

Supplemental Material to:

Samuel Aballéa, Aurélie Millier, Sibilia Quilici, Stuart Carroll,
Stavros Petrou and Mondher Toumi

**A critical literature review of health economic evaluations
in rotavirus vaccination**

2013; 9(6)

<http://dx.doi.org/10.4161/hv.24253>

www.landesbioscience.com/journals/vaccines/article/24253

Supplementary Digital Content

Table 1. Results of CEA or CUA.....	2
Table 2. Vaccine efficacy data used in economic studies reviewed - Rotarix only	7
Table 3. Vaccine efficacy data used in economic studies reviewed - RotaTeq only	9
Table 4. Vaccine efficacy data used in economic studies reviewed - Rotarix & RotaTeq	10
Table 5. RVGE incidence data used in economic studies reviewed	12
Table 6. Average yearly incidence of RVGE-related hospitalization in economic studies reviewed	13
Table 7. Average yearly incidence of physician visits in economic studies reviewed.....	15
Table 8. Average yearly incidence of emergency department visits in economic studies reviewed.....	16
Table 9. Annual death rate in economic studies reviewed	17
Table 10. Inputs and sources used by studies using QALYs and DALYs.....	18

Table 1. Results of CEA or CUA

CONTINENT	REF	AUTHOR	YEAR	COUNTRY	VACCINE	PERSPECTIVE	IC PER CASE AVOIDED	IC PER HOSP AVOIDED	IC PER QALY GAINED	IC PER LIFE-YEAR GAINED	IC PER LIFE SAVED	IC PER DALY AVERTED
Europe	[13]	Fruytier	2006	Belgium	RX	TPP & soc.	-	-	TPP €51,000 Soc. dominant	-	-	-
	[15]	Bilcke	2008	Belgium	RX & RQ	TPP & soc.	RX TPP €167 RX Soc. €16 RQ TPP €219 RQ Soc. €63	RX TPP €2,083 RX Soc. €196 RQ TPP €2,479 RQ Soc. €719	RX TPP €51,030 RX Soc. €7,572 RQ TPP €65,767 RQ Soc. €30,227	RX TPP €700,102 RX Soc. €34,396 RQ TPP €912,490 RQ Soc. €146,430	RX TPP €32,020,502 RX Soc. €1,572,838 RQ TPP €41,737,262 RQ Soc. €6,702,022	-
	[16]	Nohynek	2009	Finland	RX & RQ	TPPa) & Soc.	-	-	RQ TPP €45,199 RX TPP €25,218	-	-	-
	[19]	Melliez	2007	France	RX & RQ	Soc.	-	€6,547	€138,693 RQ €151,000 RX €98,000	€298,401	-	-
	[20]	Standaert	2008	France	RX	Limited soc.	€ 212	€2,656	€ 44,583	-	€ 5,642,719	-
	[22]	Hammerschmidt	2007	Germany	RX	soc.	-	-	€3,770	-	-	-
	[23]	Buesch	2007	Germany	RQ	TPP	78 €	€1,406	NA	-	-	-
	[25]	Brüggenjürgen	2009	Germany	RQ	Soc.	All cases €66 Cases seeking medical €148 GP case €178	€ 1 076	-	-	-	-
	[26]	Syriopoulou	2011	Greece	RQ	TPP	No ICER is provided in the base-case analysis					
	[27]	Redmon	2009	Ireland	RX	TPP	-	€228	€13,064	€1,049,129	-	-
	[28]	Tilson	2011	Ireland	RX	TPP	€81	€759	€112,048	€11,103,154	-	-
	[29]	Panatto	2009	Italy	RX	TPP & soc.	-	-	TPP 9,186€ Soc. dominant	-	-	-
	[30]	Giammancio	2009	Italy	RX or RQ	TPP & soc.	€ 96.44	-	-	-	-	-
	[32]	Goossens	2007	Netherlands	RX	soc.	-	-	€21,900	-	-	-
	[33]	Zomer	2008	Netherlands	RX & RQ	TPP or soc.	-	-	-	Soc. €204,000 TPP €211,000	-	Soc. €119,000 TPP €124,000
	[34]	Mangen	2010	Netherlands	RX & RQ	TPP & soc.	RX TPP €260 RX soc. €240 RQ TPP €300 RQ soc. €280	RX TPP €3,800 RX soc. €3,600 RQ TPP €4,100 RQ soc. € 3,800	-	RX TPP €95,000 RX soc. €88,000 RQ TPP €100,000 RQ soc. €94,000	RX TPP €3,800,000 RX soc. €3,500,000 RQ TPP €4,000,000 RQ soc. €3,700,000	RX TPP €53,000 RX soc. €49,000 RQ TPP €58,000 RQ soc. €54,000
	[35]	Rozenbaum	2011	Netherlands	RQ	Soc.	-	-	Vacc. cost of - €50 €7,965 - €75 €46,717 - €100 €85,468	-	-	-
	[36]	André	2008	Portugal	RX	TPP	-	-	\$25,854	-	-	-
	[38]	Rubio-Perez	2011	Spain	RQ & RX	TPP & soc.	RQ soc.: €237.28 RQ TPP: €389.84 RX soc: €121.88 RX TPP: €273.57	RQ soc.: €7,136.53 RQ TPP: €11,724.91 RX soc: €5,099.67 RX TPP: €11,446.52	RQ soc. €45,624.83 RQ TPP: €74,958.99 RX soc. €23,435.93 RX TPP: €52,603.33	-	-	-
	[39]	Largerion	2006	UK	RQ	TPP & soc.	-	Soc. £0 - 1,050 TPP £2,462 - £3,515	-	-	-	-
[40]	Jit	2007	UK	RX & RQ	TPP	RQ £525 RX £391	RQ £3,803 RX £3,647	RQ £79,900 RX £61,000	-	RQ £15,634,105 RX £14,992,022	-	
[41]	Lorgelly	2008	UK	RX or RQ	TPP & Soc.	TPP £60.41	TPP £2,526.54	-	-	TPP £177,212.00	-	

