PP70 Mapping Of Health Technology Assessment In China: A Comparative Study Between 2016 And 2021

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Introduction: This study aimed to compare changes in the level of health technology assessment (HTA) development from 2016 to 2021, and to inform policies and decisions to promote further development of HTA in China.
Methods: We conducted a cross-sectional and anonymous web-based survey to relevant stakeholders in China in 2016 and 2021 respectively. The mapping of the HTA instrument was used to reflect the HTA development from eight domains. To reduce the influence of confounders and to compare the mapping outcomes between 2016 and 2021 groups, we performed 1:1 propensity score matching methodology in this study. Univariate analysis was performed to compare the differences in these two groups. We also compared the overall results with that of a mapping study that included ten countries.
Results: A total of 212 and 255 respondents completed the survey in 2016 and 2021 respectively. After propensity score matching methodology, 183 cases from the 2016 group and 2021 group were matched. Overall, the mean score of 2021 in most of the domains was higher than in 2016 in China ($p < 0.05$), matching the level of HTA institutionalization and dissemination strategy, except for the assessment domain. Although China scored significantly lower among the three developed countries, the overall HTA development score for China was comparable among the ten countries.
Conclusions: Our study suggested the level of HTA development in China has made great progress from 2016 to 2021. Prior to HTA activities, the researcher or policy makers should first formulate an explicit assessment goal and scope, and during the assessment process, more attention should be paid to the clinical effectiveness and cost-effectiveness indicator to ensure a higher quality of HTA evidence.

PP71 Hospitalization Costs Associated With Advanced Non-Small Cell Lung Cancer In China: Real World Evidence From Jiangsu

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Introduction: Non-small cell lung cancer (NSCLC) constitutes 85 percent of lung cancer diagnoses and poses an economic threat to the sustainability of healthcare services. This study was conducted to estimate hospitalization costs associated with advanced NSCLC without sensitizing EGFR (epidermal growth factor receptor) and ALK (anaplastic lymphoma kinase) alterations in China and explore the potential predictors.
Methods: Data linked with patients with advanced NSCLC (stage IIIB–IV) without sensitizing EGFR and ALK alterations were obtained from the electronic medical record system of one general hospital and one cancer hospital in Jiangsu province, China, ranging from January 2017 to December 2020. We excluded patients with lung metastases from tumors elsewhere in the body. The socio-demographic characteristics, disease-related characteristics, and hospitalization cost of eligible patients were extracted. We used the generalized linear model (GLM) to assess the potential influencing factors of hospitalization cost.
Results: Patients with advanced NSCLC (n=7,260) were included in this study. The median hospitalization cost of advanced NSCLC was USD11,540.47. The median hospitalization examination and test costs were USD1,539.46, and the median hospitalization drug cost was USD6,351.47. GLM results showed that patients aged 60 or older (95% Confidence Interval [CI]: -1019.1,128.6), who had no gene driver (95%CI: -1,681.6,-233.6) were more likely to have relatively lower hospitalization costs for advanced NSCLC. Patients treated in cancer hospital (95%CI: 1,329.1,2,620.0) and with non-squamous carcinoma (95%CI: 171.3, 1,235.4) may have higher hospitalization costs. Compared with Urban Employee Basic Medical Insurance, patients with free medical services (95%CI: 1,248.4,6,298.7) were associated with higher hospitalization costs. Patients with higher hospitalization frequency and longer length of hospital stay ($p < 0.05$) were linked to higher hospitalization costs.
Conclusions: The hospitalization costs linked to advanced NSCLC is considerable for patients, with drug costs accounting for the largest. More efforts still need to be made to alleviate the direct medical burden.

PP75 Using Real World Evidence To Support The Reimbursement Of Proton Therapy Across A Broad Range Of Rare Cancers

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Introduction: The Australian Bragg Centre for Proton Therapy and Research in Adelaide will be Australia's first center with the capacity to deliver proton beam therapy (PBT). PBT uses energy from protons to target cancer cells while minimizing damage to surrounding healthy tissue, including vital organs. Compared to X-ray (photon) radiation therapy (PRT), PBT reduces the risk of serious and long-term complications.

