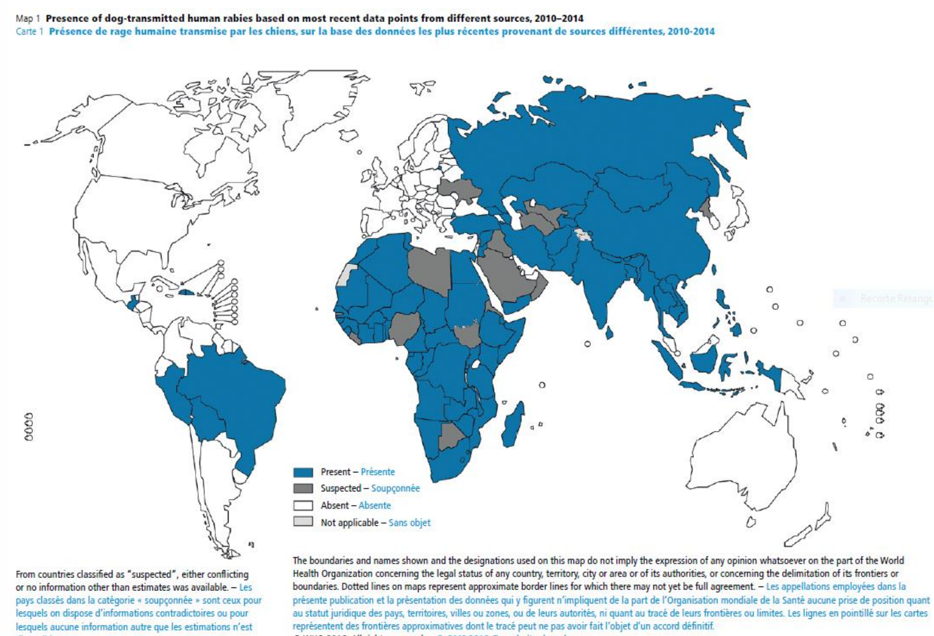
Epidemiologia I











Epidemiologia II

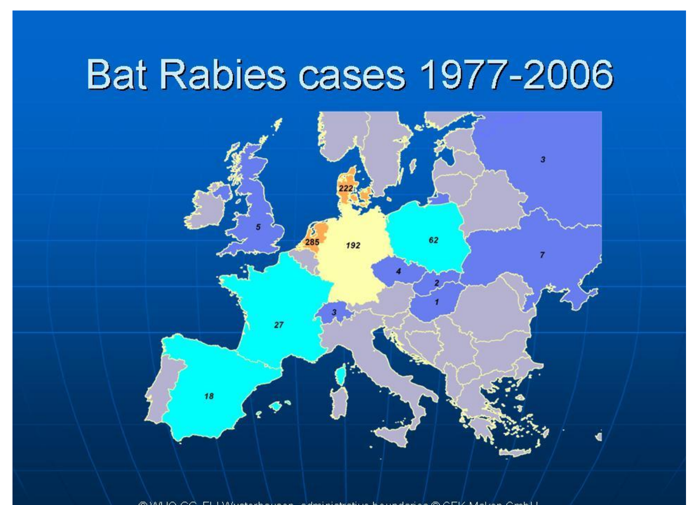
- Reservatórios
  - Mamíferos carnívoros (África / Ásia)
    - 95-99% casos humanos são devidos a mordedura de cães contaminados
  - Morcegos (Europa de Leste, América do Sul e Oceânia)
- Nº de casos / ano
  - 40 – 85.000 em cerca de 150 países
    - África: 44%
    - Ásia: 56%
  - 40% em crianças < 15 anos
- Mortalidade
  - Quase 100%
- PEP
  - 10 – 20.000.000 casos / ano
- Meios de Transmissão
  - Mordedura de animal: A regra
  - Via inalatória (rara)
  - Por transplante de órgão (rara)
  - Pessoa – pessoa (?)(Descrita num caso na Etiópia- Precauções universais!!!)
  - Ingestão de carne encruada (Não confirmada)

