

Price Determinants and Pricing Policies Concerning Potentially Innovative Health Technologies: A Scoping Review

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Background

Healthcare decision-makers are facing the challenge of finding a balance between supporting innovation, ensuring equitable access to beneficial pHTs, and financial sustainability of health. Pricing of pHTs can be based on different policy interventions and implementation methods. Depending on the applied intervention, the price of pHTs can be based on different technology-related determinants.

So far, no comprehensive review concerned stakeholder views on pHT price determinants, nor pHT-focused pricing policies and their impact on patient access and financial sustainability.

Aim

Mapping of existing evidence & identification of knowledge gaps:

- pHT price determinants based on stakeholder views
- pHT pricing policies applied in EEA and/or OECD member states
- Effect of pricing policies on patient access and sustainability
- (Dis-)advantages of pricing policies

Methods

Scoping review of scientific and grey literature in English published between January 2014 and September 2023

Strategy

Scientific publications: MedLine, Embase, Web of Science, Google Scholar

Grey literature: BASE, stakeholder organisation websites, Google Advanced Search

Selection, Data Extraction & Synthesis

Title-abstract screening (n = 4,777)

- Use of ASReview 1.2.1; stopping rule: 100 irrelevant articles in a row

Full-text review (n = 399)

- Eligibility assessment based on 13 exclusion criteria, e.g.:
 - involvement of stakeholder views
 - pricing policies applied in EEA/OECD member state concerning new pHTs

Snowballing and manual addition (n = 23)

Extraction of data relevant to review questions

Results

134 records included (103 scientific, 31 grey literature records)

- Stakeholder views on price determinants: **15 records**
- Pricing policies applied in EEA/OECD countries: **124 records**
- Pricing pharmaceuticals vs. medical devices: **132 vs. 2 records**

