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Importance of Shingles Prevention In Older Adults

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1. What we already know about HZ
2. How to Counsel Patients
   RZV Doses and Administration
3. Vaccine Efficacy, and Safety in Older Adults
4. Recommendation for Recombinant Zoster Vaccine RZV administration

1.
Introduction to herpes zoster (HZ) and comorbidities

HZ is caused by the reactivation of the dormant varicella zoster virus[1]

Primary infection: varicella (chickenpox)[1]

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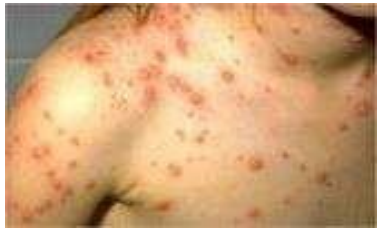
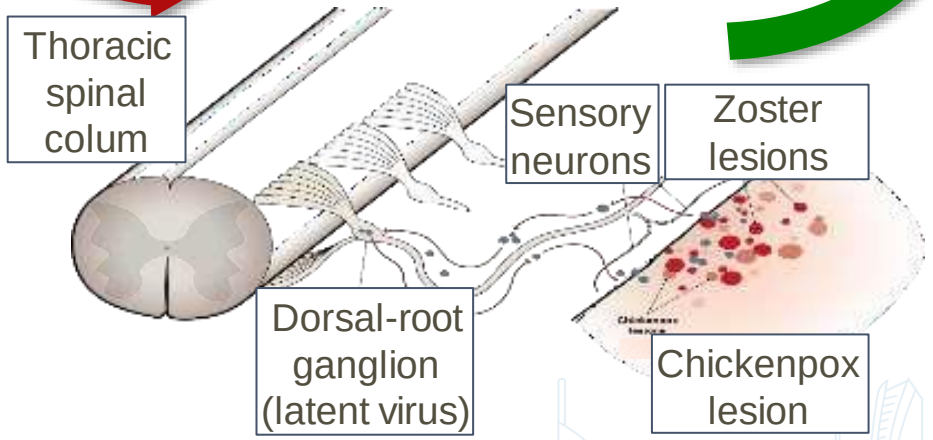
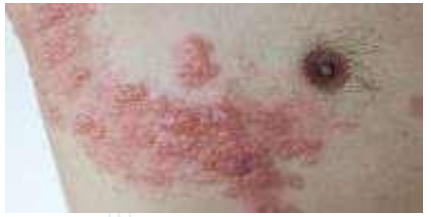


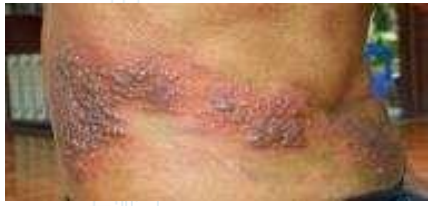
*see footnote

VZV becomes latent in the sensory ganglia nerves[1]



Reactivation of infection: HZ (shingles)[1]





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Approximately 99.5% of adults ≥40 years of age show serologic evidence of VZV infection, and 1 in 3 people develop shingles in their lifetime, in the US[2]

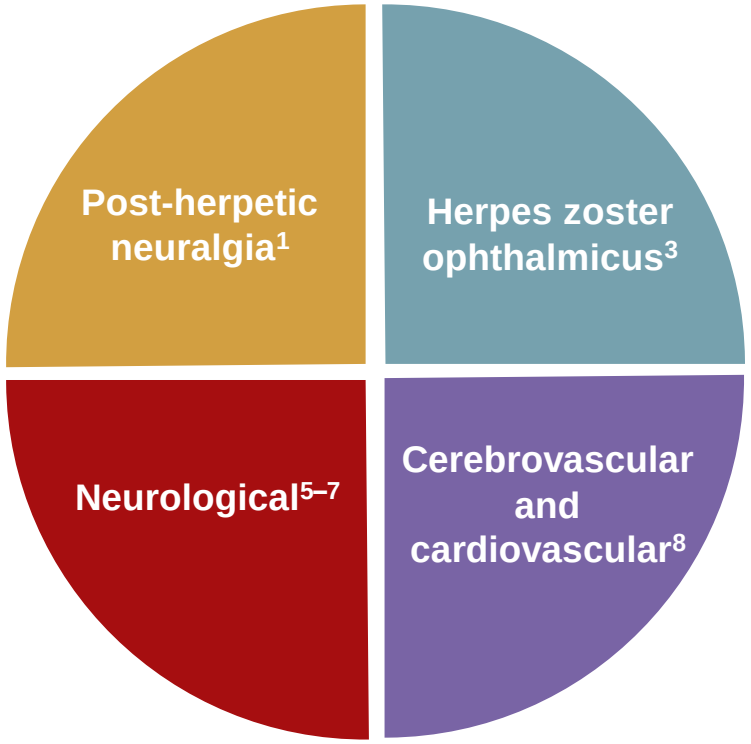
For many patients, herpes zoster can lead to serious complications

Neuropathic pain that persists for ≥90 days after the onset of HZ rash[2]

5% to over 30%*
of patients with HZ[3]

Aseptic meningitis, encephalitis, cerebral infarction associated with granulomatous vasculitis, myelitis, Guillain-Barré syndrome, Ramsay Hunt syndrome and Bell's palsy

<1%
of patients with HZ[4†]



HZO occurs in
10–15%
of patients with HZ[3]

Eye-related complications occur in
30–78%
of patients with HZO[3]

Stroke, TIA, myocardial infarction, cardiovascular disease

1%
of patients with HZ[9]

Approximately 10% of patients with HZ aged ≥50 years experience ≥1 non-PHN complication[3]

*Data collected across 26 countries, the risk of PHN may have differed across countries due to the varying prevalence of disability and other underlying comorbidities in the elderly population; †Aged ≥50 years. HZ, herpes zoster; HZO; herpes zoster ophthalmicus; PHN, post-herpetic neuralgia; TIA, transient ischaemic attack

1. Cohen JI *et al. N Engl J Med* 2013;369:255–263; 2. Harpaz R *et al. MMWR Recomm Rep* 2008;57:1–30; 3. Kawai K *et al. BMJ Open* 2014;4:e004833; 4. Meyers J *et al. Vaccine* 2019;37:1235–1244; 5. Nakajima H *et al*. Neurological complications of varicella-zoster virus infection. In: Thomasini RL (ed). *Human Herpesvirus Infection - Biological Features, Transmission, Symptoms, Diagnosis and Treatment.* InTechOpen, 2019. doi: 10.5772/intechopen.83036; 6. Kang JH *et al. Clin Infect Dis* 2010;5:525–530; 7. Zandian A *et al. Med Sci Monit* 2014;20:83–90; 8. Erskine N *et al. PLoS One* 2017;12:e0181565; 9. Sundström K *et al. BMC Infect Dis* 2015;15:488

The natural course of herpes zoster consists of prodromal and acute phases which can be followed by chronic complications

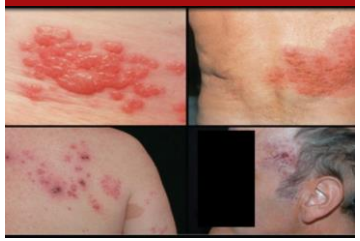
Prodromal phase

4 days–2 weeks[1]

Headache, photophobia, malaise, abnormal skin sensations, pain, fever (less common)[2]

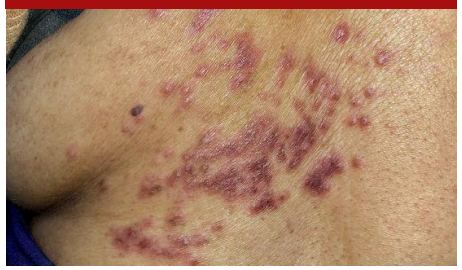
Acute phase

2–4 weeks[2]



Subacute phase[3]

Up to 3 months



Unilateral, vesicular rash, associated acute pain[2]

