

⁸IPS, Interdisziplinäres Facharztzentrum Sachsenhausen, Frankfurt/M, Germany, ⁹Center of Gastroenterology, Bonn, Germany, ¹⁰Center of Gastroenterology, Dortmund, Germany, ¹¹Center of Gastroenterology, Herne, Germany, ¹²Factum – company for statistics, scientific information and communication mbH, Offenbach/Main, Germany, ¹³Roche Pharma AG, Grenzach-Wyhlen, Germany

OBJECTIVES: Estimates assume that 400,000 to 500,000 people are chronically infected with Hepatitis C in Germany. About 27% of end-stage liver cirrhosis and 25% of hepatocellular carcinoma are associated with HCV. The economic relevance of hepatitis C results from high costs for antiviral treatment as well as accompanying and secondary diseases. The aim of the study was to gain information on epidemiological characteristics, treatment outcomes and costs. **METHODS:** Underlying data were collected in a non-interventional trial between 2008 and 2011. Inclusion criteria were a confirmed HCV diagnosis and need for antiviral treatment. Besides sociodemographic and clinical parameters, HCV related resource utilization was gathered for a subgroup of patients. Data presented are mean values. **RESULTS:** Data on 7,637 patients receiving antiviral treatment with peginterferon- α -2a and ribavirin were collected. This analysis relates on 3,708 patients without HIV coinfection and/or drug substitution treatment. Mean age was 43.7 years, 60.3% were male. Most patients had a genotype-1 (61.3%) or genotype-3 infection (28.5%). The majority of patients was treatment-naïve (86.5%), 7.3% were relapse and 5.6% non-responder. Main sources of infection were injection drug use (34.8%) and blood products (14.2%). Mean duration of infection was 13.6 years. In average 48.9% of treatment-naïve GT-1(4-6) and 63.0% of GT-2/3 patients achieved SVR. For prior relapse patients and non-responder SVR-rates were: GT-1(4-6): 35.4%; GT-2/3: 58.5 and GT-1(4-6): 23.3% GT-2/3: 37.9%, respectively. Costs for antiviral treatment amount for €20,889 in GT-1(4-6) patients and €13,610 in GT-2/3 patients. Costs for the management of adverse events or HCV-related diseases sum up for €11.70. Ambulatory care, diagnostics procedures and hospital care amount for a small proportion of total costs. **CONCLUSIONS:** This study provides an overview on epidemiologic characteristics, treatment outcomes and treating costs in routine care. Treatment of HCV is costly and mainly affected by length of antiviral therapy.

PIN8

ESTIMATION OF THE NUMBER OF CASES OF NOSOCOMIAL SKIN AND SOFT TISSUE INFECTION IN ADULTS CAUSED BY GRAM-POSITIVE BACTERIA IN PUBLIC HOSPITALS IN MEXICO

Gryzbowski E¹, Peniche-Otero G¹, Herrera-Rojas J¹, Huicochea-Bartel J¹, Muciño-Ortega E², Bolaños-Cornejo D¹

¹Customized Premium Products S.A. de C.V., Mexico City, Mexico, ²Pfizer S.A. de C.V., Ciudad de México, Mexico

OBJECTIVES: To estimate the number of cases of nosocomial skin and soft tissue infection (SSTIs) in adults caused by Gram-positive bacteria (GPB) in public hospitals in Mexico. **METHODS:** The total number of hospital discharges in patients \geq 18 years were extracted from databases of the National Health Information System. A rate of 5.97 cases of nosocomial infection (NI) per 100 discharges (issued by Instituto Mexicano del Seguro Social between 2011 and 2012) was applied. Through a systematic literature review and critical reading of studies developed under the Mexican setting (using the Critical Appraisal Skills Programme guidelines), we assessed the type of infection and determined the proportions of: microbiological culture obtained and microbiological culture giving positive isolates. In the last stage, microorganisms were classified according to their Gram staining characteristics. **RESULTS:** In the year 2011 there were 5,517,139 discharges from public hospital, inferring 329,373 cases of NI rate (16.9% under 18 years and 83.1% in adults). We estimated that SSTIs represents 33.2% of NI (42,430 cases), of these, a microbiological culture was obtained only in 63.0% of the cases (26,731) and pathogen were isolated in 87.0% of microbiological cultures (23,256), among these, GPB was identified in 44.2%. According to our estimates a conservative number of cases of nosocomial SSTIs in adults caused by GPB in 2011 was 10,279 and the pathogens reported were *Staphylococcus aureus* (71.1%), *Enterococcus spp* (14.2%), and others (14.6%). **CONCLUSIONS:** Although we found high heterogeneity in NI reports which may decrease the quality of the estimates presented in this research, in our opinion these results could help clinicians in the choice of initial antibiotics in order to reduce the probability of failure due emergence of resistant organisms.

