

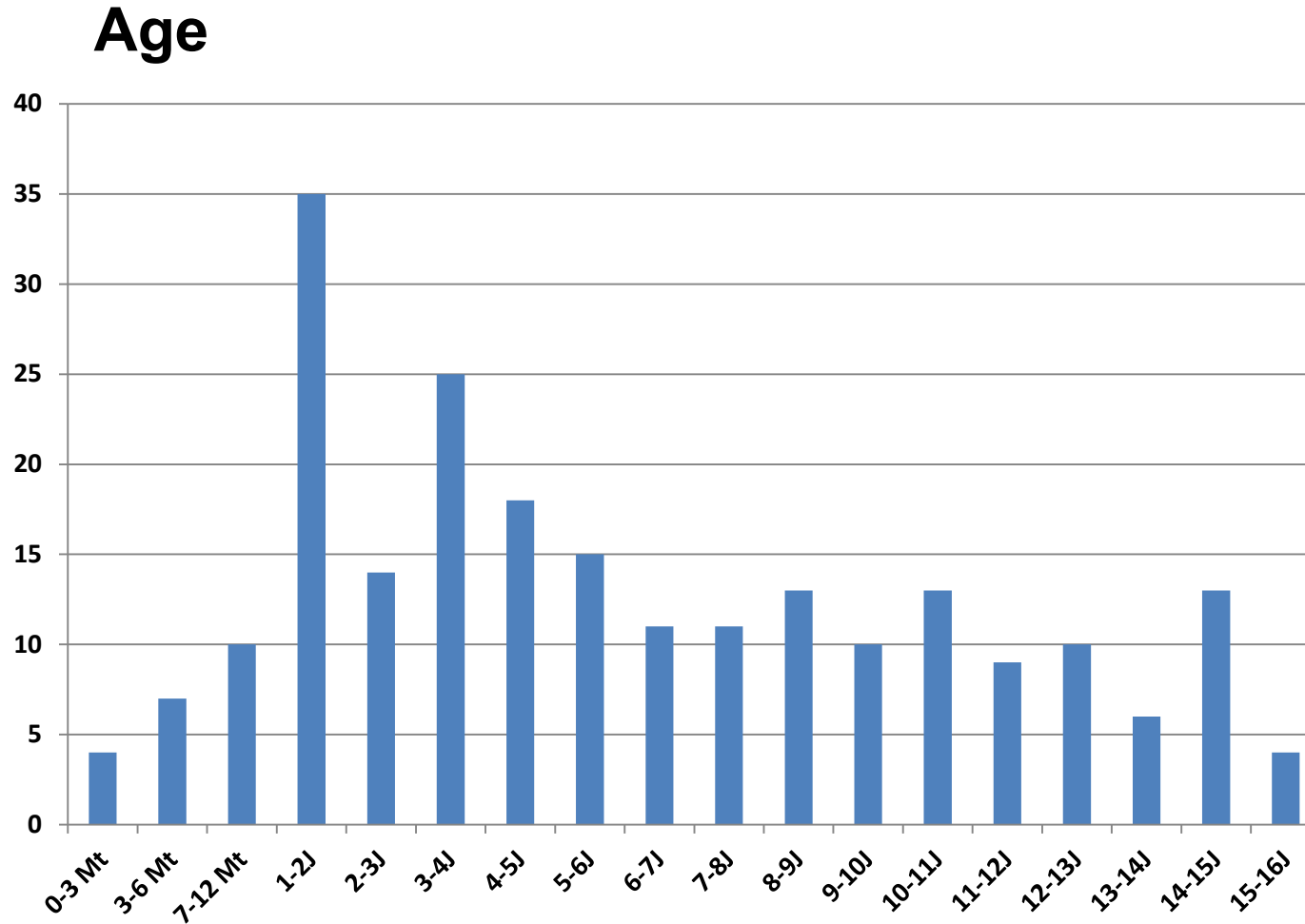
## Trips with Kids: Travelling with children < 2 years - immunization and others...