5 to >30% of patients[4]

Post-herpetic neuralgia[3]

Months/years

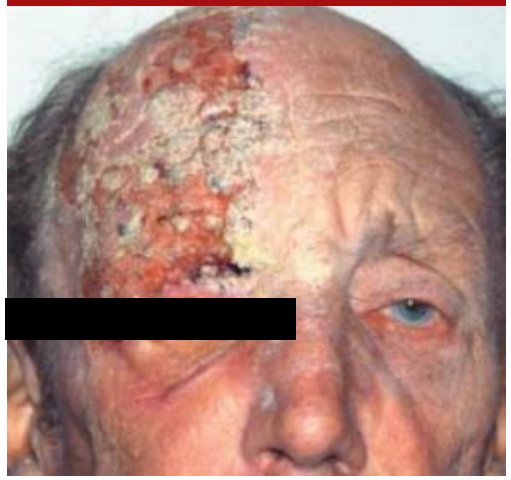
PHN is defined as neuropathic pain that persists for ≥90 days after the onset of HZ rash[2,5]

HZ, herpes zoster; PHN, post-herpetic neuralgia

1. Weinberg JM. *J Am Acad Dermatol* 2007;57:S130–135; 2. Harpaz R *et al. MMWR Recomm Rep* 2008;57:1–30; 3. Johnson RW. *Herpes* 2007;Suppl 2;30–34; 4. Kawai K *et al. BMJ Open* 2014;4:e004883; 5. Dworkin RH *et al. J Pain* 2008;9:S37–34

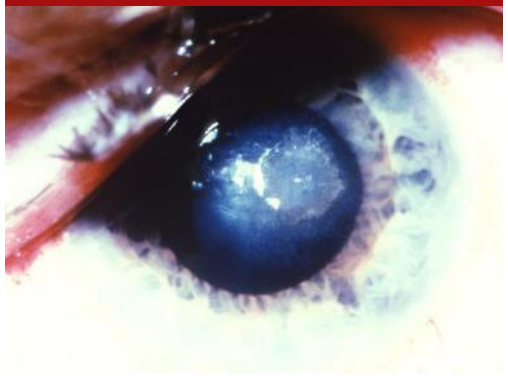
Approximately 10–15% of herpes zoster cases involve the ophthalmic division of the trigeminal nerve, causing herpes zoster ophthalmicus[1]

Eyelid swelling, vesicular rash



Severe acute skin rash with haemorrhagic ulcerative lesions[2]

Eyelid swelling, vesicular rash



Epithelial keratitis, can lead to corneal scarring[3]

Herpes zoster ophthalmicus can result in a variety of potential eye complications[2,3]

Corneal involvement occurs in 65% of HZO cases:[3]

- **Epithelial keratitis**
- **Neurotrophic keratopathy**
- **Stromal keratitis**

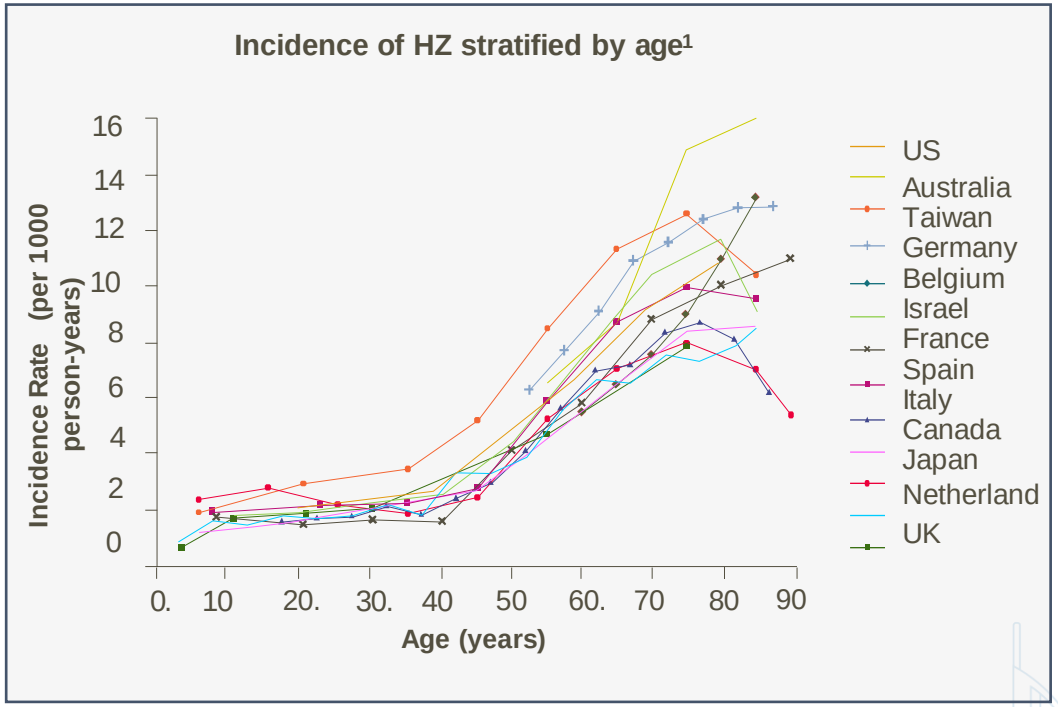
Other ocular complications include conjunctivitis, uveitis, episcleritis and ocular hypertension[2]

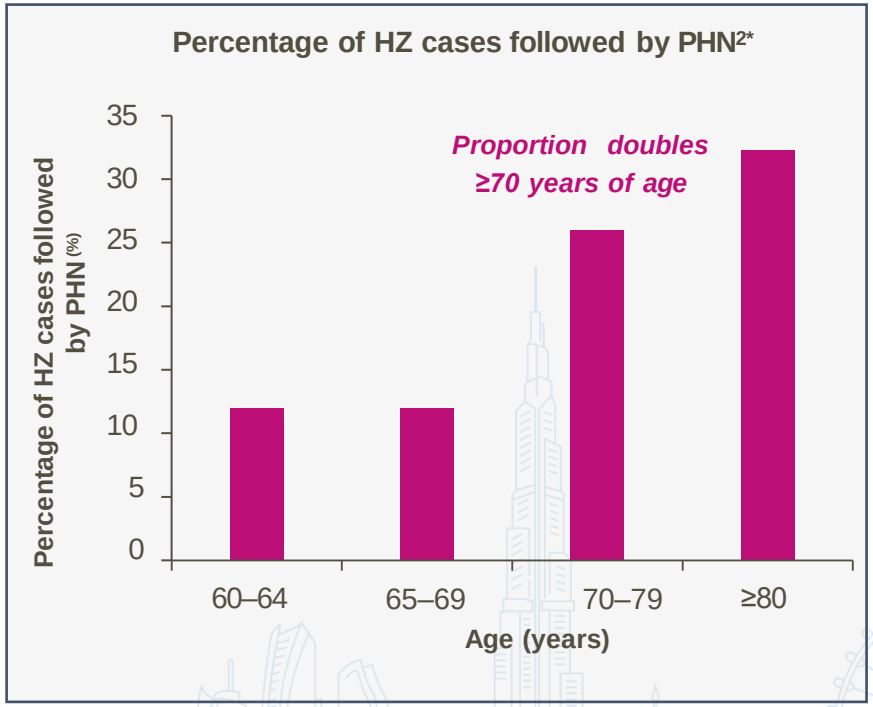
HZ, herpes zoster; HZO; herpes zoster ophthalmicus. Image on left reproduced from Opstelten W, Zaal MJ. *BMJ* 2005;331:147–151, with permission from BMJ Publishing Group Ltd. Middle image available from https://phil.cdc.gov/Details.aspx?pid=21784