PIN9

EFFECT OF ANTIVIRAL TREATMENT RATES ON THE PREDICTED FUTURE BURDEN OF GENOTYPE-1 CHRONIC HEPATITIS C IN THE UNITED KINGDOM

Westerhout KY¹, Treur M¹, Cerri K²

¹Pharmerit International, Rotterdam, The Netherlands, ²Janssen Pharmaceutical NV, Beerse, Belgium

OBJECTIVES: Chronic hepatitis C (CHC) treatment aims to prevent end-stage liver disease (ESLD) through sustained viral response (SVR). Treatment rates differ significantly across Europe (<1-16%). New protease-inhibitor based therapy offers an opportunity for increased SVR rates versus pegylated-interferon/ribavirin (>70% vs. 50%). The analysis estimates the impact of various treatment rates on future ESLD sequelae associated with genotype-1 CHC in the UK. **METHODS:** A Markov model was applied to estimate disease progression of a cohort of genotype-1 CHC patients over a 20-year time horizon. Endpoints included the following ESLD states: decompensated cirrhosis (DCC), hepatocellular carcinoma (HCC), liver transplantation (LT) and liver-related death (LrD). Model structure, progression rates, CHC prevalence and disease severity at baseline were based on published economic evaluations. The number of ESLD cases averted by a 1-year increase in the current UK treatment rate (3%) to 12% and 16% was estimated for a 71.5% and 50.0% SVR rate. **RESULTS:** Applying a 3% treatment rate and 71.5%/50.0% SVR rate predicted 8590/8647 cumulative DCC and 3577/3595 HCC cases, 814/820 LTs and 7613/7659 LrDs. The number of ESLD cases averted by applying a 12% treatment rate was estimated to be 565/395 DCC and 180/126 HCC cases, 51/36 LTs and 453/317 LrDs.

Increasing treatment rate to 16% showed a decrease of 816/571 DCC and 260/182 HCC cases, 74/52 LTs and 655/458 LrDs. The overall reduction in ESLD cases was estimated to be -6.1%/-4.2% and -8.8%/-6.1% in both scenarios respectively. **CONCLUSIONS:** A 1-year increase in treatment rate was predicted to reduce the burden of genotype-1 CHC in 20 years in the UK. Different treatment rates across Europe imply unequal opportunities for patients to prevent CHC sequelae. Identifying CHC patients and offering antiviral therapy to maximise SVR could prevent substantial further severe liver disease and mortality.

