IN3

ESTIMATING THE SUPPLY AND DEMAND OF BUTANTAN DENGUE VACCINE IN BRAZIL

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OBJECTIVES: To estimate the demand and the cost-effectiveness and economic impact of Butantan’s one-dose tetravalent dengue vaccine in Brazil. METHODS: We modeled the supply and demand of dengue vaccine nationally and for 6 key states using an existing strategic demand forecasting model. Input parameters include dengue incidence, vaccine product and price, production capacity, intervention strategies, and implementation costs were derived from local Brazilian stakeholders. RESULTS: The national demand for vaccination adults was modeled with the traditional child population. The vaccination coverage, cases and death averted, and the annual treatment cost saving were 79% reduction in cases and deaths respectively, and 84% annual treatment cost saving. The economic impact of a vaccination program in Brazil’s highest dengue burden is among adults 19–46, and strategies targeting adults were modeled with the traditional child population. RESULTS: Initial strategies targeting all ages or age 15 years old exceeded capacity and were considered not feasible. The demand for all strategies was below capacity for all scenarios, but by year 2048, the demand including boosters exceeds capacity for adult scenarios except for ages 19–31 (86.73%) and 31–46 (117.06%). At 85% per dose, the average annual total cost of introduction ranged from $21.05–$322.21M in the first 10 years and $52.58–$844.13M in the last 10 years. The most affordable scenario is children 1–2 years, but this scenario had little impact on the disease burden (94% reduction in last 10 years). The combination strategy (staggered vaccine introduction for 2–46 year olds for 5 years followed by 1-2 year olds) has the greatest impact with 90% and 79% reduction in cases and deaths respectively, and 84% annual treatment cost saving.

IN4

ECONOMIC COSTS OF BACTERIAL MENINGITIS: A SYSTEMATIC REVIEW

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OBJECTIVES: A systematic review was used to assess economic costs of bacterial meningitis. METHODS: PubMed, Scopus and NHS-ED were searched to identify eligible papers. Economic evaluations that cost bacterial meningitis cases were selected. Cost data were collected and indirect costs were converted to international dollars and reported in ranges (minimum and maximum). RESULTS: We identified 621 non-duplicated articles. 118 papers were selected for full-text revision. 25 studies analyzed the four countries jointly, 75% were from Brazil, 8.3% from Mexico, 5% from Colombia and 7.5% from IAC in general. Half of the studies described the role of the HTA and EE in decision-making and aspects or policies related to innovation (25% and 23.3%). Regarding the description of the coverage process, it was addressed in 11% of the publications focused on technograce; and also 10% on regulatory aspects. Remaining publications were methodological guidelines and general descriptions of the health systems and the role of medical devices. All countries had HTA and EE guidelines, although there did not include device-specific recommendations. There is a spectrum of HTA formalization for technology incorporation after licensing, higher in Brazil and lower in Argentina CONCLUSIONS: There is scarce information on the processes and requirements to achieve coverage for medical devices in the countries. Processes differ, are in general not explicit, lack transparency, and usually replicate those of drugs not taking into account the specificities of medical devices.

MD1

EVALUACIÓN ECONÓMICA DEL CARDO-DESFIBRILADOR IMPLANTABLE COMPAREDO CON LA TERAPIA FARMACOLÓGICA ÓPTIMA PARA EL TRATAMIENTO DE LOS PACIENTES CON FALLA CARDIACA EN COLOMBIA

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OBJECTIVES: To determine, from the perspective of the system of health care, the ratio of cost effectiveness of the use of a CDI in comparison with no procedure, to: 1) to prevent the cardiac death of the patients; 2) to prevent the need to undergo cardiac hospitalization for a period of 8 years. This analysis was conducted by a group of 14 medical doctors, 5 nurses, 3 pharmacists and 2 administrative specialists. The data obtained were compared with the database of the Antioquia health system.

RESULTS: The economic benefit of the implantation of a cardio-defibrillator (CDI) was demonstrated, with a cost saving of $34.375.33 per patient treated, which is equivalent to 12% of the cost of treatment of the disease. The economic benefit of the implantation of a CDI was demonstrated, with a cost saving of $34.375.33 per patient treated, which is equivalent to 12% of the cost of treatment of the disease.

MD2

MEDICAL DEVICES – FROM LICENSING TO COVERAGE: HIGHLIGHTS FROM ARGENTINA, BRAZIL, COLOMBIA AND MEXICO

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OBJECTIVES: To assess, describe and compare the requirements and pathways of medical devices’ coverage from four different Latin American countries (LAC): Argentina, Brazil, Colombia, and Mexico. RESULTS: The analysis was conducted by reviewing the model laws and legal documents of the four countries. The results showed that the requirements for medical devices’ coverage are similar in all countries, although there are differences in the specificities of medical devices. The lack of transparency and the lack of explicitness in the processes were common in all countries. The requirements for medical devices’ coverage are similar in all countries, although there are differences in the specificities of medical devices. The lack of transparency and the lack of explicitness in the processes were common in all countries.

MD3

STAPLED HEMORROIDROIDOPSY TO TREAT HEMORRHOIDS GRADE III AND IV: A SYSTEMATIC REVIEW AND META-ANALYSIS

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OBJECTIVES: Hemorrhoids are not life-threatening, but they can cause itching, bleeding and pain, worsening quality of life. Stapled haemorrhoidopexy (SH) is a specially designed circular stapler used to cut out a strip of the tissue above the hemorrhoids in an area of the rectum that doesn’t feel much pain. The operation helps to reduce the hemorrhoids. It is used to treat hemorrhoids grade III and IV. RESULTS: We identified 620 non-duplicated publications. 25 publications were selected for full-text revision. 25 studies included the SH group and 25 studies included the CST group. The mean length of stay in the SH group was significantly lower than in the CST group (MD -0.74 [-1.27 -0.21]; p= 0.03). Length of Stay was significantly lower in SH group (MD -0.74 [-1.27 -0.21]; p= 0.03). Adverse events were similar between strategies. SH is a safe and effective treatment to treat hemorrhoids grade III and IV. Medical Device & Diagnostic Research Studies

MEDICAL DEVICE & DIAGNOSTIC RESEARCH STUDIES

MD4

COST EFFECTIVENESS OF DRUG COATED BALLOON VERSUS PERCUTANEOUS TRANSLUMINAL BALLOON ANGIOPLASTY IN THE TREATMENT OF PERIPHERAL ARTERIAL DISEASE IN LOWER LIMBS IN BRAZIL

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OBJECTIVES: To compare the cost-effectiveness of Drug Coated Balloon (DCB) vs. Percutaneous Transluminal Balloon Angioplasty (PTA) in the treatment of Peripheral Arterial Disease in lower limbs from Public Healthcare System (SUS) in Brazil. METHODS: An analytical decision model was considered with 2 Target Lesion Restenosis (TLR): Avoided and total cost at the end of two year period as endpoints. An Excel model was developed. Effectiveness data was taken from a pooled analysis and second recanalization procedures were taken with KOL criteria. RESULTS: The cost of the DCB per patient per second outcome was lower. The total direct costs for reimbursement were taken from Tabet-Dataus-2014. Because effective- ness and cost were taken as unique values at the end of the two years, discount factors were not applied. Sensitivity Analysis was only done for DCB vs. PTA. The Probabilistic Sensitivity Analysis using Monte Carlo Simulation was done for different scenarios.