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*by Duppi's AdventureTours©*

# Pretravel advice for families Bern (n= 228)



**25%** < 2 years  
**50%** ≤ 5 years



## Travel with children – Travel for children?

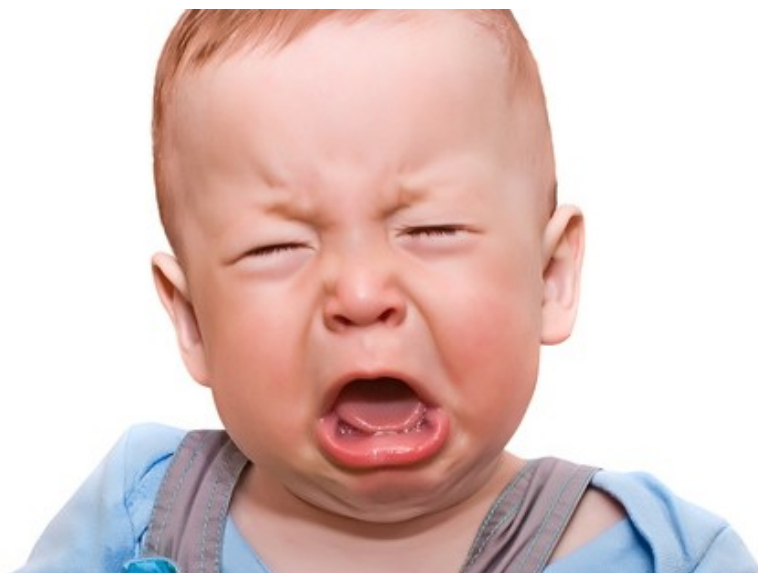
? destination  
way of travelling  
length of stay  
season

appropriate for children ?



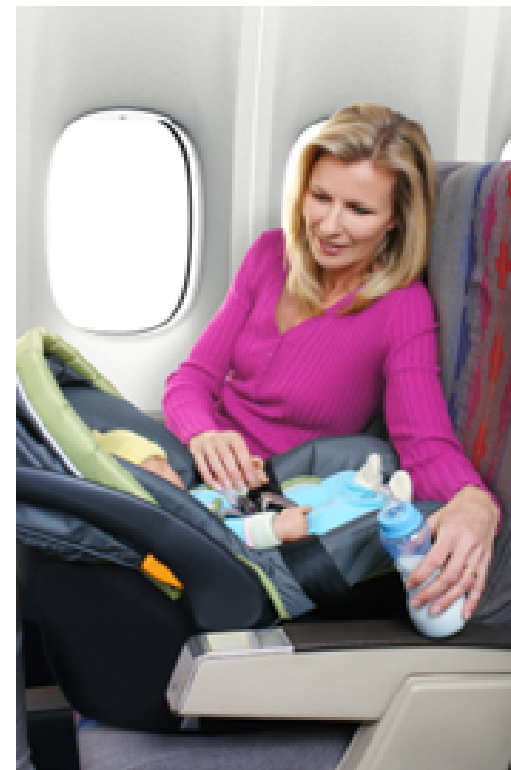
**Travel with children –  
Travel for children?**

**Less is more !**



## Flying Infants

- pressure balance
- security
- eating/drinking
- sleep (sedation?)



When to flight:

healthy neonate:  $\geq 2$  weeks

cave: infant  $< 6$ mths with acute respiratory infection: risk apnoe  $\uparrow$

preterm  $< 32$  GA:  $> 6$  mths, short distance

# Case

Family travelling to Kamerun visiting relatives for 7 weeks (jan-fev), leaving in 6 weeks

mother: grew up there

child1: 28 months

child2: 7 months

father: not travelling

Immunisation:

Routine immunisation: up to date?  
early bird (measles)?

Special consideration: Yellow Fever  
Meningococci  
HAV  
Rabies

Moscitos

# Vaccination cards

child1: 28 mths

	2	4	6	12	15	18	24
DTPaPolioHibHBV	X	X	X		X		
PCV13	X	X		X			
MMR				X		X	
MenC				X			
ACWYMen							X

child2: 7 mths

	2	4	6
DTPaPolioHibHBV	X	X	
PCV13	X	X	

## Empfohlene Basisimpfungen 2020

Stand 2020

Empfehlungen der Eidgenössischen Kommission für Impffragen und des Bundesamtes für Gesundheit.