1. Kawai K *et al. BMJ Open* 2014;4:e004833; 2. Opstelten W, Zaal, MJ. *BMJ* 2005;331:147–151; 3. Davies E *et al*. Herpes zoster ophthalmicus. In: Watson CP *et al.* (eds). *Herpes Zoster: Postherpetic Neuralgia and Other Complications*. Cham, Switzerland: Adis, 2017

The incidence of HZ and PHN increases with age[1,2]

The incidence of HZ, and consequently PHN, are expected to rise due to the ageing population[3,4] and the development of immunocompromising conditions associated with ageing[4]

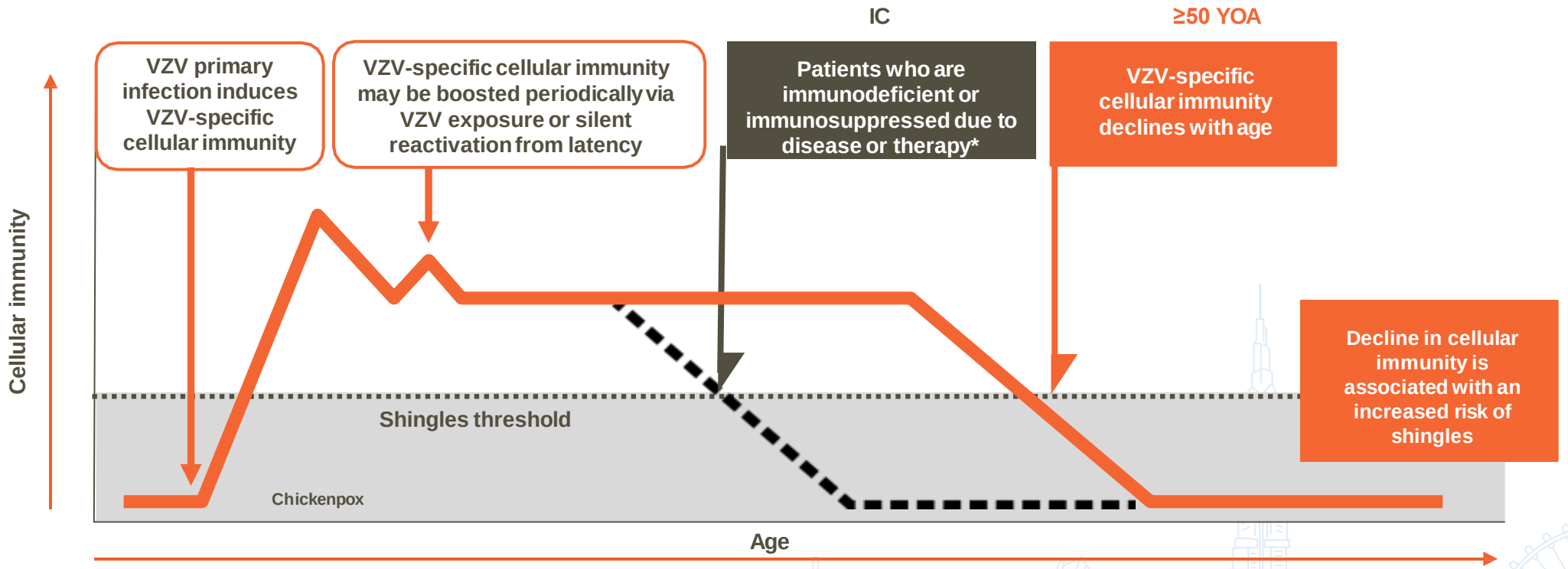




Reproduced from BMJ Open, Kosuke Kawai, Berhanu G Gebremeskel, Camilo J Acosta, Systematic review of incidence and complications of herpes zoster: towards a global perspective, 4, Page No. Copyright © 2017. with permission from BMJ Publishing Group Ltd. *PHN, postherpetic neuralgia; PHN cases were defined as those patient records coded with postherpetic trigeminal neuralgia, postherpetic polyneuropathy, or other nervous system complications or neuralgia, 4–12 months after HZ diagnosis

1. Kawai K, *et al. BMJ Open* 2014;4:e004833; 2. Pellissier JM, *et al. Vaccine* 2007;25:8326–37; 3. Varghese L, *et al. BMC Geriatr* 2017;17:30; 4. Schmader K, *et al. J Infect Dis* 2008;197:S207–15

Age-related decline in immunity and IC conditions increase shingles risk*[1–3]



Conceptual depiction of disease state. Adapted from Arvin. Aging, Immunity, and the Varicella–Zoster Virus. 2005 [2]

*Immunodeficiency caused by medical conditions or immunosuppressive medications may also increase the risk of shingles[1]
IC, immunocompromised; VZV, varicella zoster virus; YOA, years of age

1. Harpaz R, et al. MMWR Recomm Rep 2008;57:1–30; 2. Arvin. Aging, Immunity, and the Varicella–Zoster Virus. N Engl J Med 2005; 352:2266-2267 ; 3. Tseng HF, et al. J Infect Dis 2016;213:1872–5

A compromised immune system increases the risk of herpes zoster[1,2]

HZ risk increases with decline in immune system function[2,3]

Compromised immune system

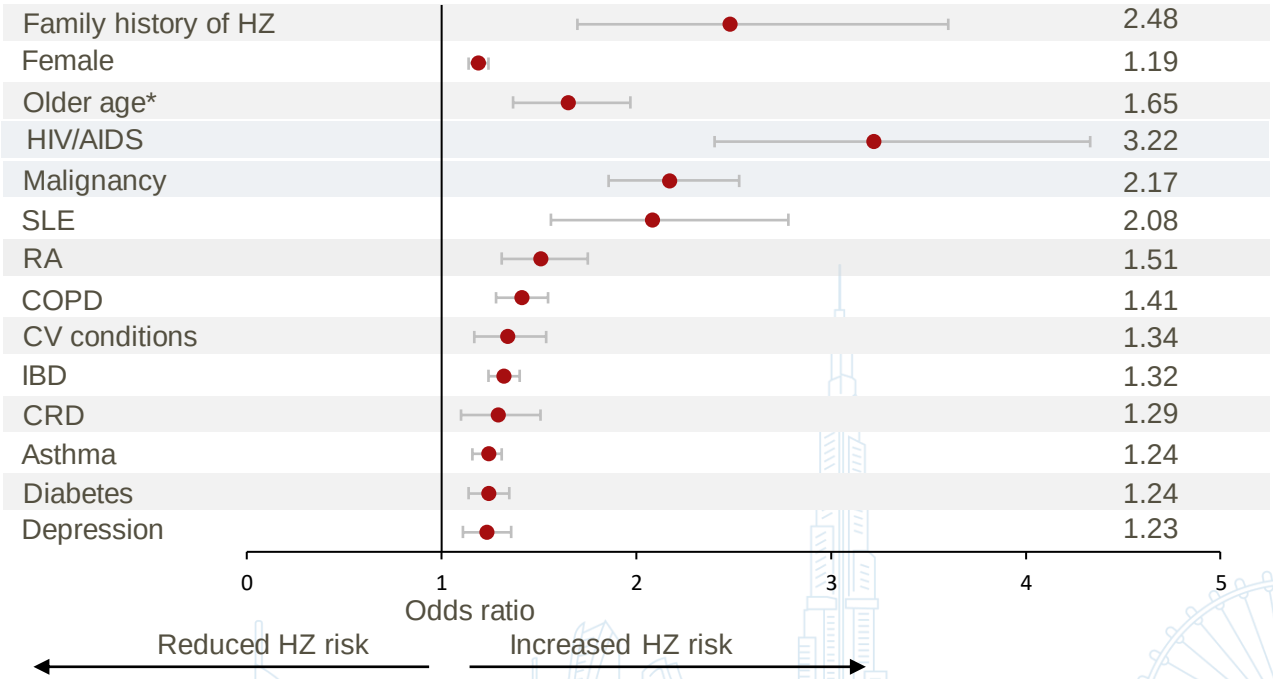
Patients with **immunodeficient conditions**[2] and those on **immunosuppressive drugs**[4]

HIV infection

HIV-related immunosuppression significantly increases the risk of HZ (RR, 3.22)[2]

- The incidence of HZ is substantially lower among HIV patients who are receiving ART[5]

Meta-analysis: selected risk factors for HZ[2]



The graph has been independently created by GSK from the original data published in Marra *et al.* 2020.

