INTRODUCTION:

The purpose of the study was to evaluate different type and manufacturers of intensive care ventilators in order to support the healthcare decision-making process about the choice to adopt the best available technology for ventilation of pediatric patient in intensive care units at Bambino Gesù Children's Hospital.

METHODS:

The technology assessment process was developed by using a new methodology, the Decision-oriented Health Technology Assessment (HTA) (DoHTA), a new implementation of the European Network for Health Technology Assessment (EUnetHTA) CoreModel, integrating the Analytic Hierarchy Process (1). A literature review was carried out to gather evidence on safety and overall effectiveness of different kind of intensive care ventilators, with several ventilation modalities and strategies. The synthesis of scientific evidence, and results of the specific context analysis resulted in the definition of components of the decisional hierarchy structure, consisting in detailed characteristics of the technology's performances covering the aspects on feasibility, safety, efficacy, costs, and organizational and technical characteristics of the technology. A subgroup of these indicators has been included in a checklist form for the evaluation of different type and manufacturers of intensive care ventilators, each of which was tested in three independent runs performed in three different departments. In addition, an economic evaluation was also carried out.

RESULTS:

Preliminary DoHTA results showed that the domains with the highest impacts within the evaluation are safety and clinical effectiveness (34.8 percent and 25.7 percent, respectively) followed by organizational aspects, technical characteristics of technology and costs and economic evaluation. The final objective is to define the alternatives' ranking through a comparison between alternative technologies' performances.

CONCLUSIONS:

The technology assessment project allowed to identify strengths and limits of the most recent intensive care ventilator' models in the specific contexts of use by involving all health professionals interested, and eventually identify the best option for the hospital.

REFERENCES:

1.Ritrovato M, Faggiano F, Tedesco G, Derrico P. Decision-Oriented Health Technology Assessment: One Step Forward in Supporting the Decision-Making Process in Hospitals. *Value Health*. 2015;18(4):505-11.

VP48 The Costs And Cost-Effectiveness Of Bacillus Calmette-Guérin (BCG) Vaccination In Estonia

AUTHORS:

Triin Võrno (triin.vorno@ut.ee), Rainer Reile, Margit Närska, Lea Pehme

INTRODUCTION:

Many countries that have used Bacillus Calmette-Guérin (BCG) vaccine against tuberculosis (TB) have switched from universal vaccination of infants and children to selective vaccination, or discontinued with vaccination at all. The aim of the study is to assess the costs and cost-effectiveness of BCG vaccination in Estonia.

METHODS:

A Markov cohort model and budget impact analysis were used to compare the current, universal BCG vaccination to selective and non-vaccination strategies. The epidemiological and economic impact of BCG vaccination were estimated for the period 2018–2032 following the hypothetical change in the vaccination policy in 2018. The results were presented as the cost per case of TB adverted, changes in the occurrence of TB and yearly (undiscounted) costs associated with vaccination and TB treatment.

https://doi.org/10.1017/S0266462317003300 Published online by Cambridge University Press

RESULTS:

In a cohort of 13,500 infants over a time-period of 15 years Estonian universal BCG vaccination prevents around two TB cases compared to selective or non-vaccination strategies. The cost per one TB case averted for the universal strategy compared to non-vaccination strategy was EUR12,234 (EUR4,059–28,748 in sensitivity analysis) and compared to selective vaccination EUR3,847 (EUR504–10,568). The number of TB cases in 0–14-year old children in 2032 was estimated to be 1.3 for universal vaccination, 2.7 for selective and 2.9 for non-vaccination strategy. The total costs of vaccination and TB treatment in 2032 were estimated to be EUR23,764, EUR16,459 and EUR7,553 respectively.

CONCLUSIONS:

The cost per case of TB averted is dependent on vaccine efficacy, and is high compared with the cost of treating one case of TB. At the same time, the total costs of BCG vaccination and TB treatment are marginal compared to other vaccination programs used in Estonia. Despite the limited budget impact, several organizational challenges need to be addressed if the universal program is replaced with selective BCG vaccination.

VP49 Brazilian Consumer Willingness To Pay For Dengue Vaccine (CYD-TDV)

AUTHORS:

Isabella Godói, André Santos, Edna Reis, Livia Pires de Lemos, Cristina Brandão, Juliana Alvares, Francisco Acurcio, Marion Bennie, Brian Godman, Augusto Guerra (augustoguerrajr@ufmg.br)

INTRODUCTION:

Dengue virus is a serious global health problem with an estimated 3.97 billion people at risk for infection worldwide. In December 2015, the first vaccine (CYD-TDV) for dengue prevention was approved in Brazil, developed by Sanofi Pasteur (1). However, given that the vaccine will potentially be paid via the public health system, information is needed regarding consumers willingness to pay for the dengue vaccine in the country, as well as discussions related to the possible inclusion of this vaccine into the public health system at prices suggested by the manufacturer. This was the objective of this research.

METHODS:

We conducted a cross-sectional study with residents of Greater Belo Horizonte, Minas Gerais, about their willingness to pay for the CYD-TDV vaccine. Respondents had to be over 18 years and not currently have the disease although they may have had dengue in the past (2,3).

RESULTS:

Five-hundred and seven individuals were interviewed, who were mostly female (62.4 percent), had completed high school (62.2 percent), were working (74.4 percent), had private health insurance (64.5 percent) and did not have dengue (67.4 percent). The maximum median value of consumers willingness to pay for the CYD-TDV vaccine, assuming vaccine efficacy against virologically-confirmed symptomatic dengue illness of approximately 60 percent, is USD33.61 (BRL120.00) for the complete 3-course schedule and USD11.20 (BRL40.00) per dose. At the price currently being assessed by the Brazil's regulatory chamber of pharmaceutical products market (CMED) for Dengvaxia® for three doses, only 17 percent of the population expressed a willingness to pay for the vaccine at this price.

CONCLUSIONS:

Brazil is currently one of the largest markets for dengue vaccine in the world and the price established is a key issue. The manufacturer should asses the possibility of lowering its price in Brazil to reach a larger audience among the Brazilian population, especially as other public health activities to control the disease will continue.

https://doi.org/10.1017/S0266462317003300 Published online by Cambridge University Press