CONTINENT	REF	AUTHOR	YEAR	COUNTRY	VACCINE	PERSPECTIVE	IC PER CASE AVOIDED	IC PER HOSP AVOIDED	IC PER QALY GAINED	IC PER LIFE-YEAR GAINED	IC PER LIFE SAVED	IC PER DALY AVERTED	
	[42]	Martin	2009	UK	RX	TPP & soc.	-	-	TPP £23,298 Soc. £11,459	-	-	-	
	[44]	Jit	2009	Belgium	RX & RQ	TPP (soc. in SA)	-	-	about €65,000	-	-	-	
				UK					about €105,000				
				Finland					about €15,000				
France				about €70,000									
Netherlands	about €45,000												
[80]	Atherly	2009	Europe	RX	TPP	-	-	-	-	-	\$7 per dose \$201 \$1.25 per dose 42 cumulative 1\$05		
Latin America	[45]	Soárez	2008	Brazil	RX	TPP & Soc.	Soc. R\$ 37 TPP R\$ 57	-	-	Soc. R\$ 1,329 TPP R\$ 2,014	Soc. R\$ 91,670 TPP R\$ 138,947	-	
	[46]	Constenla	2008	Brazil	RX	TPP	-	\$428	-	NA	\$21,643	\$643	
	[47]	Valentim	2009	Brazil	RX	TPP & Soc.	Soc. €8 TPP €14	-	-	Soc. €292 TPP €504	Soc. €20,154 TPP €35,350	-	
	[48]	Constenla	2006	Chile	RX	TPP	-	\$722	-	-	\$446,154	\$11,261	
	[49]	De la Hoz	2010	Colombia	RX & RQ	Soc.	-	NA	-	-	Rx \$18,414 Rq \$38,649 Rq/Rx \$217,306	Rx \$8,943 Rq \$9,836 Rq/Rx \$7,787	
	[50]	Valencia-Mendoza	2008	Mexico	RQ	TPP	\$968.23	\$14,814.88	-	\$1,719.93 (not discounted) \$4,283.75 (discounted LY)	\$122,058.40	-	
	[51]	Constenla	2009	Mexico	RX	TPP	-	\$ 1,839	-	-	US\$ 39,102	US\$ 1,139	
	[52]	Constenla	2008	Panama	RX	Soc.	-	\$355	-	-	\$16,643	\$487	
	[53]	Clark	2009	Peru	RX	Government	-	-	-	-	-	Schedule 1 \$621 Schedule 2 \$615 Schedule 3 \$581	
	[54]	Constenla	2006	Venezuela	RX	Soc. assumed, but TPP	-	\$1,203	-	-	TPP \$46,698	TPP \$1,371	
	[55]	Rheingans	2007	Argentina	RX	TPP	-	-	-	-	-	\$193,609	\$5,419
				Brazil								\$40,212	\$1,196
				Chile								\$422,497	\$10,656
Dom. Rep.				\$14,956								\$447	
Honduras				\$8,972								\$269	
Mexico				\$71,052								\$2,070	
Panama				\$44,798								\$1,311	
Venezuela	\$41,408	\$1,216											
[79]	Rheingans	2009	America	RX	TPP	-	-	-	-	-	Low income \$122 Lower-middle income \$321 Upper-middle income \$274 All countries \$109		
[80]	Atherly	2009	Region of Americas	RX	TPP	-	-	-	-	-	\$7 per dose 289\$ \$1.25 per dose 26\$ cumulative 118\$		
Asia/Pac	[56]	Newall	2007	Australia	RX & RQ	TPP & Soc.	-	RX TPP \$2,775	RX TPP	-	RX TPP\$63.3 million	-	

CONTINENT	REF	AUTHOR	YEAR	COUNTRY	VACCINE	PERSPECTIVE	IC PER CASE AVOIDED	IC PER HOSP AVOIDED	IC PER QALY GAINED	IC PER LIFE-YEAR GAINED	IC PER LIFE SAVED	IC PER DALY AVERTED
ific								RQ TPP \$3,105	child only \$122,528 1 caregiver \$60,073 2 caregivers \$39,791 RQ TPP child only \$138,045 1 caregiver \$67,681 2 caregivers \$44,831 RX and RQ Soc. Dominate no intervention		RQ TPP \$71 million	
	[57]	Wang	2009	China	not vaccine specific	Patient & Soc.	Net savings per case avoided Soc.\$1 Patient \$20	-	-	-	-	-
	[58]	Ho	2008	Hong Kong	RQ	Government	-	-	-	-	-	single cohort, with waning dominant for vacc. cost up to \$60 per course, US\$47580 at \$90 per course
	[59]	Rose	2009	India	RX	TPP	-	-	-	8,023 rupees	-	-
	[60]	Esposito	2010	India	RX	TPP	-	-	-	-	\$0.15 per dose CS \$0.28 per dose \$0 \$1 per dose \$662.94 \$7 per dose \$6,199.88	\$0.15 per dose CS \$0.28 per dose \$0 \$1 per dose \$21.41 \$7 per dose \$200.21
	[61]	Chodick	2009	Israel	RX & RQ	TPP & Soc.	-	-	RQ TPP \$50,848 RQ Soc. \$30,674 RX TPP \$31,396 RX Soc. \$10,995	-	-	-
	[62]	Igarashi	2009	Japan	RX	Soc.	-	-	JPY 120,178	-	-	-
	[63]	Kang	2010	Korea	RQ	TPP & Soc.	NO ICER is given in the base-case analysis					
	[64]	Flem	2009	Kyrgyzstan	RX	National & Soc.	-	-	-	-	-	Soc. \$0.30/course CS \$0.60/course CS \$1.00/course CS \$2.00/course CS \$3.00/course 22 \$5.00/course \$78 \$7.00/course \$134 \$10.00/course \$218 Gvnmnt \$0.30/course CS \$0.60/course CS \$1.00course CS \$2.00/course \$20 \$3.00/course \$48 \$5.00/course \$104 \$7.00/course \$160 \$10.00/course \$243

CONTINENT	REF	AUTHOR	YEAR	COUNTRY	VACCINE	PERSPECTIVE	IC PER CASE AVOIDED	IC PER HOSP AVOIDED	IC PER QALY GAINED	IC PER LIFE-YEAR GAINED	IC PER LIFE SAVED	IC PER DALY AVERTED
	[65]	Milne	2009	New-Zealand	RQ	TPP, Soc., Government	(in year 5) Society \$305 TPP \$444 Government \$488	(in year 5) Soc. \$2,509 TPP \$3,648 Government \$4,015	(in year 5) Soc. \$46,092 TPP \$67,007 Government \$73,751	(in year 5) Soc. \$143,097 TPP \$208,027 Government \$228,964	(in year 5) Soc. \$3,756,803 TPP \$5,461,436 Government \$6,011,114	-
	[66]	Wu	2009	Taiwan	RX & RQ	TPP & Soc.	RX TPP \$135 RX Soc. \$103 RQ TPP \$150 RQ Soc. \$117	-	-	RX \$453.24 RQ \$453.24	-	-
	[67]	Chotivitay atarakorn	2010	Thailand	RX	Government	-	-	-	-	\$11,800	\$370
	[68]	Isakbaeva	2006	Uzbekistan	RX	TPP & Soc.	-	-	-	-	price \$2 \$3,103 price \$5 \$8,031 price \$10 \$16,245 price \$20 \$32,673	price \$2 \$94 price \$5 \$242 price \$10 \$489 price \$20 \$984
	[69]	Fischer	2005	Vietnam	RX	TPP & Soc.	-	-	-	-	\$5/course \$1,330 \$10/course \$3,015 \$15/course \$4,701 \$20/course \$6,385	\$5/course \$40 \$10/course \$91 \$15/course \$141 \$20/course \$192
	[70]	Kim	2009	Vietnam	RX	TPP & Soc.	-	-	-	-	-	TPP \$550 soc. \$540
	[71]	Podewils	2005	Asia	RX	TPP	-	-	-	-	(low GNI / middle GNI / high GNI) \$2 per course \$664 / \$523 / cost saving \$10 per course \$3,574 / \$6,875 / cost saving \$20 per course \$7,212 / \$14,815 / \$59,734 \$40 per course \$14,488 / \$30,695 / \$308,616 \$60 per course \$21,764 / \$46,575 / \$557,498	(low GNI / middle GNI / high GNI) \$2 per course \$19.47 / \$15.32 / cost saving \$10 per course \$105 / \$201 / cost saving \$20 per course \$212 / \$434 / \$1,653 \$40 per course \$425 / \$899 / \$8,541 \$60 per course \$638 / \$1,364 / \$15,428
	[80]	Atherly	2009	Southeast Asian region	RX	TPP	-	-	-	-	-	\$7 per dose \$47 \$1.25 per dose \$28 cumulative \$54
				Western Pacific region			-	-	-	-	-	\$7 per dose \$210 \$1.25 per dose \$29 cumulative \$81
				Eastern Mediterranean region			-	-	-	-	-	\$7 per dose \$419 \$1.25 per dose \$66 cumulative \$33

