from 80.70% to 95.58% while that of control was 88.56%. Therapeutic complications knowledge was increased from 71.58% to 88.57% while that of control was 78.82%. Medication knowledge of diabetes was increased from 80.26% to 83.67% while that of control was 74.51%. Lifestyle knowledge of diabetes was increased from 72.81% to 89.80% while that of control was 84.64%. Knowledge about preventions in diabetes was increased from 69.47% to 86.53% while that of control was 80.78%. Knowledge about diet was increased from 48.68% to 77.55% while that of control was 42.16%. Knowledge about monitoring diabetic conditions was increased from 84.21% to 92.35% while that of control was 86.27. Scores in all diabetic knowledge aspect was increased after education intervention and was significantly (P<0.05) different from that of control group. **CONCLUSIONS:** Institutions may ethically help in the reinforcement of student's knowledge by implementing such educational programs which may increase the educational skills, efficiency and confidence of pharmacy students as well as professionals.

PDB26

ACUTE EXPOSURE OF BISPHENOL-A FROM ELECTRONIC GADGETS DOES NOT INDUCE OXIDATIVE STRESS IN THE RAT BRAIN

Kumar N[1], Sharma VP[2]

[1]*Shri Ramswaroop Memorial University, Barabanki, India,* [2]*CSIR-Indian Institute of Toxicology Research, Lucknow, India*

OBJECTIVES: To investigate the effects of BPA on oxidative damage in terms of activity level of antioxidant enzymes in different regions of the rat brain. **METHODS:** In this study, BPA migration was estimated through physio-chemical parameters and leachate (equivalent to 4mg/kg body weight) was used for animal dosing. Three groups of Albino Wister rats (190+20grm) were used for control, sham, and treated. The antioxidant enzymes including superoxide dismutase (Mn-SOD), catalase (CAT), glutathione peroxidase (GPx) and reduced glutathione level (GSH) were measured in different brain regions i.e. corpus striatum, frontal cortex, thalamus and midbrain. **RESULTS:** No significant changes were observed in most of the brain regions yet the level of GPx activity in corpus striatum (29.65±0.98 nmoles/min/mg protein) and level of GSH activity in frontal cortex (2.33±0.12 µmoles/g protein) was found to decrease significantly (p<0.05) when compared to controls. In addition, no significant effects were observed for the oxidative damage in brain regions of sham group when compared to control group. **CONCLUSIONS:** Thus study suggests that acute exposure (4mg/kg body weight per day up to 28 days) of BPA does not induce significant oxidative damage in the rat brain. Furthermore, study might re-examine before affirm the final remark for subscribers and regulatory bodies at similar doses.

GASTROINTESTINAL DISORDERS – Clinical Outcomes Studies

PGI1

COSTS OF PRIMARY BILIARY CIRRHOSIS TREATMENT WITH URSODEOXYCHOLIC ACID IN BRAZIL

Lemos LLP, Mata AD, Gomes RM, Guerra Junior AA, Acurcio FA

Universidade Federal de Minas Gerais, Belo Horizonte, Brazil

OBJECTIVES: To estimate the cost of treatment of primary biliary cirrhosis with ursodeoxycholic acid (UDCA) in Brazil and to evaluate the efficacy and safety of this treatment. **METHODS:** We considered the doses of 8, 12 and 15mg/Kg and a patient weighing 70Kg to estimate the cost of treatment. We used the maximum price to the producer in the CMED (Drug Market Regulation Chamber) list of 03/15/2013 with 18% of ICMS (Circulating Goods and Services Tax), and applied CAP (Adequacy Coefficient of Prices)of 25% . We used Purchasing Power Parity of 1,0USD=1,8BRL. To access efficacy and safety we searched the databases The Cochrane Library, CDR, Tripdatabase, MEDLINE and LILACS to identify systematic reviews (SR) of clinical trials that reported data on mortality, biochemical improvement measurements and adverse events. **RESULTS:** The estimated annual cost of treatment was USD2,239.24 with the dose of 8mg/Kg; USD3,168.97with the dose of 12mg/Kg; and UDS4,098.71 with the dose of 15mg/Kg. We included seven SRs; four evaluating UDCA versus placebo/observation; one UDCA versus colchicine; one UDCA versus methotrexate; and one UDCA versus bezafibrate. Generally, until four years of treatment there were no difference between UDCA and placebo/other interventions with respect with mortality, hepatic transplant incidence, worsening or arising of itching and fatigue, and incidence of hepatic complications. In the other hand there were improvements in surrogate outcomes like hepatic function markers, especially bilirubin. In all studies UDCA was well tolerated by patients. **CONCLUSIONS:** Improvements in the blood levels of hepatic markers did not match mortality rates or the incidence of transplant. The main symptoms of the disease, itching or fatigue, were not altered by the use of UDCA. There is a lack of evidence of studies evaluating quality of life of the patients, which perhaps could be improved by the use of UDCA. Besides, long observational studies could connect biochemical improvement and mortality rate.

