OBJECTIVES: To document the proportion of national healthcare expenditures that is devoted to vaccines across Western Europe and its evolution over the past years.

METHODS: Seven countries were selected: the 5 biggest countries in terms of population accounting for ~317 million inhabitants in 2015 (Germany, England, France, Italy, and Spain) and 2 smaller countries from northern and southern Europe (Denmark and Ireland). This panel of countries constitutes a comprehensive range of vaccine procurement modalities (centralized/decentralized, tender/reimbursement) across Western Europe. Data search was performed on both OECD online databases and national official sources for healthcare and vaccine expenditures from 2008 (2006 for England) until the most recent year available (usually 2012/2013).

RESULTS: Healthcare expenditures have increased in all countries but Spain. Increases ranged from +3%/year in France to +6%/year in England. In the meantime, despite heterogeneous availability, vaccine spending remained markedly in Germany (9%/year from 2008 to 2013), Spain (-7%/year from 2008 to 2012) and France (+4%/year from 2008 to 2013). Only Sweden (SEK 1.72 Bn in 2013, +10%/year from 2008 to 2013) and England (GBP 6.6 Bn in 2012, +14%/year from 2006/07 to 2010/11) have increased their spending on vaccines. The proportion of healthcare expenditures allocated to vaccines ranged from 0.45% in Germany (€ 0.82/182.7 Bn in 2013) down to 0.25% in Spain (€ 0.17/66.6 Bn in 2012) and 0.14% in France.

When available, OECD data showed similar proportions and evolution patterns in most cases. CONCLUSIONS: Vaccination involves low levels of healthcare investments in Europe (<0.5%) compared to the far-reaching public health benefits it procures. We evidenced a net trend towards a decrease over the past years, except for Sweden and England. In the ever-constant budgetary context, vaccination budgets should be preserved or even increased to sustain life-course approach of immunization at sufficient coverage rates.

PIN109 RELIABILITY OF MANUFACTURERS’ BUDGET IMPACT ESTIMATES FOR CHRONIC HCV GT1 DRUGS IN POLAND

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OBJECTIVES: To compare the total value of payer’s expenditures on Victrelis (boceprevir) and Incivo (telaprevir) in patients with chronic HCV GT1 estimated in the manufacturers’ Budget Impact Analyses (BIAs) submitted with the reimbursement applications to AOTMiT and actual expenditures of the National Health Fund (NHF).

METHODS: Annual public payer’s expenditures estimated in manufacturers’ BIAs for Victrelis and Incivo and actual expenditures reported by the NHF were compared. RSSS were not taken into account. Analysed drugs were chosen on the basis of the same indication and financing through the same therapeutic programme in Poland. Actual expenditures and population size were taken from the financial reports of the NHF. The first year of this study was 2011. (The actual data on 9 months from first expenditures and 11 months for population size were extrapolated to one year) of reimbursement for each drug.

RESULTS: For drugs Victrelis and Incivo in patients with chronic HCV genotype 1 infections, the sum of total expenditures estimated in BIAs submitted with the reimbursement applications was 145,38 million PLN in the first year and 164,49 million PLN in the second year, and they were higher than the actual expenditures reported by the NHF. 77,48 million PLN and 120,72 million PLN, respectively. Total expenditures estimated in BIAs exceeded the actual expenditures by 88% in the first year of reimbursement and 36% in the second year of reimbursement. Population size estimated in BIAs in comparison to its actual size from the NHF reports was overestimated by 53% in the first year and 38% in the second year of reimbursement.

CONCLUSIONS: In the case of drugs chosen for this analysis, total payer’s expenditures estimated in BIAs submitted with the reimbursement applications were overestimated in comparison to the real life expenditures of the drugs in Poland.

PIN110 THE COST OF VACCINATION THROUGHOUT LIFE: A PAN-EUROPEAN PERSPECTIVE

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OBJECTIVES: To assess the costs of vaccination throughout life for a fully immunized Western European citizen. METHODS: Vaccines recommended in the most recent National Vaccination Calendar (NVC) for Germany, England, France, Italy, Spain, Sweden and Portugal were used differentiating men from women and healthy individuals from those suffering from underlying conditions (s) who require specific additional vaccinations. Unit vaccine costs and administration fees were retrieved from national official sources. The number of visits was adjusted for possible co-administrations to better reflect local vaccination practices. All costs were calculated from the national healthcare perspective. In sensitivity analyses, vaccine costs were varied within a +50% range to account for possible price variations due to competition, market type, size and vaccines lifecycle. Administration fees were increased by 30% hypothesizing that medical fees are unlikely to decline over time.

RESULTS: Vaccinating an individual against up to 19 diseases throughout his entire life and in all European countries yields a total direct cost of € 13,506 (range: € 5,955 – € 13,544) and from € 450 to € 3,400 when administration costs are considered. Lowest range corresponds to healthy man in Sweden and highest range to woman with underlying conditions in England. Vaccination cost was variable among European countries due to heterogeneous NVCs and vaccination organization. In all countries but France, adults (18-64y) and elderly (≥65) accounted for the lowest vaccine costs compared to pediatric (0-24m) and children/adolescents (2-17y). In comparison, other mass vaccination prevention may be at least 3 times more costly.