*Studies reported HZ risk within the following age groups: ≥60 years (36 studies), ≥50 years (2 studies), ≥40 years (1 study)

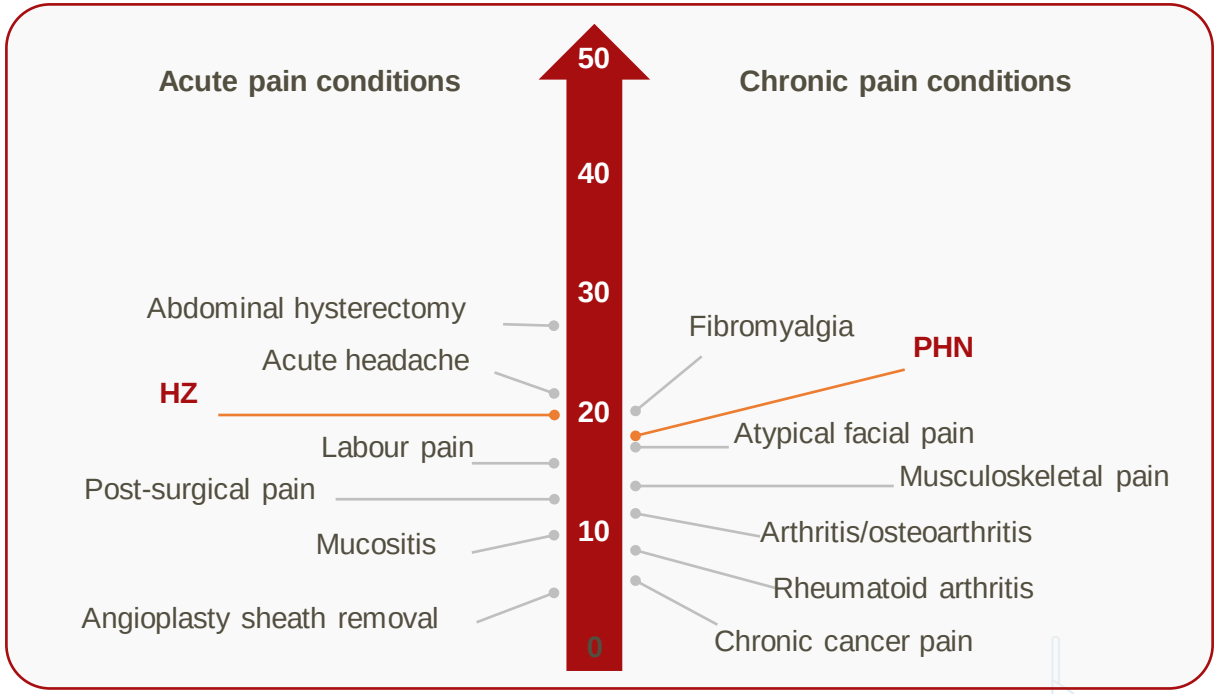
AIDS, acquired immune deficiency syndrome; ART, antiretroviral therapy; COPD, chronic obstructive pulmonary disease; CRD, chronic renal disease; CV, cardiovascular; HIV, human immunodeficiency virus; HZ, herpes zoster; IBD, inflammatory bowel disorder; RA, rheumatoid arthritis; RR, relative risk; SLE, systemic lupus erythematosus

1. John A, Canaday DH. *Infect Dis Clin North Am* 2017;31:811–826; 2. Marra F *et al. Open Forum Infect Dis* 2020;7:1–8; 3. Government of Canada Herpes zoster (shingles) vaccine: Canadian Immunization Guide 2022. www.canada.ca/en/public-health/services/publications/healthy-living/canadian-immunization-guide-part-4-active-vaccines/page-8-herpes-zoster-(shingles)-vaccine.html (accessed September 2022); 4. Kennedy PGE *et al. Viruses* 2018;10:609; 5. Ku HC *et al. J Clin Med* 2021;10:2300

2.
Patient Counselling

Herpes zoster-related pain can be extremely debilitating for the patient[1-3]

Level of pain reported for different conditions using the short-form McGill Pain Questionnaire[4]



"I got shingles on the right side of my abdomen...the pain was out of this world"[1]

– Ann, patient with HZ

"I would rather have ten babies than the pain I've endured for the past ten years"[2]

– Etta, patient with PHN, IAC patient testimonial

"Five years later, I still take prescription medication for pain. My shingles rash quickly developed into open, oozing sores that…required me to be hospitalised…It was totally debilitating."[3]

– A 63-year-old harpist who was unable to continue playing due to HZ

HZ, herpes zoster; IAC, Immunization Action Coalition; PHN, post-herpetic neuralgia. Figure reproduced from Katz J *et al. Surg Clin North Am* 1999;79:231–252, with permission from Elsevier

1. Tuzi A, Watson CP. Herpes zoster: A patient's perspective. In: Watson CP *et al.* (eds). *Herpes Zoster: Postherpetic Neuralgia and Other Complications*. Cham, Switzerland: Adis, 2017; 2. Zamula E. Immunization Action Coalition 2001. Available at: https://www.immunize.org/reports/report089.asp (accessed February 2021);
3. Centers for Disease Control and Prevention. Shingles (herpes zoster): Fact Sheet 20181; 4. Katz J *et al. Surg Clin North Am* 1999;79:231–252

Herpes zoster-related pain interferes with multiple aspects of life

Activity	Interference of HZ pain (n=874)	Interference of PHN (n=131)
General activity	4.4	5.2
Mood	4.5	5.7
Walking ability	2.8	4.5
Normal work	4.1	5.4
Social relations	3.3	4.5
Sleep	4.7	6.3
Enjoyment of life	3.9	5.2

0 → Mean interference score → 10

0 → Mean interference score → 10

21% of respondents reported high interference of HZ pain/PHN on their overall QoL

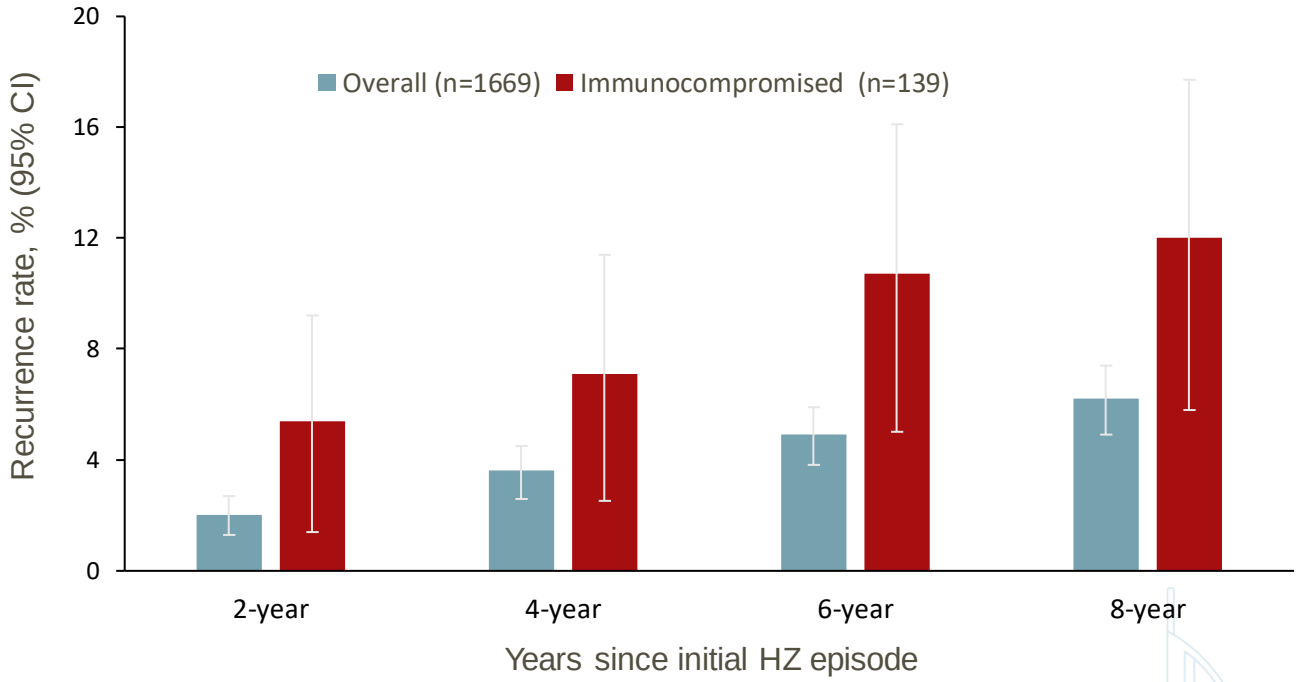
HZ, herpes zoster; PHN, post-herpetic neuralgia; QoI, quality of life. The figure has been independently created by GSK from the original data published in Lukas K *et al*. 2012

