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AML are hospitalizations and transplantation, R/R patients demand more HRU and are unsustainable for HSCT. However, although HSCT can be an expensive procedure, it may also prevent remission and survival. Reducing hospitalizations, keeping the disease under control, and improving the chances to get to transplantation are critical factors for AML management.

**POSC194**

TREATMENT-RESISTANT DEPRESSION AND MAJOR DEPRESSION WITH SEVERE SUICIDE RISK: THE COST OF ILLNESS AND BURDEN OF DISEASE IN PORTUGAL

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**Background:** Depression is associated with deficits in individuals’ professional, social, and personal functioning, contributing to decreased patients’ quality of life. In its most severe form, the depressive disorder can lead to suicide. Globally, it is estimated that more than 300 million individuals are affected by depression (DGSC, 2017). Portugal is the second country in Europe with the highest prevalence of psychiatric diseases, and mood disorders had a prevalence of 7.9% in 2007 (Almeida, 2013).

**Objectives:** This study assesses the burden and cost of Treatment-Resistant Depression (TRD) and Major Depression with Severe Suicide Risk (MDSSR) in Portugal for 2016, to improve (0.17%–93.60%) and health resource allocation and patient care. The results will hopefully raise awareness of the disease and drive new scientific research and better clinical and economical decisions.

**Methods:** Burden of disease was measured using DALYs (disability-adjusted life years). The cost of TRD and MDSSR was estimated using multiple sources of information, including the National Epidemiological Study on Mental Health, the Hospital Morbidity Database, data from official Portuguese Statistics on population, causes of death and wages, statistical data on the pharmaceutical market, complemented with experts opinion.

**Results:** Considering the years lost due to disability and the years lost due to premature death attributable to TRD and MDSSR, the estimated total disease burden was 66,358 DALYs. Women have a larger number of years of life lost than men (58.5% vs 41.5%). The total annual costs associated with TRD and MDSSR patients in Portugal were estimated to be over 1 billion euros (€1,102,469,201) with 31 million euros representing direct costs (2.8%) and the remaining (97.2%) indirect costs.

**Conclusions:** This study generates, for the first time, comprehensive data on both the burden and cost of TRD and MDSSR in Portugal, providing relevant insights into particular aspects of these two mental health disorders.

**POSC195**

WHAT IS THE BURDEN OF VARICELLA-ASSOCIATED COMPLICATIONS: A SYSTEMATIC LITERATURE REVIEW

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**Objectives:** Economic evaluations of varicella vaccination typically consider only outpatient varicella cases. However, varicella complications can occur, requiring additional hospitalizations or hospital readmissions. Therefore, their inclusion in such models should be considered. This systematic literature review aimed at identifying the prevalence and duration of complications, and case-fatality rates among patients with primary varicella.

**Methods:** Prospective and retrospective observational studies, reported worldwide in English between 1999–2020 were included. The search was performed in Medline and EMBASE. The following complications were assessed: bacterial skin infection, soft tissue infection, pneumonia, encephalitis, cerebellitis/acute cerebellar ataxia, meningoencephalitis, febrile seizure, hematological complications, gastroenteritis, diarrhea, dehydration, and systemic varicella complications.

**Results:** A total of 130 eligible studies were identified. Across studies, the proportion of patients who had developed some form of varicella complication ranged from 0.1% to 98.70% across studies. The most frequently reported complications were skin infection (0.17%–93.60%) and cerebellar ataxia (0.01%–64.50%). Among the less common complications, the prevalence of lower respiratory tract infection was 0.02%–56.50%, encephalitis 0.01%–42.00%, systemic varicella complications 0.08%–50.00%, soft tissue infection (0.01%–60.00%), gastroenteritis 1.43%–43.00%, febrile seizures 0.01%–20.00%, hematological complications 0.02%–45.12%, and dehydration 0.11%–32.80%. The symptoms associated with soft tissue infections lasted for up to 21 days whereas for pneumonia, hematological complications, and gastroenteritis, it lasted between up to 2 and 10 days. The fatality rate for the overall complications ranged from 0.16% to 6.0%. Results varied noticeably depending on whether the studied population comprised all varicella patients, or patients hospitalized with varicella complications.

**Conclusions:** Varicella infection is associated with various complications that may be fatal. To capture the comprehensive burden of varicella complications in cost estimation, varicella vaccine economic evaluations, including the value of these complications is important in terms of cost and quality of life loss implications.