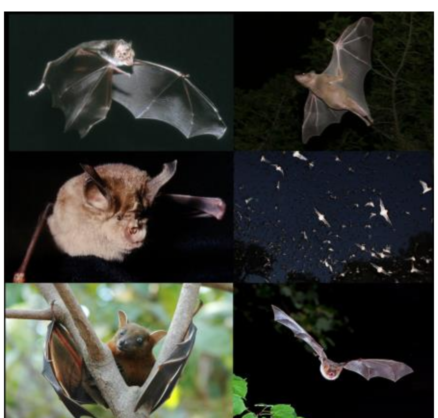
RABIES BULLETIN EUROPE

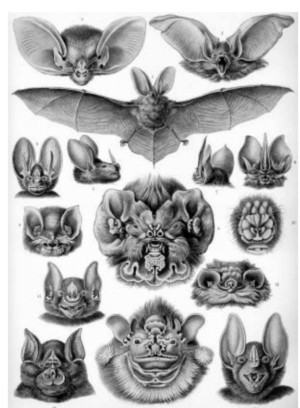
Volume 37 No 2 Quarter 2 2013

Name	Code	Total	Wildlife	Domestic animals	Bats	Human
ALBANIA *	ALB	0	0	0	0	0
AUSTRIA	AUT	0	0	0	0	0
BELARUS *	BLR	0	0	0	0	0
BELGIUM	BEL	0	0	0	0	0
BOSNIA - HERCEGOVINA	BIH	0	0	0	0	0
BULGARIA	BGR	0	0	0	0	0
CROATIA	HRV	5	5	0	0	0
CYPRUS	CYP	0	0	0	0	0
CZECH REPUBLIC	CZH	0	0	0	0	0
DENMARK	DNK	0	0	0	0	0
ESTONIA	EST	0	0	0	0	0
FINLAND	FIN	0	0	0	0	0
FRANCE	FRA	0	0	0	0	0
GEORGIA	GEO	23	0	23	0	0
GERMANY	DEU	4	0	0	4	0
GREECE	GRC	6	5	1	0	0
HUNGARY	HUN	0	0	0	0	0
ICELAND	ISL	0	0	0	0	0
IRELAND	IRE	0	0	0	0	0
ITALY	ITA	0	0	0	0	0
LATVIA	LVA	0	0	0	0	0
LITHUANIA	LTU	0	0	0	0	0
LUXEMBOURG	LUX	0	0	0	0	0
MACEDONIA	MKD	0	0	0	0	0
MALTA	MLT	0	0	0	0	0
MOLDOVA *	MDA	0	0	0	0	0
MONTENEGRO *	MNE	0	0	0	0	0
NETHERLANDS	NED	0	0	0	0	0
NORWAY	NOR	0	0	0	0	0
POLAND	POL	38	26	10	2	0
PORTUGAL	PRT	0	0	0	0	0
ROMANIA	ROU	110	59	51	0	0
RUSSIAN FEDERATION	RUS	534	243	288	0	3
SERBIA	SRB	0	0	0	0	0
SLOVAK REPUBLIC	SVK	4	2	2	0	0
SLOVENIA	SVN	0	0	0	0	0
SPAIN	ESP	3	0	3	0	0
SWEDEN	SWE	0	0	0	0	0
SWITZERLAND + LIEC.	CHE	0	0	0	0	0
TURKEY	TUR	157	10	147	0	0
UKRAINE	UKR	259	78	180	1	0
UNITED KINGDOM	UNK	0	0	0	0	0
TOTAL		1143	428	705	7	3

Epidemiologia III







Epidemiologia IV

Journal of Medical Microbiology (2006), **55**, 785–790 **DOI** 10.1099/jmm.0.46370-0

Airborne transmission of lyssaviruses

N. Johnson,[1] R. Phillpotts[2] and A. R. Fooks[1]

[1]Rabies and Wildlife Zoonoses Group, Veterinary Laboratories Agency (VLA, Weybridge), WHO Collaborating Centre for the Characterisation of Rabies and Rabies-related Viruses, New Haw, Addlestone KT15 3NB, UK

[2]Defence, Science and Technology Laboratory (DSTL), Porton Down, Salisbury, UK

Correspondence
A. R. Fooks
t.fooks@vla.defra.gsi.gov.uk

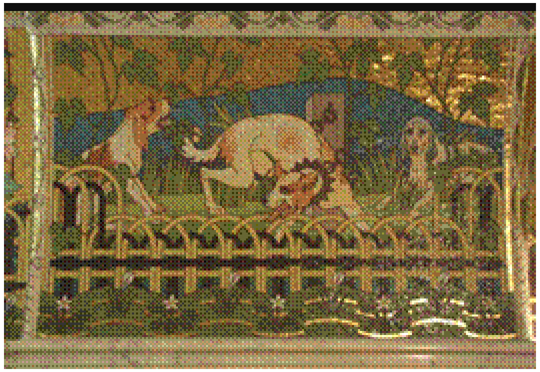
Table 1. Reported cases of airborne transmission of rabies

Year	Comments	Reference
1956	Rabies was confirmed in an entomologist who had worked in a number of caves in Texas containing large colonies of Mexican Free-tailed bats. The patient had no recollection of being bitten.	Irons *et al.* (1957)
1959	A consultant mining engineer was admitted to hospital in Los Angeles, California, on 1 June, complaining of shortness of breath and retching. Rabies was confirmed following death. Previously, he had been working in caves in both Mexico and Texas. No evidence of a biting incident could be confirmed, although there was a report that he emerged from one cave with a bleeding wound on his face.	Kent & Finegold (1960)
1972	A 56-year-old veterinarian who had been working in a laboratory preparing rabies vaccine developed headaches, vomiting, diarrhoea and general weakness. The patient had been involved in the preparation of rabies vaccine from brain obtained from rabies-infected goats. This process involved the use of a kitchen blender, which, on subsequent investigation, was observed to produce a visible aerosol.	Winkler *et al.* (1973)
1977	A further case of laboratory-acquired rabies was reported in 1977 in a 32-year-old technician, who had been participating in experiments to prepare an oral vaccine by coating small pellets with aerosolized virus. He felt weak and developed a fever. On admission to hospital, he became lethargic and entered a comatose state. Unlike previous cases, the patient began to recover from 3 May, although with neurological impairment.	Tillotson *et al.* (1977)

Clínica / Diagnóstico

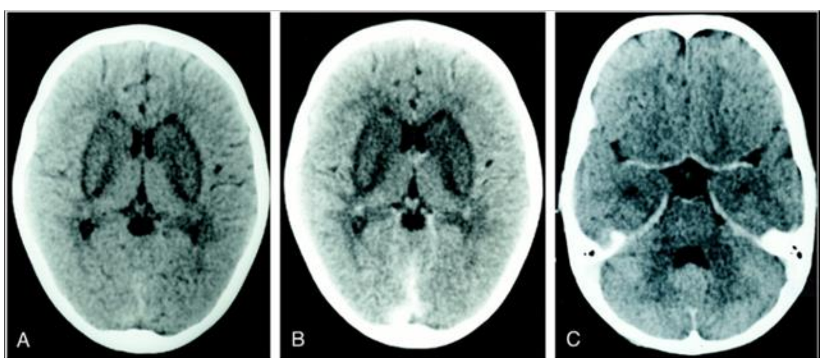
- **Período de incubação**
  - **4 d. – > 1 ano (Média 1 – 3 m.)**
- **Quadro Clínico**
  - **Formas Clinicas**
    - **Paralítica: 30%**
    - **Excitatória (Furiosa): 70%**
  - **Sintomatologia**
    - **Febre**
    - **Cefaleias**
    - **Disautonomia neurogénica (diaforese e alterações hemodinâmicas bruscas)**
    - **Hidrofobia / Aerofobia / Fotofobia**
    - **Parestesias / Disestesias**
    - **Astenia / Adinamia**
    - **Parésia / Paralisia**
    - **Espasmos musculares**
    - **Sialorreia**
    - **Sind. Confusional / Halucinações**
    - **Agitação psico-motora**
    - **Convulsões**
    - **Coma**
  - **s/ TT: Morte < 2 s. (Geralmente < 1 s.)**

