preliminary results for OI. We considered medical centers from different regions of Brazil. The results are presented in terms of percentage and/or mean and its standard deviation (SD).
Results. Three medical centers completed the data collection. The average [SD] cost of a one year journey of a patient diagnosed with OI is BRL 16,308.07 [11,005.21] (USD 2,886.91 [1,948.36]) per center. Activities with greater cost are medicines, with an average cost of BRL 11,919.47 [12,629.45] (USD 2,109.76 [2,235.52]), followed by materials and human resources, with an average cost of BRL 2,881.91 [3,311.57] (USD 509.92 [585.84]) and BRL 1,506.70 [1,300.46] (USD 266.54 [230.24]), respectively. When assessing the moment of a patient's journey, the percentage of appointments, diagnosis, treatments and follow-up were 11.2, 25.8, 32.5 and 30.5, respectively. Only 3.3 percent of consumed resources were external to the center (out-of-pocket or private insurance).
Conclusions. The TDABC can efficiently draw the processes and costs associated with it. Medicines are the main driver of annual costs for OI patients in the SUS. This study was funded by the National Council for Scientific and Technological Development – CNPq and the Ministry of Health of Brazil – MoH.

PP143 International Assessment of the Health Care System in Kazakhstan. A performance analysis.

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Introduction. Measuring the performance of the health systems is an important challenge at international level. The main objective of this work is to analyze the outcomes of the Kazakhstan Health Care System in order to establish the main causes of avoidable mortality in the country. Also, to identify benchmarking possibilities that may support public policy decisions to improve the results.
Methods. To calculate the avoidable mortality indicators due to preventable and treatable causes, the methodology agreed by the OECD and Eurostat based on the International Classification of Diseases, ICD-10 was applied. Starting from the mortality database of the World Health Organization, the standardized indicators of avoidable mortality was calculated for those countries that had available data based on this classification. Based on the outcomes obtained, a "Two-Step" Cluster Analysis was used to identify and characterize the different clusters of countries that present similar results to identify possible affinities and detect benchmarking possibilities.
Results. The main causes of mortality from treatable diseases in Kazakhstan are those related to the circulatory system, followed by different types of cancer and respiratory diseases.
Applying the cluster analysis in the international context, we find important differences between the different clusters, both in the standardized ratios of avoidable mortality and in its causes. Notable differences have also been identified between Kazakhstan and the countries that make up its cluster. Overall, Kazakhstan presents better avoidable mortality results, both from preventable and treatable causes, than the average of the cluster to which it belongs. However, in some causes of death, it presents worse results and high mortality rates, as in the case of those related to the circulatory and respiratory systems or different types of injuries.
Conclusions. The cluster analysis based on the avoidable mortality indicators reveals different conglomerates of countries that show important similarities between them and also some significant differences. Groups of avoidable diseases that characterize each cluster and subcluster, provide key information for the benchmarking and the design of future actions.

PP145 Improving Patient Expert Involvement In The Lifecycle Of Health Technology Assessments To Build Public Confidence In Decision-Making

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Introduction. Involving patients in the health technology assessment (HTA) lifecycle is a core principle at the National Institute for Health and Care Excellence (NICE). We include both patient organizations and patient experts, which helps build public confidence in healthcare decision-making. We continually work with patient experts to improve their experience and ability to participate by seeking patient expert feedback after every committee meeting.
Methods. We sent patient experts an anonymous experience survey containing a five-point Likert scale and open text boxes to capture qualitative data. The survey covered their overall experience, interaction with the committee Chair, and the support they received from both NICE and the Public Involvement Programme (PIP).
In the 2019 to 2020 period we sent out 59 questionnaires and received 29 responses (47%), all of which were from medicines HTA committee participants. In the 2020 to 2021 period we sent out 120 questionnaires and received 65 responses (54%), of which 64 were from patient experts who attended medicines HTAs and one was from a medical devices HTA committee participant.
Results. Good or excellent experiences were reported by 90 percent of patient experts. The four main success factors noted were: good support before meetings; being welcomed and respected; well organized meetings; and patient expert input being valued. Areas for further improvement included: providing better briefing before meetings; allowing more time to review documents; providing more technical support; and giving more consideration to the opinions of patient experts.
Conclusions. As a result of the feedback received, the PIP now holds monthly group briefing meetings for patient experts. We also publish the anonymized feedback from the patient experts quarterly in a newsletter for committee members and share the data with internal

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NICE teams. Additionally, NICE aims to: send committee papers out earlier; have the option of holding a technical engagement call before committee meetings; and develop a feedback mechanism to ascertain the impact of patient input.

