

## **ABSTRACT**

## Exploring the application of health economics in clinical practice guidelines: A case study of breast cancer

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**Objective:** Besides safety and efficacy evidence, economic evidence is a crucial consideration in forming recommendations for clinical practice guidelines (CPGs). However, the extent to which economic evidence is utilized in Chinese CPGs remains unclear. Our study aims to systematically analyze the application of economic evidence in CPGs, providing insights for future guideline formulation and updates.

**Methods:** A systematic search was conducted for relevant breast cancer CPGs published from 2017 to 2023, along with breast cancer pharmacoeconomic evaluation literature from 2015 to 2017 in China. Using the Appraisal of Guidelines for Research & Evaluation Instrument II (AGREE II) to select the guideline with the highest quality score and analyze the alignment between the recommendations in the guideline and the published pharmacoeconomic evaluation results.

**Results:** 30 breast cancer CPGs and 59 breast cancer pharmacoeconomic evaluation studies were included. The CSCO guidelines received the highest quality score. Among the included pharmacoeconomic evaluation studies, 25 were mentioned in the guideline recommendations, but economic evidence from 15 studies did not align with the guideline recommendations.

**Conclusion:** Currently, economic evidence is seldom considered in published breast cancer CPGs in China. In future guideline formulation and updates, the involvement of health economists should be prioritized to enhance and guide the recommendations in the guidelines.

Key words: clinical practice guidelines, health economic, cost-effectiveness, breast cancer

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