GASTROINTESTINAL DISORDERS – Cost Studies

PGI2

COST-EFFECTIVENESS OF TELAPREVIR IN GENOTYPE 1 CHRONIC HEPATITIS C VIRUS (HCV) INFECTION IN ARGENTINA

Garcia Marti S[1], Alcaraz A[1], Valanzasca P[1], Garay Ulises U[1], McMullen M[1], Rey Ares L[1], Peirano I[2], Bessone F[3], Fainboim H[4], Gadano A[5], Galdame O[5], Vujacich C[6], Caporale J[1]

[1]*Institute for Clinical Effectiveness and Health Policy (IECS), Buenos Aires, Argentina,* [2]*Janssen, Buenos Aires, Argentina,* [3]*Sanatorio Parque, Santa Fe, Argentina,* [4]*Hospital Muñiz, Buenos Aires, Argentina,* [5]*Hospital Italiano de Buenos Aires, Buenos Aires, Argentina,* [6]*FUNCEI, Buenos Aires, Argentina, Buenos Aires, Argentina*

OBJECTIVES: Direct acting antiviral therapies (DAA) in addition to PEG 2a + RBV (PR) are a new therapeutic option with higher rates of sustained virological response (SVR) than dual therapy (PR) alone in chronic hepatitis C. Currently, two alternatives of DAA, telaprevir (TVR) and boceprevir (BOC), are available in Argentina. The aim of this study was to evaluate the cost-effectiveness of adding TVR to PR in treatment naive and previously treated patients with HCV in Argentina compared to PR alone and with the addition of BOC. **METHODS:** A lifetime Markov model was developed including HCV, cirrhosis, liver transplant and death as health states. QALYs as an outcome measure, a private health subsector perspective and a 5% discount rate for health benefits and costs have been used. Costs are expressed in local currency. A review of the literature to obtain epidemiologic and resources utilization data was performed and when data were not available or validation was needed a Delphi panel with local experts was carried out. Deterministic and probabilistic sensitivity analysis was performed. **RESULTS:** In comparison with PR, TVR avoided 166 cirrhosis cases and 13 deaths per 1,000 patients and shown an ICER of $141,922/QALY and $74,332/QALY for the naïve and for the previously treated patients respectively. TVR presented extended dominance (lower ICER) against BOC in naïve patients and complete dominance (less costly and more efficacious) in most of the previously treated ones, except in the partial responders subgroup. Against the WHO criteria TVP versus PR presented a 42% of probability of being cost effective for naïve and 75% of probability of being cost effective for previously treated patients. **CONCLUSIONS:** TVR dominated BOC and its ICER against double therapy was slightly above WHO 3x GDP criteria in Argentina from a private subsector perspective.

PGI3

ANÁLISIS DE COSTO EFECTIVIDAD DE ACIDO GADOTERICO FRENTE A OTROS MEDIOS DE CONTRASTES BASADOS EN GADOLINIO

Simbaqueba E[1], Uriza LF[2], Romero M[1], Huerfano L[1]

[1]*Fundacion Salutia, Bogotá, Colombia,* [2]*Hospital Universitario San Ignacio, Pontificia Universidad Javeriana, Bogotá, Colombia*

