Assessment of the relevance and credibility of indirect treatment comparisons to help inform health technology assessment and reimbursement decision-making: results of a 5-country payer survey

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SCOPE

- **Indirect treatment comparisons (ITCs) are indispensable when making reimbursement and coverage decisions in the absence of head-to-head clinical studies**
- **In this international payer survey, we aimed to understand how health technology assessment (HTA) bodies and payer organizations perceive the use and value of ITCs when assessing novel therapies, and what attributes are considered desirable in an ITC to inform decision-making**

CONCLUSIONS

- **This cross-sectional study reveals that despite the existence of published methodological guidance on the construction of ITCs in several markets for economic appraisal, there is broad heterogeneity and a lack of transparency in the methods and application of ITCs in the healthcare decision-making process**
- **There is a need for greater harmonization of these methods considering the evolving reimbursement/coverage decision-making landscape**

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BACKGROUND

- While generally considered the gold standard, randomized controlled trials (RCTs) may not be practical in some situations, such as in a rare disease setting, or with the rapidly evolving treatment landscapes in oncology[1]
- ITCs are a class of studies, with different methodological options, in which treatment effects are compared[2,3]
  - Types of ITCs include network meta-analyses (NMAs), matching-adjusted indirect comparisons (MAICs), and simulated treatment comparisons (STCs)[4]
- ITCs can provide valuable information in many situations, such as when direct evidence is unavailable or when comparisons between or among treatments are needed[5]
- ITCs can be evaluated by HTA and payer organizations when assessing medications for their value
- HTA and payer organizations frequently need to make early decisions in oncology using immature data; ITCs can provide important indirect evidence of efficacy in these situations[6]

METHODS

- From 30 March 2023 through 10 April 2023, a web-based survey was administered via the Rapid Payer Response online portal to 30 national and regional payer decision-makers from Australia (n=5), France (n=5), Germany (n=5), the UK (n=5), and the US (n=10)
- Participants' responses regarding ITC acceptance, quality and credibility, acceptance of different types of ITCs, data sources accepted, and other considerations were collected
- Types of questions used included multiple choice, Likert-type scale, ranked choice, and open ended
- Responses were analyzed using descriptive statistics