Lukas K *et al*. *J Public Health* 2012;20:441-451

Recurrence of Herpes Zoster:

Recurrence study in the United States, 1996–2007

Recurrence rate after initial HZ episode



Among 1669 patients with initial HZ, the recurrence rate was **6.2%** over a mean of 7.3 years' follow-up

Recurrence was **observed in a different dermatome** to the initial episode in **45% of cases**

HZ recurrence ranged from **96 days to 10 years** after the initial episode

HZ recurrence was **more common in patients with pain duration ≥30 days**;
HR: 2.8 (95% CI: 1.8–4.3), *P*<0.01

CI, confidence interval; HR, hazard ratio; HZ, herpes zoster

Yawn BP *et al. May Clin Proc* 2011;86:88–93

3.

Vaccine Efficacy and Safety

Current HZ treatment is suboptimal; Effective preventative strategies are required[1]

Treatment of acute HZ[2]

- Antivirals started within 72 hours of rash onset
- However, treatment within this timeframe is often not achievable

Management of HZ pain[2]

- Simple analgesics
- Drugs for neuropathic pain
- Combination therapy[3]
- Current treatment options for PHN are suboptimal and commonly involve a high degree of polypharmacy

Prevention of HZ[1]

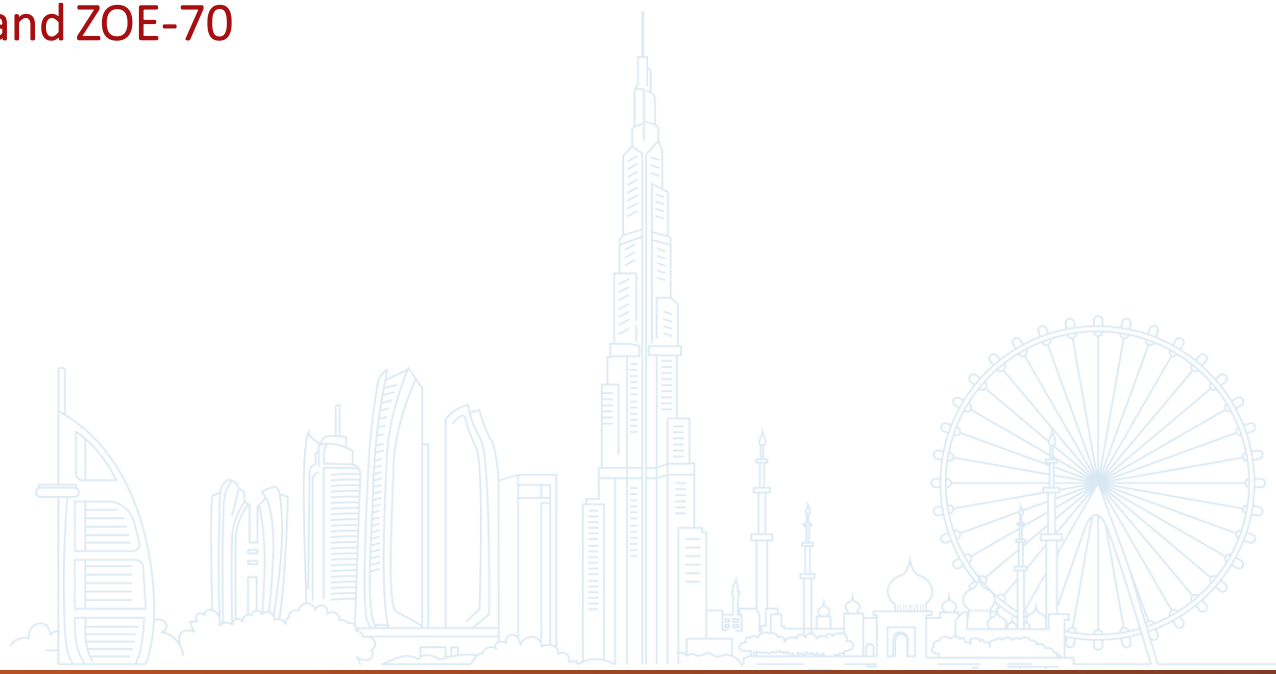
- Since 2006, Zoster Vaccine Live (ZVL)[4,5]
  - ❖ Limited efficacy across older age groups
  - ❖ Decline in efficacy over time
  - ❖ Contraindicated in IC populations
- Since 2017, Recombinant Zoster Vaccine (RZV)[6,7]

PHN, postherpetic neuralgia

1. Johnson RW, *et al. BMC Med* 2010;8:37; 2. Harpaz R, *et al. MMWR Recomm Rep* 2008;57:1–30; 3. Massengill JS, Kittredge JL. *J Pain Res* 2014;7:125–32; 4. Merck & Co. *Zostavax* Prescribing information: US FDA; [updated Sept 2019]. Available from: https://www.merck.com/product/usa/pi_circulars/z/zostavax/zostavax_pi2.pdf; 5. Tseng.HF, *et al. J Infect Dis* 2016;213:1872–5; 6. Shingrix Prescribing information: US FDA; [revised Oct 2019]. Available from: https://www.gsksource.com/pharma/content/dam/GlaxoSmithKline/US/en/Prescribing_Information/Shingrix/pdf/SHINGRIX.PDF; 7. Shingrix product Monograph, Canada [revised March 2019]. Available from: http://ca.gsk.com/media/1350788/shingrix_pm-2017-10-13.pdf;

RZV Efficacy

ZOE-50 and ZOE-70



VEHZ for RZV in ZOE-50 and ZOE-70[1,2]

Overall and by age group

Age (years)	RZV*		Placebo*		VE_{HZ} (95% CI)†
	HZ cases (N)	Rate of HZ (per 1,000 person-years)	HZ cases (N)	Rate of HZ (per 1,000 person-years)	
ZOE-50[1‡]					
Overall (≥50)	**6 (7,344)**	**0.3**	**210 (7,415)**	**9.1**	**97.2** (93.7, 99.0)
50–59	3 (3,492)	0.3	87 (3,525)	7.8	**96.6** (89.6, 99.3)
60–69	2 (2,141)	0.3	75 (2,166)	10.8	**97.4** (90.1, 99.7)
Pooled analysis of ZOE-50 and ZOE-70[2]					
Overall (≥70)	**25 (8,250)**	**0.8**	**284 (8,346)**	**9.3**	**91.3** (86.8, 94.5)
70–79	19 (6,468)	0.8	216 (6,554)	8.9	**91.3** (86.0, 94.9)
≥80	6 (1,782)	1.0	68 (1,792)	11.1	**91.4** (80.2, 97.0)

