



Cost-Effectiveness Analysis of RSVPreF3 OA Vaccine in Greece for Adults Aged ≥ 60 Years

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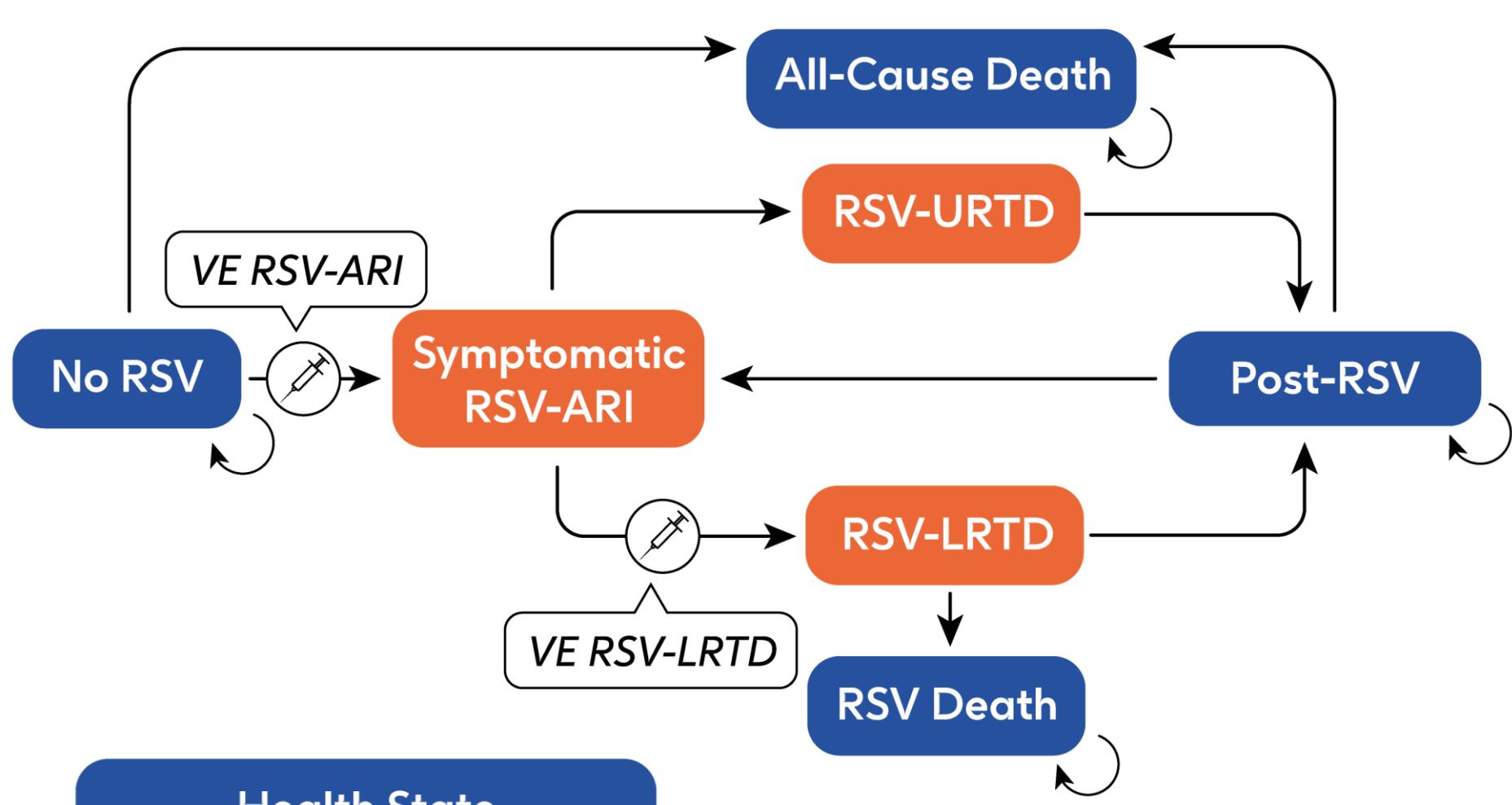
Vaccinating adults aged 70+ and those aged 60-69 with underlying medical conditions with adjuvanted RSVPreF3 is a cost-effective strategy that significantly reduces RSV's burden in Greece.

Aims

- This study aims to assess the cost-effectiveness and public health impact (PHI) of the GSK adjuvanted RSVPreF3 vaccine, one of the approved preventive interventions for respiratory syncytial virus (RSV) for ≥ 60 years population in Greece.

Study design

Static Markov Model Design



Health State

Disease Transition Event

- A monthly-cycle static Markov model
 - adults aged 60-69 years with underlying medical conditions
 - adults aged ≥ 70 years from general population



Healthcare system perspective analyzing costs and benefits of vaccination from a healthcare system's viewpoint only



Time Horizon: 5 years



Cost per dose: € 162.5



Vaccination Coverage: One-time vaccination 20% among General 70+ population and High-Risk 60-69 population



Discount rates: 3.5% for costs and utilities



Scenario: Vaccination vs No vaccination

Results

Adjuvanted RSVPreF3 vaccine would substantially reduce the burden of RSV among greek adults aged ≥ 60 years by preventing RSV-LRTD events, hospitalizations, and deaths. Cost-effective outcomes are provided over 5 years.