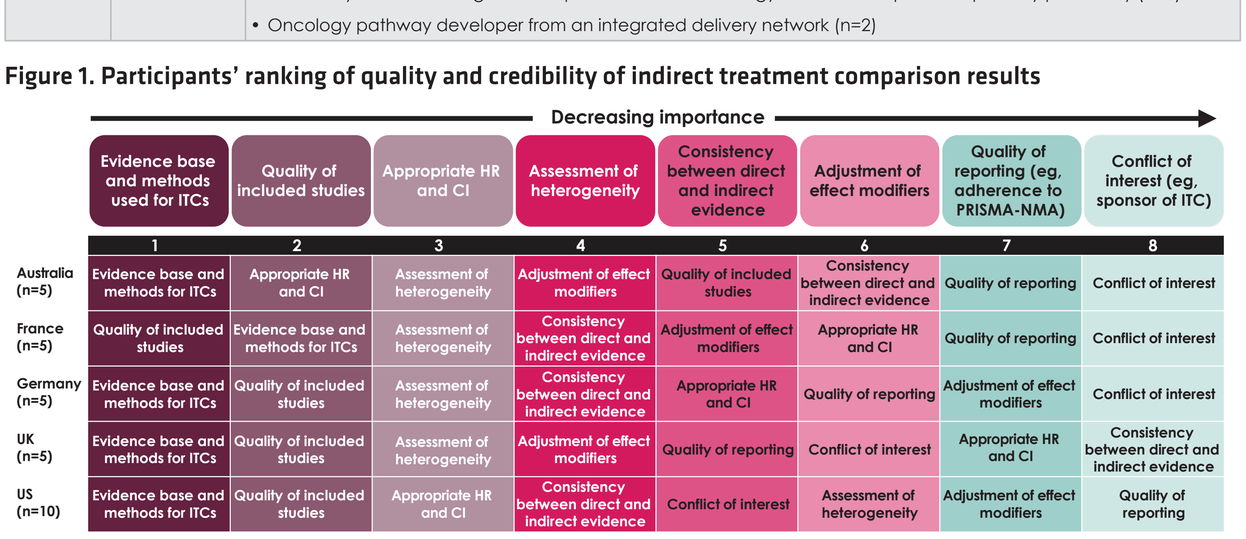
RESULTS

- Demographics of participants are shown in **Table 1**
  - 29 of 30 participants had experience as a national payer, and 1 had regional payer experience
- ITCs are generally accepted for payer decision-making in Australia and the UK; their use in France, Germany, and the US is evaluated on a case-by-case basis
  - ITCs were reported to be acceptable to inform HTA and payer decisions by 5 of 5 participants from Australia, 4 of 5 from the UK, 4 of 10 from the US, and 1 of 5 from France and Germany
  - ITCs were reported to be conditionally accepted (under certain situations) by 4 of 5 participants in France, 5 of 10 in the US, 3 of 5 in Germany, and 1 of 5 in the UK
- Quality and credibility of the ITC results were found to depend primarily on the evidence base, methods used, and inclusion of relevant and high-quality studies (**Figure 1**)

Table 1. Demographics of survey participants

Country	No. of participants	Participants' experience
Australia	5	• Former member of the Pharmaceutical Benefits Advisory Committee (n=3) • Health economist with advisory experience for the Pharmaceutical Benefits Advisory Committee (n=2)
France	5	• Former member of the Transparency Committee (Commission de la Transparence; n=3) • Former member of the Economic Committee for Health Products (Comité Economique des Produits de Santé; n=2)
Germany	5	• Former member of the Federal Joint Committee (Gemeinsamer Bundesausschuss; n=4) • Member of statutory health insurance organizations (eg, association of physicians and funds; n=1)
UK	5	• Former committee member/advisors to the National Institute for Health and Care Excellence (n=4) • Member/advisor of National Health Service England (n=1)
US	10	• Medical and pharmacy director from commercial plans (n=6) • Pharmacy benefit manager with experience in the oncology and infusion space or specialty pharmacy (n=2) • Oncology pathway developer from an integrated delivery network (n=2)

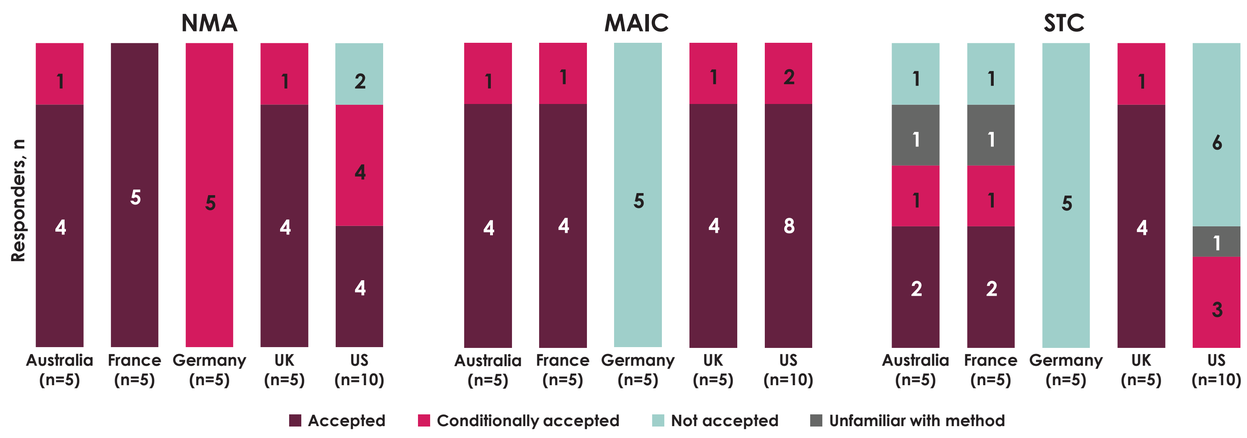
Figure 1. Participants' ranking of quality and credibility of indirect treatment comparison results



HR, hazard ratio; **ITC**, indirect treatment comparison; **PRISMA-NMA**, Preferred Reporting Items for Systematic Reviews and Meta-Analyses for Network Meta-Analyses.

