IN3
ESTIMATING THE SUPPLY AND DEMAND OF BUTANTAN DENGUE VACCINE IN BRAZIL
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1Johns Hopkins University, Baltimore, MD, USA, 2,Ministerio de Salud, Brasília, Brasil; 3OBRA: The effective, efficient 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 on disease burden, vaccine product and pricing, production capacity, introduction strategies, and implementation costs were derived from local Brazilian stakeholders. Country-specific epidemiological data were obtained from disease reporting systems. Algorithms were developed to model 30 year dengue vaccine demand, total implementation cost, and vaccine impact using different age group introduction scenarios. 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 ages 3-15 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 $5 per dose, the average annual total cost of introduction ranged from $21,05-$322.13M in the first 10 years and $52.58-844.13M in the last 10 years. The most affordable scenario is children (ages < 5 and 1-2 year olds) has the greatest impact with 90% and 79% reduction in cases and deaths respectively, and 84% annual treatment cost savings.

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-SEO were searched to identify eligible papers. Economic evaluations that cost bacterial meningitis cases were selected (survivors and non-survivors). Costs were converted to 2012 international dollars and reported in ranges (minimum and maximum). RESULTS: We identified 621 non-duplicated articles. 118 papers were selected for full-text review. 25 studies accomplished the inclusion criteria and were carried out in 27 countries. Most studies were undertaken in high-income countries (n=17). Only two studies took place in low income countries. Minimum and maximum laboratory mean costs were found in Burkina Faso ($6) and Chile ($1,604), respectively. Regarding to hospital inpatient care the mean minimal cost was found in Burkina Faso, and the maximum cost was in Russia ($1,284 (Russia). Chile recorded the higher hospital cost of stay ($9,144) and Burkina Faso the lower ($107). Out-of-pocket health expenditures were estimated only in one study (Senegal, $844). Among high-income countries studies, the higher and lower total costs were reported in the United States and Suiza ($151,449 - $3,804). CONCLUSIONS: A large cost variability was found in the included studies. High-income countries economic costs were superior versus low-income countries costs. Even though Sub-Saharan countries has a high bacterial meningitis incidence only three studies were undertaken in this area.

MEDICAL DEVICE & DIAGNOSTIC RESEARCH STUDIES
MD1
EVALUACIÓN ECONÓMICA DEL CARDIO-DESFIBRILADOR IMPLANTABLE COMPARADO 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, the relation of cost effectiveness of the use of a CDI in comparison with no how to do it, to prevent the sudden death of patients with cardiomyopathia isquémica or no isquémica, FL menor al 35%, DSVI y estadio NYHA II-III. METHODS: se desarrolló un modelo de Markov que incluía costos, efectividad, calidad de vida y supervivencia para un horizonte de base de 10 años. Las probabilidades de transición se extrajeron de estudios identificados en la literatura. La valoración de los recursos se realizó mediante entrevistas a expertos, costos técnicos de dispositivos médicos y costos técnicos de dispositivos médicos nacionales de información de medicamentos. Se realizaron análisis de sensibilidad probabilísticos y determinísticos. RESULTS: en el caso base, considerando conjuntamente pacientes de diálisis y no, el modelo estimó que costos médicos y no médicos totales cambiaría de en un rango de $30.345.73 por ACV. En el análisis de subgrupos, para los pacientes isquémicos la ACV es de $33,412.184 por ACV, en los no isquémicos que $47.030.266 por ACV, y para pacientes con resultado positivo de un estudio electrofisiológico el costo total fue $85.335 por ACV. Considerando una disposición a pagar en tres veces el FIB por cápita del 2013 ($46.026.378), la probabilidad de que el CDI sea costo efectivo es del 97.5%. CONCLUSIONS: El uso de un CDI para prevenir la muerte súbita en pacientes con FC y/o intervenidos es una estrategia costo efectiva para el sistema de salud colombiano, en especial para el subgrupo de pacientes isquémicos y para los pacientes con resultado positivo de un estudio electrofisiológico. En el análisis para los pacientes no isquémicos la costo efectividad del tratamiento escogido, superando algunas veces el umbral y otras no. En general, los resultados son sensibles a cambios en variables como el horizonte temporal, las probabilidades de muerte y el precio del CDI.

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 reimbursement for devices from four Latin American countries (LAC) health systems. METHODS: We conducted a literature search (February 2015) on Pubmed, Lilacs and Value in Health Regiona Isuel journal. We also searched specific websites of Health Technology Assessment (HTA) and regulatory agencies, websites of health and health agencies, and performed generic Internet search. We included all publications describing aspects related to regulation, coverage, medical technology innovation, and HTA and Economic Evaluation (EE) guidelines. We additionally interviewed key informants from all countries to gather information related to the aforementioned processes. We present here the literature search results. RESULTS: We included 60 studies out of 2190. Five percent of the publications analyzed the four countries jointly, 75% were from Brazil, 8% from Mexico, 5% from Colombia and 7.5%- from LAC 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%). Regarding the description of the coverage process, it was addressed in 11% of the publications focused on technovigilance; 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 and 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 four 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.

MD3
STAPLED HEMORRHOIDOPRAXY 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 haemorrhoidopaxy (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 blood supply and makes them less likely to extend out of the anus. The aim of this study was to review and analyze the evidence of SH, and compare SH with PPA (Preliminary PPA) and DCB (Drug Coated Balloon). We included all relevant publications and further DCB (Drug Coated Balloon) vs. Preliminary PPA. RESULTS: 65 records were identified in all databases described, 6 records met the inclusion criteria (n=1503) comparing the SH with CST with a mean follow-up of 15 months. Patient preference was higher in SH compared with CST (OR 1.1 [1.03-2.2]; I2:26%, p=0.03): Length of Stay was significantly lower in SH group (MD 0.74 [1.27-0.21]; I2:96%, p<0.0001, n=1299). Adverse events were similar between strategies. SH offers less post-operative pain and fast return to work activities. CONCLUSIONS: SH is a safe and effective treatment to treat hemorrhoids grade III and IV, improve hospital efficiency and has higher patient acceptability.

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 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 decisional model was considered with Cost-Effectiveness Analysis. The variables considered were costs of treatment associated with revascularization or recurrent revascularization, costs to be reimbursed, and QOL. RESULTS: the CDAB vs. PTA, PTA for the Probabilistic Sensitivity Analysis a Monte Carlo simulation with 10,000 iterations.