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di **SCAMPIA**

SOCIETÀ ITALIANA
DI GERONTOLOGIA
E GERIATRIA

Necessità di aumentare la copertura vaccinale per l'Herpes Zoster

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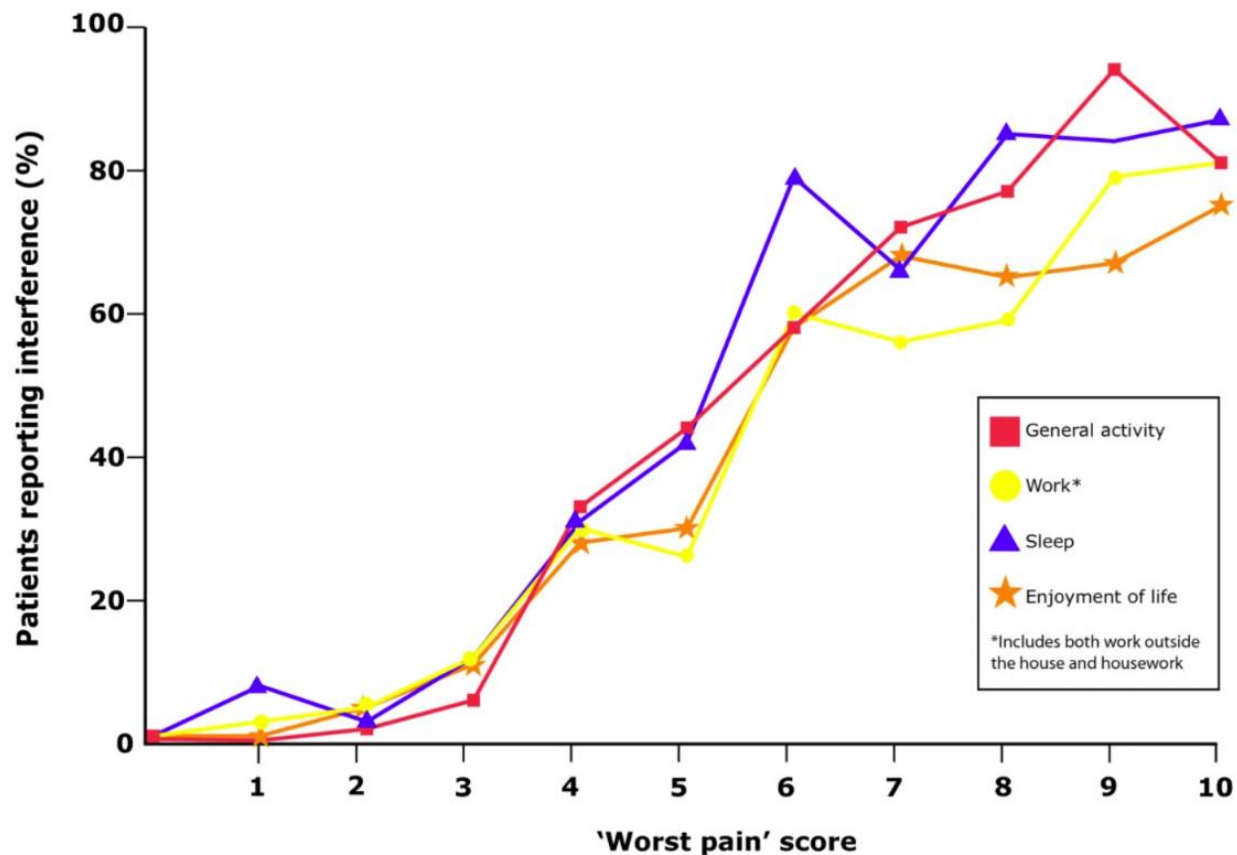
Il fuoco di Sant'Antonio



Non solo folklore

- L'HZV ha un impatto importante soprattutto in relazione alle sue sequele;
- La complicanza più invalidante è la nevralgia post-erpetica, il cui rischio stimato è del 20%-30% nella popolazione generale e che è più frequente nei pazienti anziani (Kawai K *et al.* [BMJ Open 2014.](#));
- In uno studio italiano nel setting di Medicina Generale in pazienti con età \geq 50 anni, il rischio osservato è stato del 10% in media e del 15% tra i partecipanti con età \geq 75 anni (Salvetti A *et al.* [Preventive Medicine Reports 2019.](#)).

Impatto dell'infezione da HZV



Johnson RW *et al.* [BMC Med](#) 2010.