CONTINENT	REF	AUTHOR	YEAR	COUNTRY	VACCINE	PERSPECTIVE	IC PER CASE AVOIDED	IC PER HOSP AVOIDED	IC PER QALY GAINED	IC PER LIFE-YEAR GAINED	IC PER LIFE SAVED	IC PER DALY AVERTED
	[79]	Rheingans	2009	Southeast Asia	RX	TPP	-	-	-	-	-	Low income \$109 Lower-middle income \$348 All countries \$112
				Western Pacific			-	-	-	-	-	Low income \$142 Lower-middle income \$280 Upper-middle income \$1336 All countries \$260
				Eastern Mediterranean			-	-	-	-	-	Low income \$104 Lower-middle income \$234 Upper-middle income \$340 All countries \$143
USA	[72]	Widdowson	2007	USA	RQ	TPP & Soc.	Soc. \$138 TPP \$336	-	-	Soc. \$ 197,190 TPP \$470,729	-	-
	[73]	Shim	2009	USA	RX & RQ	TPP & Soc.	TPP \$77.30 Soc. dominant	-	TPP, RQ 1 child \$192,100 1 child + 1 caregiver \$104,610 TPP, RX 1 child \$148,270 1 child + 1 caregiver \$80,740)	-	TPP \$7,482,000 Soc. dominant	-
	[74]	Weycker	2009	USA	RX vs. RQ	TPP & Soc.	No ICER in the base-case analysis RX dominates RQ.					
Africa	[75]	Ortega	2009	Egypt	RX	MoH	\$30.22 MOH	-	-	-	-	\$363 MOH
	[76]	Tate	2009	Kenya	RX	Soc.	-	-	-	-	price \$2 0 price \$10 \$7500 price \$16 \$14000	price \$2.07 0 price \$7.35 166 price \$9.26 227 price \$20.31 580
	[77]	Berry	2010	Malawi	RX	TPP	-	-	-	-	GAVI alliance price USD 155.42 Market price USD 2288.73	GAVI alliance price USD 5.07 Market price USD 74.73
	[78]	Tate	2011	Uganda	RX	TPP	-	-	-	-	203412 Ushs (\$123)	CS (-6567Ushs, -\$3.96)
	[79]	Rheingans	2009	Africa	RX	TPP	-	-	-	-	-	Low income \$61 Lower-middle income \$561 Upper-middle income \$351 All \$67
	[80]	Atherly	2009	African region	RX	TPP	-	-	-	-	-	\$7 per dose 78\$ \$1.25 per dose 14\$ cumulative 22\$
	[80]	Atherly	2009	All GAVI Alliance regions	RX	TPP	-	-	-	-	-	\$1 per dose \$118 \$1.25 per dose \$21 cumulative cost \$43

Table 2. Vaccine efficacy data used in economic studies reviewed - Rotarix only

CONTINENT	REF	AUTHOR	COUNTRY	YEAR	VACCINE	VACCINE EFFICACY: ASSUMPTIONS
Europe	[20]	Standaert	France	2008	Rotarix	(1st year ; 2nd year) rotavirus specific diarrhoea 87.1% ; 71.9% GP visits 91.8% ; 76.2% Hospitalization 100% ; 92.2% Nosocomial 100% ; 92.2%
	[22]	Hammerschmidt	Germany	2007	Rotarix	Any grade of severity 87% Severe cases 96% Inpatient cases 100%
	[27]	Redmon	Ireland	2009	Rotarix	(post dose 1 / post dose 2 YR 1/ post dose 2 YR 2) any RVGE: 87.1% / 87.1% / 71.9% severe RVGE: 89.8% / 91.8% / 76.2% hospitalization: 89.8% / 100% / 92.2% nosocomial: 89.8% / 100% / 92.2%
	[29]	Panatto	Italy	2009	Rotarix	not reported
	[42]	Martin	UK	2009	Rotarix	(1st year ; 2nd year) RVGE: 87.1% ; 71.9% GP visits: 91.8% ; 76.2% Hospitalization: 100% ; 92.2% Nosocomial infections: 100% ; 92.2%
Latin America	[55]	Rheingans	Argentina	2007	Rotarix	death: 85% hospitalization: 85% outpatient: 77.5%
	[45]	Soárez	Brazil	2008	Rotarix	2 doses Against mild diarrhoea 63% Against moderate diarrhoea 63 % Against severe diarrhoea 84.7 % 1 dose Against mild diarrhoea 50% Against moderate diarrhoea 50% Against severe diarrhoea 81.1%
	[46]	Constenla	Brazil	2008	Rotarix	outpatient visits: 85% hospitalization: 85% death: 85%
	[47]	Valentim	Brazil	2009	Rotarix	not reported
	[48]	Constenla	Chile	2006	Rotarix	death: 85% hospitalization: 85% outpatient: 77.5%
	[51]	Constenla	Mexico	2009	Rotarix	outpatients visits 78% hospitalization 85% death 85%
	[52]	Constenla	Panama	2008	Rotarix	death: 85% hospitalization: 85% ambulatory: 85%
	[53]	Clark	Peru	2009	Rotarix	One/Two dose(s): 75% / 85% against severe disease 57% / 70% against non severe disease
	[54]	Constenla	Venezuela	2006	Rotarix	death: 85% hospitalization: 85%