OBJECTIVOS: Evaluar la costo efectividad del uso de ácido gadotérico en resonancia magnética para pacientes con insuficiencia renal crónica tipo 4 y 5, versus otros medios de contraste gadolínicos (gadopentetato de dimeglumina, gadoversetamida, gadodiamida, gadobutrol) analizando como desenlace la sobrevida del paciente que presenta como evento adverso Fibrosis Sistémica Nefrogénica (FSN). **METODOLOGÍAS:** La efectividad de medios de contraste ha sido evaluada en términos de seguridad. Al revisar la literatura se encontraron diferencias en la probabilidad de desarrollo (FSN) como principal complicación del uso de estos medios de contraste en pacientes con enfermedad renal avanzada, siendo letal en más del 56% de los casos. Mediante un modelo de árbol de decisión desde la perspectiva del tercero pagador se compararon los diferentes medios de contraste tomando como desenlace de análisis la sobrevida medida en años de vida ganados, para una esperanza de vida de 64,5 años y una edad promedio de 60 años, sobre las características del caso base. Los costos fueron obtenidos de precios de mercado de bases de datos de aseguradoras en pesos colombianos, 2012. El costo usado para las tecnologías fue el de la presentación 15 ml. **RESULTADOS:** No se encontraron reportes de casos de FSN con gadotérico o gadobutrol. El ácido gadotérico mostró un promedio de año de vida de 1,706 mejor que gadodiamida, gadopentetato de dimeglumina y gadoversetamida; y fue el menos costoso frente a todos los analizados (COP$ 132.000) seguido de Gadobutrol (COP$ 161.202) siendo dominante en todos los escenarios analizados. En el análisis tipo Montecarlo con variaciones de +/-50% mantiene su dominancia en el 95% de las iteraciones. **CONCLUSIONES:** El acido gadotérico es la opción más favorable por su dominancia dada por su menor costo, y mejor o igual efectividad frente a los demás comparadores, justificando con esta información su mayor preferencia en el uso.

PGI4

RULING OUT IBD IN THE UNITED KINGDOM AND BRAZIL: IS THE USAGE OF F-CALPROTECTIN IN PRIMARY CARE COST-EFFECTIVE?

Mascialino B[1], Hermansson LL[2], Larsson A[3]

[1]*Thermo Fisher Scientific, Phadia, Uppsala, Sweden,* [2]*Thermo Fisher Scientific, Uppsala, Sweden,* [3]*Uppsala University, Uppsala, Sweden*

OBJECTIVES: The inflammatory bowel diseases (IBD) are characterized by chronic inflammation of the gastrointestinal tract; the irritable bowel syndrome (IBS) is a functional disorder (prevalence 10%-20%). They present overlapping symptoms, making diagnosis difficult in primary care. Endoscopy is the gold standard for IBD, but it often turns negative due to IBD's low prevalence, it is expensive, uncomfortable and risky for the patient. F-Calprotectin is a marker of intestine inflammation: as IBD patients exhibit levels higher than the general population and IBS patients, F-Calprotectin can be used to rule out IBD. The only CE evaluation on F-Calprotectin has been published by NHS (CEP09041, 2010); based on new evidence, we propose a refined model to evaluate the CE of F-Calprotectin compared to the standard pre-endoscopic serologic test (CRP+ESR) to distinguish IBD from IBS in the UK and Brazil. **METHODS:** F-Calprotectin sensitivity (0.96) and specificity (0.96) were evaluated from a meta-analysis performed in March 2013; CRP+ESR sensitivity (0.35) and specificity (0.73), and the costs come from CEP09041. Published HRQoL values for IBD and IBS were transformed in QALYs with transfer-to-utility techniques. The outcomes included cost savings, cost per QALY. Uncertainty was addressed with a probabilistic sensitivity analysis. **RESULTS:** Results for UK show that F-Calprotectin is CE with respect to CRP+ESR: a) it results in more corrected IBD diagnoses at a lower price (it costs 113£ less per patient); b) it reduces the number of unnecessary endoscopies, increasing the number of correctly diagnosed IBD (N=59) and IBS (N=195) patients; c) it brings about a QALY gain per patient equal to 0.0034QALYs; the ICER of the CRP+ESR diagnostic strategy is 47,783£, and it falls well outside the cost-effectiveness bounds (20,000–30,000£ per additional QALY). Similar results were found for Brazil. **CONCLUSIONS:** F-Calprotectin is CE to rule out IBD in primary care in UK and Brazil.

PGI5

COST-EFFECTIVENESS OF TELAPREVIR IN GENOTYPE 1 CHRONIC HEPATITIS C VIRUS (HCV) INFECTION IN CHILE

Garcia Marti S[1], Alcaraz A[1], Valanzasca P[1], Garay Ulises U[1], McMullen M[1], Rey Ares L[1], Peirano I[2], Oksenberg Reisberg D[3], Soza Ried A[4], Poniachik J[5], Brahm Barril JR[6], Caporale J[1]

[1]*Institute for Clinical Effectiveness and Health Policy (IECS), Buenos Aires, Argentina,* [2]*Janssen, Buenos Aires, Argentina,* [3]*INDISA Clinica de Familia, Providencia, Chile,* [4]*Pontificia Universidad*