

economic parameters of the model were extracted from the literature. Only direct costs were considered. The time horizon was 5 years and a 5% discount rate was applied. All costs are expressed in USD using an exchange rate of 1 MXN= 0.0528128 USD. **RESULTS:** Pharmacological cost of treating 1,172 genotype 1 HCV patients with Grazoprevir/Elbasvir (+/- RBV) is \$ 4,873,572.16 USD (Cheapest option) whereas Ombitasvir/Paritaprevir and Ritonavir (+RBV) was \$ 15,815,199.85 USD (most expensive option). The pharmacological cost of treating 11 patients of genotype 4 has the same trend, with Grazoprevir / Elbasvir (+/- RBV) at \$ 102,606.60 USD (cheapest option); while if Daclatasvir + SOF (+ RBV) is used, the cost rises to \$ 279,409.27 USD (most expensive option). The use of Grazoprevir / Elbasvir would generate an estimated budget savings of \$ 10,104,543.26 distributed over the period 2017-2021. This is a percentage increase from 2.98 to 11.92%. **CONCLUSIONS:** The results indicate that the use of Grazoprevir / Elbasvir generates significant savings.

#### PIN16

##### CARACTERIZACIÓN CLÍNICA Y ECONÓMICA DE HOSPITALIZACIÓN POR VARICELA EN NIÑOS EN LA REGIÓN METROPOLITANA Y REGIÓN DE VALPARAÍSO, CHILE

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**OBJECTIVES:** Descripción clínica y del costo asociado a la atención de niños con varicela, hospitalizados en dos regiones de Chile. **METHODS:** Estudio multicéntrico, observacional y retrospectivo, de casos de niños hospitalizados (0-15 años) con diagnóstico de varicela, entre enero 2011-diciembre 2015 en 5 hospitales de referencia en dos regiones de Chile. Se revisaron las fichas clínica para evaluar las características clínicas y los costos asociados a hospitalización, que se determinaron según arancel sistema público de salud (MAI) y se estimaron para el sistema privado. **RESULTS:** Se revisaron 685 hospitalizaciones por varicela. El 57% correspondió a sexo masculino, con mediana de edad de 3,4 años. El 62% se presentó durante primavera-verano, sólo siete niños (1,3%) tuvieron antecedente de vacuna varicela. Al ingreso, 78% presentaron lesiones en moderada-grave cantidad, el 21% ingresó en regular estado general y el 3% grave. El total de días de hospitalización en el periodo del estudio fue de 3065 días, con una mediana de 3 días (RIC 2-5). El 7% de los niños ingresó a UTI, ocupando 190 días/cama con una mediana 3 días. El 6% ingresó a Intermedio, ocupando 120 días/cama. Los principales diagnósticos de egreso fueron infección de piel y tejidos blandos (28%), alteraciones neurológicas (7%) y shock séptico (3%). La letalidad fue de 0,4%. Se gastaron U\$268.778 en las 685 hospitalizaciones (costo promedio/episodio: U\$392), considerando U\$168.516 en días-hospitalización básica, U\$43.434 días-UTI, U\$13.250 en días-intermedio, U\$12.496 en visitas a urgencia (n=667), U\$18.958 en exámenes de laboratorio (n=2552) y U\$12.123 en imágenes (n=330). Para el sistema privado de salud se estimó un costo total de U\$1.343.890 en las 685 hospitalizaciones (costo promedio/episodio: U\$1.960). **CONCLUSIONS:** La varicela es una enfermedad inmunoprevenible frecuente. Los casos tuvieron una mediana de tres días de hospitalización. 13% requirió hospitalización en UTI/Intermedio, con un alto costo asociado, que podría disminuirse al incorporar la vacuna al programa nacional de inmunizaciones.

