Cost-effectiveness and Budget Impact of Baloxavir Marboxil in the Netherlands based on Post-COVID Seasonal Influenza Scenarios

HPR40

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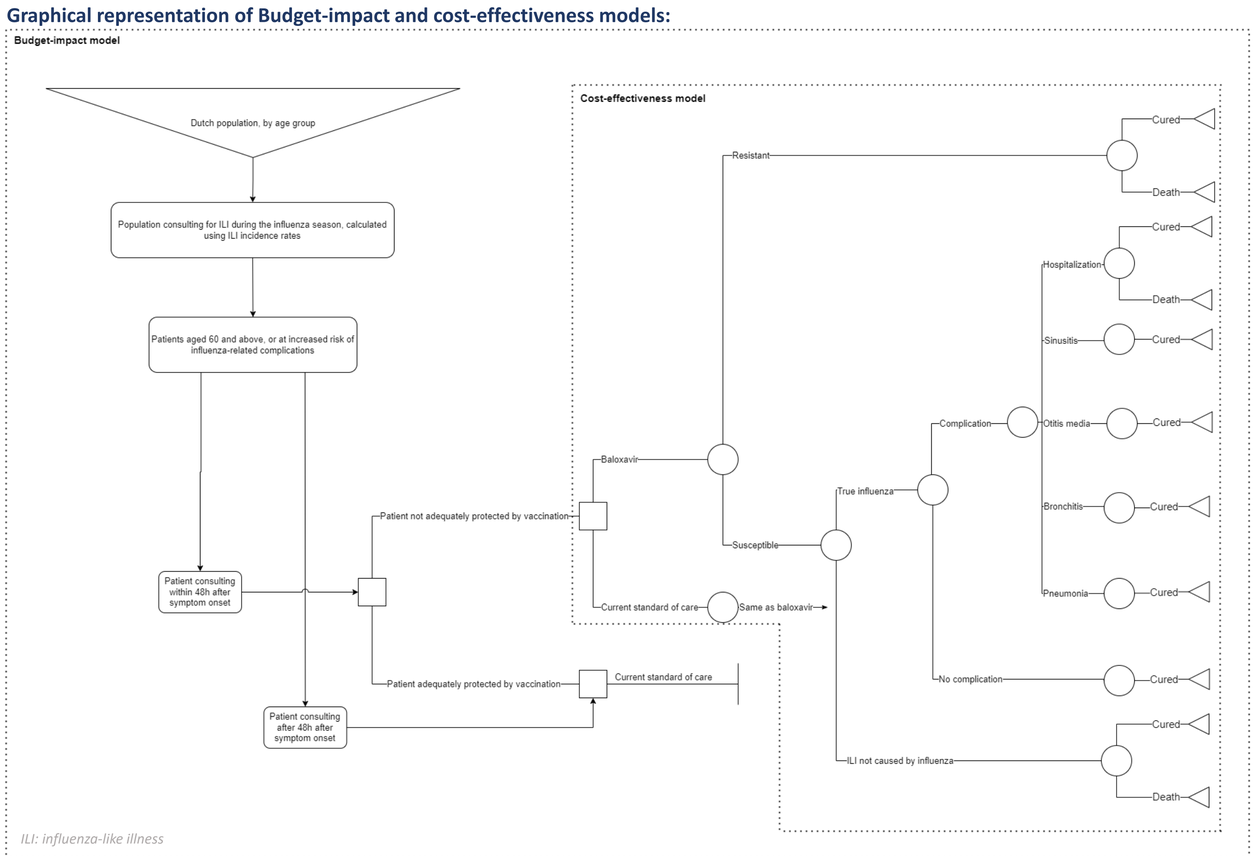
Introduction

Baloxavir marboxil is a novel antiviral treatment for influenza reducing the viral load in individuals infected with influenza. Baloxavir marboxil is effective in reducing illness duration and complications from influenza. Historically, antivirals against influenza have not been reimbursed in the Netherlands, hence no antiviral treatment is the current standard of care. However, after the COVID pandemic there is an increased uncertainty regarding the spread and severity of influenza. This increases the importance of identifying seasonal impact scenarios and the value different interventions can bring. **Therefore, the aim of this study was to assess the cost-effectiveness and budget impact of using baloxavir marboxil in the Netherlands for patients aged 60 and above and high-risk population who may not be adequately protected by the annual influenza vaccination.**

Methods

A health-economic model was built to assess the cost-effectiveness and 5-year budget impact of baloxavir marboxil in addition to the vaccination program for influenza in the Netherlands. The cost-effectiveness was assessed from the societal perspective over a lifetime horizon. To account for various potential influenza seasons, we modelled various scenarios based on the historical influenza incidence, type of circulating influenza virus, severity of complications and the effectiveness vaccination strategy.

Graphical representation of Budget-impact and cost-effectiveness models:



ILI: influenza-like illness

Results

Budget impact

Scenario	Incidence of influenza-like illness (annual average)	Vaccination coverage and effectiveness	Eligible consultations for baloxavir (annual average)	Incremental annual budget impact (annual average)
Base case	382,737	Based on historical data, 2014-2019	60,557	**€5,683,977**
Best case	295,252	Based on vaccination coverage first booster COVID-19, match of vaccine with circulating influenza	16,089	**€1,495,765**
Worst case	475,808	Mismatch of vaccine with circulating influenza, vaccination coverage not regarded	112,516	**€10,451,326**

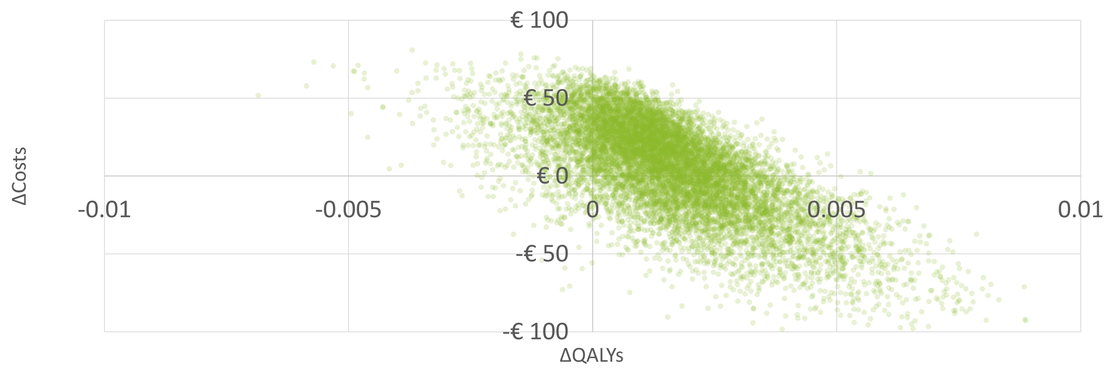
Productivity

Mean annual productivity gains: **8,200 days**

Cost-effectiveness

Base-case ICER: **€8,500 / QALY**

QALYs gained: 0.002; Additional costs: €13 (per patient)



Conclusion

The use of baloxavir marboxil versus no use of antivirals for the elderly and high-risk population in the Netherlands, was found to be **cost-effective**. The relatively low budget impact will vary depending on the epidemiological (outbreak) situation. As the incidence of influenza and vaccine effectiveness are currently difficult to predict, it is worthwhile to **invest in antiviral treatment for influenza to alleviate potential health losses, but also reduce influenza-related productivity losses.**

References

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