CONTINENT	REF	AUTHOR	COUNTRY	YEAR	VACCINE	VACCINE EFFICACY: ASSUMPTIONS
Asia/Pacific	[59]	Rose	India	2009	Rotarix	ambulatory: 85% Efficacy against severe infection: - G and P proteins in common with Rotarix 0.908 - Either G or P in common with Rotarix 0.869 - Neither G nor P in common with Rotarix 0.714 (- overall: 0.804) Ratio of efficacy against any symptomatic rotavirus infection to efficacy against severe infection 0.873 Ratio of efficacy against a symptomatic infection to efficacy against severe infection 0.437 Efficacy lower by 37.5% after 1 dose only
	[60]	Esposito	India	2010	Rotarix	50% efficacy against death 50% efficacy against hospitalization 40% efficacy against clinic visit
	[62]	Igarashi	Japan	2009	Rotarix	not reported
	[64]	Flem	Kyrgyzstan	2009	Rotarix	hospitalization and deaths: 85% outpatient visits: 63%
	[67]	Chotivitayatarakorn	Thailand	2010	Rotarix	90% efficacy for prevention of rotavirus disease-associated deaths 85% efficacy for prevention of hospitalization 85% efficacy for preventing outpatient visits 65% efficacy for homecare
	[68]	Isakbaeva	Uzbekistan	2006	Rotarix	93% against deaths and hosp
	[69]	Fischer	Vietnam	2005	Rotarix	hospitalization and death 93% outpatient 78%
	[70]	Kim	Vietnam	2009	Rotarix	Serotype-specific vaccine efficacy (against severe gastroenteritis) G1P[8] 90.8% G3P[8], G4P[8], G9P[8] 86.9% G2P[4] and other combinations of G and P 45.4% Vaccine efficacy against severe gastroenteritis (adjusted for the serotype distribution) 77%, reduced to 43% after 4 yrs Vaccine efficacy against mild gastroenteritis, (not adjusted for the serotype distribution) 41%
	[71]	Podewils	Asia	2005	Rotarix	death: 93% hospitalization: 93% outpatient: 78% (1 year of life) 75% (after) only 1 dose: 50% of full course
Africa	[75]	Ortega	Egypt	2009	Rotarix	against overall disease: 64.5% (54.8-73.4) against hospitalization 79.1 (70.8-86.5)
	[76]	Tate	Kenya	2011	RotaTeq	Patients not seeking medical care: 71.3% Paediatric consultations: 86% Emergency visits: 93.7% Hospitalizations: 95.8% Nosocomial infections: 95.8% Deaths: 95.8%
	[77]	Berry	Malawi	2010	Rotarix	49.5% efficacy against severe rotavirus
	[78]	Tate	Uganda	2011	Rotarix	Against death 50% Against hospitalization 50% Against outpatient visit 40% One dose: 25%
	[79]	Rheingans	Africa America Eastern Mediterranean Europe Southeast Asia Western Pacific	2009	Rotarix	Against severe RV disease resulting in hospitalization: 85% Against mortality: 85% Against outpatient visits for severe disease: 85% Against outpatient visits for any severity: 70% Receiving one dose: 50% of that of a full course
	[80]	Atherly	Region of the Americas	2009	Rotarix	severe rotavirus disease resulting in hospitalizations or mortality was 85%

CONTINENT	REF	AUTHOR	COUNTRY	YEAR	VACCINE	VACCINE EFFICACY: ASSUMPTIONS
			European Region			Outpatient visits 78% on the basis of the mean efficacy against severe rotavirus gastroenteritis (85%) and any rotavirus gastroenteritis (70%) One dose was assumed to be 50% as efficacious as a full course Effectiveness reduction in subsequent seasons for mild cases: 0.04
			African region			
			Eastern			
			Mediterranean region			
			Southeast Asian region			
			Western Pacific region			
			All GAVI Alliance regions			

Table 3. Vaccine efficacy data used in economic studies reviewed - RotaTeq only

CONTINENT	REF	AUTHOR	COUNTRY	YEAR	VACCINE	VACCINE EFFICACY: ASSUMPTIONS
Europe	[14]	Dhont	Belgium	2008	RotaTeq	Hospitalizations reduction 95.8% Nosocomial infections reduction 95.8% GP/P visits reduction 86.0% Deaths reduction 95.8% Cases not seeking medical care reduction 86.0% Waning rate after 2 years 10.0%
	[17]	Trichard	France	2007	RotaTeq	not reported
	[18]	Huet	France	2007	RotaTeq	Hospitalizations 95.60% Emergency visits 93.90% GP/P visits 86.00% Nosocomial infections 95.60% Deaths 95.60% Cases not seeking care 86.00% Waning rate after 2 years 10.00%
	[21]	Bénard	France	2009	RotaTeq	Patient not seeking medical care 74% Physician office visits 86% Emergency room visits 93.7 % Hospitalizations 95.8 % Nosocomial infections 95.8 % Death 95.8 %
	[23]	Buesch	Germany	2007	RotaTeq	effectiveness characteristics up to 2 years post vaccination: GP/P visits 86.0% Hospitalization 95.6% Waning: 10% after 2 years
	[24]	Greiner	Germany	2008	RotaTeq	not reported
	[25]	Brüggenjürgen	Germany	2009	RotaTeq	Patient not seeking medical care 74% GP office visits 86% Hospitalizations 95.8 % Nosocomial infections 95.8 % Death 95.8%
	[26]	Syriopoulou	Greece	2011	RotaTeq	Patients not seeking medical care: 71.3% Paediatric consultations: 86% Emergency visits: 93.7% Hospitalizations: 95.8% Nosocomial infections: 95.8% Deaths: 95.8%
	[31]	Welte	Netherlands	2001	RotaTeq	Mild gastroenteritis 55% Inpatient treatment 80%

CONTINENT	REF	AUTHOR	COUNTRY	YEAR	VACCINE	VACCINE EFFICACY: ASSUMPTIONS
	[39]	Largeron	UK	2006	RotaTeq	Outpatient treatment 65% not reported
Latin America	[50]	Valencia-Mendoza	Mexico	2008	RotaTeq	Medical visits 1st year 87.7% Medical visits 2nd year 73.8% Hospital admissions 1st year 96.3% Hospital admissions 2nd year 86.9%
Asia/Pacific	[58]	Ho	Hong Kong	2008	RotaTeq	Efficacy of RV vaccine 0–6 months 75% of vaccine efficacy Preventing hospitalization 0.5–5 years 0.96 Preventing outpatient clinic visit 0.5–5 years 0.895
	[63]	Kang	Korea	2010	RotaTeq	Hospitalizations: 95.8% Emergency visits: 93.7% Office and clinic visits: 86% Work loss days: 86.6%
USA	[72]	Widdowson	USA	2007	RotaTeq	Mild/moderate gastroenteritis 65% Death 90% Hospitalization 90% Emergency department visit 90% Office visit 85%

Table 4. Vaccine efficacy data used in economic studies reviewed - Rotarix & RotaTeq