Altre complicanze

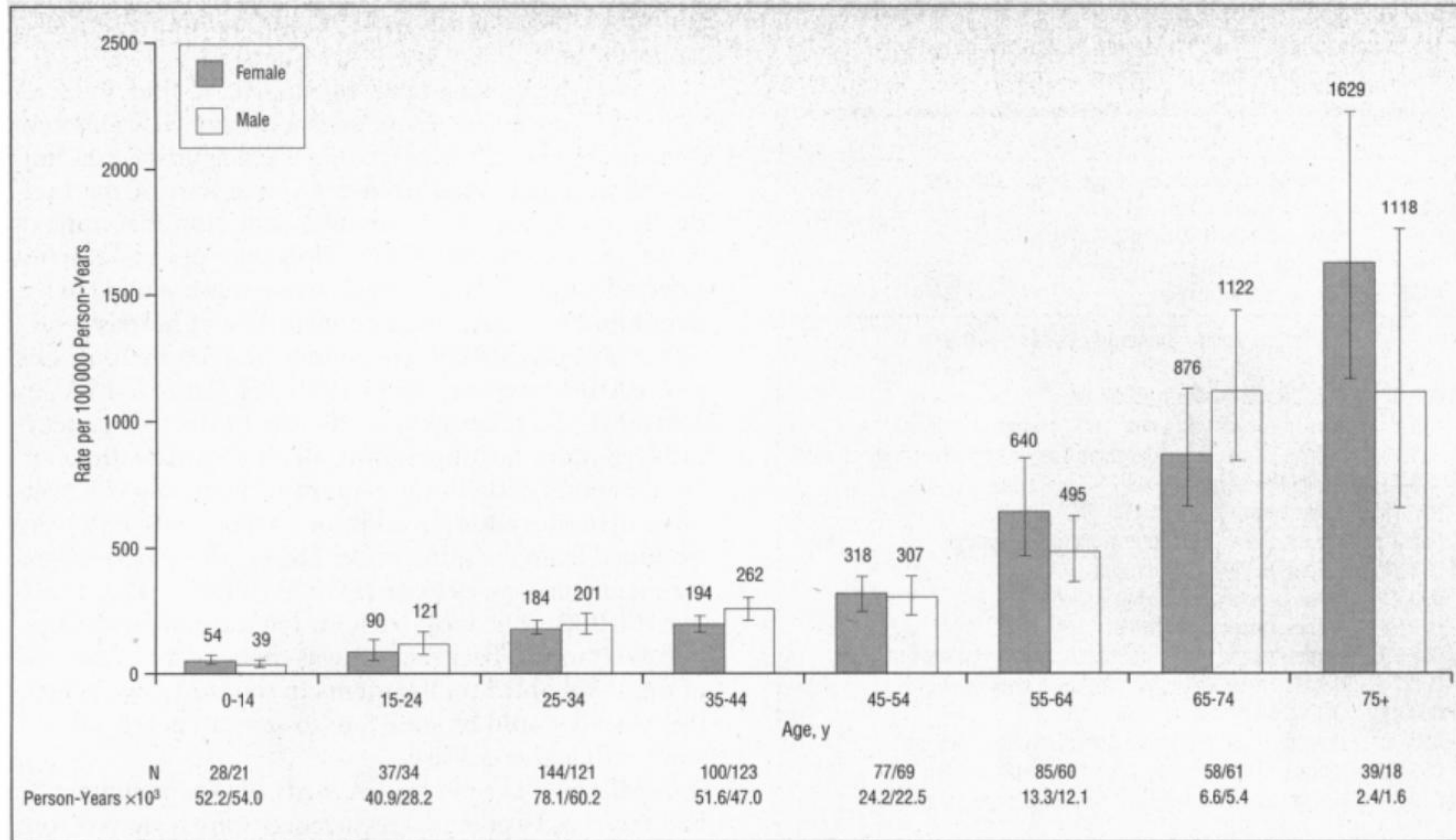
- Coinvolgimento oftalmico;
- Complicanze a carico del SNC (meningite, encefalite, mielite, vasculopatia), aumentato rischio di ictus nel mese successivo alla riattivazione (Marra F *et al.* [BMC Infect Dis 2017.](#))

Epidemiologia

- Il rischio di avere una riattivazione di Herpes Zoster nel corso della vita è di circa il 10%-20%;
- Nelle persone che sopravvivono fino a 85 anni il rischio arriva al 50%;
- L'incidenza dopo i 60 anni è di 7.8/1000 persone/anno.

Yoshikawa TT, K Schmader [Clinical Infectious Diseases 2001.](#)

Epidemiologia



Donahue JG [Arch Intern Med](#) 1995.

Epidemiologia

Table 1

Estimated incidence of herpes zoster in Italians aged ≥ 50 years by gender and age.