**POSC196**

MODELLING THE PUBLIC HEALTH IMPACT OF ALTERNATIVE VACCINE STRATEGIES FOLLOWING THE DISCONTINUATION OF MENITORIX (HIB/MENC) IN ENGLAND

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**Objectives:** Immunization is the best strategy to protect individuals from invasive Meningococcal Disease (IMD), however the planned discontinuation of GSK-Cervarix (Hib/MenC vaccine) will create a gap in the vaccination schedule at 12 months in the UK National Immunisation Programme (NIP). It is critical to maintain protection in this high-risk toddler group against the severe and long-lasting effects of IMD. This model evaluates the public health impact of replacing GSK’s MenC component with a MenACWY vaccine for toddlers at 12 months of age.

**Methods:** An incidence-based static population model was developed to simulate the impact of vaccination on the epidemiology of IMD in England using a 30-year time horizon. This timeframe corresponds to progressive introduction of the MenACWY vaccine. Compared to the use of MenC/Hib, the impact on public health was examined when a MenACWY vaccine is introduced into the schedule (base-case); and when no vaccination is given at 12 months of age (scenario analysis).

**Main outcomes include:** IMD cases avoided (with or without sequelae) and IMD deaths avoided.

**Results:** The base-case analysis indicated that introducing vaccination with a quadrivalent MenACWY at 12 months was associated with improved health outcomes. Protection against IMD caused by serogroup C would be maintained. Furthermore, an additional 255 cases of IMD could be avoided over 30 years with the introduction of a quadrivalent vaccine due to the additional protection against serogroups W and Y. In contrast, no replacement at 12 months would result in 174 additional serogroup C IMD cases over the 30-year timeframe.

**Conclusions:** A routine immunisation programme with a quadrivalent MenACWY vaccine for toddlers would ensure that this high-risk population has broad, direct protection against IMD caused by multiple serogroups.

**POSC197**

GENDER DIFFERENCE IN HEART FAILURE (HF) AFTER ST-SEGMENT ELEVATION MYOCARDIAL INFARCTION (STEMI)

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**Objectives:** Aim was to examine the relationship between gender and HF after STEMI in patients with no prior history of HF. Methods: A literature review was performed. Only publications looking at gender difference for HF in STEMI and including at least 500 women were retained. No other restriction was applied. Results: 5 publications were identified. The most recent publication (10’443 patients – 3,112 women) concluded that, after covariate adjustment for risk factors, HF at hospital presentation was significantly higher for women (25.1% vs 20.0% ; OR: 1.34; 95% CI : 1.21 - 1.48), with a higher 30-day mortality (25.1% vs 20.6% ; OR: 1.29 ; CI: 1.05 - 1.58). A study linking administrative databases in Alberta (45’064 patients, 45.1% STEMI, 30.8% women) showed that STEMI women had a higher unadjusted rate of developing in-hospital HF (15.2% vs 9.5%). This difference remained significant after adjustment (aOR : 1.26 ; 95% CI : 1.13 - 1.4). After 1 year and 5 years, women remained at higher risk of developing HF with adjusted subdistribution hazard ratios of 1.21 (95% CI : 1.12–1.3) and 1.18 (95% CI : 1.11–1.24), respectively. In Poland, for STEMI patients who had incomplete reperfusion after pPCI (766 (35%), rehospitalization because of HF was significantly higher in women at 6 months (12.5% vs 7.5%, p = 0.036), 12 months (13.9% vs 9.4%, p = 0.044) and at 2 years (18.8% vs 11.7%, p = 0.006). In a pooled patient-level data from 10 randomized pPCI trials (2’632 STEMI patients), women (23% of patients) had a higher 1-year rate HF hospitalization (5.6% vs 1.7% ; p < 0.0001). This contrasts with a in Singapore with 7’597 STEMI patients (13.8% women). After adjusting for baseline characteristics and treatment, gender difference in risk of 1-year rehospitalization for HF was almost nonexistent (HR : 1.05 ; 95% CI : 0.79 to 1.40).