#### PIN17

##### ESTUDO DE CUSTOS DA LEISHMANIOSE VISCERAL NO BRASIL

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**OBJECTIVES:** Estimar, na perspectiva do Sistema Único de Saúde (SUS), os custos diretos médicos relacionados ao diagnóstico, tratamento e assistência prestada aos pacientes com leishmaniose visceral no Brasil, no ano de 2014. **METHODS:** Os custos relevantes foram identificados a partir das recomendações vigentes do Ministério da Saúde acerca da doença. Para mensuração e valoração dos custos foi utilizada a abordagem de macrocusteio (gross costing). Como fontes dos parâmetros epidemiológicos e de custos foram utilizados dados secundários de sistemas de informação nacionais (Sistema de Informação de Agravos de Notificação - SINAN, Sistema de Informação Hospitalar - SIH-SUS e Sistema Integrado de Administração de Material - SISMAT) e informações fornecidas pelo Ministério da Saúde. Os custos foram apresentados em reais (R\$), moeda corrente brasileira, para o ano de 2014. O SPSS® versão 23 foi utilizado para análises dos bancos de dados. **RESULTS:** Em 2014, foram notificados 9.895 casos suspeitos de LV, dos quais 3.453 foram confirmados e 3.067 foram tratados com alguma das opções terapêuticas disponíveis. Foi considerada também a realização de profilaxia secundária para os 234 pacientes com co-infecção Leishmania-HIV. O total dos custos diretos médicos da LV no Brasil, no ano de 2014, correspondeu a R\$ 4.357.764,24, sendo o custo do diagnóstico (específico e complementar) de R\$ 880.154,57, o custo do tratamento medicamentoso de R\$ 1.660.764,04 e o custo da assistência prestada aos pacientes de R\$ 1.816.845,63. Foi realizada análise de sensibilidade para variação dos custos obtidos. **CONCLUSIONS:** Estudos de custos de doenças podem ser úteis para informar aos gestores sobre o valor total das perdas econômicas relacionadas a uma doença específica e sua distribuição por categorias de custo. Neste estudo, identificou-se que o custo mais elevado foi o da assistência prestada aos pacientes de LV, seguido do tratamento medicamentoso e do diagnóstico da doença.

#### PIN18

##### AEDES AEGYPTI: ECONOMIC IMPACT OF PREVENTION VERSUS PALLIATION OF DISEASES CAUSED BY THE MOSQUITO

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**OBJECTIVES:** Aedes aegypti is responsible for transmitting four diseases that had major outbreaks recently in Brazil: dengue, zika, chikungunya and yellow fever. Our goal was to analyze the expenditures of the Brazilian government with these outbreaks (palliation), comparing them with the expenditures in prevention campaigns. **METHODS:** searches were performed on MEDLINE using the following

terms: aedes aegypti AND costs, dengue AND costs, chikungunya AND costs, zika AND costs e yellow fever AND costs) and completed with hand search on the reference list of included articles. Language was limited for English or Portuguese, and publication date for 2010-2017. We extracted data on government expenditures for the treatment of patients during the outbreaks of dengue, zika, chikungunya and yellow fever in those years. In the absence of data from Brazil, the search was expanded to Latin America. Official data from the Brazilian Ministry of Health (MoH) and the World Health Organization (WHO) were also reviewed. **RESULTS:** we retrieved 423 articles, 410 were excluded due to duplicity, because they did not address our topic or Latin America and due to design inadequacies. Thirteen studies were included for analysis. Data from the literature estimated the cost of treating dengue at around R\$ 1 billion per year. Treatment of microcephaly and Guillain-Barre syndrome, the most severe consequences of zika, was estimated at U\$91,102. The economic impact of chikungunya treatment was projected at U\$73.6 million. For the current outbreak of yellow fever, the economic impact has not yet been estimated. The Brazilian government has spent R\$ 13.7 million to combat aedes aegypti according to official data from MoH since the outbreak of dengue in 2013. **CONCLUSIONS:** There is a need for greater investment in the prevention and control of the vector, which would save resources and avoid new outbreaks of these and other diseases transmitted by aedes aegypti.