*Modified vaccinated cohort (excludes subjects not receiving dose 2 or who developed HZ within 1 month after dose 2); †p<0.001 for all comparisons vs placebo; ‡Mean follow-up 3.2 years; CI, confidence interval; N, number of subjects; HZ, herpes zoster; RZV, recombinant zoster vaccine; VE_{HZ}, vaccine efficacy for HZ

1. Lal H, *et al. N Engl J Med* 2015;372:2087–96; 2. Cunningham AL, *et al*. *N Engl J Med* 2016;75:1019–32

HZ *COMPLICATIONS* among groups ≥50 and ≥70 years of age*

Prespecified, pooled analysis of ZOE-50 and ZOE-70*

Age (years)	RZV*		Placebo*		VE_{PHN} (95% CI)‡
	PHN cases† (N)	Rate of PHN (per 1,000 person-years)	PHN cases† (N)	Rate of PHN (per 1,000 person-years)	
≥50	4 (13,881)	0.1	46 (14,035)	0.9	**91.2%** (75.9, 97.7)
≥70	4 (8250)	0.1	36 (8346)	1.2	**88.8%** (68.7, 97.1)

In a post-hoc, pooled analysis (ZOE-50 and ZOE-70): RZV reduced non-PHN complications (such as HZ vasculitis, disseminated, ophthalmic and neurological disease) versus placebo[2]

VE in subjects **≥50 years** of age was 93.7% (95% CI 59.5, 99.9), p=0.0003

VE in subjects **≥70 years** of age was 91.6% (95% CI 43.3, 99.8), p=0.0035

Mean follow-up 3.8 years in subjects ≥50 years old; *Modified vaccinated cohort (excludes subjects not receiving dose 2 or who developed HZ within 1 month after dose 2); †PHN defined as HZ-associated pain ≥3 (on a 0–10 scale), occurring or persisting for ≥90 days following the onset of rash using Zoster Brief Pain Inventory (ZBPI); ‡p<0.001 for both comparisons versus placebo; CI, confidence interval; HZ, herpes zoster; N, number of subjects; PHN, postherpetic neuralgia; RZV, recombinant zoster vaccine; VE, vaccine efficacy

1. Cunningham AL, *et al. N Engl J Med* 2016;75:1019–32; 2. Kovac M, *et al. Vaccine* 2018;36:1537–41

VEHZ by current baseline condition (pooled ZOE-50/70 analysis, subjects ≥50 YOA)[1]

mTVC; First or only episode of HZ during the entire study period by baseline condition using Poisson method

Medical condition	RZV		Placebo		VE % (95% CI)
	N	Rate HZ/1000 py	N	Rate HZ/1000 py	
Hypertension	7,206	0.8	7,226	9.5	91.9 (87.3–95.1)
Osteoarthritis and/or vertebral disorders	4,951	0.9	5,032	9.6	91.1 (85.1–95.0)
Dyslipidemia	4,628	0.9	4,707	9.7	91.2 (85.1–95.2)
Diabetes	2,350	0.8	2,372	9.2	91.2 (81.1–96.6)
Osteoporosis/Osteopenia	1,481	0.9	1,528	13.0	92.9 (82.7–97.8)
Gastroesophageal reflux disease	1,334	1.2	1,313	9.1	86.9 (69.0–95.4)
Sleep disorder	1,304	0.8	1,309	11.7	93.1 (81.4–98.2)
Prostatic diseases	1,244	0.4	1,285	10.7	96.1 (85.1–99.5)
Hypothyroidism	1,167	0.9	1,147	6.6	86.2 (60.4–96.5)
Depression	1,017	0.5	987	8.1	93.4 (74.1–99.2)
Coronary heart disease	1,003	0.3	1,055	8.9	97.0 (82.3–99.9)
Cataract	782	1.3	800	14.0	90.4 (73.4–97.5)
Asthma	646	1.2	689	10.9	88.8 (63.6–97.8)
Respiratory disorders*	614	1.4	560	8.7	84.5 (46.4–97.1)
Renal disorders	308	0.9	300	7.0	86.6 (-4.5–99.7)

*Other than asthma

mTVC, modified total vaccinated cohort; N = number of subjects included in each group ; n = number of subjects having at least one confirmed HZ episode, LL, UL = 95% Lower and Upper confidence limits; py, person years; VE (%) = Vaccine Efficacy (Poisson method); YOA, years of age

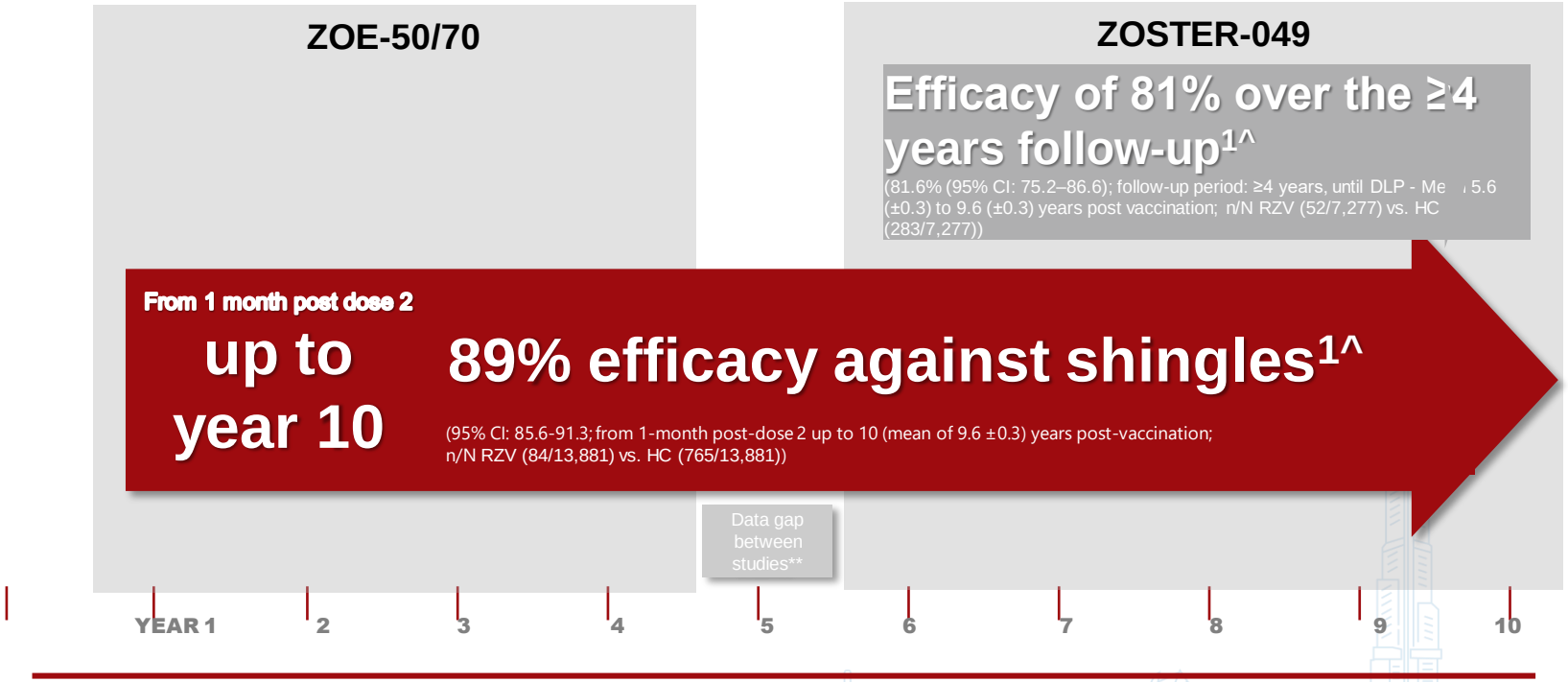
1. Oostvogels et al, Hum Vaccin Immunother. 2019;15(12):2865-2872.

