

modest increase in costs. Our findings emphasize the importance of implementing CRC screening five years earlier than the current practice to achieve more significant health and economic benefits.

## PD08 Clinical And Cost Effectiveness Of Selected Diabetes Medicines In Ghana - An Adaptive Health Technology Assessment

Hannah Asante ([annasam102@gmail.com](mailto:annasam102@gmail.com)),  
Richmond Owusu, Brian Asare, Ivy Amankwah,  
Sergio Torres Reuda, Joseph Kazibwe and Francis Ruiz

**Introduction:** There is a need to consider whether treatments included in essential medicine lists, standard treatment guidelines, and health benefits packages are cost effective, improve financial sustainability, and increase equitable access to health care. This assessment evaluated the cost effectiveness of selected antidiabetic medicines for inclusion on Ghana's Essential Medicines List and updated standard treatment guidelines, and reimbursement by the National Health Insurance Authority.

**Methods:** This study was produced in line with the broad steps of the Ghana health technology assessment (HTA) process guideline using an adaptive HTA (aHTA) approach and following the process used by the National Cancer Grid of India. High quality HTA evidence was sourced from four HTA agencies based on the population (children aged two years or older and adults older than 18 years using anti-diabetics), intervention, comparator, and outcomes framework using an adaptability checklist developed by the researchers. A price benchmarking analysis was conducted to generate context relevant evidence on medicine prices in terms of local value for money.

**Results:** The study found that all medicines evaluated (sitagliptin, vildagliptin, saxagliptin, insulin detemir, insulin degludec, insulin glargine, insulin glulisine, insulin aspart, and insulin lispro) were efficacious. The price benchmark analysis showed that insulin detemir, glargine, and degludec had higher price ratios than their comparators, and an annual drug cost per patient that was approximately two to four times higher. Insulin lispro, aspart, and glulisine had price ratios of 0.22 to 0.44 and an estimated annual cost of GHS1,894 to GHS3,552 (USD163.3 to USD306.2), which was two to five times higher per patient than the comparators. The cost of saxagliptin and vildagliptin were four and three times lower than those in the benchmark country (the UK).

**Conclusions:** The study revealed that all medicines included are efficacious and potentially cost effective. The price benchmark analysis showed that, except for gliclazide 80 mg, Ghana is paying less for antidiabetic medications than the UK. Cost effectiveness may not be a sufficient basis to include or exclude medicines for reimbursement because they have a potentially significant budget impact for the payer.

## PD10 Cost Effectiveness Analysis Of Etranacogene Dezaparovec Versus Factor IX Prophylaxis In Adult Men With Hemophilia B From Brazil

Ana Clara Silva Mendes ([ana-claramendes@hotmail.com](mailto:ana-claramendes@hotmail.com)), Ricardo Mesquita Camelo and  
Juliana Alvares-Teodoro

**Introduction:** Hemophilia B (HB) is a rare bleeding disorder caused by clotting factor IX (FIX) deficiency. Regular FIX replacement (prophylaxis) is the mainstream treatment for preventing bleeding in people with HB. Etranacogene dezaparovec, also known as AMT-061, is a new gene therapy approved in many countries for people with HB. This study evaluated the cost effectiveness of conventional FIX prophylaxis compared with AMT-061 for people with HB.

**Methods:** A cost-effectiveness decision tree was constructed based on current literature and national guidelines on HB treatment. The model was based on a Brazilian Ministry of Health perspective, assumed that people with severe HB were 18 years or older, and used a time horizon of three years. The Brazilian Ministry of Health distributes plasma-derived FIX (pdFIX) for prophylaxis. The cost of pdFIX was obtained from data on public purchases and AMT-061 cost was based on the price of a currently approved gene therapy in Brazil. Sensitivity analyses were performed to assess uncertainty and to identify which variables most affected the incremental costs.

**Results:** The cost of prophylaxis with pdFIX for three years was BRL233,309 (USD41,236) with an annualized bleeding rate (ABR) of 10.95, while the cost of gene therapy for three years was BRL10,379,041 (USD1,834,466) with an ABR of 2.86. This resulted in an incremental cost-effectiveness ratio (ICER) of BRL1,253,674 (USD221,583) per bleeding episode. Compared with pdFIX, AMT-061 was not cost effective since there was a threshold of BRL30,000 (USD5,302) per bleeding episode avoided. In the deterministic sensitivity analysis, treatment time had a major impact on the ICER, followed by AMT-061 cost.

**Conclusions:** In this model, AMT-061 was not cost effective compared with pdFIX prophylaxis. In the long term or with a lower AMT-061 cost, gene therapy may be cost effective. AMT-061 demonstrated better clinical results, but its economic viability must be considered in terms of access and sustainability in the Brazilian public healthcare system.