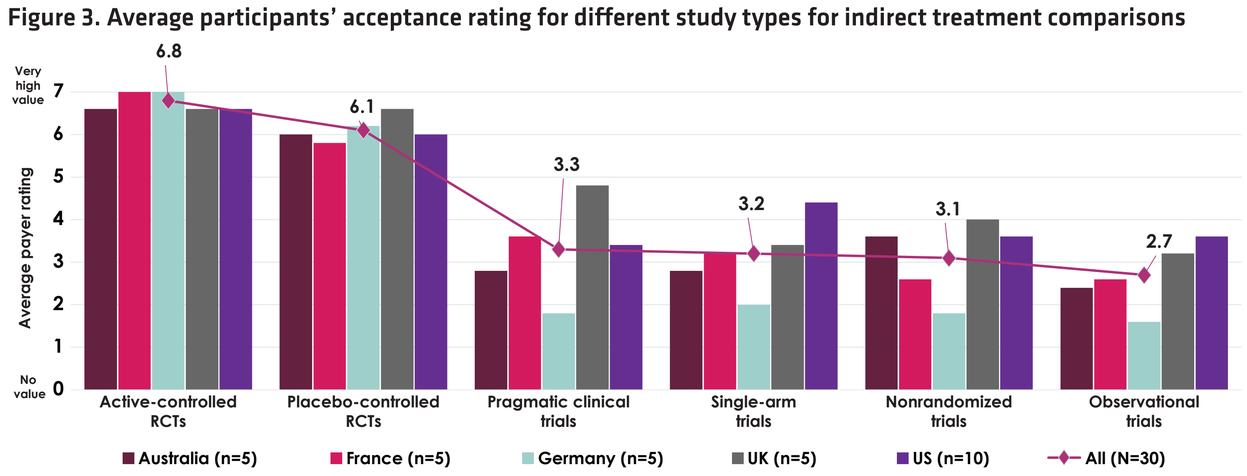
- NMAs were generally well accepted as a source of comparative effectiveness data if the methods are based on guidelines, and the results are published in peer-reviewed journals
  - NMAs were reported to be accepted or conditionally accepted for HTA and payer decision-making by all participants in Australia, France, Germany, and the UK and by 8 of 10 participants in the US (**Figure 2**)
- Results from MAICs were considered on a case-by-case basis in all countries except Germany (**Figure 2**)
- Results from STCs were less frequently accepted, particularly in Germany and the US (**Figure 2**)
- Most respondents gave the highest acceptance ratings for use in ITCs to data obtained from RCTs, while evidence from nonrandomized studies was not favored because of the higher risk of bias and increased uncertainty
  - Participants rated data from active-controlled RCTs with the highest average rating of 6.8 (on a scale from 1 to 7, where 1 = not accepted/low credibility and 7 = high acceptance/credibility); observational trials had the lowest rating of 2.7 (**Figure 3**)

Figure 2. Participants' acceptance of different indirect treatment comparison methods for decision-making



MAIC, matching-adjusted indirect comparison; **NMA**, network meta-analysis; **STC**, simulated treatment comparison.

Figure 3. Average participants' acceptance rating for different study types for indirect treatment comparisons



The diamond shows the average rating from all countries for each study type.
RCT, randomized controlled trial.

LIMITATIONS

- Overall survey results were not divided equally among the surveyed countries, and the number of participants from the US was higher than from the other countries
- While the open-ended questions allowed participants to expand on their insights into the topics addressed, not all results could be analyzed using descriptive statistics
- Participants' interpretation of the questions may have varied

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