CONTINENT	REF	AUTHOR	COUNTRY	YEAR	VACCINE	VACCINE EFFICACY: ASSUMPTIONS
Europ	[15]	Bilcke	Belgium	2008	Rotarix vs. RotaTeq	Rotarix: hosp. and nosocomial infections 100% outpatient GP and pediatrician 92% no medical care 87% deaths 96% RotaTeq: hosp. and nosocomial infections 96% outpatient GP and pediatrician 87% no medical care 73% deaths 98%
	[16]	Nohynek	Finland	2009	Rotarix vs. RotaTeq	severe RV diarrhoea requiring rehydration: >90% any RVGE: 60-70%
	[19]	Melliez	France	2007	Rotarix vs. RotaTeq	rotavirus diarrhoea regardless of severity: 0.70 severe forms: 0.85
	[28]	Tilson	Ireland	2011	Rotarix & RotaTeq	Rotarix Home treated cases 87.1% Cases treated in primary care 89.9% Hospitalizations 100% A&E 100% Rotarix Partial protection between the 1 st and 2 nd dose Home treated cases 78.4% Cases treated in primary care 80.9% Hospitalizations 90% A&E visits 90% RotaTeq Home treated cases 72.0% Cases treated in primary care 92.5% Hospitalizations 97.3% A&E 95.4%

CONTINENT	REF	AUTHOR	COUNTRY	YEAR	VACCINE	VACCINE EFFICACY: ASSUMPTIONS
						RotaTeq Partial protection between the 1 st and 2 nd dose Home treated cases 60.7% Cases treated in primary care 78.0% Hospitalizations 82% A&E visits 80.4% RotaTeq Partial protection between the 2 nd and 3 rd dose Home treated cases 62.2% Cases treated in primary care 79.9% Hospitalizations 84.0% A&E visits 82.4%
	[30]	Giammanco	Italy	2009	Rotarix & RotaTeq	Hospitalizations and emergency visits 90% At home visits 85% Protection efficacy 2 years after the vaccination 85%
	[33]	Zomer	Netherlands	2008	Rotarix & RotaTeq	Rotarix: severe: 84.7% (83% in second season, 90% in first season) RotaTeq: hospit and ED: 94.5% severe: 88% in second season
	[34]	Mangen	Netherlands	2010	Rotarix vs. RotaTeq	First dose (RotaTeq) Community-acquired, non-hospitalized RV-GE cases Pert(33%; 38%; 43%) Hospitalized and fatal RV-GE cases Pert(54%; 59%; 64%) First dose (Rotarix) RV-GE cases requiring no medical services Pert (80%; 87%; 92%) RV-GE cases requiring medical services Pert (84%; 90%; 95%) Second dose (RotaTeq) Community-acquired, non-hospitalized RV-GE cases Pert(34%; 39%; 44%) Hospitalized and fatal RV-GE cases Pert(76%; 81%; 86%) First season (after third/second dose) RV-GE cases requiring no medical service Pert(67%, 74%, 80%) / Pert (80%; 87%; 92%) RV-GE cases visiting a GP, but not being hospitalized Pert(74%, 86%, 93%) / Pert(84%, 92%, 96%) Hospitalized and fatal RV-GE cases Pert(91%, 96%, 98%) / Pert(82%, 100%, 100%) Second season RV-GE cases requiring no medical service Pert(55%, 63%, 69%) / Pert(64%, 72%, 77%) RV-GE cases visiting a GP, but not being hospitalized Pert(63%, 75%, 81%) / Pert(68%, 76%, 81%) Hospitalized and fatal RV-GE cases Pert(83%, 88%, 90%) / Pert(74%, 92%, 92%)
	[37]	Rubio-Terres	Spain	2011	Rotarix & RotaTeq	Non-severe (RotaTeq) 66.9% Severe (RotaTeq): 94.0% Any (Rotarix) 85.2%
	[40]	Jit	UK	2007	Rotarix vs. RotaTeq	Severe (RotaTeq) 66.9% Non-severe (RotaTeq) 94.0% Any (Rotarix) 85.2%
	[41]	Lorgelly	UK	2008	Rotarix & RotaTeq	any illness 73% severe illness 92%
Latin America	[49]	De la Hoz	Colombia	2010	Rotarix vs. RotaTeq	First dose efficacy (Rotarix & RotaTeq): 40% Second dose efficacy (Rotarix): 85%

CONTINENT	REF	AUTHOR	COUNTRY	YEAR	VACCINE	VACCINE EFFICACY: ASSUMPTIONS
						Second and third dose efficacy (RotaTeq): 60% Third dose efficacy (RotaTeq): 95% Vaccine efficacy for severe diarrhea (Rotarix): 85% Vaccine efficacy for severe diarrhea (RotaTeq): 95% Efficacy against death due to rotavirus diarrhea assumed to be similar to efficacy against severe disease and efficacy of partial schedules
Asia/Pacific	[56]	Newall	Australia	2007	Rotarix vs. RotaTeq	RotaTeq Hospitalization 95.8% EDV 93.7% GPV 86% Rotarix hospitalization 85% EDV 83.1% GPV 76.3%
	[57]	Wang	China	2009	not vaccine specific	any severe type of gastroenteritis caused by rotavirus 75% adverse event rate following immunization of 3% duration of protection: 5 yrs
	[61]	Chodick	Israel	2009	Rotarix vs. RotaTeq	RotaTeq mild cases: 73% RotaTeq severe cases: 92% Rotarix: 85%
	[66]	Wu	Taiwan	2009	Rotarix vs. RotaTeq	RotaTeq: Hospitalization 95.8% Emergency department visits 93.7% Physician office visits 86% All-cause AGE-related hospitalization 58.9% Rotarix: Hospitalization 85% Emergency department visits 83.1% Physician office visits 76.3% All-cause AGE-related hospitalization 42%
USA	[73]	Shim	USA	2009	Rotarix vs. RotaTeq	mild: 65% severe (including hosp): 90%
	[74]	Weycker	USA	2009	Rotarix vs. RotaTeq	Rotarix / RotaTeq One dose: Death/hospitalization/emergency department visit 90% / 48% Physician office/hospital outpatient visit 84% / 42% Mild (no medical attention) 71% / 36% Two doses: Death/hospitalization/emergency department visit 96% / 90% Physician office/hospital outpatient visit 84% / 84% Mild (no medical attention) 71% / 71% Three doses: Death/hospitalization/emergency department visit – / 96% Physician office/hospital outpatient visit – / 84% Mild (no medical attention) – / 71%

Table 5. RVGE incidence data used in economic studies reviewed

CONTINENT	REF	AUTHOR	COUNTRY	REPORTED	AVERAGE PER PERSON PER YEAR
Europe	[19]	Melliez	France	Incidence of RVGE (seeking med care) per month per child: 0.0068	0.0816