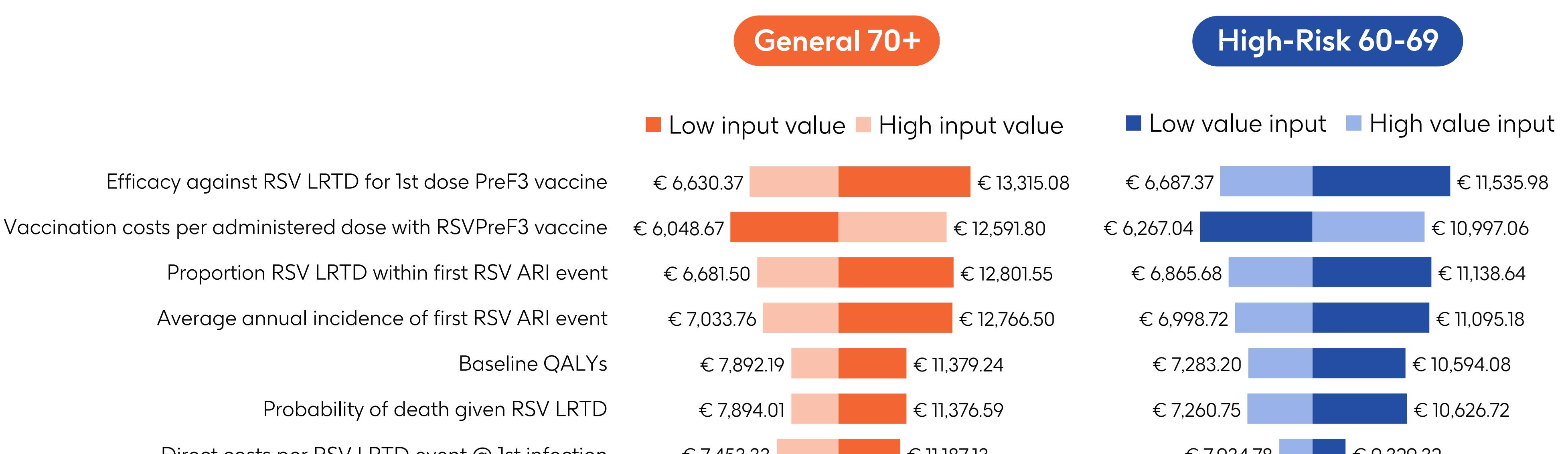
	Dose administered	ARI cases	LRTD cases	Hosp.	Deaths
General 70+*	350,258	32,576	21,225	3,378	478
High-Risk 60-69**	139,571	13,925	9,015	1,569	116
Vaccination costs (€)					
General 70+*	57 M				
High-Risk 60-69**	23 M				
Averted direct costs (€)					
General 70+*	22 M				
High-Risk 60-69**	5 M				
QALYs gained					
General 70+*	3,479				
High-Risk 60-69**	1,918				
ICER (€/QALY)					
General 70+*	9,320				
High-Risk 60-69**	8,632				

* adults aged ≥ 70 years from general population; **adults aged 60-69 years with underlying medical conditions

Number needed to vaccinate (NNV) to prevent one case of ARI, LRTD, hospitalization, ICU admission, and deaths.

	OP	LRTD cases	Hosp.	ICU	Death
General 70+*	27	17	104	640	739
High-Risk 60-69**	25	15	89	549	1,205

Vaccine efficacy against LRTD and vaccination costs per administered dose drive the impact on ICER in univariate sensitivity analysis of adjuvanted RSVPreF3 vaccine.



Background

- Respiratory syncytial virus (RSV) infections pose a significant health burden among adults aged ≥ 60 years worldwide.¹
- US data estimates an annual RSV incidence of 3-7% in healthy older adults, compared to 4-10% in risk groups.² In adults aged ≥ 65 years, the U.S. sees an estimated 159,000 RSV-related hospitalizations annually, similar to over 145,000 in the same age group across the EU.³
- The vaccine has been approved for the prevention of RSV-LRTD in individuals 50 years of age and older at increased risk in Europe.⁴

Abbreviations

RSV: respiratory syncytial virus, PHI: public health impact, LRTD: lower respiratory tract disease, NNV: number needed to vaccinate, QALY: quality adjusted life year, ICER: incremental cost effectiveness ratio, Hosp: hospitalization, ICU: intensive care unit

References

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Conclusions

Administering adjuvanted RSVPreF3 vaccine to adults aged 60 and older in Greece is a cost-effective approach that decreases RSV's burden, including hospitalizations, LRTD events, and deaths. It also enhances QALYs and lowers medical expenses associated with RSV.

Disclosures

Conflict of interest: EZ and AA are employed by GSK. EZ also holds financial equities in GSK. NK is a consultant working for GMAS which has received consulting fees from GSK for conducting ECONOMIC analyses. These authors declare no other financial and non-financial relationships and activities.

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