- **AGs / ACs**
  - **Líquidos orgânicos**
    - **Sangue**
    - **LCR**
    - **Saliva**
- **RNA**
  - **Tecido**
    - **Pele**
    - **SNC**
    - **Córnea**
  - **Líquidos orgânicos**
    - **Urina**
    - **Saliva**

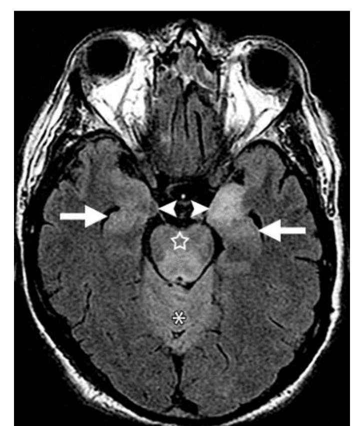


Imagiologia

- **TAC**



- **RMN**



Tratamento

- **Ferida**
  - **Lavagem c/ H_2O e Sabão e Solução alcoólica iodada durante > 15 mn**
- **PEP**
  - **Igb Humana específica (Grau III) de imediato (até aos 7 dias) 20 UI / Kg**
    - **Imogam**
    - **HyperRab**
      - **No local da mordedura**
      - **IM na região deltoideia ou coxa**
  - **D. Imunocomprometido**
    - **Igb também no Grau II**
  - **Vacina (2,5 UI / 1 ml)**
    - **D. 0,3,7,14 e 28-30 IM**
    - **(2 Doses nos D. já vacinados > 1 ano): D. 1 e 3-7 e s/ Igb)**
  - **(Possibilidade de administração p/ via ID c/ 2 x 4 doses de 0,1 ml, D. 0, 3, 7 e 28, ou 1 x 4 nos D. já imunizados > 1 ano)**
- **Em investigação**
  - **Acs Monoclonais (8 ensaios em fases I-III)**
  - **Outro tipo de vacinas e de Igbs (Recombinantes)**
  - **Aptameros, si*RNAs,* etc.**

Table: Categories of contact and recommended post-exposure prophylaxis (PEP)

World Health Organization

Categories of contact with suspect rabid animal	Post-exposure prophylaxis measures
Category I – touching or feeding animals, licks on intact skin	None
Category II – nibbling of uncovered skin, minor scratches or abrasions without bleeding	Immediate vaccination and local treatment of the wound
Category III – single or multiple transdermal bites or scratches, licks on broken skin; contamination of mucous membrane with saliva from licks, contacts with bats.	Immediate vaccination and administration of rabies immunoglobulin; local treatment of the wound

Rabies - Bulletin - Europe
Rabies Information System of the WHO Collaboration Centre for Rabies Surveillance and Research

FRIEDRICH-LOEFFLER-INSTITUT FLI Bundesforschungsinstitut für Tiergesundheit

Miscellaneous articles

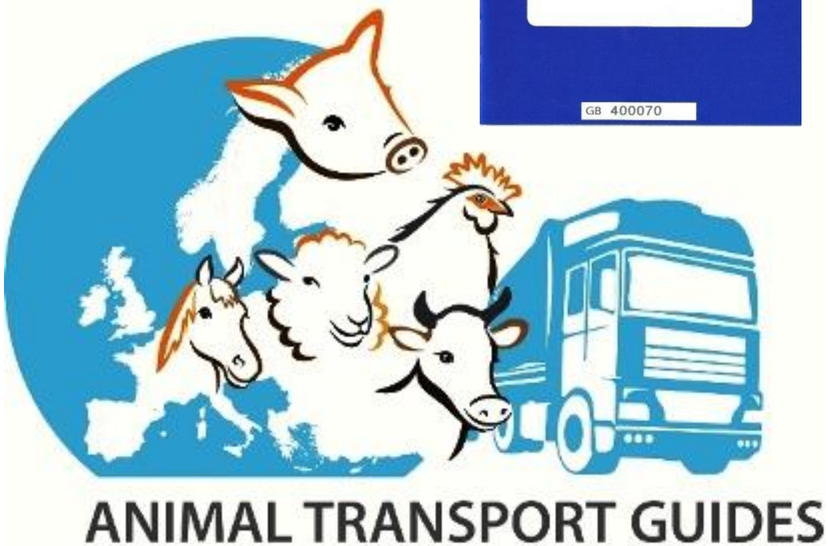
A case of rabies in a dog imported to Spain from Morocco in June 2013. Temporary loss of rabies free Certificate

Suarez-Rodriguez B[1], Santos S[1], Saravia G[1], Sanchez-Gomez A[1], Sierra MJ[1], Amela C[1], Gutierrez-Avila G[2], Jane M[3], Canales AJ[4], Ripalda J[4], Lopaz MA[5], Saez JL[6], Garcia-Villacieros E[7], Echevarria JE[8], Vazquez S[8], Rodriguez-Valin E[9], Simon F[1].

Profilaxia: Imunização Ativa / Regulamento da CEE p/ o transporte de animais

- **Vacinação**
  - **Tipos**
    - **Rabivac (c. humanas)**
    - **Verorab, Imovax (c. vero)**
    - **<u>Rabipur</u> (c. embrião de galinha)**
  - **Esquema**
    - **D. 0, 7 e 21-28 IM (1ml) ou**
    - **D. 0, 7 e 21-28 SC (0,1 ml)**
  - ***Booster***
    - ***> Risco***
      - ***6/6 m. (título Ibg < 0,5 UI / ml)***
    - ***< Risco***
      - **1 ano seguido de cada 2-5 anos depois (título de Igb < 0,5 UI / ml)**
  - **Reações acessórias (ligeiras)**
    - **Dor muscular e edema no local**
    - **Cefaleias**
    - **Febrícula**
    - **Raramente > graves**
      - **Alergias**
      - **Sind. GB**
      - **D. do soro**
  - **Gravidez e Aleitamento**
    - **Não são CI absolutas**