CONTINENT	REF	AUTHOR	COUNTRY	REPORTED	AVERAGE PER PERSON PER YEAR
	[20]	Standaert	France	300,000 RVGE cases among children <5 years, for a birth cohort of 750,000 children	0.08
	[27]	Redmon	Ireland	Per 1000 children annually: 80 RV infections	0.08
	[31]	Welte	Netherlands	Risk of RV-attributable Gastroenteritis over 5 years: 0.337 ¹	0.0674
	[33]	Zomer	Netherlands	58,000 cases in children <5 years annually, for a birth cohort of 190,000	0.061
	[34]	Mangen	Netherlands	Annual community-acquired RV in a non-vaccinated population for children < 5: 65,000 Assuming 889,364 children < 5	0.07
	[35]	Rozenbaum	Netherlands	Total number of community-acquired RV cases: 65,680 per million children Assuming 889,364 children < 5	0.066
	[41]	Lorgelly	UK	By year 5: cumulative incidence of rotavirus 70%	0.14
	[42]	Martin	UK	Community-acquired RV infections 10.35%	0.1035
Latin America	[45]	Soárez	Brazil	Cumulative incidence of diarrhoea over 5 yrs: 1 (assume not repeated episodes) including mild diarrhoea 0.7437, Moderate diarrhoea 0.2247, Severe diarrhoea 0.0316	Mild: 0.1487 Moderate: 0.0449 Severe: 0.00632
	[49]	De la Hoz	Colombia	Diarrhea incidence (all causes) <2 years: 147 *100 child/year % of all diarrheas due to RV: 10	0.147
	[53]	Clarck	Peru	Incidence of RVG: 0.13 episodes per child<5 yrs per year	0.13
Asia/Pacific	[57]	Wang	China	annual incidence: 61.4 RVGE cases per 1000 per yr during epidemic season,	0.0614
	[59]	Rose	India	Cumulative incidence by 24 months: First infection 0.96 Second infection 0.69 Third infection 0.42	First infection : 0.80 Second infection: 0.053 Third infection: 0.0127
	[63]	Kang	Korea	Proportion (cumulative) of children experiencing primary infection of rotavirus diarrhea (%) To 6 months after birth : 5.3 Through year 1 :26.8 Through year 2 : 71.5 Through year 3 : 90.4 Through year 4 : 95.0 Through year 5 : 99.0	0.198
	[67]	Chotivitayatarakorn	Thailand	Incidence of acute gastro: 0.93-1.35 cases / person-year proportion due to rota: 12.2%	0.244
USA	[73]	Shim	USA	Any rotavirus gastroenteritis 0.8000 (annual?)	0.16
	[74]	Weycker	USA	Any rotavirus gastroenteritis 15%	0.15
	[74]	Weycker	USA	Cumulative risk of RVGE over 5 yrs: 0.75	0.15
Africa	[75]	Ortega	Egypt	5-Year incidence without vaccination program: 0.95	0.19
	[77]	Berry	Malawi	Rotavirus infection cumulative incidence by age 2 years : 0.90	0.18

Table 6. Average yearly incidence of RVGE-related hospitalization in economic studies reviewed

¹ The use of the term “risk” raises the question whether the reported estimates represents the probability of occurrence of at least one episode over 5 years or the number of episodes per child over 5 years. We have assumed the latter

CONTINENT	REF	AUTHOR	COUNTRY	AVERAGE YEARLY INCIDENCE OF RVGE-RELATED HOSPITALIZATION
Europe	[13]	Fruytier	Belgium	0.440%
	[14]	Dhont	Belgium	0.990%
	[15]	Bilcke	Belgium	0.676%
	[18]	Huet	France	0.870%
	[19]	Melliez	France	1st year of life: 0.93% 2nd year of life: 0.54% 3rd year of life: 0.33%
	[20]	Standaert	France	0.480%
	[21]	Bénard	France	0.470%
	[23]	Buesch	Germany	0.635%
	[25]	Brüggenjürgen	Germany	0.635%
	[26]	Syriopoulou	Greece	0.365%
	[28]	Redmon	Ireland	0.100%
	[28]	Tilson	Ireland	0.0314%
	[29]	Panatto	Italy	0.550%
	[30]	Giammanco	Italy	0.520%
	[31]	Welte	Netherlands	0.300%
	[33]	Zomer	Netherlands	0.340%
	[34]	Mangen	Netherlands	0.26-0.45 (children < 5 yrs) +5% for children > 5 yrs
	[35]	Rozenbaum	Netherlands	0.36%
	[36]	Portugal	Portugal	0.460%
	[38]	Rubio-Perez	Spain	0.480%
	[40]	Jit	UK	0.450%
	[41]	Lorgelly	UK	0.400%
	[42]	Martin	UK	0.449%
[43]	Jit	UK	0.450%	
		Netherlands	0.730%	
		Belgium	0.775%	
		France	0.480%	
		Finland	0.795%	
Latin America	[46]	Constenla	Brazil	0.700%
	[48]	Constenla	Chile	0.560%
	[49]	De la Hoz	Colombia	2.01%
	[50]	Valencia-Mendoza	Mexico	0.7%
	[51]	Constenla	Mexico	0.140%
	[52]	Constenla	Panama	0.480%
	[54]	Constenla	Venezuela	0.460%
	[55]	Rheingans	Venezuela	0.460%
			Mexico	0.140%
			Brazil	0.690%
		Chile	0.560%	
		Dominican Republic	0.480%	
		Argentina	0.630%	
		Honduras	0.280%	
Asia/Pacific	[56]	Newall	Australia	0.780%
	[57]	Wang	China	0.309%

CONTINENT	REF	AUTHOR	COUNTRY	AVERAGE YEARLY INCIDENCE OF RVGE-RELATED HOSPITALIZATION
	[60]	Esposito	India	0.652%
	[61]	Chodick	Israel	3.000%
	[63]	Kang	Korea	3.3%
	[65]	Milne	New-Zealand	0.476%
	[66]	Wu	Taiwan	1.32%
	[67]	Chotivitayatarakorn	Thailand	1.125%
	[68]	Isakbaeva	Uzbekistan	0.980%
	[70]	Kim	Vietnam	0.420%
USA	[72]	Widdowson	USA	0.330%
Africa	[75]	Ortega	Egypt	0.57%
	[76]	Tate	Kenya	0.107
	[78]	Tate	Uganda	0.0102%
All countries	[79]	Rheingans	Developing countries	Low income 0.32% Lower-middle income 0.4% Upper-middle income 0.58%
	[80]	Atherly	Region of the Americas European Region African region Eastern Mediterranean region Southeast Asian region	0.32%

Table 7. Average yearly incidence of physician visits in economic studies reviewed

CONTINENT	REF	AUTHOR	COUNTRY	AVERAGE YEARLY INCIDENCE
Europe	[13]	Fruytier	Belgium	Seeking medical care 3.87%
	[14]	Dhont	Belgium	GP/P visits: 1.59%
	[18]	Huet	France	GP/P visits 1.45%
	[21]	Bénard	France	Physicians office visits 3.73%
	[23]	Buesch	Germany	GP/Paediatrician visits 4.14%
	[25]	Brüggenjürgen	Germany	GP office visits 4.14%
	[26]	Syriopoulou	Greece	2.918%
	[27]	Redmon	Ireland	GP visits 3.8 %
	[28]	Tilson	Ireland	0.036%
	[30]	Giammanco	Italy	Family Paediatrician visits 2.28%
	[31]	Welte	Netherlands	GP visits 0.56% Paediatrician visits 0.46%
	[32]	Goossens	Netherlands	GP consultation 0-1y 5.56% 2y 2.27% 3-4y 1.95%
	[35]	Rozenbaum	Netherlands	1.273%
	[38]	Rubio-Perez	Spain	3.85%
[40]	Jit	UK	GP consultations 2.84%	
[41]	Lorgelly	UK	Seeking GP advice 1.92%	