PIN10

RECENT TRENDS IN INCIDENCE AND DEMOGRAPHICS OF PEDIATRIC MENINGOCOCCAL DISEASE IN THE UNITED STATES

Davis KL, Candrilli SD

RTI Health Solutions, Research Triangle Park, NC, USA

OBJECTIVES: Approximately 1,000-1,200 people in the United States (US) develop meningococcal disease (MD) each year. MD is a life-threatening bacterial infection most common in infants (age <1 year), adolescents, and persons living in close quarters. We estimated annual incidence and demographic characteristics of MD in the US pediatric population from 2000 to 2009. **METHODS:** Data for pediatric (age \leq 20 years) MD-related hospitalizations (discharges with ICD-9-CM 036.xx) from the 2000, 2003, 2006, and 2009 HCUP Kids' Inpatient Databases (KID) were retrospectively analyzed. Annual MD incidence per 100,000 pediatrics (adjusted to 2010 US population) was estimated using KID sampling weights and year-specific population denominators from US census data. **RESULTS:** Pediatric MD incidence steadily decreased from 1.9/100,000 in 2000 to 0.7/100,000 in 2009, a 63% decline. Incidence was highest, by far, in infants, which also decreased during 2000-2009 (7.6/100,000 to 3.8/100,000, a 50% decline). Among children aged 1-4 years, incidence fell from 2.7/100,000 to 0.8/100,000 during this period, a 70% decline. In children aged 5-10 years, we observed a 75% decline (1.2/100,000 to 0.3/100,000); similar incidence and trends were seen for age groups 11-18 and 19-20 years. Pediatric MD cases were predominantly male, with male representation increasing from 55% to 61% of cases during 2000-2009. The racial composition of pediatric MD shifted somewhat during this period, with representation declining among whites (from 56% to 45% of cases) and increasing among blacks (from 8% to 11% of cases). Geographic distribution remained fairly constant, with highest representation from the South (~30% of cases) and West (~30% of cases). **CONCLUSIONS:** Pediatric MD incidence declined during the 2000's, possibly due to the introduction of the meningococcal conjugate vaccine in 2005. However, MD incidence remained substantially higher in infants compared with other age groups and there appeared to be a demographic shift in cases away from females and whites.

PIN11

THE GLOBAL BURDEN, INCIDENCE, AND PREVALENCE OF CHRONIC HEPATITIS C

Ainsworth CM¹, Kiri S², Ling CS¹, Heyes AE¹, Hass B³

¹RTI Health Solutions, Manchester, UK, ²Boehringer Ingelheim Ltd., Bracknell, UK, ³Boehringer Ingelheim GmbH, Ingelheim, Germany

OBJECTIVES: To identify and understand hepatitis C virus (HCV) prevalence and mortality rates, disease course, and the availability of data on patient and viral characteristics that may affect treatment and outcomes. **METHODS:** A targeted review was undertaken in MEDLINE, using a predefined search strategy, to identify studies describing HCV burden. Additional searches were performed on the ISPOR conference and key epidemiological websites. **RESULTS:** A total of 1,773 references were identified. Results indicated that global HCV prevalence increased from 2.3% to 2.8% between 1990 and 2005, with highest prevalence in East Asia (> 3.5%). HCV screening programmes and mandatory reporting are present in only a few countries, so prevalence is likely to be even greater. In 2010, there were estimated to be 499,000 deaths globally related to HCV, making HCV-related complications the 25th most common cause of death and a significant global health problem. The prevalence of HCV genotypes varies geographically. Genotype 1 is most prevalent in North and South America, Europe, and the Asia-Pacific region (~45%-80%). Genotype 3 is most prevalent in South Asia (Pakistan, India, and Thailand) (~52%-80%); genotype 4 is most prevalent in the Middle East (~60%-92%). There is a lack of data for the majority of African and some Middle Eastern countries. Genotype 1 is associated with increased insulin resistance, worse response to therapy, and higher risk of developing cirrhosis and hepatocellular carcinoma. Genotype 3 is associated with increased steatosis (up to 73% of patients vs. 51% in patients with other genotypes) and fibrosis. **CONCLUSIONS:** In light of upcoming treatment alternatives, detailed epidemiological studies will help ascertain more accurately the prevalence of each HCV genotype, so that the true burden of HCV can be understood and treatments targeted appropriately.

PIN12

BURDEN OF VARICELLA IN EASTERN EUROPE: A SYSTEMATIC REVIEW AND CRITICAL ANALYSIS

Yang HK¹, Song KM¹, Manoff S², Liaw KL², Kuter B¹

¹Merck & Co, Inc., West Point, PA, USA, ²Merck & Co, Inc., Upper Merion, PA, USA

OBJECTIVES: Varicella is a common and vaccine-preventable disease, but its impact on public health in Eastern Europe (EE) has received little attention. This study aimed to review the epidemiology and economic burden of varicella in EE. **METHODS:** A systematic literature review was conducted in PubMed and government websites to identify published data on epidemiology and economic burden of varicella in EE. Extracted study data included varicella incidence, complications, mortality, vaccination program availability and coverage rates, as well as health care resource utilization and medical costs associated with varicella. Critical analyses of study quality and data gaps were analyzed at the country level. **RESULTS:** Published varicella data were identified from fourteen countries including Bosnia Herzegovina, Bulgaria, Croatia, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Russia, Serbia, Slovakia, and Slovenia. Only Latvia has a universal varicella vaccination program, while the remaining countries either only recommend