Age group (years)	Women				Men				Overall			
	Incidence				Incidence				Incidence			
	n	Total person-days	Rate/1000 PY	95% CI	n	Total person-days	Rate/1000 PY	95% CI	n	Total person-days	Rate/1000 PY	95% CI
50–54	49	3,450,586.8	5.19	3.84–6.86	15	3,207,880.5	1.71	0.96–2.82	64	6,664,753.8	3.51	2.70–4.48
55–59	56	3,250,776.8	6.29	4.75–8.17	23	2,882,172.3	2.91	1.85–4.37	79	6,132,949	4.70	3.72–5.86
60–64	39	2,849,623.3	5.00	3.55–6.83	32	2,684,483.5	4.35	2.98–6.15	71	5,534,106.8	4.69	3.66–5.91
65–69	74	2,941,371	9.19	7.22–11.54	62	2,530,581.3	8.95	6.86–11.47	136	5,471,952.3	9.08	7.62–10.74
70–74	54	2,628,036	7.51	5.64–9.79	56	2,191,895	9.33	7.05–12.12	110	4,819,931.0	8.34	6.85–10.05
75–79	71	2,419,504.8	10.72	8.37–13.52	39	1,984,885.3	7.18	5.10–9.81	110	4,404,390.0	9.12	7.50–10.99
≥ 80	92	4,762,572	7.06	5.69–8.65	59	2,993,205.8	7.20	5.48–9.29	151	7,755,777.8	7.11	6.02–8.34
≥ 50	435	22,302,470.7	7.12	6.47–7.83	286	18,475,103.7	5.65	5.02–6.35	721	40,783,860.7	6.46	5.99–6.95

CI = Confidence interval; n = number of herpes zoster cases; PY = person-years; Total person-days: Σ (study cohort \times study days).

Salvetti A *et al.* [Preventive Medicine Reports 2019.](#)

Terapia

- Antivirali:
 - Aciclovir
 - Valaciclovir;
 - Famciclovir;
 - Brivudina
- Cortisone;

Terapia

- Antivirali:
 - Aciclovir
 - Valaciclovir;
 - Famciclovir;
 - Brivudina
- Cortisone;
- I farmaci antivirali hanno efficacia simile fra loro, valaciclovir e famciclovir sono più pratici;
- I dati sul cortisone non sono recenti, pare accelerare il miglioramento del dolore nelle prime settimane ma non riduce il rischio di nevralgia post-erpetica.

Aciclovir nel paziente anziano

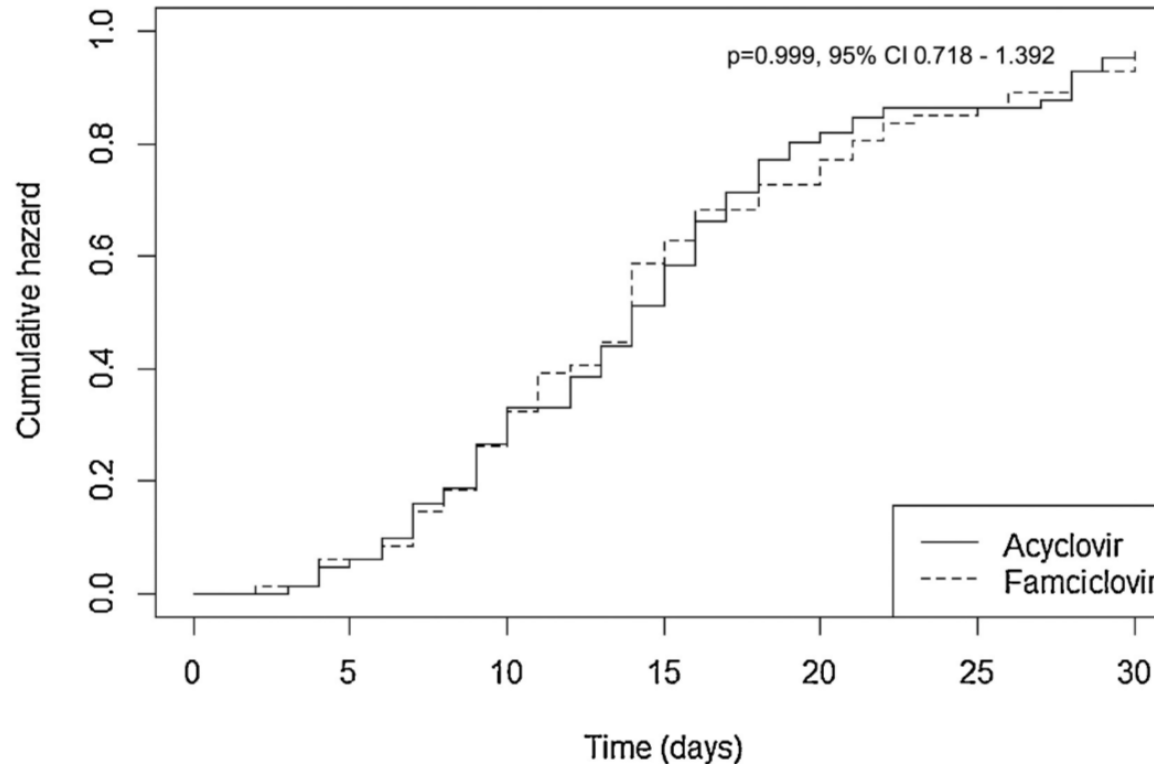
Table 1. Hazard ratios (acyclovir vs. placebo) for the time to complete cessation of zoster-associated pain in all patients and patients 50 years of age or older with or without adjustment for covariates.