**Conclusions:** Women appear to be at higher risk of developing de novo HF after STEMI.
not available. We used non-parametric Wilcoxon signed-rank tests to investigate significant variations in VCR per eligible group for the 2020/21 season compared to previous seasons. Results: VCRs for the 2020/21 season were not available for patients in Italy and Spain, and VCRs for Canada were only available from the season 2015/16 onwards. Overall VCR in France increased by 15.58% in 2020/21 compared to previous seasons (p<0.001). Significant increases in VCR in both adults aged 65+ years and below 65 years at-risk were observed in France (+15.52% ; +11.60% ; all p<0.001) and the UK (+10.89% ; +7.68% ; all p<0.001). In the US where influenza immunization is recommended for all individuals aged 6 months and above, significant increases in VCR were noted for the 2020/21 season in the following age groups: 18+ years (+39.69% ; 18-49 years (+57.52%) ; 50-64 years (+36.30%) and 65+ years (+14.86%) (all p<0.001). No significant changes were observed for all eligible groups in Canada.

Conclusions: Significant augmentations in influenza VCR were observed during the 2020/21 season, probably in reaction to the COVID-19 pandemic. Analyses for Italy and Spain should be conducted once data is available and surveillance of VCR should be pursued as the pandemic is still ongoing.

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POSCE203
PREVENTIVE EFFECTS OF RENIN-ANGIOTENSIN SYSTEM INHIBITORS ON PARKINSON’S DISEASE: A POPULATION-BASED RETROSPECTIVE COHORT STUDY
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Objectives: The renin-angiotensin system (RAS) may play an important role in neurodegenerative diseases. Several studies have found that RAS inhibitors have preventive effects against Parkinson’s disease (PD). However, these effects have not been demonstrated conclusively. This study aimed to investigate the association between the use of RAS inhibitors and PD occurrence.
Methods: We conducted a nationwide population-based cohort study. Older individuals (age ≥ 60 years) who had been diagnosed with angina between January 1, 2009 and June 31, 2009 were recruited and followed up until December 31, 2019 using the Korean Health Insurance Review and Assessment database. The association between PD incidence and RAS inhibitor use was evaluated through Cox proportional hazard regression analyses. The data were adjusted for age, sex, comorbid disease, and concomitant medications. A 1-year lag time was applied to minimize reverse causality of PD.
Results: Of the 117,093 subjects, 32,583 were new users of RAS inhibitors. The use of RAS inhibitors was associated with a reduced risk of PD incidence compared with their non-use (adjusted hazard ratio [aHR] 0.77; 95% confidence interval [CI]: 0.68–0.84). Specifically, the use of RAS inhibitors was associated with a reduced risk of PD incidence in the case of angiotensin-converting enzyme inhibitors (ACEIs) (aHR 0.85; CI: 0.72–1.00). Our study suggests that using RAS inhibitors may be associated with a reduced risk of PD. However, a statistically significant reduction in PD incidence was observed in the case of ARB use, but not in the case of ACEI use.

POSCE204
DRUG-DRUG INTERACTION DATABASES: SENSITIVITY AND SPECIFICITY TO DETECT MANIFEST DRUG-DRUG INTERACTIONS, RELIABILITY RATINGS AND MANAGEMENT STRATEGIES OF POTENTIAL DRUG-DRUG INTERACTIONS
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Objectives: The objective was to compare drug-drug interaction (DDI) databases with regard to reliability ratings, severity categories and management strategies of potential DDIs and to determine the specificity and sensitivity of DDI databases to detect manifest DDIs which contributed to unplanned hospital admission at the University Hospital Hradec Králové, Czech Republic.
Methods: The design of this study is cross-sectional. The data were obtained retrospectively from electronic medical records within a broader project focused on identifying drug-related interactions involving patients who were prescribed an ACEI or an ARB.
Results: In total, 1,411,030 medical records of patients were evaluated. Of these, 654,676 records [46.45%] were associated with a potential drug-drug interaction (PDDI). The proportion of cases with a manifest drug-drug interaction (MDDI) was 7.01% (n=45,978). The prevalence of DDIs with regard to drug groups were as follows: cardiovascular (10.64%), endocrine (7.63%), gastrointestinal (7.05%), central nervous system (6.89%), urological (6.08%), anti-infective (5.66%), and anti-infective (5.62%). The ACEIs and ARBs had the highest proportion of PDDIs (23.50% and 22.86%, respectively).
Conclusions: The study revealed that the proportion of manifest DDIs was much lower than that of potential DDIs. Further research is necessary to develop effective management strategies for manifest DDIs.