- **Regulamentação internacional**



OPEN ACCESS Freely available online

PLOS | NEGLECTED TROPICAL DISEASES

Rabies in Nonhuman Primates and Potential for Transmission to Humans: A Literature Review and Examination of Selected French National Data

Philippe Gautret[1,2]*, Jesse Blanton[3], Laurent Dacheux[4], Florence Ribadeau-Dumas[4], Philippe Brouqui[1,2], Philippe Parola[1,2], Douglas H. Esposito[5], Hervé Bourhy[4]

1 Assistance Publique Hôpitaux de Marseille, CHU Nord, Pôle Infectieux, Institut Hospitalo-Universitaire Méditerranée Infection, Marseille, France, 2 Aix Marseille Université, Unité de Recherche en Maladies Infectieuses et Tropicales Emergentes (URMITE), UM63, CNRS 7278, IRD 198, Inserm 1095, Faculté de Médecine, Marseille, France, 3 Poxvirus and Rabies Branch, Division of High-Consequence Pathogens and Pathology, National Center for Emerging and Zoonotic Infectious Disease, Centers for Disease Control and Prevention, Atlanta, Georgia, United States of America, 4 Institut Pasteur, Unité Dynamique des lyssavirus et adaptation à l'hôte, National Reference Centre for Rabies, WHO Collaborating Centre for Reference and Research on Rabies, Paris, France, 5 Division of Global Migration and Quarantine, National Center for Emerging and Zoonotic Infectious Diseases, Centers for Disease Control and Prevention, Atlanta, Georgia, United States of America

Table 1. Human rabies[1] cases following nonhuman primate-related injuries.

Country of exposure	Year	Animal	number of human cases	References
America				
Brazil (States of Ceará and Piauis)[1]	1980–2008	Marmoset	20	9,10
Asia				
India (Australian traveler)[2]	1988	Monkey[5]	1	24
India[3]	1998	Monkey[5]	1	20
India[3]	1999	Monkey[5]	1	23
India (German traveler)[4]	2004	Monkey[5] (NB/had also contacts with dogs)	1	25
Sri Lanka[3]	1975	Monkey[5]	1	22

[1]confirmed by molecular analysis.
[2]confirmed by histological observation of Negri bodies in the brain.
[3]rabies diagnosis was assessed on clinical criteria only.
[4]confirmed by fluorescent antibody testing of brain samples, molecular analysis and mouse inoculation with brain material.
[5]species not stated.
doi:10.1371/journal.pntd.0002863.t001

Table 2. Confirmed rabies in imported nonhuman primates.

Country of importation	Year	Animal (number of cases)	Country of origin	Reference
US[1]	1929	Monkey[6]	Not stated	12
US[1]	1936	Monkey[6]	Not stated	12
US[1,2]	1947	Ringtail (*Cebus* spp.)	Colombia	12
US[1,2]	1955	Cynomolgus (*Macacca fasicularis*)	Philippines	12
US[2,3]	1961	Squirrel monkey (*Siamiri sciureus*)	Peru	12
US[1,2,3]	1963	Squirrel monkey (*Siamiri sciureus*	Peru	12
US[1,2,3]	1963	Squirrel monkey (*Siamiri sciureus*	Peru	12
UK[1,2]	1965	Rhesus (*Macaca mulatta*)	India	21
US[2,3]	1972	Capuchin monkey	Not stated	Center for Disease Control, 1972 (internal report)
US[2,3]	1972	Chimpanzee	Sierra Leone	19
US[2,3]	1974	Marmoset (*Saguinus nigricollis*)	Peru	Center for Disease Control, 1976 (internal report), 13
France[4]	1989	Common macaque (*Macaca sylvana*)	Morocco	National Reference Center for Rabies- France 1989 (unpublished report)
France[5]	1989	Common macaque (*Macaca sylvana*)	Morocco	National Reference Center for Rabies- France 1989 (unpublished report)

[1]confirmed by histological observation of Negri bodies in the brain.
[2]confirmed by mouse inoculation with brain material.
[3]confirmed by fluorescent antibody testing of brain samples.
[4]This monkey had been vaccinated with a modified live-virus rabies vaccine of avian origin, 13 days before the onset of symptoms. The viral isolate from the rabid monkey had characteristics consistent with an egg-adapted vaccine strain suggesting that the monkey's infection was vaccine-induced. These included a short incubation period in mice (4–5 days), absence of fluorescent rabies antibodies detectable virus in salivary glands and corneas of the mice, only rare inclusions typical of Negri bodies produced on mouse passage, and high titered growth in eggs on first passage.
[5]These monkeys had been vaccinated with a modified live-virus rabies vaccine (strain ERA) 43 and 28 days before the onset of the symptoms, suggesting that the monkey's infection was vaccine induced, although sequencing or typing were not done.
[6]species not stated.
doi:10.1371/journal.pntd.0002863.t002

Table 3. Proportion of injuries caused by nonhuman primates among international travelers injured by potentially rabid animals.