Alter	Diphtherie (D/d) <sup>1)</sup> Tetanus (T) <sup>2)</sup> Pertussis (P <sub>a</sub> /p <sub>a</sub> ) <sup>1)</sup>	<i>Haemophilus influenzae</i> Typ b (Hib)	Polio- myelitis (IPV) <sup>5)</sup>	Hepa- titis B (HBV)	Pneumo- kokken	Masern (M) Mumps (M) Röteln (R)	Varizellen (VZV)	Humane Papilloma- viren (HPV)	Influenza
<b>2 Monate</b>	DTP <sub>a</sub>	Hib	IPV	HBV <sup>7)</sup>	PCV13				
<b>4 Monate</b>	DTP <sub>a</sub>	Hib	IPV	HBV <sup>7)</sup>	PCV13				
<b>9 Monate</b>						MMR <sup>10)</sup>			
<b>12 Monate *</b>	DTP <sub>a</sub>	∩Hib	IPV	HBV <sup>7)</sup>	PCV13	MMR <sup>10)</sup>			
<b>4–7 Jahre</b>	DTP <sub>a</sub> <sup>1) 3)</sup>		IPV <sup>5)</sup>			11)			
<b>11–14/ 15 Jahre</b>	dTp <sub>a</sub>		6)	HBV <sup>7) 8)</sup>		11)	VZV <sup>12)</sup>	HPV <sup>14)</sup>	
<b>25 Jahre</b>	dTp <sub>a</sub> <sup>4)</sup>		6)	9)		11)	13)		
<b>45 Jahre</b>	dT <sup>4)</sup>		6)	9)		11)			
<b>≥ 65 Jahre</b>	dT <sup>4)</sup>		6)	9)					jährlich



# Vaccination cards

child1: 28 mths

	2	4	6	12	15	18	24
DTPaPolioHibHBV	X	X	X		X		
PCV13	X	X		X			
MMR				X		X	
MenC				X			
ACWYMen							X

Yellow fever: ✓

HAV: ✓

Rabies:

# RABIES: THE FACTS

## VIRUS TRANSMISSION



Saliva of infected animals



99% of human cases are caused by **dog bites**

The virus attacks the brain  
Rabies is **fatal** once symptoms appear



## TREATMENT



Thorough washing of the wound with soap, and, vaccine injections can avoid symptoms and **save lives**.

**Seek immediate** medical care if bitten.

## HOW TO PREVENT RABIES TRANSMISSION FROM DOGS?



Raise public awareness

Learn **dog body language**



**NO DOG BITE = NO RABIES**

## FATALITIES

Rabies affects **poor rural communities** mostly in Asia and Africa



**One death every:**



**40%** of the victims are children younger than 15

## VACCINATING DOGS SAVES HUMAN LIVES

**Rabies is 100% preventable**



Vaccinating **70%** of dogs **breaks rabies transmission cycle** in an area at risk

Every dog owner is concerned



28 September • World Rabies Day 2015 • #rabies

# Vaccination cards

child1: 28 mths

	2	4	6	12	15	18	24
DTPaPolioHibHBV	X	X	X		X		
PCV13	X	X		X			
MMR				X		X	
MenC				X			
ACWYMen							X

Yellow fever: ✓

HAV: ✓

Rabies: ✓

# Vaccination cards

child2: 7 mths

	2	4	6
DTPaPolioHibHBV	X	X	
PCV13	X	X	

MMR:

Yellow fever:

HAV:

Rabies:

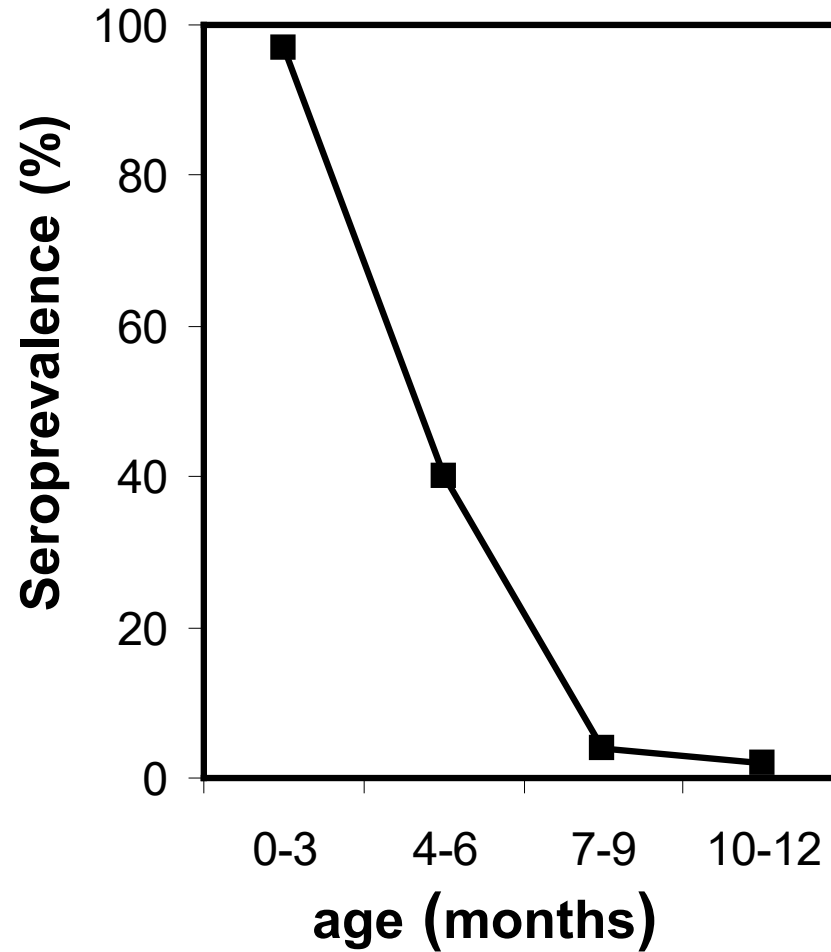
Meningococci:

# What facts about age limits for vaccines are correct?

- a) Is determined by incompetence of the immune system of infants
- b) Is determined by study designs
- c) Is determined by side effects
- d) Is determined by indication
- e) Differ between inactivated and live attenuated vaccines

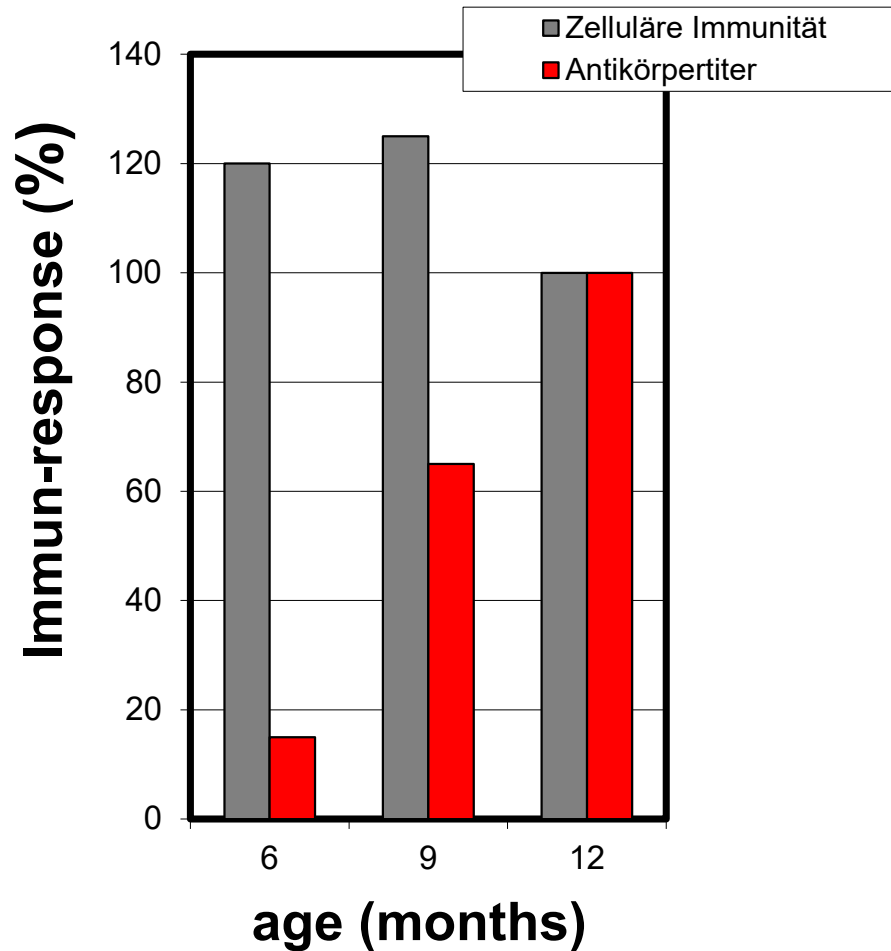
# Preponing Measles Vaccination: Rational I