Study	All patients		Patients 50 y of age or older	
	Hazard ratio (95% CI)	<i>P</i> value	Hazard ratio (95% CI)	<i>P</i> value
Study 1				
Unadjusted	1.53 (1.08, 2.16)	.016	1.88 (1.15, 3.09)	.013
Adjusted	1.53 (1.08, 2.17)	.018	1.59 (0.93, 2.73)	.090
Study 2				
Unadjusted	1.73 (1.08, 2.78)	.024	2.25 (1.16, 4.35)	.016
Adjusted	1.92 (1.14, 3.22)	.013	2.85 (1.34, 6.04)	.007
Study 3				
Unadjusted	2.04 (1.04, 4.15)	.018	2.13 (1.00, 4.56)	.051
Adjusted	2.32 (1.00, 5.41)	.051	2.45 (0.99, 6.04)	.052
Meta-analysis				
Unadjusted	1.70 (1.30, 2.22)	<.001	2.06 (1.44, 2.94)	<.001
Adjusted	1.79 (1.34, 2.39)	<.001	2.13 (1.42, 3.19)	<.001

Wood MJ *et al.* [Clinical Infectious Diseases](#) 1996.

Comparazione tra aciclovir e famciclovir

Estimated cumulative hazard

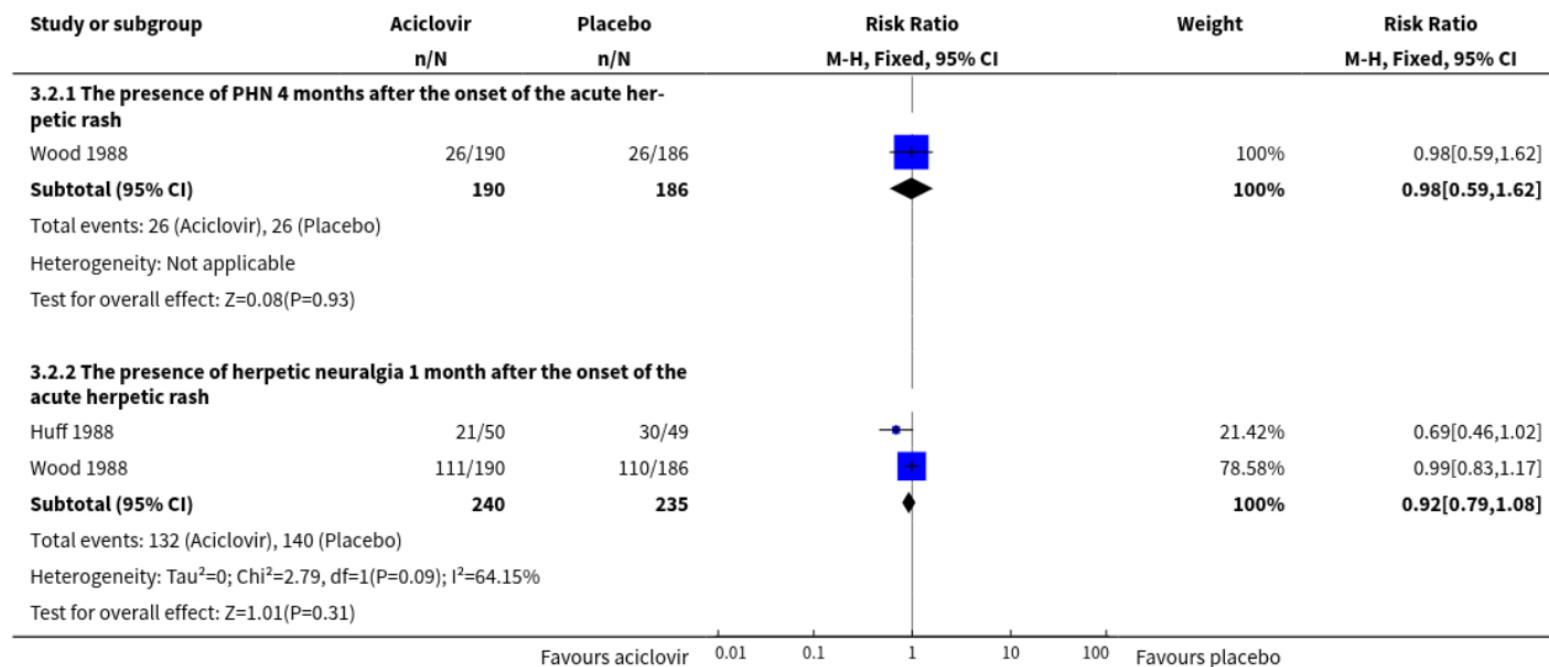


Pott Junior H *et al.* [International Journal of Infectious Diseases](#) 2018.

Efficacia sulla nevralgia post-erpetica

Aciclovir

Analysis 3.2. Comparison 3 Subgroup analysis (the presence of PHN), Outcome 2 Adults aged 50 years or more.

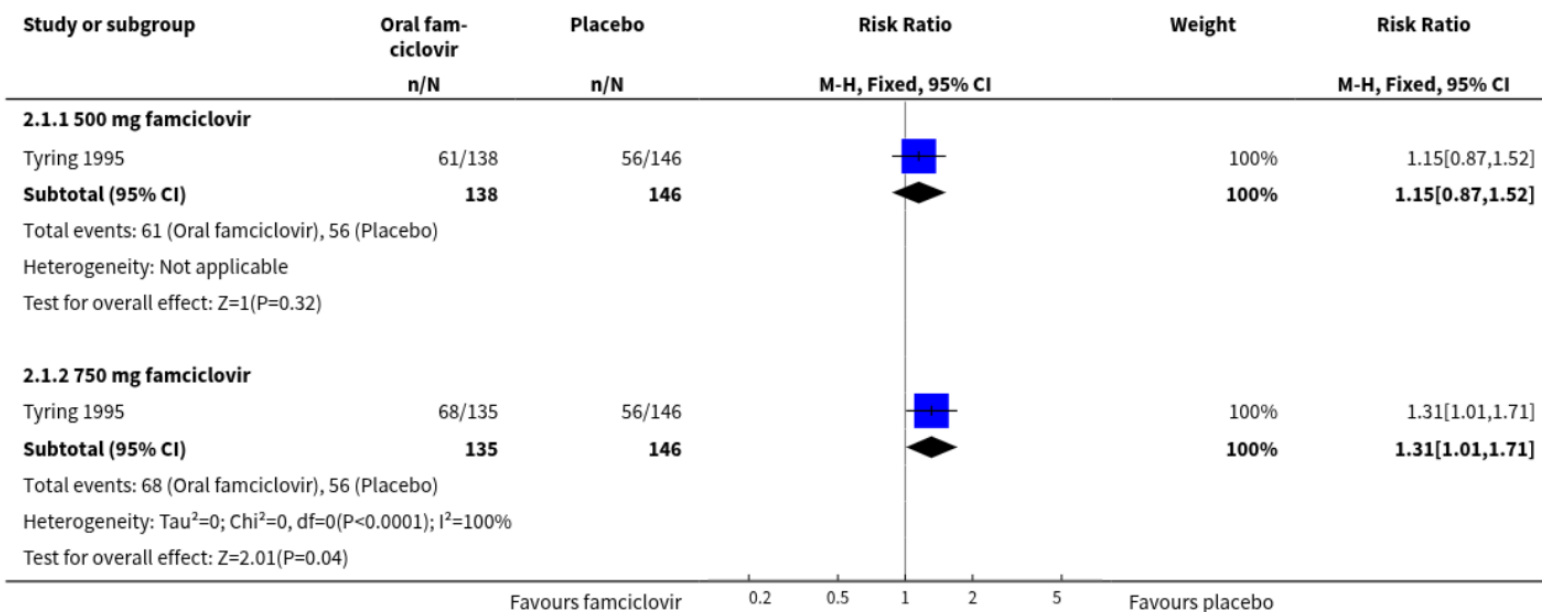


Chen N *et al.* [Cochrane Database of Systematic Reviews 2014.](#)

Efficacia sulla nevralgia post-erpetica

Famciclovir

Analysis 2.1. Comparison 2 Oral famciclovir versus placebo or no treatment, Outcome 1 Presence of PHN.