#### PIN19

##### VARICELLA-RELATED HOSPITALIZATIONS: BRAZILIAN RETROSPECTIVE ANALYSIS AFTER THE INCLUSION OF A VACCINE IN THE NATIONAL IMMUNIZATION PROGRAM

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**OBJECTIVES:** Universal vaccination against varicella began in September 2013, in Brazil, through the National Immunization Program. After this incorporation, it was expected that annual rates of hospitalization for varicella have decreased. This study aimed to assess the burden of hospitalizations by varicella from 2014. **METHODS:** A retrospective analysis of Brazil public hospital admissions by varicella was developed according to ICD-10 classification (B01.0 to B01.9) in all ages, as reported in Brazilian Hospital Information System (SIH/DATASUS) database from January 2014 to December 2016. **RESULTS:** Hospital admissions by varicella were 5382, 4093 and 3898 in 2014, 2015 and 2016, respectively, with total costs for this period of 11,641,343 BRL. Hospitalizations occurred more frequently in children. In the period evaluated, 53% of admissions occurred with children under 9 years of age. There was an average of 312 deaths per year, with almost all related to pulmonary complications. In children and adolescents (<20 years of age), 76% occurred in individuals under 5 years of age. Mean cost per admission was 735 BRL, 1402 BRL, 430 BRL and 247 BRL for central nervous system complications, respiratory complications, other complications (including keratitis) and varicella without complications, over the three year period. The mean overall length of stay was 6 days, with 7 days for neurological and pulmonary complications, 6 for other complications, and 4 for varicella without complications. **CONCLUSIONS:** In Brazil, epidemiological data on varicella are very restricted as this is not a compulsory notification disease. Our results demonstrated that three years after the implementation of this vaccine, its impact on varicella-related hospitalizations is still relevant. In this way, a routine 2-dose vaccination could provide improved protection against disease and further reduce morbidity and mortality from varicella.

#### PIN20

##### COSTO DE LA INMUNIZACIÓN DE RUTINA EN MENORES DE UN AÑO EN EL AÑO 2016 EN EL ECUADOR

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**OBJECTIVES:** Estimar los costos directos de la inmunización de rutina en niños menores de un año en Ecuador en el año 2016. **METHODS:** Se llevó a cabo un estudio de costos que estimó los costos directos asociados a la inmunización de rutina en niños menores de un año en Ecuador en el año 2016, la perspectiva del estudio fue la del gobierno como tercer pagador y no se incluyó costos indirectos ni intangibles. Los costos directos estimados fueron: precio de la dosis unitaria de vacuna, jeringuillas, otros suministros relacionados con la inmunización, transporte, distribución y cadena de frío de la vacuna. Los datos fueron obtenidos del Programa Ampliado de Inmunizaciones (PAI), Dirección de Estadística del MSP del Ecuador, Servicio de Compras Públicas (SERCOP) y para la estimación de costos de cadena de frío y otros suministros utilizados en inmunización se obtuvo la información de consumo de recursos de grupos focales de enfermeras y médicos de primer nivel de salud. **RESULTS:** El costo directo médico estimado fue de 100,37 USD (94%) mientras que el costo directo no médicos fue de 5,823 USD (6%) por cada niño menor de un año con esquema completo de inmunización. El costo directo total por niño menor de un año vacunado con el esquema 2016 en el Ecuador fue de 106,193 USD. Considerando que la proyección de niños menores de 1 año para el año 2016 según el INEC es de 334222 niños, el gasto total por esquema de rutina si se alcanza una cobertura del 100% será de aproximadamente 35'492.036.84 USD, y si se alcanza la cobertura proyectada para el 2016 que fue de 76,45% será de 26'476.994,497 USD **CONCLUSIONS:** Los costos directos de la inmunización de rutina en un niño menor de un año en Ecuador en el año 2016 corresponde a 106,193 USD.

#### PIN21

##### ESTIMATION OF INDIRECT COSTS OF THE CHILDREN VIRAL ACUTE INTESTINAL INFECTIONS THERAPY IN UKRAINE

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**OBJECTIVES:** Scientific pharmaco-economic estimation of feasible indirect costs of treatment of children viral Acute Intestinal Infections (AII) in Ukraine in 2017