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To improve access to PBT, the South Australian Health and Medical Research Institute (SAHMRI) submitted an application to the Medical Services Advisory Committee (MSAC) including a cost utility analysis (CUA) comparing PBT with PRT to treat specific pediatric/adolescent and young adult (AYA) and rare adult tumors.
Methods: A systematic review identified 28 comparative, mostly real-world studies to support the conclusion that PBT has superior safety and non-inferior efficacy to PRT in the requested indications. The key challenge for the CUA was to quantify the cost and quality of life implications of the superior safety profile across a wide range of indications with a limited comparative evidence base. A simple lifetime decision analytic model was developed which modeled the rates, costs and utilities associated with relevant toxicities. The complications of radiotherapy are often chronic and included secondary malignancies, visual impairments, endocrine dysfunction, dysphagia, hearing loss and intellectual disability. Some of these toxicities are only applicable to patients with cranial cancers. Therefore, the event rates applied in the evaluation were adjusted to account for the proportion of patients within each population estimated to have extracranial cancers.
Results: When results in the adult and pediatric/AYA populations were weighted across the expected utilization of PBT (34% adults, 66% pediatric/AYA) in each population, PBT was dominant relative to PRT.
Conclusions: In November 2020, MSAC recommended funding PBT in specific populations at high risk of long-term side effects from PRT. To address uncertainties around the evidence base, MSAC further requested the following:

- All patients receive comparative photon/proton plans to determine eligibility
- A national registry is established for patients treated with PBT.

PP76 From Hospital-based Health Technology Assessment (HTA) To Treatment Decision: What Decisions Actually Result After HTA In A Resource Constrained Environment?

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Introduction: The Northern Region Clinical Practice Committee (NRCPC) conducts hospital-based health technology assessments (HTA) to provide advice to hospital managers regarding both the implementation of new technologies and the configuration of existing services. To assist in the comparison of dissimilar health technologies applied across different disciplines and different hospitals, the NRCPC developed a prioritization tool. This abstract reports the use of the tool over the 17-year period that the committee has been in operation.
Methods: The score given to each HTA depends on cost-utility, predicted health improvements and the quality of evidence. In addition to the scoring tool, editorial notes are provided to contextualize the agreed score and to explain the NRCPCs interpretation of the evidence.
Results: Most of the time hospital managers have made decisions concordant with the recommendations of the NRCPC; submissions are recommended to be implemented, declined, or receive interim approval with data collection. The latter often occurs when there are uncertainties about efficacy, but no (or very few) safety concerns, or where there are uncertainties about whether the proposed costs are reproducible in the hospital setting. In these cases, management responses often require submitters to undertake a limited number of cases and collect data for audit over a one-to two-year period. Low-scoring submissions are often declined, whereas high-scoring submissions have not been declined to date. The interim approval (with data collection) strategy has had variable outcomes based on the willingness of the implementing clinicians to collect accurate data about both costs and outcomes. From 2005 to 2022, the NRCPC received 146 submissions. This poster reports graphical representations of the decisions made over the NRCPCs period of operation.
Conclusions: The NRCPC scoring tool has been successful to date in providing a framework for decision makers to allow consistent, unbiased and objective assessments of dissimilar technologies. Prioritization tools in hospital-based HTA are beneficial to decision makers in hospital settings.

PP79 Publication Trends Of Network Meta-analyses In Europe And Asia: A Focus On Cardiovascular Disease

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Introduction: The objective of this research was to compare trends in publications of network meta-analyses (NMAs) in cardiovascular diseases (CVDs) in Asia-Pacific (APAC; China, Japan, Singapore, South Korea, Thailand) and Europe (United Kingdom [UK], Germany, France, Spain, Italy), with a focus on volume, collaborations and methods.
Methods: Freely available NMAs assessing pharmacological or surgical interventions for CVD in terms of mortality or major adverse cardiovascular events, published in 2012 or later, by authors affiliated with institutions in the target countries were identified via MEDLINE and Embase. CVDs were grouped using the International Classification of Diseases, Tenth Edition (ICD-10).
Results: Across the 193 publications identified, heart diseases such as atrial fibrillation, aortic stenosis and heart failure (ICD-10 I30-I52) were the most common indications reported (38%). The majority of publications involved authors in APAC countries (63%) and 40% from Europe. Cumulative numbers of publications from APAC surpassed those from Europe from 2018 onwards. Authors were

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