Chen N *et al.* [Cochrane Database of Systematic Reviews 2014.](#)

Efficacia sulla nevralgia post-erpetica

Brivudina

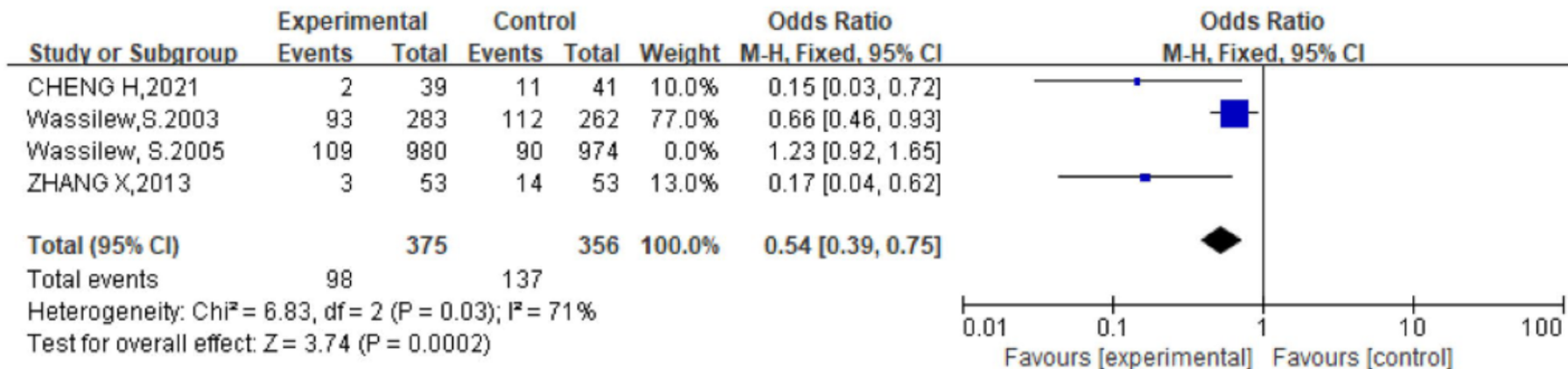


Figure 6. Forest map of the incidence of PHN in treatment of herpes zoster with brivudine.

Chen J *et al.* [Journal of Dermatological Treatment](#) 2024.

Il vaccino HZV

- Al momento sono disponibili due vaccini:
 - Vaccino vivo attenuato;
 - Vaccino ricombinante adiuvato, che ha praticamente sostituito il precedente.
- La vaccinazione con vaccino adiuvato prevede una seconda dose a 2 mesi (possibile fino a 6 mesi);
- L'immugenicità è dimostrata fino a circa 10 anni (Strezova A *et al.* [Open Forum Infectious Diseases 2022.](#));
- La vaccinazione per HZV riduce drasticamente il rischio di riattivazione anche nel paziente anziano.

Efficacia del vaccino HZV

Table 4 | Summary of main results using randomised controlled trials only and intention to treat sample: meta-analyses and network meta-analyses

Treatment comparison, reference	No of studies (No of patients)	Study group (No of events/ total No)		Odds ratio from direct and indirect comparisons (95% CrI) (95% PrI indirect comparison only)	Risk ratio		Vaccine efficacy % (95% CrI)
		Treatment	Control		Direct comparison (meta-analysis) (95% CrI)	Indirect comparison (95% CrI) (95% PrI)	
Doctor or laboratory confirmed herpes zoster cases:							
5 RCTs, 90 605 participants, average follow-up 28 (range 2-44) months							
HZ/su v ZVL	—	—	—	0.15 (0.02 to 0.68) (0.01 to 1.42)*	—	0.15 (0.02 to 0.69) (0.01 to 1.41)*	85 (31 to 98)*
HZ/su v placebo ^{56-62 78}	2 (29 311)	32/14 648	458/14 663	0.06 (0.02 to 0.21)*	0.06 (0.02 to 0.21)*	—	94 (79 to 98)*
ZVL v placebo ^{10 11 70 80-87}	3 (61 294)	346/30 688	741/30 606	0.43 (0.15 to 1.63)	0.43 (0.16 to 1.61)	—	57 (-61 to 84)
Common within network between study variance	—	—	—	—	0.37 (0.02 to 3.02)	0.37 (0.02 to 3.10)	—
Suspected herpes zoster cases:							
7 RCTs, 91 840 participants, average follow-up 20 (range 1-44) months							
HZ/su v ZVL	—	—	—	0.37 (0.20 to 0.57) (0.16 to 0.71)*	—	0.37 (0.20 to 0.57) (0.16 to 0.71)*	63 (43 to 80)*
HZ/su v placebo ^{56-62 78}	2 (29 311)	150/14 648	643/14 663	0.23 (0.15 to 0.33)*	0.23 (0.16 to 0.34)*	—	77 (66 to 84)*
ZVL v placebo ^{10 11 61 66 70 80-87}	5 (62 529)	597/31 307	1000/31 222	0.60 (0.47 to 0.93)*	0.61 (0.48 to 0.93)*	—	39 (7 to 52)*
Common within network between study variance	—	—	—	—	0.01 (0.00 to 0.46)	0.01 (0.00 to 0.49)	—
Herpes zoster ophthalmicus cases:							
2 RCTs, 14 209 participants, average follow-up 25 (range 2-60) months							
HZ/su v placebo ^{56 78}	1 (13 900)	1/6950	6/6950	0.12 (0.00 to 0.84)*	0.12 (0.00 to 0.84)*	—	88 (16 to 100)*
ZVL v placebo ⁷⁰	1 (309)	1/207	0/102	2.57 (0.08 to 1293.66)	2.57 (0.08 to 830.34)	—	-157 (-129266 to 92)
Common within network between study variance	—	—	—	—	0.48 (0.00 to 5.07)	—	—
Post-herpetic neuralgia:							
2 RCTs, 52 446 participants, average follow-up 26 (range 6-46) months							
HZ/su v placebo ^{56 78}	1 (13 900)	4/6950	28/6950	0.13 (0.04 to 0.35)*	0.13 (0.04 to 0.35)*	—	87 (65 to 96)*
ZVL v placebo ^{10 80-86}	1 (38 546)	27/19 270	80/19 276	0.33 (0.21 to 0.51)*	0.34 (0.21 to 0.51)*	—	66 (49 to 79)*
Common within network between study variance	—	—	—	—	0.46 (0.00 to 4.93)	—	—