Meales IgG in infants

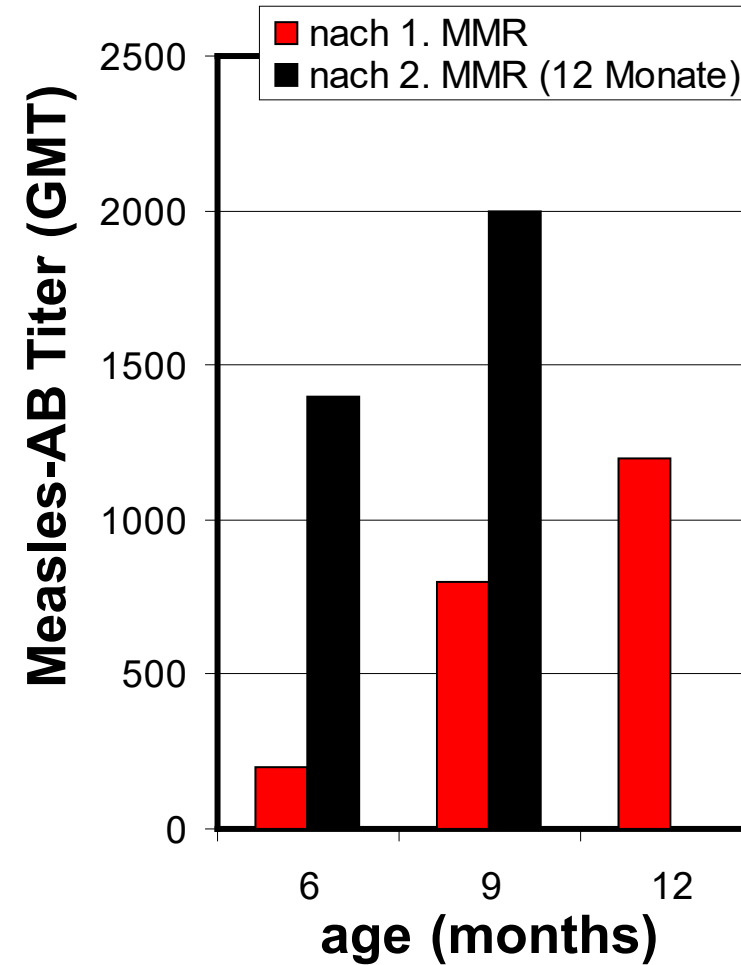


# Preponing Measles Vaccination: Rational II

Response after 1. MMR dose



Response after 2. MMR dose



Gans H et al. *J Infect Dis* 2001;184:817

# Vaccines: age limits

	product(s)	licensed world	licensed CH	comments
<b>FSME</b>	FSME-Immun® Encepur®	1 year	1 year	< 16y FSME-Immun junior < 12y Encepur N Kinder
<b>Yellow Fever</b>	Stamaril®	6 months	9 months	
<b>Hepatitis A</b>	Havrix® Epaxal®	1 year	1 year	
<b>Hepatitis A+B</b>	Twinrix®	1 year	1 year	1-15y: 2 doses
<b>Japanese Encephalitis</b>	JE-Vax®	2 months	1 year	< 3 y ½ Dosis
<b>MMR</b>	Priorix® MMR-II®	6 months	9 months	< 9 months 3 doses, 2. dose ≥ 12 months
<b>Meningokokken A,C,W-135,Y (Konjugat)</b>	Menveo®	2 months	2 years	
<b>Typhus abdominalis</b>	Vivotif® Typhim Vi®	2 years 2 years	6 years 2 years	
<b>Rabies</b>	Rabipur®	birth	birth	
<b>Rotavirus</b>	Rotarix (po)	6 weeks	-	3 doses up to 24 weeks



