10 YEARS OF BREAKTHROUGHS A HEALTHIER FUTURE

RESCEU
REspiratory Syncytial virus Consortium in EUrope

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Developing a robust evidence base on RSV disease and economic burden using a multi-disciplinary approach

RM Reeves[1], X Li[2], T Shi[1], H Campbell[1], P Beutels[2], H Nair[1]
[1] The University of Edinburgh, Scotland [2] The University of Antwerp, Belgium

Facts & Figures

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Contributions	
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Project website:	www.resc-eu.org
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Challenge

Respiratory Syncytial Virus (RSV) – the most common pathogen associated with lower respiratory tract infection in young children – is considered one of the world's greatest unmet vaccine needs. However, there are crucial gaps in knowledge of RSV health and economic burden which need to be addressed in order to determine target populations for future interventions and vaccination programmes.

Approach & Methodology

RESCEU uses a multidisciplinary, international approach to address key gaps in knowledge of RSV. Three of the six RESCEU work packages use retrospective data to develop this robust evidence-base:

Work Package 1 – Systematic literature reviews

- Large-scale reviews to consolidate published and unpublished data on RSV epidemiology and burden

Work Package 2 – Consolidation of health care systems data

- Estimate RSV healthcare burden by age and risk group, using linked routine health data, in six European countries.
- Develop and promote the use of standard operating procedures for enhanced RSV surveillance across Europe.

Work Package 3 – Economic burden and model-based cost-effectiveness

- Assess direct and indirect costs of RSV infection as well as Health Related Quality of Life data.
- Explore cost-effectiveness of interventions against RSV using simulation models.

Results

RESCEU will produce detailed evidence of:

- RSV-associated hospital admissions, intensive care unit (ICU) admissions, primary care consultations and deaths in children <5 years, the elderly and other high-risk groups,
- Risk factors for RSV infection,
- Long-term disease sequelae (e.g. asthma),
- Overall and risk group specific direct and indirect costs to health care systems, patients and society in the short, medium and long term,
- Cost-effectiveness parameters for different options for intervention against RSV.

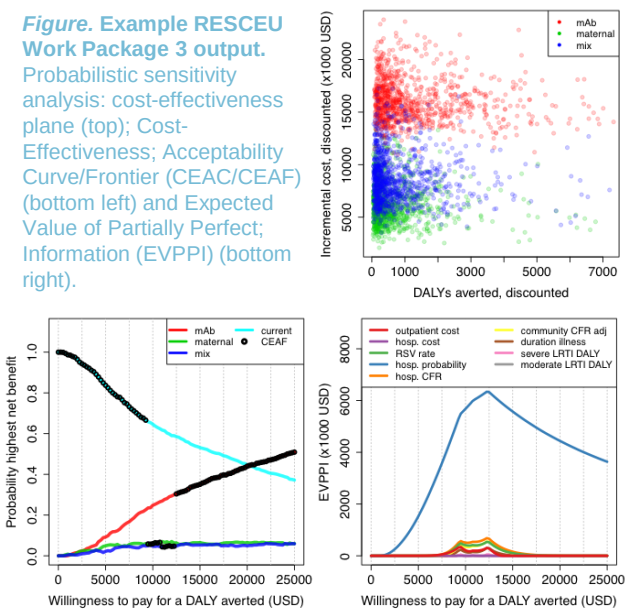

***Figure.* Example RESCEU Work Package 3 output.** Probabilistic sensitivity analysis: cost-effectiveness plane (top); Cost-Effectiveness; Acceptability Curve/Frontier (CEAC/CEAF) (bottom left) and Expected Value of Partially Perfect; Information (EVPPI) (bottom right).

** The evaluated strategies are: no RSV prevention ("current"); universal RSV vaccination in the third trimester of pregnancy ("maternal"); universal RSV monoclonal antibodies at birth ("mAb"); combination of maternal and mAb strategy, where mAb is only given to infants whose mother was not vaccinated ("mixed")*

Value of IMI collaboration

RESCEU's academic partners collaborate closely with industry partners who provide additional data and expertise. The benefits of this public private partnership (PPP) model include:

- Access to databases from unpublished industry-funded studies.
- Access to routine health care databases requiring subscription.
- Access to insurance claims datasets to analyse the economic burden of RSV.
- Independent development of cost-effectiveness analysis models by industry and academia.

Impact & take home message

RESCEU will significantly raise awareness of RSV among policy makers, clinicians, the public and regulators. The results of RESCEU will inform research investment prioritisation and national policy decisions on future vaccines and antivirals.

imi innovative medicines initiative efpia

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