CONTINENT	REF	AUTHOR	COUNTRY	AVERAGE YEARLY INCIDENCE
	[43]	Jit	UK	Primary care 2.84%
	[43]	Jit	Finland	Primary care 2.341%
			France	Primary care 4.311%
			Belgium	Primary care 3.964%
			Netherlands	Primary care 0.955%
Latin America	[46]	Constenla	Brazil	Ambulatory visit 3.99%
	[48]	Constenla	Chile	Outpatient visit 4.04%
	[49]	De la Hoz	Colombia	Health Service Consulting 5.81%
	[51]	Constenla	Mexico	Outpatient visit 5.3%
	[52]	Constenla	Panama	Ambulatory visit 5.66%
	[54]	Constenla	Venezuela	Ambulatory 3.8%
	[55]	Rheingans	Venezuela	Outpatient visit 5.3%
			Argentina	Outpatient visit 7.2%
			Honduras	Outpatient visit 5.3%
			Brazil	Outpatient visit 4.1%
			Dominican Republic	Outpatient visit 5.4%
Chile			Outpatient visit 4.7%	
[55]	Rheingans	Mexico	Outpatient visit 5.3%	
Asia/Pacific	[57]	Wang	China	Outpatient 3.04%
	[60]	Esposito	India	Not clear
	[61]	Chodick	Israel	GP visit 6.9%
	[63]	Kang	Korea	17.8%
	[66]	Wu	Taiwan	Physician office visits 10.3% Outpatient: 2.9%
	[67]	Chotivitayatarakorn	Thailand	2.78%
	[70]	Kim	Vietnam	Outpatient 1.97%
USA	[72]	Widdowson	USA	Office visit 1.93%
Africa	[75]	Ortega	Egypt	Outpatient visit 5.1%
	[76]	Tate	Kenya	17.8%
	[78]	Tate	Uganda	0.18%

*Studies in which physician visits rates are clearly reported.

Table 8. Average yearly incidence of emergency department visits in economic studies reviewed

CONTINENT	REF	AUTHOR	COUNTRY	AVERAGE YEARLY INCIDENCE
Europe	[13]	Fruytier	Belgium	0.94%
	[14]	Dhont	Belgium	0%
	[18]	Huet	France	2.65%
	[21]	Bénard	France	2.4%
	[26]	Syriopoulou	Greece	1.90%
	[28]	Tilson	Ireland	5.2%
	[30]	Giammanco	Italy	1.90%
	[38]	Rubio-Perez	Spain	1.44%
	[40]	Jit	UK	0.93%
	[41]	Lorgelly	UK	0.38%
	[42]	Martin	UK	0.73%
	[43]	Jit	Belgium	0%
			UK	0.93%
			Finland	0.52%

CONTINENT	REF	AUTHOR	COUNTRY	AVERAGE YEARLY INCIDENCE
			France	0.76%
Asia/Pacific	[56]	Newall	Australia	1.72%
	[66]	Wu	Taiwan	1.24%
USA	[72]	Widdowson	USA	1.07%
	[73]	Shim	USA	1.11%

*Studies in which incidence of EDV rates are clearly reported.

Table 9. Annual death rate in economic studies reviewed

CONTINENT	REF	AUTHOR	COUNTRY	ANNUAL DEATH RATE		
Europe	[13]	Fruytier	Belgium	<0.000 01		
	[14]	Dhont	Belgium	0.0003000%		
	[18]	Huet	France	0.0004000%		
	[19]	Melliez	France	probability of death in the absence of medical care: 0.000144% probability of death in case of hospitalization: 0.000534%		
	[21]	Bénard	France	0.00035%		
	[22]	Hammerschmidt	Germany			
	[25]	Brüggenjürgen	Germany			
	[26]	Syriopoulou	Greece	Not clear		
	[28]	Tilson	Ireland	0.0000027%		
	[33]	Zomer	Netherlands	0.0015000%		
	[34]	Mangen	Netherlands	Mortality rate in hospitalized RV-GE cases 0.0056%-0.007%		
	[35]	Rozenbaum	Netherlands	0.0072%		
	[36]	André	Portugal	<0.000 01%		
	[38]	Rubio-Perez	Spain	0		
	[40]	Jit	UK	0.0000055%		
	[41]	Lorgelly	UK	0.0002000%		
	[42]	Martin	UK	0.0001700%		
Latin America	[43]	Jit	UK	0.0001090%		
			Netherlands	0.0003260%		
			Finland	0.0002460%		
			France	0.0003470%		
			Belgium	0.0001020%		
			[46]	Constenla	Brazil	0.0140000%
			[48]	Constenla	Chile	0.0010000%
	[49]	De la Hoz	Colombia	0.034%		
	[51]	Constenla	Mexico	0.0084000%		
	[52]	Constenla	Panama	0.0106000%		
	[53]	Clarck	Peru	0.05%		
	[54]	Constenla	Venezuela	0.0126000%		
	[55]	Rheingans	Venezuela	0.0130000%		
Mexico			0.0080000%			
Argentina			0.0027000%			
Brazil			0.0143000%			
Honduras			0.0640000%			
		Dominican	0.0440000%			

CONTINENT	REF	AUTHOR	COUNTRY	ANNUAL DEATH RATE
			Republic	
			Panama	0.0110000%
			Chile	0.0009000%
Asia/Pacific	[57]	Wang	China	0%
	[60]	Esposito	India	Not clear
	[61]	Chodick	Israel	0.0018000%
	[64]	Flem	Kyrgyzstan	0.0015%
	[66]	Wu	Taiwan	mortality rate by age 5 years 0.000034
	[67]	Chotivitayatarakorn	Thailand	0.002%
	[68]	Isakbaeva	Uzbekistan	0.0070000%
	[70]	Kim	Vietnam	0.0200000%
	[71]	Podewils	Asia	(low GNI / middle GNI / high GNI) death: 0.074% / 0.034% / 0.002%
USA	[72]	Widdowson	USA	0.0001500%
Africa	[76]	Tate	Kenya	Death: 0.0016%
	[77]	Berry	Malawi	0.01114%
	[78]	Tate	Uganda	0.096%

*Studies in which mortality rates are clearly reported.

