PD130 Health Technology Assessment Of Cervical Cancer Screening In Indonesia

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Introduction: Cervical cancer is the most common gynecological cancer and the second most common cancer among women in Indonesia, and its incidence is projected to increase. In 2018, the mortality rate of cervical cancer was 60 percent, since patients often have advanced stage disease at diagnosis. We aimed to identify the status and cost of cervical cancer screening in Indonesia.
Methods: We conducted a literature review with search terms relevant to cervical cancer, screening, and Indonesia in two major databases—Embase and Medline—and by citation searching through the World Health Organization (WHO) website, human papillomavirus (HPV) reports, and Indonesian reports on cervical cancer.
Results: Indonesia's national cervical cancer screening program began in 2007 and uses visual inspection with acetic acid (VIA) or the Papanicolaou (Pap) test. VIA has high sensitivity (94%) and specificity (95%). It is the preferred option due to the limited number of pathologists and its lower cost (IDR25,000 [USD1.64]), compared with the Pap test (IDR200,000 [USD13.13]) and the HPV DNA test (IDR550,000 [USD36.00] to IDR1,400,000 [USD 91.90]). VIA and the Pap test are covered by national health insurance, whereas the HPV test is not. Nevertheless, national screening coverage was less than 10 percent, with a wide regional disparity due to the limited number of screening providers, resource constraints, and lack of awareness.
Conclusions: In Indonesia, VIA is the primary screening method because of its affordability, accessibility, and applicability in low-resource settings. However, low screening coverage has led to a high incidence of cervical cancer. New policies and incentives are needed to ensure adequate numbers of screening providers and monitoring systems. Health technology assessment can help choose cost-effective strategies for primary HPV DNA testing.

PD131 Literature Analysis And Hot Topics In Congenital Heart Disease Screening In China: A Bibliometrics Study Using CiteSpace

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Introduction: Congenital heart disease (CHD), the most common congenital malformation affecting fetuses and infants, poses a significant and rapidly emerging global challenge in children's health. Prenatal and newborn screening are very important for preventing CHD. Therefore, this study aimed to analyze the status and corresponding foci of articles on CHD screening in the Chinese or English language using bibliometric methods.
Methods: Publications on prenatal or newborn screening for CHD were included. The Web of Science Core Collection (WoS) and China National Knowledge Infrastructure (CNKI) databases were searched to identify literature published from inception to 31 March 2023. CiteSpace was used to perform bibliometric analysis on the number of publications, institutions, authors, and keywords to generate corresponding knowledge maps.
Results: A total of 582 publications were retrieved from the WoS and 233 from the CNKI databases. There was an increasing trend in the number of English and Chinese articles published, with the trend beginning in 2010 for Chinese language articles and in 2007 for English language articles. In English language publications, GR Martin was the most influential author, and the top five institutions were from high-income countries. Among the Chinese language publications, Wenhong Ding was the most influential author and the Hunan Province Maternal and Child Health Care Hospital was the most commonly reported institution. Keyword analysis revealed that the most frequently occurring terms in both language publications were as follows: antenatal diagnosis, cardiac auscultation, and fetal echocardiography in English language articles and screening, prenatal screening, and fetal in Chinese language publications.
Conclusions: Increasingly, articles on CHD screening have been listed in the WoS and CNKI databases. This bibliometric study provides the status and trends in the research on screening for CHD and may help researchers identify hot topics and explore new research directions in this field.

PD132 A Target Trial Emulation Application Assessing The Survival Of Erythropoiesis-Stimulating Agents In Patients With Lower Risk Myelodysplastic Syndrome

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Introduction: Patients with myelodysplastic syndromes (MDS) can be treated with erythropoiesis-stimulating agents (ESAs) to alleviate anemia-related symptoms and delay the need for expensive transfusions. However, clinicians disagree on prescribing ESAs because evidence on the effectiveness of ESAs is limited. This study aimed to reliably estimate the survival of a dynamic ESA treatment regimen using a novel causal inference approach.
Methods: The European MDS Registry collects data on patients with MDS every six months. We followed a two-step framework to develop a hypothetical and emulated trial protocol. The eligible population consisted of patients with intermediate-1 to low-risk