CONCLUSIONS: Vaccination requires a relatively low amount of money per individual knowing that some missed opportunities remain in senior vaccinations. A life-course approach of vaccination should be considered as a smart investment providing substantial benefit falling actually well beyond individual health and protecting the whole population and economy against potentially troublesome and resource intensive outbreaks of infectious diseases.

PIN111 WILLINGNESS TO PAY FOR INNOVATIVE DRUGS: ANTI-HCV TREATMENT FROM THE ITALIAN NATIONAL HEALTH INSURANCE PERSPECTIVE

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OBJECTIVES: A new scenario of therapy for HCV infection is being established with the approval. The aim of this study is to evaluate the long-term health outcomes and the willingness to pay of new anti-HCV treatment from the Italian societ>

METHODOLOGY: A multicaret model was developed to estimate the HCV-infection process in a theoretical cohort. The Markov process considered 12 health states (F0, F1, F2, F3, Compensated cirrhosis (F4), SVR, decoupled cirrhosis (F4x), Transplant (1 year); Treatment failure (T), HCV-related death and death from other causes) and 42 transition probabilities. The model was informed with available data published in national and international literature. Effectiveness of new treatment strategies was estimated from Clinical Trials. Medical costs, avoided by the increased effectiveness of new treatments, were estimated. RESULTS: The cohort of subjects with chronic HCV in 2013 amounts to 267,190 subjects, of those about 17,600 patients F3-F4 are treated with drug therapy. Cumulative cases of HCV-related diseases who succeed in preventing by the increased effectiveness of new treatments amounted to 47,433 after 7 years, 156,507 after 17 years, 256,942 after 27 years. The direct net medical costs, after the estimated savings of drug amounting to € 72,33 and € 3,400 when administrated in Italy and Spain, respectively, and € 166,51, € 950,3 and € 551,3 attributable to indirect costs avoided, for the same time horizons. Furthermore, it was estimated that each patient treated with new drugs achieves a reduction of expenditure of about € 12,000 in terms of direct costs, and € 4,000 in terms of indirect costs.

CONCLUSIONS: In conclusion, an important share of the cost per treated patient can be compensated by the reduction of direct and indirect costs guaranteed by the effectiveness of new treatments.

PIN112 ARE VACCINES GETTING A FAIR DEAL? HEALTH TECHNOLOGY ASSESSMENT OF VACCINES ACROSS EUROPE

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OBJECTIVES: While the practice of Health Technology Assessment (HTA) has been well established there is wide variation in the processes by which public reimburseme

RESULTS: decisions for vaccines are made in comparison to medicines and devices. The review compared the assessment of vaccines across Europe (UK, France, Germany, Italy, Spain), and to critically appraise the systems using the key principles for the conduct of HTA (Drummond et al, 2008). METHODS: A systematic review of economic modeling of vaccines, supplemented by a targeted review of key stakeholder websites across Europe for previous assessments of vaccines was conducted. A search of Medline, Embase, Ecoinet and NHSEED was conducted and abstracts were reviewed by two independent reviewers against pre-specified criteria for inclusion. Data from relevant articles was extracted and quality assessed. Country HTA websites were hand-searched. The evidence was synthesised to provide an overview of the strengths and weaknesses of the appraisal processes in each of the five European countries. RESULTS: The review highlighted the inherent difficulties in health economic modeling using standard HTA processes as the long-term impact of vaccines is unknown, leading to wide variation in assumptions and methods of extrapolation. The literature identified highlighted the inherent uncertainties surrounding the cost-effectiveness of vaccines but also those that impact the cost-effectiveness. The review also highlighted the importance of budget impact of vaccines when making a decision. When comparing to the key principles of HTA, all countries failed to meet all of the criteria. CONCLUSIONS: The economic evaluations identified indicated that the cost-effectiveness of a vaccine was heavily dependent on the assumptions surrounding uptake and carriage. The review indicated that HTA decisions on vaccines are driven by cost-effectiveness and budget impact, which may lead to understimating the potential clinical and public health benefits.

PIN113 NATIONAL SURVEY OF BEHAVIOR, ATTITUDES AND PRACTICE OF GENERAL PRACTITIONERS AND VARIOUS SPECIALISTS CONCERNING ANTIMICROBIAL USE AND RESISTANCE IN RESPIRATORY TRACT INFECTIONS

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OBJECTIVES: We performed national survey of behavior, attitudes and practice of general practitioners (GP) and specialists (pediatricians, ENT, pulmonologists) at the national level concerning antimicrobial use and resistance in respiratory tract infections. A 34-item iPad iOS survey was performed personally with each GP and specialist during 7 months period. RESULTS: The survey was completed by 357 GPs and spe-

RESULTS: important carriers and 685 specialists and its applicability in areas with population higher than 50,000 people (94.3% and 48.5%), but GPs served significantly more often in area with population less than 5000 people compared to specialists (P<0.001, 0.13 – 0.60). There was significantly higher number of GPs with practice shorter than 5 years compared to specialists (P<0.001, 5.2 – 11.5), which corresponds with frequency of checking susceptibility reports on mainly basis.