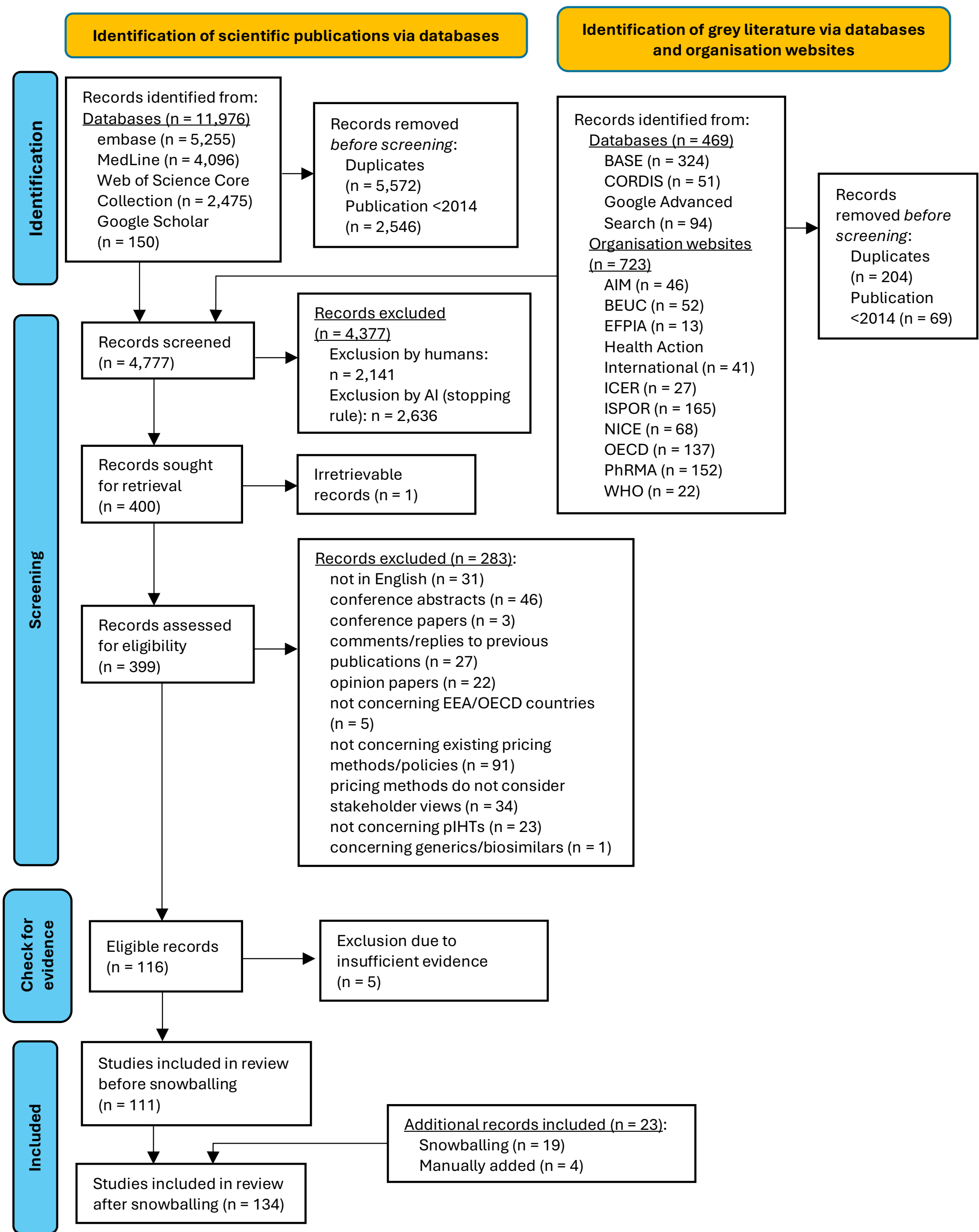


Figure 1: PRISMA flow diagram

Price determinants (stakeholder views)

Value-based: added therapeutic value, uncertainty, unmet need, innovation, delivery efficiency
Cost-based: R&D including R&D failures, public funding, M&A; production, overhead; profit margin
Reference-based: prices of treatments of similar value; restricted EPR application
Other: Target population, treatment rate, current/future R&D investments, competition

Pricing policy interventions

Reference-based: EPR as primary or supporting pricing tool (DK, US)
Cost-based: limited to specific drugs
Value-informed: clinical value assessment or economic evaluation to inform price setting
Free pricing: primary or partial component; restrictions: time/cost-effectiveness
Other: Tendering; 340B Pricing Program (US; ceiling price for outpatient drugs); PMP (JP)
Medical devices: Cost-based; clinical / economic evaluation (KR)

Price implementation methods

Price negotiations: often informed by value assessment and/or reference price
Multi-indication pricing: single price, weighted average price, cost-effective price at all indications, price differentials
Orphan drug pricing: general policy/free pricing; facilitating faster market entry (FR, KR)
Price transparency: net prices mostly confidential, ex-factory list prices often disclosed, wholesale/retail prices in some countries

Impacts and (dis-)advantages

Free pricing: affordability issues vs. early availability
Reference-based: Short-term improvements vs. price inequities, launch strategies; resource-intensive, benchmark for domestic price setting
Cost-based: may increase affordability; potential arbitrary price calculation
Value-informed: improved affordability, better budget allocation vs. difficult implementation
Other: improved access (340B Pricing Program); innovation promotion questioned (PMP)

Impacts and (dis-)advantages

Price negotiations: improved affordability without availability delay
Multi-indication pricing: potential expenditure decrease; complex implementation, costly administration of suitable data systems
Price transparency: lower prices & spending, realistic price referencing; evidence inconclusive

Abbreviations: DK, Denmark; EPR, External price referencing; FR, France; JP, Japan; KR, South Korea; M&A, mergers and acquisitions; PMP, Price Maintenance Premium; R&D, research and development; US, United States.

Conclusions

- In many EEA/OECD member states, a mix of pricing policy interventions and price implementation methods is applied.
- Policy interventions of different types are often used to inform price negotiations.
- EPR is linked to access-related shortcomings; value-informed pricing is viewed more favourably by the literature.

Identified research gaps:

- Elicited stakeholder views on price determinants
- Environmental aspects considered in pricing
- Pricing of medical devices

Funding

The ASCERTAIN project is funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or HaDEA. Neither the European Union nor the granting authority can be held responsible for them. Grant 101094938.



Acknowledgements

Wichor M. Bramer, PhD (Erasmus MC Medical Library, Rotterdam, The Netherlands): development and update of search strategy.

References

Available upon request.