Long-term Follow-Up Study (ZOE-LTFU)

Zoster-049 - Extension study of ZOE-50 and ZOE-70 to assess RZV-induced immunogenicity persistence and long-term vaccine efficacy against HZ

SHINGLES PROTECTION THAT LASTS UP TO YEAR 10[1]

ZOSTER-049 interim analysis:



The same results were first published in Strezova A, et al. Open Forum Infectious Diseases, 2022. The graph has been independently created by GSK from the original data.
**No data are available for year 5 because that period corresponds to the gap between ZOE-50/70 and the Zoster-049 follow-up study[1]
^ Of the 14,648 ZOE-50/70 participants who received at least 1 RZV dose, 7,413 (50.6%) were enrolled in ZOSTER-049. Of these, 7,277 had previously received both RZV doses and were included in the mTVC for the efficacy assessments. In the absence of an unvaccinated placebo group for the LTFU study, the efficacy analyses in ZOSTER-049 used historical control estimates from the ZOE-50/70 placebo groups recorded during the trials. At this DLP, data accrual was complete through year 9. Results for year 10 are also included although still incomplete, precision of estimates for this time point will increase at the final analysis.[1,2]

CI=confidence interval; DLP=data lock point, DLP set when the last participant had reached 4-years of follow-up; HC=historical controls; HZ=herpes zoster; mTVC, modified total vaccinated cohort; N, number of individuals included in each group; n, number of individuals having at least one confirmed herpes zoster episode; RZV, recombinant zoster vaccine.

1. Strezova A, et al. Open Forum Infect Dis 2022;9:ofac485; **2.** Boutry C, et al. Clin Infect Dis. 2022;74(8):1459-1467

RZV Safety

Any grade and grade 3 solicited local adverse reactions reported up to 7 days post-vaccination*[1–4]

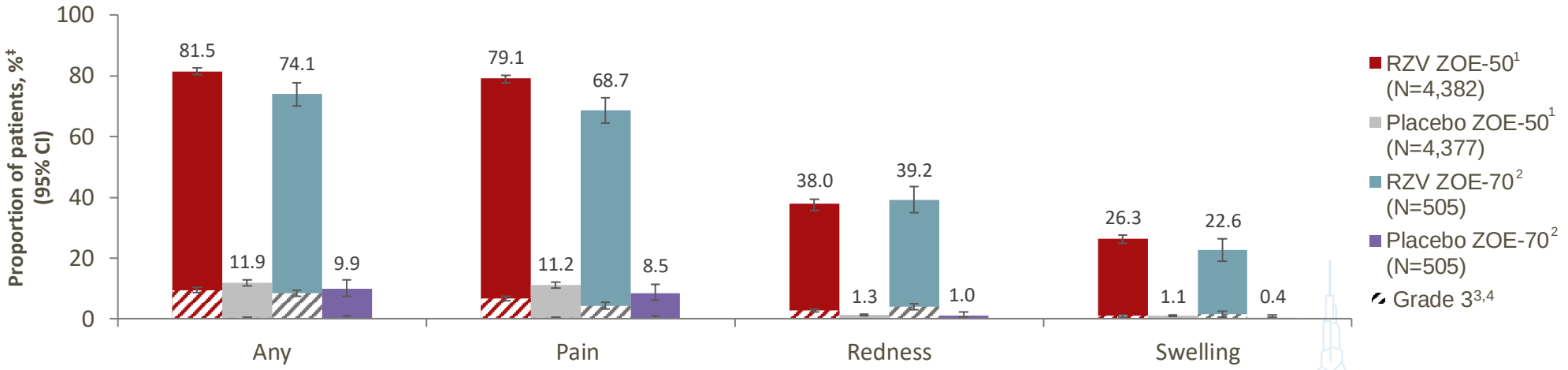


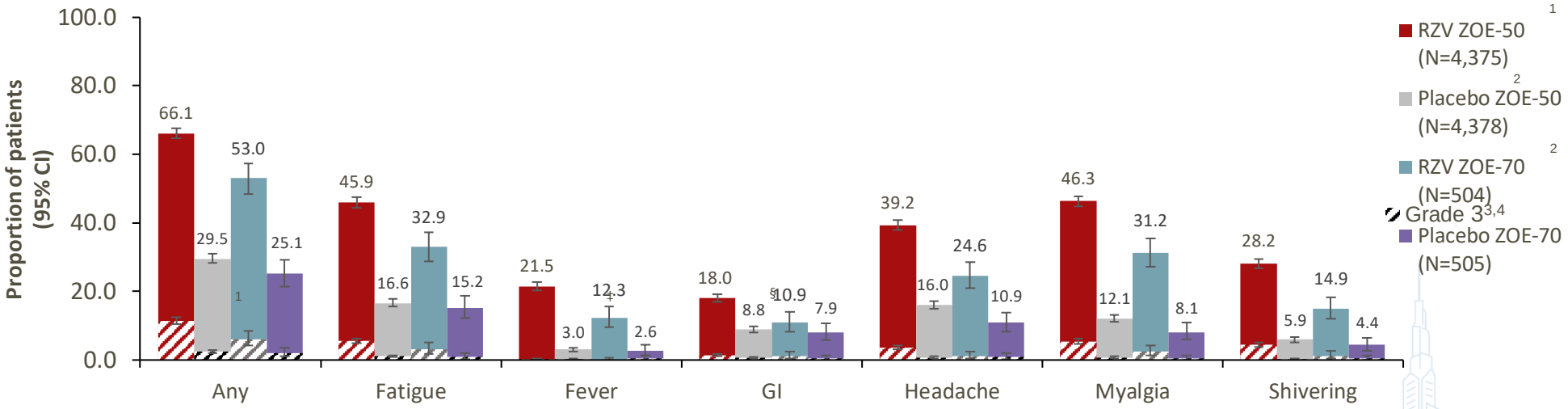
Figure drafted from raw data within article from Lal H, et al. N Engl J Med 2015;372:2087–96; Cunningham AL, et al. N Engl J Med 2016

Median duration of <u>any grade</u> solicited local reactions
ZOE-50: pain, redness and swelling = 3 days[3]
ZOE-70: pain = 2 days; redness and swelling = 3 days[2]

Median duration of <u>grade 3†</u> solicited local reactions
ZOE-50: pain = 1 day; redness and swelling = 2 days[1]
ZOE-70: pain = 1.5 days; redness = 2 days; swelling = 1 day[2]

*Subgroup of age stratified subjects recorded injection-site reactions and systemic reactions on diary cards for 7 days after each injection; †Grade 3, redness and swelling at the injection site were scored as grade 3 for those more than 100 mm. All other symptoms were scored as 3 for preventing normal activity; ‡Percentage of subjects reporting the symptom at least once when the intensity is maximum
1. Lal H, *et al. N Engl J Med* 2015;372:2087–96; 2. Cunningham AL, *et al. N Engl J Med* 2016;75:1019–32; 3. Study 110390: GSK Clinical Study Report 2016.
Available at: https://www.gsk-studyregister.com/study/3283; 4. Study 113077: GSK Clinical Study Report 2016. Available at: https://www.gsk-studyregister.com/en/trial-details/?id=113077

Any grade and grade 3 solicited systemic adverse reactions reported post-vaccination*[1–4]



Median duration of <u>any grade</u> solicited systemic reactions
ZOE-50: fatigue, GI, headache and myalgia = 2 days; fever and shivering = 1 day[3]
ZOE-70: fatigue, fever GI, headache, amd myalgia = 2 days; shivering = 1 day[2]

Median duration of <u>grade 3†</u> solicited systemic reactions
ZOE-50: all grade 3 adverse reactions = 1 day[1]
ZOE-70: fatigue, GI, HA and shivering = 1 day; myalgia = 2 days[2]

*Subgroup of age stratified subjects recorded injection-site reactions and systemic reactions on diary cards for 7 days after each injection; †Grade 3: temperature >39°C (preferred route: oral); all other symptoms were scored as 3 for preventing normal activity. ‡Fever (≥37.5°C/≥99.5°F); §GI symptoms included nausea, vomiting, diarrhea, and/or abdominal pain; GI, gastrointestinal; N, number of subjects with at least 1 documented dose; %, percentage of subjects reporting the symptom at least once when the intensity is maximum

1. Lal H, *et al. N Engl J Med* 2015;372:2087–96; 2.Cunningham AL, *et al. N Engl J Med* 2016;75:1019–32; 3. Study 110390: GSK Clinical Study Report 2016. Available at: https://www.gsk-studyregister.com/study/3283; 4. Study 113077: GSK Clinical Study Report 2016. Available at: https://www.gsk-studyregister.com/en/trial-details/?id=113077

4.

