Methods. The innovative EXCON project will take advantage of recent advances in technologies for coding, structuring and semantizing medical information. Thanks to this new structuring, the EXCON platform will be developed. The final users will be health professionals and other decision-makers. Doctors, nurses, epidemiologists and information specialists will be involved in the development and subsequent validation of the platform.

Results. The EXCON platform identifies profiles of patients with a high probability of ischemic heart disease. In the sample analyzed (n = 4,700), 17 percent of patients were admitted to a cardiology unit with suspected coronary heart disease. Of the patients admitted, 53.7 percent did not have ischemic heart disease at discharge. If we apply the algorithm developed by the EXCON project, 24.8 percent of patients would not have been admitted and did not have ischemic heart disease.

Conclusions. In coming decades, patient management will be impacted by the application of new advanced data analytics tools. This will allow for safer and more efficient clinical management, decrease variability in clinical practice, and improve equity. That is why the development and assessment of these technologies is necessary.

OP340 Adverse Clinical Events And Associated Risk Factors In Patients With Very-High-Risk Atherosclerotic Cardiovascular Disease

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Introduction. Clinical atherosclerotic cardiovascular disease (ASCVD) patients are judged to be very-high-risk if they had a history of multiple major ASCVD events, or one major ASCVD event with multiple high-risk conditions. Very-high-risk ASCVD patients are under high risk of adverse clinical events and need more attention in the management of secondary prevention. This real-world study aimed at estimating the prevalence of very-high-risk ASCVD and investigating the occurrence of adverse clinical events and associated risk factors among patients with very-high-risk ASCVD in China.

Methods. Data were obtained from the Urban Employee Basic Medical Insurance database in Tianjin, China. Very-high-risk ASCVD patients were identified from 2014 to 2015 through the history of ASCVD events and evidence of high-risk conditions, and followed for 24 months. Adverse clinical events were measured by major adverse cardiovascular events (MACE), a composite endpoint of stroke, myocardial infarction (MI) and death. A Cox regression model was used to identify risk factors of MACE, adjusting for potential confounders.

Results. The percentage of clinical ASCVD patients identified as very-high-risk was 35.2 (N = 41,181), while 34,740 patients with continuous enrollment were included (mean age: 67.1 years; 42.5% female). The percentage of patients who had MACE in the 24-month follow-up period was 27.7, with stroke (22.3%) as the most prevalent event followed by death (6.9%) and MI (1.3%). Male gender, older age, and having MI or ischemic stroke (versus unstable angina) as the index major ASCVD event were risk predictors of MACE.

Conclusions. More than one-third of patients with clinical ASCVD are under very-high-risk in China, and among them 27.7 percent experience MACE during a 24-month follow-up period. Male patients, older patients, and patients who had MI or ischemic stroke are under higher risk of experiencing MACE. Future studies are warranted for comparing the differences in characteristics, pattern of drug use, occurrence of adverse clinical events and medical burden between very-high-risk ASCVD patients and ASCVD patients not at very-high-risk.

OP354 Cost-Effectiveness Analysis Of Different Prenatal Screening Strategies For Down Syndrome In China: Data From Shandong Province

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Introduction. There are large differences between the prenatal screening strategies for Down Syndrome (DS) in different provinces in China. In Henan province there is a serological triple screening in the second trimester (STS) strategy, while in Shandong province contingent non-invasive prenatal testing (NIPT) screening strategy (NIPT delivered to older pregnant women) is used, and there is a universal NIPT screening strategy in Anhui province. Moreover, many factors varied widely in different regions, such as the proportion of older pregnant woman and the ability of people to pay. This study aimed to determine the cost-effectiveness of current strategy in Shandong compared with strategies in other provinces.

Methods. A decision tree model was developed according to the screening strategies in different provinces. Four screening strategies were involved, universal STS strategy, contingent STS strategy, contingent NIPT strategy, and universal NIPT strategy. Cost-effectiveness analysis was conducted from a societal perspective in a simulated cohort of 100,000 pregnant women. The data of costs and epidemiologic parameters were collected from field surveys in Shangdong and a literature review.

Results. The universal STS strategy, contingent STS strategy, contingent NIPT strategy, and universal NIPT strategy could prevent 17.0, 40.0, 46.2, and 53.6 DS births, respectively. There was no strategy dominated by others. The universal NIPT strategy and contingent NIPT strategy would decrease invasive procedures for prenatal diagnosis, resulting in fewer procedure-related miscarriages. The sensitivity analysis showed that the effectiveness of the screening strategy is significantly influenced by the resident's acceptance of NIPT.

Conclusions. From the perspective of maximizing the effect, the universal NIPT strategy is the optimal strategy. But taking into account the resident's and government's ability to pay, contingent NIPT Strategy may be appropriate for the current situation in Shandong. To ensure a better cost-effective advantage in the universal NIPT strategy, the government should provide health

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education to increase the acceptance of NIPT while controlling the price of NIPT.