PP146 The Use Of Indirect Comparisons For Reimbursement Decision Making In The Netherlands And England

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Introduction. Reimbursement decision making is based on a relative effectiveness assessment (REA), which may be combined with a cost-effectiveness assessment, by national Health Technology Assessment (HTA) agencies. These assessments are based on clinical data where new interventions are compared to the current standard of care, which may differ between countries. Since most pivotal trials only include a limited number of interventions, indirect treatment comparisons (ITCs) can be used to compare multiple interventions. The aim of this study was to evaluate the use of ITCs in HTA decision making in the Netherlands and England.
Methods. All pharmaceutical assessments published between 2015 and 2019 by the National Health Care Institute (ZIN) and the National Institute for Health and Care Excellence (NICE) were reviewed to determine whether an ITC had been used. For detailed analysis we included all assessments of ZIN using an ITC, and a random sample of assessments of NICE using an ITC (10 assessments per publication year).
Results. Between 2015 and 2019 a total of 106 and 265 assessments were conducted by ZIN and NICE, respectively. Of these assessments 48 from ZIN and 150 from NICE included an ITC. The detailed analysis showed that pharmaceutical assessments including indirect comparative evidence led to the REA conclusion of similar therapeutic evidence in 57 percent of 48 assessments by ZIN and in 52 percent of 50 assessments by NICE. Reimbursement recommendations including indirect comparative evidence most often resulted in positive recommendations by ZIN (57% assessments), and in restricted recommendations by NICE (50% assessments). Different methods were employed to incorporate indirect comparative evidence, such as naïve ITCs and network meta-analysis.
Conclusions. Our results showed a significant variability in the use of ITCs between NICE and ZIN, which may contribute to differences in their recommendations. Further analysis will provide deeper insight in these differences and may provide suggestions for a clearer international guidance on the use of ITCs for HTA.

PP147 Conditional Reimbursement Of Medicinal Products, A Procedure For Orphan Drugs, Conditionals and Exceptionals

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Introduction. In 2018 the Dutch Ministry of Health (MoH) introduced a new policy regarding the conditional reimbursement (CR) of drugs in the basic health insurance package. This new policy offers patients with a serious, often rare disease for which no effective treatment is yet available, the possibility of obtaining controlled access to new promising drugs. In the meantime, additional data on (cost-) effectiveness is being collected. The aim was to assess whether this new policy allowed improved inclusion of drugs in the basic health insurance package.
Methods. Marketing authorization holders (MAH) were able to apply for the CR. The drug had to be registered by the European Medicines Agency (EMA) as an orphan drug, conditional or exceptional and address an unmet medical need. The MAH had to submit a dossier which includes a study protocol together with the professionals' associations, patients' associations and a research institute. It was possible to engage an ongoing (international) study in the CR application. Based on the proposed study, the National Health Care Institute (ZIN) assessed whether it is possible to determine if the drug should be reimbursed at the end of the CR period. A reduced price was a condition for CR.
Results. Four drugs are currently reimbursed as part of the CR, being: parathyroid hormone, ataluren, larotrectinib and entrectinib. The proposed studies are ongoing and will generate data to support the final reimbursement decision. Progress will be monitored by the researchers and discussed with ZIN.
Conclusions. Four drugs were successfully conditionally reimbursed, concluding the new CR procedure is feasible. Additional data is being collected to aid in the decision on the definitive reimbursement of these drugs. The upcoming period, the focus will be on the quality of the collected data and whether the inclusion of patients is proceeding as planned. The MoH will be informed by ZIN on the study progress annually. The final reimbursement decision is taken at the end of the CR period.

PP148 The Impact Of Health Technology Wales Guidance For Autologous Hematopoietic Stem Cell Transplantation: Two Years Post-Publication

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