Tricco AC et al. [BMJ 2018.](#)

Efficacia del vaccino sull'impatto della malattia

Table 2. Effect of Zoster Vaccine on the Burden of Illness in Herpes Zoster in the Modified Intention-to-Treat Population.*

Group of Subjects	Vaccine Group			Placebo Group			VE _{BOI} (95% CI) [§]
	No. of Confirmed Cases/No. of Subjects	BOI Score [†]	Incidence per 1000 Person-Yr [‡]	No. of Confirmed Cases/No. of Subjects	BOI Score [†]	Incidence per 1000 Person-Yr [‡]	
All subjects	315/19,254	2.21	5.42	642/19,247	5.68	11.12	61.1 (51.1–69.1)
Age							
60–69 yr	122/10,370	1.50	3.90	334/10,356	4.33	10.79	65.5 (51.5–75.5)
≥70 yr	193/8884	3.47	7.18	308/8891	7.78	11.50	55.4 (39.9–66.9)
Sex							
Male	181/11,390	2.09	5.30	361/11,337	5.81	10.65	64.0 (51.4–73.4)
Female	134/7864	2.34	5.58	281/7910	5.47	11.79	57.3 (39.6–69.8)

Lal H *et al.* [New England Journal of Medicine](#) 2015.

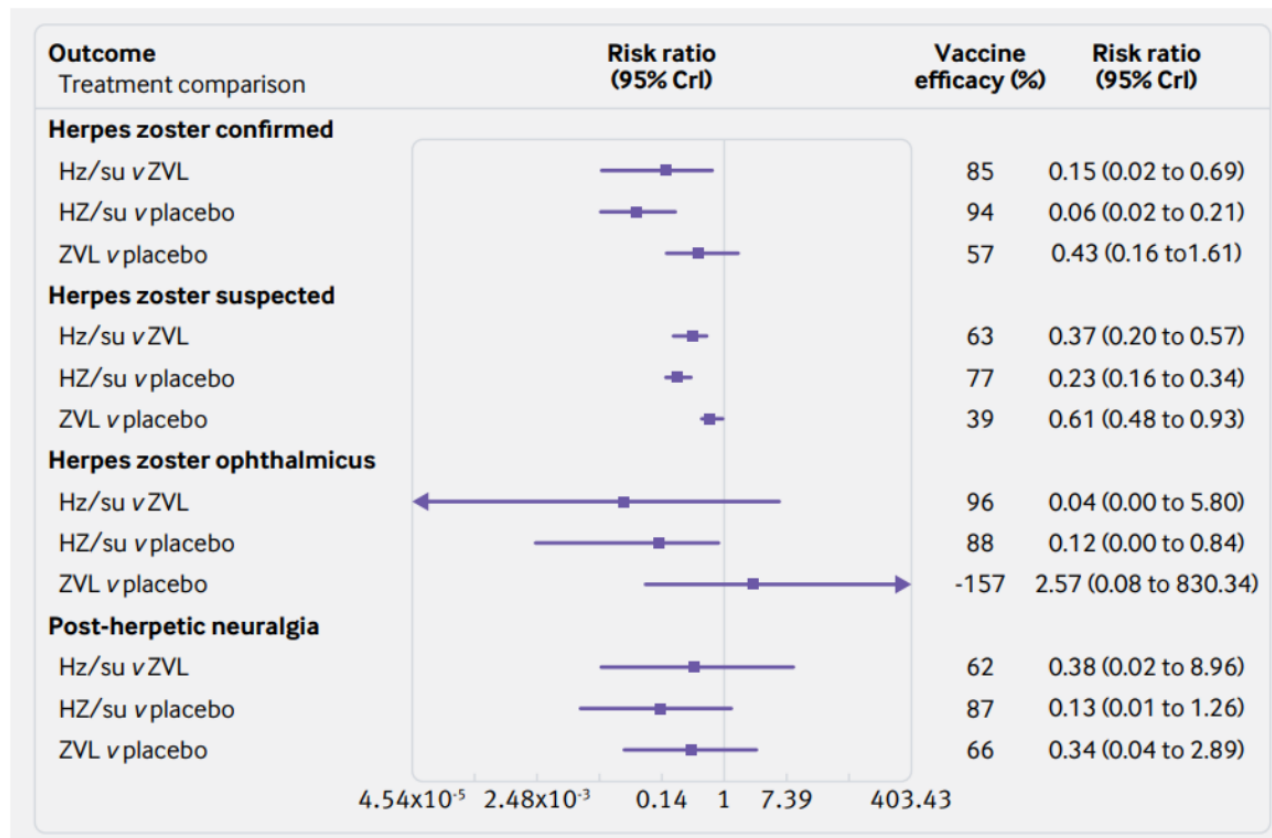
Efficacia del vaccino sulla PHN

Table 3. Effect of Zoster Vaccine on the Incidence of Postherpetic Neuralgia in the Modified Intention-to-Treat Population.*

Variable	Vaccine Group			Placebo Group			VE _{PHN} (95% CI)
	No. of Confirmed Cases of Herpes Zoster with PHN	No. of Subjects	Incidence per 1000 Person-Yr†	No. of Confirmed Cases of Herpes Zoster with PHN	No. of Subjects	Incidence per 1000 Person-Yr†	
All subjects	27	19,254	0.46	80	19,247	1.38	66.5 (47.5–79.2)‡
Age							%
60–69 yr	8	10,370	0.26	23	10,356	0.74	65.7 (20.4–86.7)
