

PD02 A Literature Review Of Treatment Schemes And Effects For Beta Thalassemia In China

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Introduction. The incidence of beta thalassemia varies greatly in different regions of China. Blood transfusion combined with iron chelation and hematopoietic stem cell transplantation (HSCT) is the main treatment for beta thalassemia in China. This study aimed to reveal the specific treatment schemes used for patients with beta thalassemia and to evaluate their effects.

Methods. A search strategy was developed to identify articles published between 1 January 2010 and 30 August 2021 in the following literature databases: PubMed, Embase, the China National Knowledge Infrastructure, Wanfang Data, and the Chinese BioMedical Literature Database.

Results. The most used iron chelation schemes in China for patients with beta thalassemia included deferoxamine (DFO) monotherapy, deferiprone (DFP) monotherapy, deferasirox (DFX) monotherapy, and combinations of DFP and DFO. Most studies reported that combinations of DFP, DFO, and DFX monotherapy performed better than DFO or DFP monotherapy alone in reducing the blood, heart, and liver iron load. However, the adverse effects of iron chelation affected patient compliance with treatment to a certain extent. Stem cells for patients receiving HSCT in China were mainly donated by human leukocyte antigen (HLA)-matched siblings or unrelated individuals. The five-year overall survival rate after HSCT ranged from 83 to 90 percent, while the five-year beta thalassemia-free survival rate ranged from 65 to 87 percent. Graft-versus-host disease and infection were the most common serious complications experienced by transplant recipients.

Conclusions. For patients in China with beta thalassemia, the most effective iron chelation treatment schemes were combinations of DFP, DFO, and DFX monotherapy. HSCT from HLA-matched siblings or unrelated donors resulted in a significant improvement in the cure rate for beta thalassemia. However, patients still need safer and more effective innovative treatments, and further evidence on existing treatments needs to be generated from larger scale studies in the Chinese population.

PD03 Uptake Of Health Technology Assessment In Hospitals: A Scoping Review

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Introduction. The use of Health Technology Assessment (HTA) in hospitals contributes to decision-making, professional training, greater interaction with technical to scientific knowledge, resource-saving, and partnerships. Hospitals are strategic for the field of clinical management and quality of care and are open to partnerships with national and international agencies and groups. Despite the hospital-based (HB)-HTA movement, the incipient application of HTA to the hospital decision-making process is related to incipient planning, and there is still much room for progress worldwide. The aim of this study was to analyze the uptake level of HB-HTA in diverse contexts.

Methods. A scoping review was conducted according to the methodology of the Joanna Briggs Institute, whose data analysis model consisted of the combination of Donabedian's structure, process, and outcome categories and the dimensions of the project Adopting Hospital Based Health Technology Assessment in European Union (AdHopHTA).

Results. We identified 270 studies, and after removing duplicates and reading full texts, 36 references met the eligibility criteria. Thirty-six hospitals were identified, of which there were 24 largescale hospitals with extra bed capacity. Twenty-three hospitals were affiliated with universities. Canada stood out with five university hospitals, four of which with public funding. Half of the identified hospitals had HB-HTA units (18/36). Hospitals with full uptake level of HTA corresponded to 75 percent of the sample (27/36), and the remainder had partially uptake level of HTA, or 25 percent of the hospitals in the review (9/36). There were no hospitals with incipient uptake level of HTA.

Conclusions. Measuring the uptake level of HTA in hospitals contributed to understanding how their participation has occurred in the field of HB-HTA. This study revealed the importance of identifying factors such as sustainability, growth, and evolution of HB-HTA in countries with and without a tradition in this field.

PD05 Novel Non-Thermal Ablation Technology For The Treatment Of Atrial Fibrillation

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Introduction. Pulsed-field ablation (PFA) is a new non-thermal ablative approach for treating paroxysmal and persistent atrial fibrillation (AF). It provides an alternative to the conventional thermal techniques of radiofrequency ablation and cryoablation. PFA is currently performed with the Farapulse PFA system (Boston Scientific, USA), which recently received CE marking in Europe. In this study, we describe the current evidence on the efficacy, safety, and cost-effectiveness of this new technology.

Methods. The Early Awareness and Alert System of the Agencia de Evaluación de Tecnologías Sanitarias-at the Instituto de Salud Carlos

III- identified this new ablation approach in June 2021. An early technology assessment was conducted by reviewing relevant literature published to November 2021. The literature was identified by searching PubMed, Embase, the International Clinical Trials Registry Platform, ClinicalTrials.gov, and the Cochrane Library.