Recommendations for HZ vaccine by DHA

Recommendations of herpes zoster vaccines by DHA

- **Zoster vaccination (Routine vaccination)**
  - **Age 50 years or older:**

    a) 2-dose series RZV (Shingrix) 2–6 months apart (minimum interval:4 weeks; repeat dose if administered too soon), regardless of previous herpes zoster or history of zoster vaccine live (ZVL, Zostavax) vaccination (administer RZV at least 2 months after ZVL).

  - **Immunocompromising conditions:**

a) Adults with immunosuppression should generally avoid live vaccines. Inactivated vaccines (e.g., pneumococcal vaccines) are generally acceptable.

b) High-level immunosuppression includes HIV infection with a CD4 cell count <200 cells/μL, receipt of daily corticosteroid therapy with ≥20 mg of prednisone or equivalent for ≥14 days, primary immunodeficiency disorder (e.g., severe combined immunodeficiency or complement component deficiency), and receipt of cancer chemotherapy.

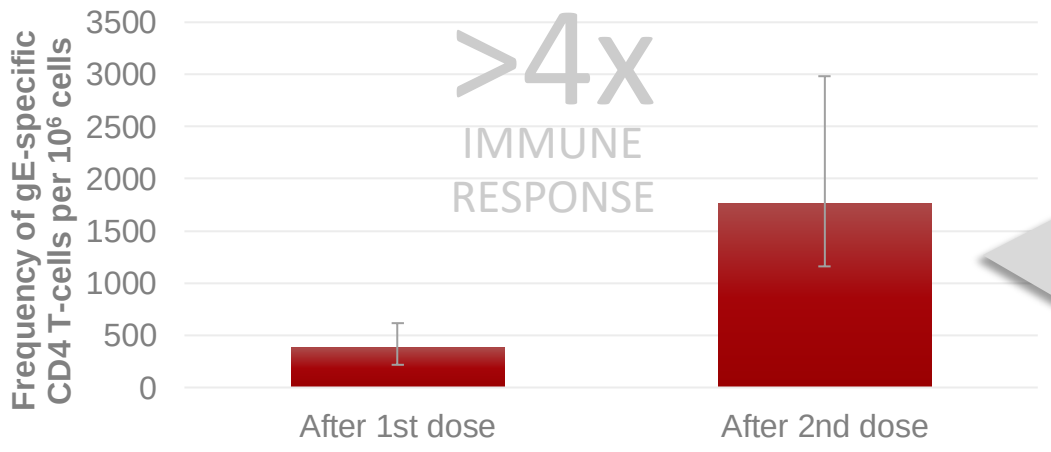
c) Other immunocompromising conditions and immunosuppressive medications to consider when vaccinating adults can be found in IDSA Clinical Practice Guideline for Vaccination of the Immunocompromised Host. Additional information on vaccinating immunocompromised adults is in General Best Practice Guidelines for Immunization.

- Diabetes Type 1 and Type 2
- Cardiovascular Disease
- Liver Disease.
- Renal Disease.
- Weakened Immune System.
- Lung Disease including Asthma.
- HIV Infection.
- Heart Disease, Stroke, or Other

https://www.dha.gov.ae/uploads/112021/63d6a549-dd8b-40e0-a2dc-7feb84850b34.pdf (Accessed Feb 2023)

Two Doses of RZV are required to induce strong immune response against VZV[1]

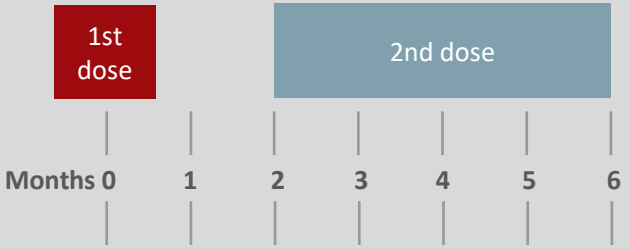
2 doses of RZV generated a >4x increase in cellular immune response vs to 1 dose[2*]



Vaccination schedule consists of initial dose followed by a second dose 2 months later[1]

If flexibility is necessary, the second dose can be administered between 2 and 6 months after the first dose[1]

For Adults 50 years of age or older



The same results were first published in Vaccine. Figure independently created by GSK from the original data published in Chlibek R, et al. 2014.[2]

An immunological correlate of protection has not been established; therefore, the level of immune response that provides protection against HZ is unknown.[1]

*Data in subjects 60+. CD4=cluster of differentiation 4; gE=glycoprotein E; HZ=herpes zoster; VZV=varicella zoster virus.

1. Shingrix local prescribing information; 2. Chlibek R, et al. Vaccine. 2014;32(15):1745-1753.

Data Supports Co-Administration* with the following vaccines:

- ✓ **Influenza** (unadjuvanted inactivated seasonal)[1,2]
- ✓ **Pneumococcal** (PPV23)[1,3]
- ✓ **Diphtheria-Tetanus-Pertussis** (Tdap)[1,4]

Coadministration generally well tolerated[1-4]

No safety issue raised[1-4]

No immunologic interference observed[1-4†]

*All 3 completed studies included in EU SMPC. Only inactivated influenza vaccine co-administration included in US PI.[1,5]
†Non-inferiority criterion met for humoral response to SHINGRIX and for all Tdap antigens except pertactin. Clinical relevance unknown.[4]
PI=prescribing information; PPV23=23-valent pneumococcal polysaccharide vaccine; SMPC=summary of product characteristics; Tdap=tetanus, diphtheria and acellular pertussis vaccine.

1. Shingrix local prescribing information; **2.** Schwarz TF, et al. J infect Dis. 2017;216(1):1352–1361; **3.** Marechal C, et al. Vaccine. 2018;38(29):4278–4286.
4. Strezova A, et al. Vaccine. 2019;37(39):5877–85. 5. Shingrix (prescribing information). GlaxoSmithKline; 2021

Closing thoughts

How can HCPs communicate effectively with public about vaccines?

PATIENT COUNSELING

- Use **patient-friendly** language[3]
- Gain their **trust**[2]
- **Reinforce understanding** of the benefits/risks of vaccines[3]

HCPs have a responsibility to increase the awareness of the public on vaccines and vaccination-related topics

1. Maltezou HC, Poland GA. Healthcare (Basel) 2016;4;
2. Harmsen IA, et al. BMC Public Health 2013;13;1183
3. WHO, 2016. Vaccine Safety communication. https://iris.who.int/bitstream/handle/10665/208263/9789290617464_eng.pdf?sequence=1. (accesses April 2024).

PRESCRIBING INFORMATION FOR UAE
Herpes zoster vaccine (recombinant, adjuvanted)

Please scan the QR code for the Shingrix PI

Date of Preparation: April 2024
PM-AE-SGX-PPTX-240017

For more information, please refer to the prescribing information or contact GlaxoSmithKline via gcc.medinfo@gsk.com

To report Adverse Event/s associated with the use of GSK product/s, please contact us via gulf.safety@gsk.com

To report quality complaint/s associated with the use of GSK product/s, please contact us via Gulf.ProductQualityComplaints@gsk.com

Date of Preparation: April 2024
PM-AE-SGX-PPTX-240017

Thank you!