Study period	Place of exposure	Population	Design of the study	Total number of injured travelers (all animal species)	Proportion of nonhuman primate related injuries in travelers	References
Feb 1987–Jan 1989	Nepal	Non-Indian expatriates and tourists presenting at the Katmandu CIWEC Clinic (main clinic for foreigners in Nepal)	Observational survey	51	19.2%	27
Jan 1996–Dec 1998	Nepal	Non-Indian tourist presenting at the Katmandu CIWEC Clinic (main clinic for foreigners in Nepal).	Observational survey	56	43.0%	28
Jul 1998–Mar 2005	Nepal	Expatriates and travelers presenting at the Katmandu CIWEC Clinic (main clinic for foreigners in Nepal)	Retrospective survey	544	27.9%	29
Aug–Dec 2004	Mainly Asia	Israeli travelers (traveling one month and over)	Cohort survey (815 individuals)	13	30.8%	30
June 1998–May 2005	Mainly Asia, Latin America and Africa	Travelers seen after travel at GeoSentinel sites	Multicentric international retrospective survey	321	21.2%	31
May 1997–May 2005	Mainly Africa and South-East Asia	Injured travelers returning to Marseille (France), Melbourne (Australia) and Auckland (New-Zealand)	Retrospective survey	261	17.3%	32
Oct 1998–Feb 2006	Mainly South-East Asia	Injured travelers returning to Auckland and Hamilton (New-Zealand)	Retrospective survey	54	18.5%	33
Jan 1994–Dec 2007	Mainly North Africa and Asia	Injured travelers returning to Marseille (France)	Retrospective study	424	19.6%	34
Nov 2008–Mar 2010	Bali, Indonesia	Injured travelers returning to Marseille (France), Melbourne (Australia), Singapore and Auckland (New-Zealand)	Retrospective survey	45	68.9%	35
Jan 2000–Jul 2009	Mainly Asia and Turkey	Injured travelers returning to Liverpool (United Kingdom)	Retrospective survey	139	16.5%	36
Apr 2009–Jul 2010	Mainly Indonesia and Thailand	Injured travelers returning to 3 clinics in Queensland and 1 in Perth (Australia)	Prospective study	65	44.6%	37
Jun 2010–Feb 2011	Mainly Thailand and other South-east Asian countries	International travelers leaving Bangkok (Thailand)	Cross sectional survey	36 with animal species documented (out of 219)	38.9%	38
Sep–Dec 2011	Afghanistan	US military	Retrospective survey	126	7.9%	39
Jan 2008–April 2012	Mainly Indonesia, Thailand, India and China	Potential rabies exposure incidents reported to Public Health Units in the south Brisbane region of Queensland, (Australia)	Prospective study	136	55.8%	40

doi:10.1371/journal.pntd.0002863.t003

Um problema muito sério, embora muito (raro?!)...

Investigation of Rabies Infections in Organ Donor and Transplant Recipients --- Alabama, Arkansas, Oklahoma, and Texas, 2004

CDC MMWR Weekly

Questions and Answers - Human Rabies Due to Organ Transplantation, 2013

CDC Centers for Disease Control and Prevention
CDC 24/7: Saving Lives. Protecting People.™

REVIEW ARTICLES

Organ Transplantations and Rabies Transmission

Journal of Travel Medicine

Jan Bronnert, MD, DTM&H,* Henry Wilde, MD, FACP,[†‡] Veera Tepsumethanon, DVM,[†‡] Boonlert Lumlertdacha, DVM,[†‡] and Thiravat Hemachudha, MD[‡]

*German Naval Medical Institute, Kronshagen/Kiel, Germany; [†]Queen Saovanha Memorial Institute, Thai Red Cross Society (WHO Collaborating Center for Research in Rabies), Bangkok, Thailand; [‡]Department of Medicine, King Chulalongkorn University Hospital, Bangkok, Thailand

Table 1 Reported rabies cases due to tissue transplantation

Location	Year	Transplanted organ	References
USA	1978	Cornea	Houff et al, 1979[7]
France	1979	Cornea	Galian et al, 1980[8]
Thailand	1981	Cornea	Thongcharoen et al, 1981[9]
Thailand	1981	Cornea	Thongcharoen et al, 1981[9]
India	1987	Cornea	Gode et al, 1988[10]
India	1988	Cornea	Gode et al, 1988[10]
Iran	1994	Cornea	Javadi et al, 1996[11]
Iran	1994	Cornea	Javadi et al, 1996[11]
USA	2004	Liver	Srinivasan et al, 2005[1]
USA	2004	Kidney	Srinivasan et al, 2005[1]
USA	2004	Kidney	Srinivasan et al, 2005[1]
USA	2004	Iliac Artery	Srinivasan et al, 2005[1]
Germany	2005	Lung	Unknown author,[4]
Germany	2005	Kidney	Johnson et al, 2005[5]
Germany	2005	Kidney-Pancreas	Robert Koch Institute, 2005[6]

A Esperança!!!