Results. Seven relevant publications were identified, including three open-label trials for paroxysmal AF and one for persistent AF. Three studies comparing PFA with conventional thermal ablation techniques were also included. The safety results showed a lower incidence of complications (esophageal injury, pulmonary venous stenosis, pericardial effusion, and aortic injury) after PFA relative to conventional techniques. In terms of efficacy, PFA resulted in lower rates of AF recurrence in the medium and long term, compared with conventional techniques, and there were no differences in the lengths or success rates of the procedures. No cost-effectiveness studies were identified. Seven ongoing trials were identified, but no results have been published.

Conclusions. The current evidence for PFA in the treatment of AF showed good safety and promising efficacy. However, there is a lack of information on its effect on quality of life and the risk of death, disabling stroke, or cardiac arrest. Early evaluation of new and emerging technologies makes it possible to gather the minimum information necessary to support decisions on their inclusion in the healthcare system. In this case, based on current evidence, the widespread use of PFA is not recommended, except under a rigorous research protocol.

PD07 Cost-Effectiveness Of Direct Oral Anticoagulants In Chinese Patients With Non-Valvular Atrial Fibrillation

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Introduction. The emergence of direct oral anticoagulants (DOACs) has revolutionized the prevention of stroke-related non-valvular atrial fibrillation (NVAf). Although several DOACs are available, studies comparing the cost effectiveness of DOACs with vitamin K antagonists for NVAf are scarce. The objective of this study was to assess the cost effectiveness of DOACs and warfarin from the Hong Kong public institutional perspective to inform formulary listing decisions.

Methods. A previously developed Markov model was adapted to simulate the lifetime disease progression of a hypothetical cohort of 1,000 patients. Net monetary costs, quality-adjusted life-years (QALYs), and incremental cost-effectiveness ratios (ICERs) were computed for the following competing alternatives: warfarin, apixaban (5 mg twice daily), dabigatran 110mg or 150mg (twice daily), and rivaroxaban (20mg once daily). Model inputs were sourced from local real-world evidence, landmark trials, and comprehensive literature reviews. Probabilistic sensitivity analyses and deterministic sensitivity analyses were conducted to address study uncertainties. The willingness-to-pay threshold was set at one times the gross domestic product (GDP) per capita (USD 46,091) per QALY gained.

Results. In base case results, all DOACs provided greater improvements in QALYs at a lower cost than warfarin. Using apixaban as the reference for comparisons among the DOACs, dabigatran 110 mg resulted in greater costs and lower QALY gains and was dominated by apixaban, whereas dabigatran 150 mg provided an incremental QALY of 0.005 at an incremental cost of USD 326, leading to an ICER of USD 67,633 per QALY. The lifetime cost associated with rivaroxaban was lower than for apixaban (-USD 151), but with lower QALY gains (-0.147), resulting in an ICER of USD 1,029 per QALY. In probabilistic sensitivity analysis, the probability of warfarin, rivaroxaban 20 mg, dabigatran 110 mg, dabigatran 150 mg, and apixaban 5 mg being cost effective out of 2,000 iterations was 0 percent, 0 percent, 29.4 percent, 33.2 percent, and 37.4 percent, respectively. **Conclusions.** The results indicated that apixaban was the most cost-effective treatment in the management of NVAf, compared with other DOACs and warfarin. This conclusion was consistent under all the uncertainty test scenarios.

PD08 A Systematic Review Of Reporting Quality Of Economic Evaluations In TCM In NRDL Of China Based On CHEERS

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Introduction. Traditional Chinese Medicine (TCM) has become a common kind of health care in several countries, with increasing demands. This review aimed to appraise the reporting quality of economic evaluations of TCM in the National Reimbursement Drug List (NRDL) of China (2020 version), based on the Consolidated Health Economic Evaluation Reporting Standards (CHEERS) statement.

Methods. The reporting quality of included economic evaluations was assessed by two independent reviewers using the CHEERS statement.

Results. A total of 360 articles were retrieved, but only 38 economic evaluations met the inclusion criteria. No articles were compliant with all items of the CHEERS checklist. On average, the included economic evaluations satisfactorily met 10.93 of the CHEERS items (51.31%). The least reported CHEERS checklist items included: "Characterizing heterogeneity", "Conflicts of interest", "Discount rate", and "Study perspective", with an average score of 0.00, 0.05, 0.08, and 0.16, respectively.

Conclusions. The economic evaluation of TCM is still at an early stage, with an urgent need for improving the reporting quality. To promote the reporting quality of economic evaluations and further development of TCM, multiple measures focusing on reporting formula, policy, training, and new methodology are required.