Table 10. Inputs and sources used by studies using QALYs and DALYs

TYPE	CONTINENT	REF	AUTHOR	COUNTRY	VALUES IN BASE-CASE	SOURCES & COMMENTS
DALYs	Europe	[33]	Zomer	Netherlands	0.0083 per hospitalized case 0.0076 per case consulting a GP 0.0009 per non-consulting case	Kemmeren 2006
		[34]	Mangen	Netherlands	0.00089 if no medical services 0.0076 per RV-GE cases visiting a GP, but not being hospitalized 0.0083 per community-acquired hospitalized 0.0052–0.0083 per nosocomial-acquired	Zomer 2008
	Latin America	[46]	Constenla	Brazil	Not reported	Murray 1996
		[48]	Constenla	Chile	Not reported	Not clear
		[49]	De la Hoz	Colombia	Not reported	Not reported
		[49]	De la Hoz	Colombia	Not reported	Not reported
		[52]	Constenla	Panama	Not reported	Not clear
		[53]	Clarck	Peru	0.119 per non-severe GE 0.518 per severe cases	WHO panel
		[54]	Constenla	Venezuela	Not reported	Not reported
	Asia/Pacific	[58]	Ho	Hong Kong	0.19 per hospital admissions 0.119 per outpatient clinic visit	CEA registry, and World Bank
		[59]	Rose	India	0.0023 per symptomatic episode	Global Burden of Disease Study
		[60]	Esposito	India	Not reported	Murray 1996.
		[67]	Chotivitayatarakorn	Thailand	Not reported	Shepard 1995
		[68]	Isakbaeva	Uzbekistan	Not reported	Murray 1996
		[70]	Kim	Vietnam	0.119 per diarrheal episode	Standard Global Burden of Disease (GBD) approach
		[75]	Ortega	Egypt	Not reported	Murray 1996
	Africa	[76]	Tate	Kenya	Not reported	Baltussen 2002
		[77]	Berry	Malawi	Not reported	WHO Life Tables for WHO Member States. http://www.who.int/whosis/database/life_tables/life_tables.cfm . Accessed 21 April 2009.
		[78]	Tate	Uganda	Not reported	Baltussen 2002
		[78]	Tate	Uganda	Not reported	Baltussen 2002
QALYs	Europe	[13]	Fruytier	Belgium	age <18 / >18	M-TAG. Utility scores for diarrhea in infants. (Data on file GlaxoSmithKline)

TYPE	CONTINENT	REF	AUTHOR	COUNTRY	VALUES IN BASE-CASE	SOURCES & COMMENTS
					diarrhoea: 0.891 / 0.844 consultation: 0.781 / 0.688 emergency room visit: 0.425 / 0.425 hospitalization: 0.425 / 0.200	2005.
		[15]	Bilcke	Belgium	If med care: QALY loss by child: 0.0022 QALY loss by 1 caregiver: 0.001839 If no med care: same divided by 2	Sénécal 2006
		[16]	Nohynek	Finland	Not reported	Not reported
		[19]	Melliez	France	Utility 0.884 for mild case 0.816 for severe case	Sénécal 2006
		[20]	Standaert	France	(Utility <18 months ; >18 months) diarrhoea 0.891 ; 0.844 severe diarrhoea 0.891 ; 0.844 medical visit 0.781 ; 0.688 emergency visit 0.425 hospitalization 0.425 ; 0.200 nosocomial infection 0.425 ; 0.200 death 0	Martin 2008
		[22]	Hammerschmidt	Germany	Diarrhoea 0.546 Severe diarrhoea 0.339 Hospitalised cases 0.312 Nosocomial cases 0.501	Huppertz 2007
		[27]	Redmon	Ireland	QALY loss 0.00220 per episode for a child	Brisson 2009, Martin 2008
		[28]	Tilson	Ireland	QALY loss for one child 0.0022 QALY loss for one caregiver 0.0018	Brisson 2010
		[29]	Panatto	Italy	Not reported	Not reported
		[32]	Goossens	Netherlands	RV infection, in mild cases, when no GP is consulted <1.5 years old: 0.891 1.5-4 years old: 0.844 Utility RV infection, moderate cases, with GP consultation <1.5 years old: 0.781 1.5-4 years old: 0.688 Utility RV infection, severe cases, with hospitalization <1.5 years old: 0.425 1.5-4 years old: 0.200	UK Health State Utility Valuation Study – Using the EQ5 questionnaire & VAS draft report; 2005,M-Tag:London. Used ratings from British GPs and paediatricians.
		[35]	Rozenbaum	Netherlands	(no detriment for caregivers) RV infection treated at home 0-18 months: 0.0015 18-59 months: 0.0025 RV infection requiring medical attention (GP) 0-18 months: 0.0022 18-59 months: 0.0031 To be conservative, authors based QALY estimates on the Canadian study, but applied a correction factor for age and severity (hospitalised cases) on the basis of the UK study For cases requiring no medical help, authors assumed that the QALY loss would be 31% lower than for cases requiring a GP visit. This was based on the relative duration of illness for cases visiting a GP being	Goossens 2008, Mangen 2010, Brisson 2010

TYPE	CONTINENT	REF	AUTHOR	COUNTRY	VALUES IN BASE-CASE	SOURCES & COMMENTS
					7.1 days and cases treated at home being 4.9 days.	
		[36]	André	Portugal	age <18 / >18 diarrhoea: 0.891 / 0.844 severe diarrhoea: 0.425 / 0.200 consultation: 0.781 / 0.688 emergency room visit: 0.425 / 0.425 hospitalization: 0.425 / 0.200 nosocomial infection: 0.425 / 0.200	Not reported
		[38]	Rubio-Perez	Spain	QALY loss per episode of rotavirus To child 0.00220 To each caregiver 0.00184	Brisson 2010
		[40]	Jit	UK	QALY loss per episode of RV 0.00220 for child 0.00184 for each caregiver	Sénécal 2006
		[42]	Martin	UK	for infants without diarrhoea: 1 for infants aged <18 months with diarrhoea not hospitalized: 0.781 for infants aged 18 months to 5 years with diarrhoea not hospitalized: 0.688 for infants aged <18 months with diarrhoea hospitalized: 0.425 for infants aged 18 months to 5 years with diarrhoea hospitalized: 0.200	Martin 2008
		[43]	Jit	Belgium England and Wales Finland France Netherlands	QALY loss per episode 0.0022 for children 0.001839 for their caregivers	Sénécal 2006
	Asia/Pacific	[56]	Newall	Australia	QALYs loss for children hospitalization/EDV/GPV: 0.00186 QALYs lost for 1 caregiver hospitalization/ EDV/GPV: 0.00200 healthy child: 0.9892	Sénécal 2006
		[61]	Chodick	Israel	QALY loss 0.00220 per episode for a child 0.00184 for 2 caregivers	Sénécal 2006
		[62]	Igarashi	Japan	QALY (not reported)	Not reported
		[65]	Milne	New-Zealand	QALY loss per episode 0.00220 for a child 0.00184 for a caregiver	Jit 2007
	USA	[73]	Shim	USA	young children's quality of life: 0.9892 QALY loss 0.00186 for children with RV infections that require hospitalization, ER, visit or GP 0.002 for primary caregiver	Newall 2007, Sénécal 2006