NATIONAL GEOGRAPHIC

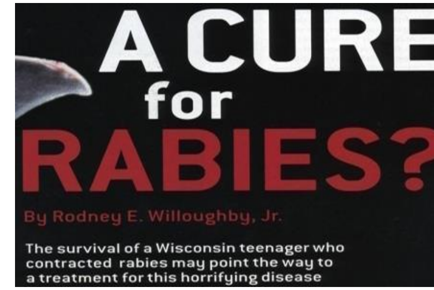
NEJM

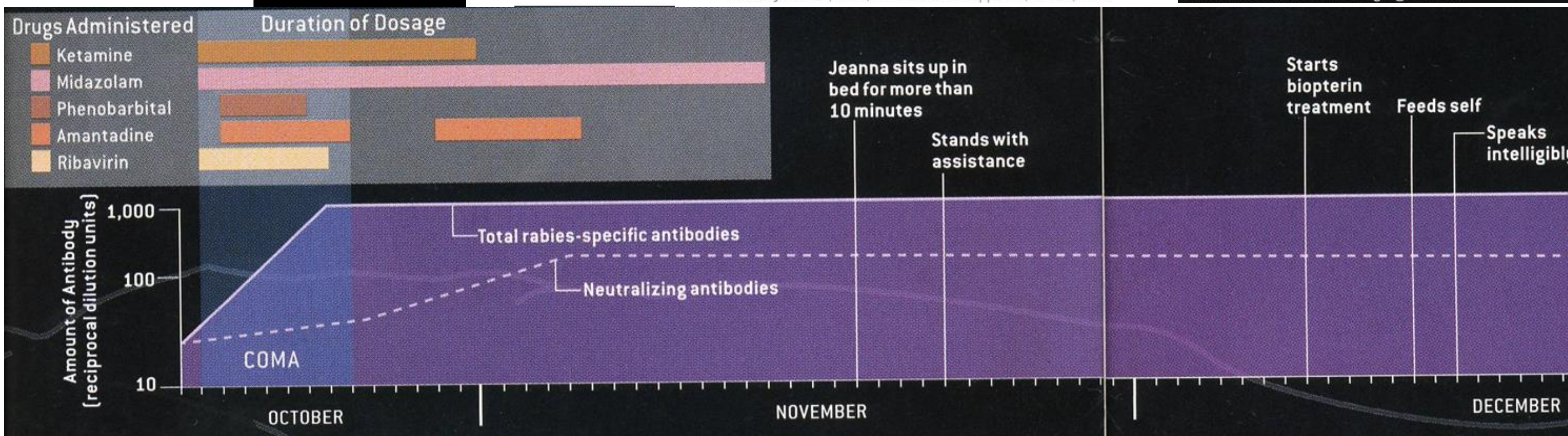
The NEW ENGLAND JOURNAL of MEDICINE

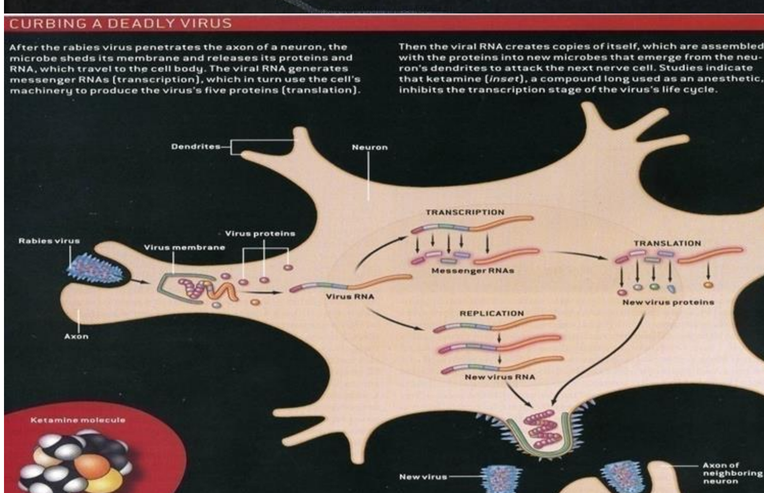
BRIEF REPORT

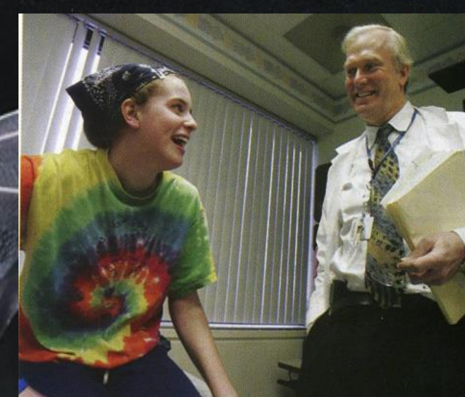
Survival after Treatment of Rabies with Induction of Coma

Rodney E. Willoughby, Jr., M.D., Kelly S. Tieves, D.O., George M. Hoffman, M.D., Nancy S. Ghanayem, M.D., Catherine M. Amlie-Lefond, M.D., Michael J. Schwabe, M.D., Michael J. Chusid, M.D., and Charles E. Rupprecht, V.M.D., Ph.D.







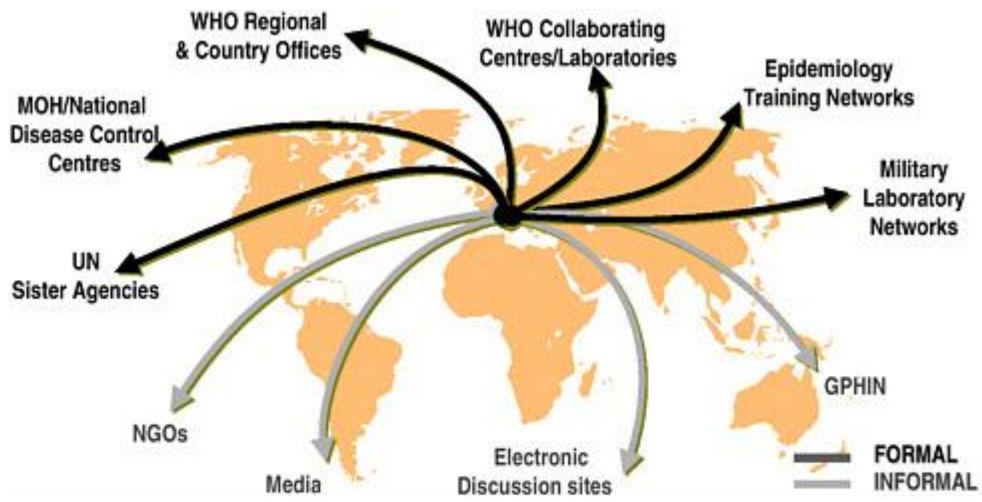


REMARKABLE RECOVERY: Jeanna Giese (*shown with the author*) is graduating from high school this year and hopes to become a veterinarian. The only lingering reminders of her battle with rabies are a small area of numbness on the bitten finger, an alteration in the tone of her left arm and a wider gait when she runs.

Questões que merecem maior atenção na prática clínica

- **Quem vacinar**
  - **Profissões de risco**
    - **Técnicos de laboratório**
    - **Médicos veterinários de jardins zoológicos**
    - **Técnicos zootécnicos em reservas naturais em áreas endémicas**
    - **Espeleólogos**
  - **Viagens de risco**
    - **Zonas endémicas com atividades de ar livre ou que comportem contacto com animais potencialmente infetados**
    - **Desportos radicais que comportem riscos semelhantes**
- **Transmissão nosocomial**
  - **PEP**
  - **PrEP**
- **Animais**
  - **S/ ser canídeo ou morcego**
  - **Desconhecido**
  - **Conhecido**
    - **c/ vacinação desconhecida**
  - **Quarentena do animal**
  - **Confirmação da ausência de infeção**
- **Mordedura**
  - **Outros cuidados importantes**
    - **Profilaxia de infeções bacterianas (AB)**
    - **Imunização do tétano**
- **Órgãos de dadores p/ transplante**
  - **Que cuidados específicos?**
  - **Qual o papel do teste de IF p/ deteção de ACs**
- **Portugal estará mesmo “livre” desta infeção?**

