was IFN-NATA-ALEM (8.6 QALY gained). All treatment options were not cost-effective compared with usual care at the threshold of THB160,000 (USD5,300) per QALY gained. However, the option of IFN-NATA-ALEM yielded the lowest incremental cost-effectiveness ratio (ICER), which was THB4.4 million (USD144,778) per QALY gained.

Conclusions. High-cost drugs were not cost-effective; nonetheless, the IFN-NATA-ALEM option could increase QALY gained with the lowest additional budget. The government should negotiate the price of IFN to decrease by eighty percent.

OP135 Impact Of Updated Trial Data On The Cost-effectiveness Of Health Technologies: A Case Study On Percutaneous Mitral Repair

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Introduction. Extrapolation methods are commonly used to model the cost-effectiveness of health technologies beyond observed data. Reassessing cost-effectiveness estimates using updated clinical trial data has the potential to reduce uncertainty and optimize decision-making. We present a case study based on percutaneous repair (PR) with the Mitraclip system, a technology to treat severe secondary mitral regurgitation (MR). For the study purpose, we considered the COAPT trial that evaluated the effectiveness of adding PR to medical treatment versus medical treatment alone.

Methods. We developed a time-varying Markov model to assess the cost-effectiveness of PR. Clinical inputs were based on reconstructed individual patient data from the COAPT trial results reported at 2 years, and at 3 years.

We developed parametric modeling for overall survival (OS) and heart failure hospitalizations (HFH) to obtain clinically plausible extrapolations beyond observed data. We adopted the French perspective and used a 30-year time horizon. We expressed incremental cost-effectiveness ratios (ICERs) as cost per quality-adjusted life year (QALY).

Results. Based on 2 year-data, preferred parametric models for OS and HFH were exponential and log-logistic respectively, yielding an ICER of EUR21,918/QALY and >0.5 probability of PR being cost-effective (EUR50,000/QALY threshold).

Updated analyses at 3 years showed a change of OS trajectory for PR that justified the use of piecewise modelling, yielding an updated ICER that went up to EUR77,904/QALY (base-case), and to a minimum of EUR58,175/QALY (scenario analysis). Using data at 3 years, PR had <0.5 probability of being cost-effective.

Conclusions. In this case study, the availability of updated survival analyses of the main trial is likely to have some impact on decision-making and/or pricing discussion as part of health-technology assessment (HTA). We aim to provide further updated analyses as 4 years results of the COAPT study become available.

More broadly, original technology appraisals are frequently undertaken when mid/long-term follow-up trial data may be lacking. Our example suggests the need for continuous HTA review as new clinical data are released.

OP164 Extracorporeal Cytokine Adsorption Therapy: An Update Systematic Review Of Clinical Efficacy And Safety For Two Indications

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Introduction. The idea of using extracorporeal cytokine adsorption therapy (ECAT) is to remove cytokines from the blood in order to restore a balanced immune response. Yet, it is unclear as to whether the use of ECAT improves patient-relevant outcomes. Hence, the aim of this article is to synthesize the currently available evidence with regard to a potential clinical benefit of ECAT used in cardiac surgery or sepsis.

Methods. We conducted an updated systematic review summarizing the body of evidence with regard to a potential clinical benefit of ECAT. The study followed the PRISMA statement and the European Network for Health Technology Assessment (EUnetHTA) guidelines. The quality of the individual studies and the strength of the available evidence was assessed using the Cochrane risk of bias tool (v.1) and the GRADE approach respectively. Mortality, organ function, length of stay in the intensive care unit and length of hospitalization, as well as adverse events, were defined as critical outcomes.

Results. For the preventive treatment of ECAT in patients undergoing cardiac surgery, we found very low-quality inconclusive evidence for mortality (5 randomized controlled trials (RCTs), n = 163), length of stay in the intensive care unit (5 RCTs, n = 163), and length of hospitalization (3 RCTs, n = 101). In addition, very low-quality inconclusive evidence was found for (serious) adverse events (4 RCTs, n = 148). For the therapeutic treatment of ECAT in patients with sepsis/ septic shock, we found very low-quality inconclusive evidence for mortality up to 60-day follow-up (2 RCTs, n = 117), organ function (2 RCTs, n = 117) and length of stay in the intensive care unit (1 study, n = 20). Similarly, very low-quality inconclusive evidence was found for (serious) adverse events (2 RCTs, n = 117). There are currently eighteen ongoing RCTs on the use of ECAT.

Conclusions. There is a lack of reliable data on the clinical benefit of using ECAT as an add-on treatment preventively in cardiac surgery and therapeutically in patients with sepsis or septic shock. While theoretical advantages are anticipated, the current available evidence is inconclusive and was not able to establish the efficacy and safety of ECAT in combination with standard care in the investigated indications. In light of the available RCTs, we strongly recommend the consideration of studies with patient-relevant endpoints and adequate statistical power, instead of investing further research funds on small studies that may not shed more light onto the potential clinical benefit of ECAT. The results of ongoing RCTs are awaited to guide the decision on whether further research funds should be invested in ECAT research or to conclude that the intervention may not show clinical benefits for patients.

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