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MDS who were treatment-naïve, had a hemoglobin concentration of less than 10 grams per deciliter, and did not have a chromosome 5q deletion (non-del(5q) MDS). Red blood cell transfusion was allowed before the date of diagnosis. Patients were cloned and assigned to both treatment groups, thereby eliminating immortal time bias, and were censored as soon as they stopped following the assigned treatment strategy. This artificial censoring introduced selection bias, which was adjusted for by using inverse probability of censoring weighting. The weights model adjusted for time varying confounders.
Results: Of the 611 patients qualifying for the study, 282 started ESAs within the six-month grace period and 329 did not take ESAs. The median follow-up was 2.4 years (interquartile range 1.3 to 4.2). A naïve analysis of our cohort suggested that no ESA was significantly more beneficial than taking ESAs (hazard ratio [HR] at year four: 1.24, 95% confidence interval [CI]: 1.03, 1.50). However, after correcting for biases the adjusted Kaplan-Meier curves showed that ESAs were beneficial over the first two years (HR at year one: 0.75, 95% CI: 0.41, 1.39), compared with no ESAs. Thereafter there was no difference between treatment groups (HR at four years: 1.01, 95% CI: 0.80, 1.27).
Conclusions: We found that early—within six months of becoming eligible—initiation of ESAs as first-line therapy for treatment-naïve patients with non-del(5q) low-risk MDS and hemoglobin levels of less than 10 grams per deciliter improves survival over for the first two years. Using target trial emulation to make accurate survival estimates can improve decision-making in health technology assessment.

PD133 Exploring Real-World Data Based Financing Models For Lung Cancer Immunotherapy In The Czech Republic

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Introduction: In alignment with recommendations from the Czech Society for Oncology, immunotherapy is gaining prominence in managing metastatic lung cancer. Public health insurance in the Czech Republic covers immunotherapy for defined categories of these malignancies. Our study aimed to evaluate the impact of introducing performance-based risk-sharing agreements (PBRSA) on budgetary considerations for immunotherapy treatment.
Methods: In collaboration with the Masaryk Memorial Cancer Institute in Brno, we conducted a retrospective analysis of 127 patients with lung cancer who were treated with immunotherapy (42 received nivolumab) between 2018 and 2022. We explored the reimbursed indications for pembrolizumab, nivolumab, atezolizumab, and durvalumab. Real-world progression-free survival (PFS) data from the medical records were compared with PFS data from randomized controlled trials. Patients were classified as either successfully or unsuccessfully treated according to the PFS threshold established in the comparator arm of the respective trials. Additionally, we explored a hypothetical scenario involving the potential implementation of PBRSA depending on the level of outcome achieved.
Results: In patients with advanced lung cancer who had received prior chemotherapy, nivolumab succeeded in 29 patients but failed to meet the defined success threshold in 13 patients. Unsuccessful cases incurred an average cost of EUR9,300 per patient over a median treatment period of 1.7 months. In contrast, the cost of successful treatment exceeded EUR29,700 per patient, which was sustained for a median treatment duration of 5.5 months. Manufacturers could cover up to 66 percent of the cost associated with unsuccessful treatment in the 13 patients, which would exceed EUR41,000. This approach might cover the expenses for one additional patient. The same calculation was performed for all other checkpoint inhibitors.
Conclusions: The analysis emphasizes the vital role of risk-sharing agreements in enhancing the affordability and sustainability of high-cost advanced therapies. Discrepancies between real-world clinical data and registration studies challenge full reimbursement sustainability. By redistributing financial responsibility, PBRSA alleviate costs for insurers and simplify market entry for manufacturers, contributing to a dynamic and inclusive healthcare landscape.

PD134 Projecting The 10-Year Cost Of Care Burden For Depression Until 2032 In Hong Kong: A Real-World Evidence Based Markov Model

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Introduction: We developed a real-world evidence (RWE) based Markov model to project the 10-year cost of care for patients with depression from the public payer's perspective to inform early policy and resource planning in Hong Kong.
Methods: The model considered treatment-resistant depression (TRD) and development of comorbidities along the disease course. The outcomes included costs for all-cause and psychiatric care. From our territory-wide electronic medical records, we identified 25,190 patients with newly diagnosed depression during the period from 2014 to 2016, with follow-up until December 2020 for real-world time-to-event patterns. Costs and time varying transition inputs were derived using negative binomial and parametric survival modeling. The model is available as a closed cohort, which studies a fixed cohort of incident patients, or an open cohort that introduces new patients every year. Utilities values and the number of incident cases per year were derived from published sources.

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