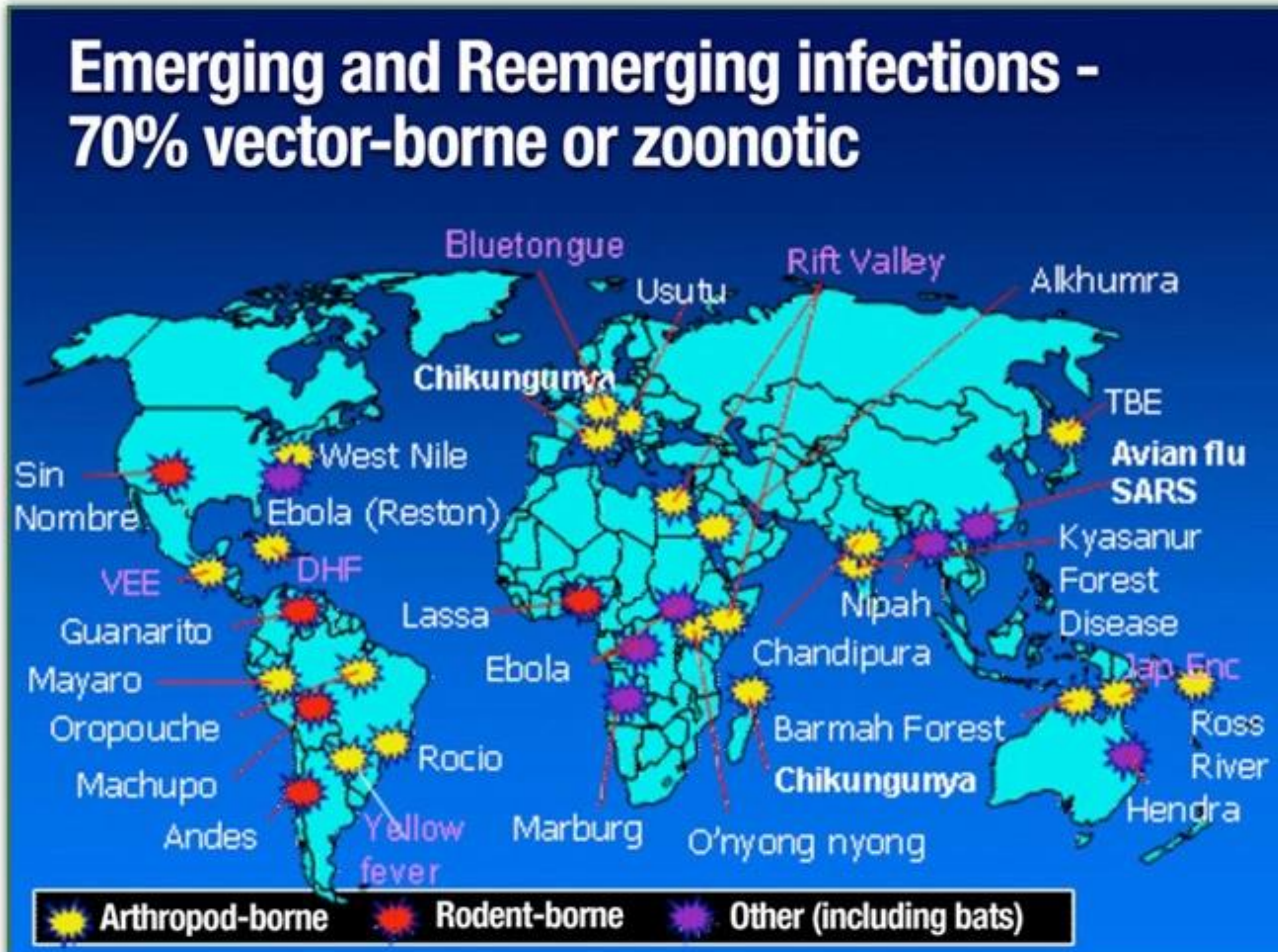
SPMV
II REUNIÃO CIENTÍFICA
25 de Março de 2017



IV)- CONCLUSÕES

II REUNIÃO CIENTÍFICA
25 de Março de 2017
SPMV

A importância das zoonoses no contexto das infeções (re)emergentes



A importância do conceito de "*one health medicine*"

World Health Organization

OIE WORLD ORGANISATION FOR ANIMAL HEALTH
Protecting animals, preserving our future

Food and Agriculture Organization of the United Nations

Global Alliance for Rabies Control

GLOBAL FRAMEWORK FOR THE ELIMINATION OF DOG-MEDIATED HUMAN RABIES

Dog-mediated human rabies kills tens of thousands of people every year worldwide. Freedom from dog-mediated human rabies is a global public good and is feasible with currently available tools.

In accordance with the consensus of the Global Conference (Geneva, 10-11 December 2015), this framework provides a coordinated approach and vision for the global elimination of dog-mediated human rabies. It is intended to harmonize actions and provide adaptable, achievable guidance for country and regional strategies.

The five pillars of rabies elimination (STOP-R)

1 SOCIO-CULTURAL

Rabies control involves a wide range of stakeholders including the general public. The socio-cultural context influences rabies perceptions and dog-keeping practices of at-risk populations. Understanding the context guides approaches to motivate behavioural change and plan feasible delivery of services.

Includes activities for:

- Awareness: build awareness of dog-mediated rabies as a preventable global public health problem including through participation in initiatives such as World Rabies Day and the EndRabiesNow campaign
- Responsible dog ownership: promote responsible dog ownership and dog population management practices, including dog vaccination, in accordance with OIE standards
- Bite prevention and treatment: develop and implement education programmes on bite prevention and first aid for both children and adults
- Post-exposure prophylaxis: increase awareness and understanding of post-exposure prophylaxis (PEP) imperatives and options including intradermal administration
- Community engagement: encourage community involvement and engagement in activities to eliminate dog-mediated rabies

2 TECHNICAL

Effective animal health and public health systems are required to eliminate dog-mediated human rabies. These systems must be strengthened and resourced appropriately, and gaps identified and filled.