≥70 yr	19	8,884	0.71	57	8,891	2.13	66.8 (43.3–81.3)
Sex							
Male	19	11,390	0.56	51	11,337	1.50	62.8 (35.9–79.3)
Female	8	7,864	0.33	29	7,910	1.22	72.6 (38.6–89.2)
Persistence of PHN among all subjects§							
30 days	81		1.39	196		3.39	58.9 (46.6–68.7)
60 days	45		0.77	113		1.96	60.4 (43.6–72.6)
90 days	27		0.46	80		1.38	66.5 (47.5–79.2)‡
120 days	17		0.29	54		0.93	68.7 (45.2–83.0)
182 days	9		0.16	33		0.57	72.9 (42.1–88.6)

Lal H *et al.* *New England Journal of Medicine* 2015.

Efficacia del vaccino sulla PHN



Tricco AC *et al.* [BMJ 2018.](#)

Lo stato dell'arte



Article

Herpes Zoster Vaccine Uptake and Active Campaign Impact, a Multicenter Retrospective Study in Italy

Lo stato dell'arte



Article

Herpes Zoster Vaccine Uptake and Active Campaign Impact, a Multicenter Retrospective Study in Italy

Table 2. Active and ordinary Herpes Zoster vaccination campaign uptake among 1958 cohort.

Cohort	2023												Overall (n = 14,791)
	No. 1 (n = 2719)			No. 2 (n = 5117)			No. 3 (n = 4520)			No. 4 (n = 2402)			
	Active	Ordinary	Overall Uptake *	Active	Ordinary	Overall Uptake *	Active	Ordinary	Overall Uptake *	Active	Ordinary	Overall Uptake *	
1958 M	121 (4.5)	79 (2.9)	480 (17.7)	190 (3.7)	182 (3.6)	685 (13.4)	95 (2.1)	112 (2.5)	459 (10.2)	70 (2.9)	103 (4.3)	372 (15.5)	1993 (13.5)
1958 F	161 (5.9)	119 (4.4)		229 (4.5)	84 (1.6)		93 (2.1)	159 (3.5)		80 (3.3)	119 (5.0)		

Ceccarelli A *et al.* *Vaccines* 2024.

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