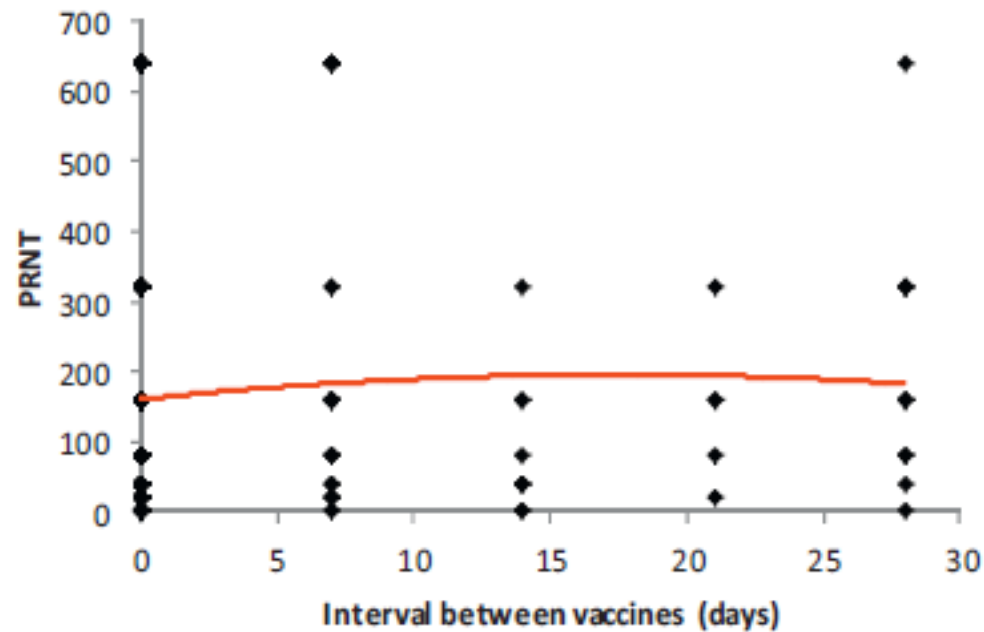
# Vaccination cards

child2: 7 mths

	2	4	6
DTPaPolioHibHBV	X	X	
PCV13	X	X	

MMR: ✓  
Yellow fever: (✓)  
HAV:  
Rabies:  
Meningococci:

Observational study on immune response to yellow fever and measles vaccines in 9 to 15-month old children. Is it necessary to wait 4 weeks between two live attenuated vaccines?



**Fig. 2.** Qualitative Plaque reduction neutralization tests (PRNT) to yellow fever by vaccination interval between vaccinations and trend line.

# Vaccination cards

child2: 7 mths

	2	4	6
DTPaPolioHibHBV	X	X	
PCV13	X	X	

MMR: ✓  
Yellow fever: (✓)  
HAV: ∅  
Rabies: ✓  
Meningococci: ✓

# Insect repellents



Many repellents contain DEET as the active ingredient. The concentration of DEET varies considerably among products. The duration of protection varies with the DEET concentration; higher concentrations protect longer. Products with DEET concentration >50% do not offer a marked increase in protection time. The American Academy of Pediatrics recommends that  $\leq 30\%$  DEET should be used on children aged >2 months.

- Avoid the child's eyes and mouth, and apply sparingly around the ears.
- Do not apply repellent to children's hands, since children tend to put their hands in their mouths.
- Heavy application and saturation are generally unnecessary for effectiveness. If biting insects are not repelled by a thin film of repellent, then apply a bit more.
- After returning indoors, wash treated skin with soap and water or bathe. This is particularly important when repellents are used repeatedly in a day or on consecutive days.

and long sleeves while outdoors in areas where malaria is transmitted. Clothing and mosquito nets can be treated with insect repellents such as permethrin, a repellent and insecticide that

# Pharmacy

Thermometer

Antipyretics, Analgetics: Paracetamol, oral formulations  
15-20mg/kg/dose x4/d

Rehydration: Normolytoral®, Elotrans®

Antiemetic: ? Meclozin (Itinerol B6®)  
NO loperamid

Nose drops: NaCl drops

Antipruritics: Feniallerg®, Xyzal®

Disinfectants, wound dressing etc.

Antibiotics ?

# Take home: Travelling with children

Less is more

Immunisation: routine shots completed  
shorten intervals  
prepone vaccine doses

Live vaccines: same time or 4 weeks apart (?), but give anyway what is needed

Behaviour risks of children ↑: animal contacts  
eating  
trauma

Use repellents as indicated

Take drugs already used to, oral formulations