

Introduction. Health Technology Assessment (HTA) agencies have recognized the importance of real-world evidence (RWE) to inform access decision-making and different HTA agencies establish distinct requirements for their local jurisdictions. The objective of this study is to understand the differences of RWE included in HTA reports and HTA agencies' perception of RWE.

Methods. HTA reports from agencies in France, Germany, Spain, Italy, United Kingdom (UK), Canada, Australia and South Korea from January 2011 to November 2021, including original submissions, resubmissions, extensions of original indications and renewals were analyzed.

Results. Across the eight countries, RWE has been used in nineteen percent of all HTA reports (N=2,960/15,561), with an exponential increase observed between 2019 and 2021. RWE on clinical effectiveness was mostly used in HTA submissions in the UK (twenty-two percent), with twenty-six percent perceived with full acceptance. In contrast, RWE on safety and epidemiology was reported widely in HTA reports in France and Germany (83% and 87%), respectively. Ninety-three percent of RWE received full acceptance in France, followed by forty-four percent in Germany. A mixed picture of the types of RWE included in HTA reports was observed in the other countries, with high variance of acceptance (between 5 to 37%).

Conclusions. France, Germany, and the UK are the top three countries with a large proportion of HTA reports where RWE was mentioned. The type of RWE used is related to a large extent to the local evidence requirements. For example, RWE around epidemiology was included widely in Germany due to the needs of providing local data for budget impact analyses required by the Federal Joint Committee (G-BA); RWE on tolerability as reported in periodic safety update reports (PSURs) needs to be included in French HTA submissions. RWE on clinical effectiveness has been evaluated the most by the UK HTA bodies.

PP24 Organizing Outpatient Parenteral Antibiotic Therapy: Lessons from Denmark

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Introduction. Outpatient Parenteral Antibiotic Therapy (OPAT) is a complex medical treatment used to treat patients with severe infections. OPAT is provisioned outside hospitals. There is wide variation in the use and organization of OPAT in Denmark. OPAT is increasingly used in Danish regions and municipalities, however, there is limited knowledge on the clinical, economic and organizational consequences of this technology. The purpose of the project was to establish an evidence base for decision-making prior to any further prioritization of OPAT as an alternative to intravenous antibiotic treatment in the hospital (IPAT). The HTA was produced at the request of the Health Directors in the Danish Regions to examine the consequences of using OPAT compared with IPAT.

Methods. The results were based on a systematic literature review and qualitative interviews with leaders (n=5), administrative

employees (n=5) and health professionals (n=13) involved in the delivery of OPAT. Furthermore, a micro-costing analysis based on interviews with clinical experts was conducted.

Results. The use of OPAT led to similar or better clinical results when compared with the use of IPAT. Current evidence supports OPAT as a safe model for intravenous antibiotic treatment. The organization of OPAT varied in Denmark as well as internationally. The selection of suitable patients for the different OPAT models was crucial for a successful treatment. Insight into patients' understanding of the pros and cons of the technology indicated that most patients preferred treatment at home. In a Danish context the microeconomic analysis showed that different OPAT models generally led to a reduction in costs compared with IPAT.

Conclusions. The project contributes to practice and political decision making by identifying challenges and opportunities associated with OPAT. There is no one-size-fits-all solution. The choice of OPAT model must be based on careful clinical considerations. Coordination and communication across municipalities and hospitals is challenging. Reducing organizational complexity is necessary to achieve a more standardized practice.

PP25 Brazilian Collaborative Network For COVID-19 Modeling: Successful Experience Of Using Real-Time Science To Support Evidence-Based Decision-Making

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Introduction. Modeling is important for guiding policy during epidemics. The objective of this work was to describe the experience of structuring a multidisciplinary collaborative network in Brazil for modeling coronavirus disease 2019 (COVID-19) to support decision-making throughout the pandemic.

Methods. Responding to a national call in June 2020 for proposals on COVID-19 mitigation projects, we established a team of investigators from public universities located in various regions throughout Brazil. The team's main objective was to model severe acute respiratory syndrome coronavirus 2 transmission dynamics in various demographic and epidemiologic settings in Brazil using different types of models and mitigation interventions. The modeling results aimed to provide information to support policy making. This descriptive study outlines the processes, products, challenges, and lessons learned from this innovative experience.