Includes activities for:

- Vaccination: ensure safe, efficacious and accessible dog and human vaccines and immunoglobulins, and promote and implement mass dog vaccination as the most cost-effective intervention to achieve dog-mediated human rabies elimination
- Logistics: collect data on needs forecasts to inform the vaccine procurement system and to create and sustain the logistics and infrastucture required for effective delivery and implementation of mass dog vaccination programmes and PEP administration
- Diagnostics: ensure capacity and capability for rapid and accurate rabies diagnosis through accessible, well equipped laboratories and trained personnel
- Surveillance: support improved surveillance, sampling, reporting, and data-sharing
- Technical support: provide guidance and technical support for the development and tailoring of regional and national plans, including promoting the use of existing tools
- Proof of concept: support proof-of-concept programmes, and then scale up through leveraging of success

3 ORGANIZATION

The One Health approach of close collaboration is applied. Leadership, partnership and coordination for rabies elimination activities arise from the human health and animal health sectors and other stakeholders.

Includes activities for:

- One Health: promote the One Health approach and intersectoral coordination through national and regional networks
- Good governance: establish good governance, including clear roles, chain of command, measurable outcomes and timelines
- Harmonization: align work plans and activities with national and regional priorities and approaches fostering synergies among sectors
- Coordination : coordinate and combine human resources, logistics and infrastructure of other programmes and initiatives, as appropriate and feasible
- Indicators and performance: identify targets and their indicators to support performance measurement, including surveillance and validation data, to identify areas requiring attention or extra support
- Monitoring and evaluation: support monitoring and evaluation of national plans to ensure timely and cost effective delivery

4 POLITICAL

Success depends on political will and support for elimination of dog-mediated human rabies. Political will results from recognition of rabies elimination as a national, regional and global public good.

Includes activities for:

- Political support: politcal support is essential and most relevant during and following country instability (political upheaval, natural disasters, etc.)
- International support: encourage countries to request a resolution on dog-mediated human rabies elmination through the World Health Assembly (WHO) and the General Assembly of Delegates (OIE)
- Legal frameworks: establish and enforce appropriate legal frameworks for rabies notification and elimination
- Demonstrating impacts: demonstrate the compelling case for mass dog vaccination programmes and their impact on protecting and saving human lives
- Regional engagement: support active national and regional engagement and cooperation to commit to a rabies elimination programme and promote the exchanage of lessons learnt and experiences to leverage resources and engagement

5 RESOURCES

Rabies elimination activities frequently span several years and therefore require sustained, long-term support.

Includes activities for:

- Case for investment: promote the case for investment in dog-mediated human rabies elimination to persuade countries, policy makers and donors of the feasibility, merit and value of investing in rabies elimination strategies
- Business plans: prepare business plans based on the Global Framework for Dog-mediated Human Rabies Elimination
- Investment: encourage different forms of investment and partnerships (private and public investment) to leverage resources and engagement

CRITICAL SUCCESS FACTORS

- Long-term political and social commitment
- Community engagement
- Sustainable vaccination of 70% of the at-risk dog population
- Proof of concept: start small, scale up
- Sufficient resources, logistics and infrastructure
- Promote vaccine banks and other strategies for acquisition of rabies immunologicals to ensure sufficient supply of quality-assured rabies vaccines and human immunoglobulin
- Reach remote, rural and at-risk populations
- Conduct performance measurement at all levels
- Maintain trained and motivated implementation personnel

STRATEGIC VISION: *zero human deaths from dog-mediated rabies by 2030 in participating countries*

Mais duas importantes mensagens...

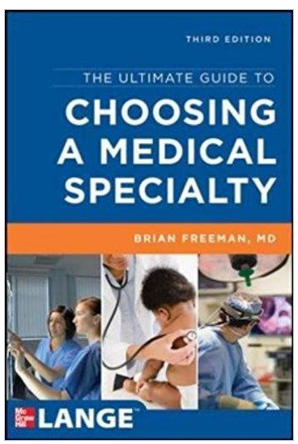
EDITORIAL 10.1111/j.1469-0691.2009.03134.x

Travel medicine, a speciality on the move

P. Gautret[1,2] and D. O. Freedman[3]

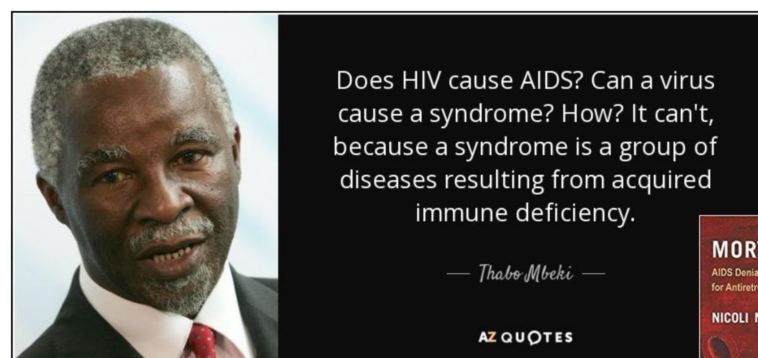
1) Service des Maladies Infectieuses et Tropicales, Hôpital Nord, AP-HM, Marseille, France, 2) EuroTravNet, the European Centre for Disease Prevention and Control corresponding network for tropical and travel medicine (http://www.eurotravnet.eu) and 3) GeoSentinel, the Global Surveillance Network of the International Society of Travel Medicine, University of Alabama at Birmingham, Birmingham, AL, USA (http://www.geosentinel.org)

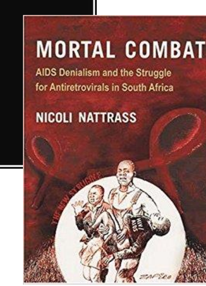
International Society of Travel Medicine 1991-2016
Promoting healthy travel worldwide



Trending story detected by Trendolizer™
"Anti-vaccine activist claims Trump showed support during campaign"

Source:http://www.independent.co.uk/news/world/americas/donald-trump-anti-vaccine-autism-support-claim-a7437251.html





E, já agora, umas boas férias para todos, de preferência, livres de doenças e de perigosas charlatanices