OP366 Characterizing The Population At Risk Of Chronic Obstructive Pulmonary Disease In China Using A Real-World Population Survey

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Introduction. Chronic obstructive pulmonary disease (COPD) is a leading cause of morbidity and mortality in China. However, early identification of patients with COPD in the community is challenging. This study used a real-world survey of the Chinese urban adult population to estimate the prevalence of COPD diagnosis or COPD-risk, examine the health outcomes and healthcare resource use of these groups, and investigate the sociodemographic factors associated with these statuses.

Methods. Respondents to the 2017 National Health and Wellness Survey in China (n = 19,994) were classified into: COPD (diagnosed), COPD-risk (undiagnosed), and control (undiagnosed, not at-risk) using their self-reported diagnosis and Lung Function Questionnaire (LFQ) score. These groups were compared by healthcare resource use and health outcomes (EuroQol [EQ-5D] and Work Productivity and Activity Impairment questionnaires). Factors associated with being in these groups were investigated using pairwise comparisons (t-tests and chi-square tests) and multivariable logistic regression.

Results. In total, 3,320 respondents (16.6%) had a suspected risk of COPD but did not report receiving a diagnosis. This was projected to 105.3 million people (16.9% of urban adults). Relative to the controls, COPD-risk and COPD-diagnosed respondents had higher healthcare resource use, lower productivity, and lower health-related quality of life (HRQoL) ($p < 0.05$). Age, smoking, alcohol consumption, weight, exercise, comorbidities, gender, education, employment, and air pollution were associated with increased odds of COPD-risk relative to the controls ($p < 0.05$).

Conclusions. A substantial group of individuals, undiagnosed, but with a risk of COPD, have impaired HRQoL, lower productivity, and elevated healthcare resource use. A range of sociodemographic factors are predictive of COPD risk, which may support targeted screening. Case-detection tools such as the LFQ may offer a convenient approach for identifying individuals for further definitive testing and appropriate treatment in China.

OP380 A Review Of The Methodology Used To Synthesize Continuous And Time-To-Event Outcomes For Clinical And Cost-Effectiveness

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Introduction. Synthesis of continuous and time-to-event outcomes is often complicated by the use of multiple outcome scales and heterogeneous reporting of outcomes across trials. Simple methods of evidence synthesis for clinical effectiveness can fail to account for these issues and result in a reduction of the evidence base, which can be further reduced at the cost-effectiveness stage as common outcome measures, such as standardized mean differences, cannot easily be incorporated into the economic decision model. Recent methodological advances for synthesizing continuous and time-to-event outcomes aim to include a greater proportion of the available evidence base within a single coherent analysis.

Methods. To assess the statistical methods commonly used in health technology assessment (HTA) and establish whether recent advances in synthesis methods have been adopted in practice, we conducted a review of HTA reports and guidelines published in the United Kingdom (UK) between 1 April 2018 and 31 March 2019 reporting a quantitative meta-analysis (MA), network meta-analysis (NMA) or indirect treatment comparison (ITC) of at least one continuous or time-to-event outcome.

Results. Forty-seven articles were considered eligible for this review. Fifty-one percent of eligible articles reported at least one continuous outcome and 55 percent at least one time-to-event outcome. Twenty-nine articles reported NMA or ITC and twenty-seven reported MA of a continuous or time-to-event outcome. Forty articles included a decision model, of which twenty-seven incorporated evidence from a synthesis of a continuous or time-to-event outcome with eleven informed by a single trial (despite synthesis being conducted).

Conclusions. Uptake of methods to include a greater proportion of the available evidence base within a single coherent analysis in UK HTA reports has been slow. Evaluating health technologies using an evidence-based approach often results in better outcomes for patients. Therefore, HTA analysts and decision modelers must be aware of the expanding literature for synthesis of continuous and time-to-event outcomes and appreciate the limitations of simpler approaches.

OP388 17-Year Disease Reduction Predicted By A Transmission Dynamic Model After Pneumococcal Conjugate Vaccine Introduction In The United States

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Introduction. After the introduction of the seven-valent pneumococcal conjugate vaccine (PCV7) in the United States (US) in the year 2000, the incidence of invasive pneumococcal disease (IPD) caused by the seven vaccine serotypes declined by 80 percent in vaccinated children and 30 percent in unvaccinated adults. A transmission dynamic equation model developed in 2009 captured the direct and indirect effects of vaccination in the early years after vaccination. Subsequently, the vaccine program switched to the 13-valent PCV and adult PCV13 vaccination. This work explores the accuracy of the mathematical model to predict long-term IPD due to changes in US immunization practices.

Methods. The model simulates the acquisition of asymptomatic carriage of pneumococci and the development of IPD among

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