Results. The network included 18 researchers (epidemiologists, infectious diseases experts, statisticians, and modelers) from various backgrounds, including ecology, geography, physics, and mathematics. The criteria for joining the network were having a communication channel with public health decision-makers and being involved in generating evidence for public policy. During a 24-month period, the following sub-projects were established: (i) development of a susceptible-exposed-infected-recovered-like, individual-based meta-population and Markov chain model; (ii) projection of COVID-19 transmission and impact over time with respect to cases, hospitalizations, and deaths; (iii) assessment of the impact of non-pharmacological interventions for COVID-19; (iv) evaluation of the impact of reopening schools; and (v) determining optimal strategies for COVID-19 vaccination. In addition, we mapped existing COVID-19 modeling groups nationwide and conducted a systematic review of relevant published research literature from Brazil.

Conclusions. Infectious disease modeling for guiding public health policy requires interaction between epidemiologists, public health specialists, and modelers. Communicating modeling results in a non-academic format is an additional challenge, so close interaction with policy makers is essential to ensure that the information is useful. Establishing a network of modeling groups will be useful for future disease outbreaks.

PP26 Cost Utility Of Vaccination Against COVID-19 In Brazil

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Introduction. The severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), which causes coronavirus disease 2019 (COVID-19), is a single-strand ribonucleic acid virus that was first identified in January 2020 in patients with viral pneumonia in Wuhan, China. The virus has since spread rapidly around the world, leading the World Health Organization to declare it a pandemic on 11 March 2020. In Brazil there have been 21.8 million cases of SARS-CoV-2 infection and 608,500 deaths. The objective of this study was to evaluate the cost utility of the Oxford, CoronaVac, and Janssen vaccines from the perspective of the Brazilian public health system.

Methods. Three microsimulation models were constructed using individual data. The simulations contained seven transition states related to the natural history of COVID-19. The model with a daily cycle had a time horizon of one year and used data from 289 days of the pandemic. The analysis considered direct medical costs from the Brazilian health system perspective. Outpatient, hospital, and mortality databases were used for the model inputs and patient data were stratified by age. Effective vaccines reduced the likelihood of patients becoming ill. Information on the quality of life of patients receiving treatment in the outpatient or hospital setting and disease sequelae

were extracted from the published literature. The main outcome of the analysis was quality-adjusted life-years (QALYs).

Results. The vaccines had incremental cost-utility ratios ranging from USD 4,121 (Oxford) to USD 3,160 per QALY (CoronaVac). The older the population, the lower the incremental cost-utility ratio. Given a willingness-to-pay threshold of BRL 3,129 per QALY, all the vaccines were considered cost effective in the probabilistic sensitivity analysis. The incremental cost-effectiveness ratio stratified by age ranged from USD 6,327 per QALY in patients older than 75 years (Janssen) to USD 20,993 per QALY in patients younger than 59 years (CoronaVac).

Conclusions. The results of this analysis, stratified by patient age, can help in the preparation of a vaccination prioritization plan.

PP27 Reusing And Adapting Health Technology Assessments (HTAs): An Example From The COVID-19 Time

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Introduction. Health technology assessment (HTA) reports are complex technical documents that address multiple aspects of the incorporation of a technology into the health care system applying complicated methodologies coming from different disciplines. The purpose of HTA is to support decision-makers and these should have an adequate level of training to fully understand these assessments. However, most HTA education programs and courses are intended for HTA doers and there is a lack of practical guidance training aimed at preparing health managers or policy makers in HTA. The objective is to describe an HTA training program developed for decision-makers of the three levels (health care administration, hospital management and clinical practice).

Methods. Rolling Collaborative Review (RCR) 01 of convalescent plasma was identified and selected because it complied with our Population Intervention Comparator Outcome Design Question. The EUnetHTA HTA adaptation Toolkit was used to check the relevance (about research question); reliability (quality of the report) and transferability (application of information to the target setting). Additional considerations regarding the local context were examined. A panel of four professionals and one patient was formed to rate the importance of the outcomes and to carry out the external review. **Results.** According to the toolkit, information on RCR01 Convalescent Plasma could be adopted for the safety and effectiveness domains. The technical characteristics and current use domains were adapted and extended. It was considered of interest to include the domains of organization and ethics. The organizational aspects were answered through the information retrieved in a search for systematic reviews and guides, and with the collaboration of experts.