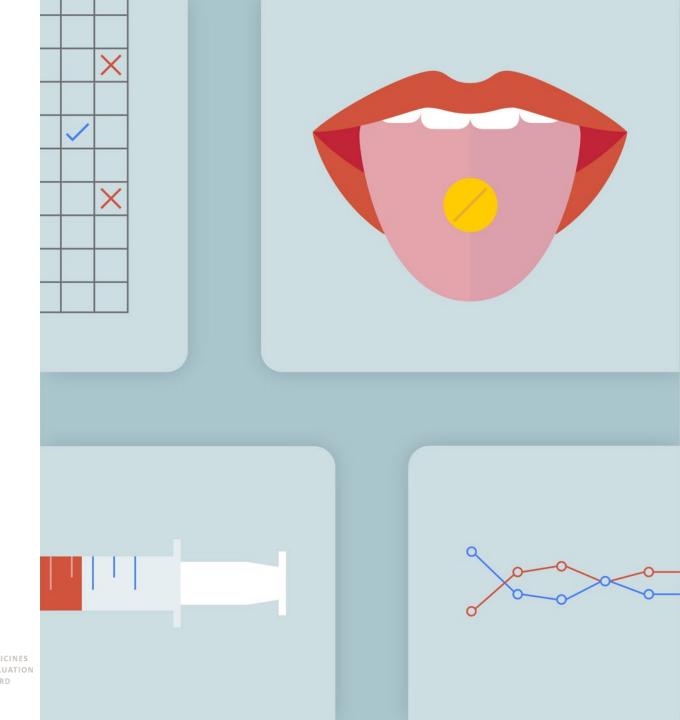
Christine van Hattem, PhD candidateAmos de Jong, PhD candidateLourens Bloem, PharmD, PhD, Assistant professor Clinical Therapeutics

Factors affecting the feasibility of postauthorization RCTs for conditionally authorized anticancer medicines

 a multistakeholder perspective from a qualitative focus group study





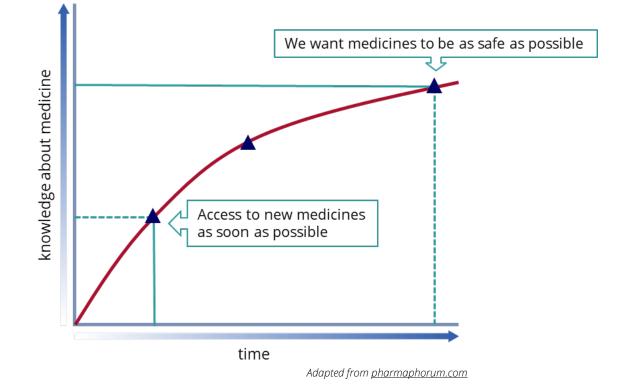
# Outline

- Background
- Aim
- Methods
- Results
- Discussion & key takeaways



## **Development of anticancer medicines**

- Expedited pathways
- Conditional marketing authorization (CMA)
  - Non-comprehensive evidence
    → more uncertainties
  - Increasing number CMAs based on single-arm trial data



## **Conditional marketing authorization (CMA)**

Requirements:

- Positive benefit-risk balance;
- Medicine fulfills unmet medical need;
- **Comprehensive evidence** will become available in a timely manner while the medicine is marketed;
- Benefits of timely market access outweigh risks of incomprehensive data

→ Additional evidence through post-authorization randomized controlled trials (RCTs)



## **Comprehensive data: delays & incomplete**

→ Questions raised about feasibility of post-authorization RCTs

Feasibility assessments by CHMP:

- Limited guidance through regulatory guidelines
- Details rarely described in EPARs
- $\rightarrow$  Which feasibility factors should be evaluated?



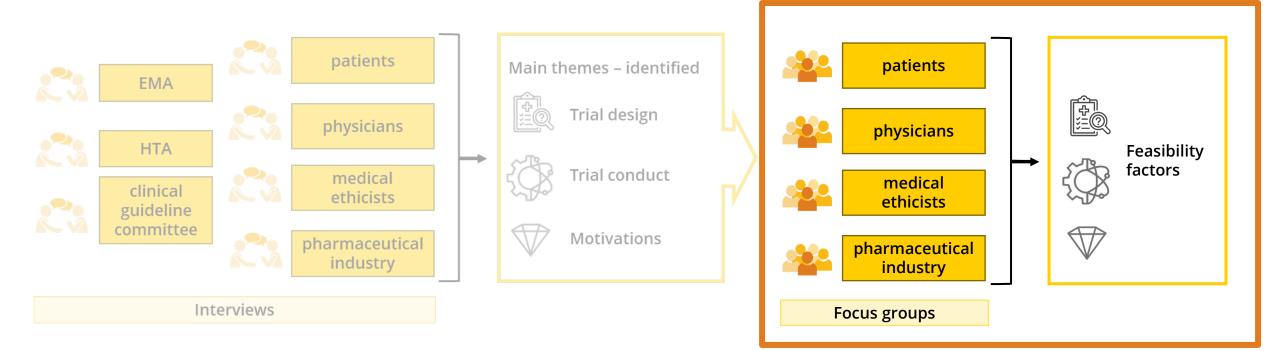
## Aim

To identify factors that facilitate or impede the feasibility of postauthorization RCTs for anticancer medicines that are conditionally authorized based on non-comprehensive data from SATs.

- ➔ Exploratory qualitative study
- ➔ Multi-stakeholder perspective



## Methods – qualitative research





## **Results – respondent characteristics**

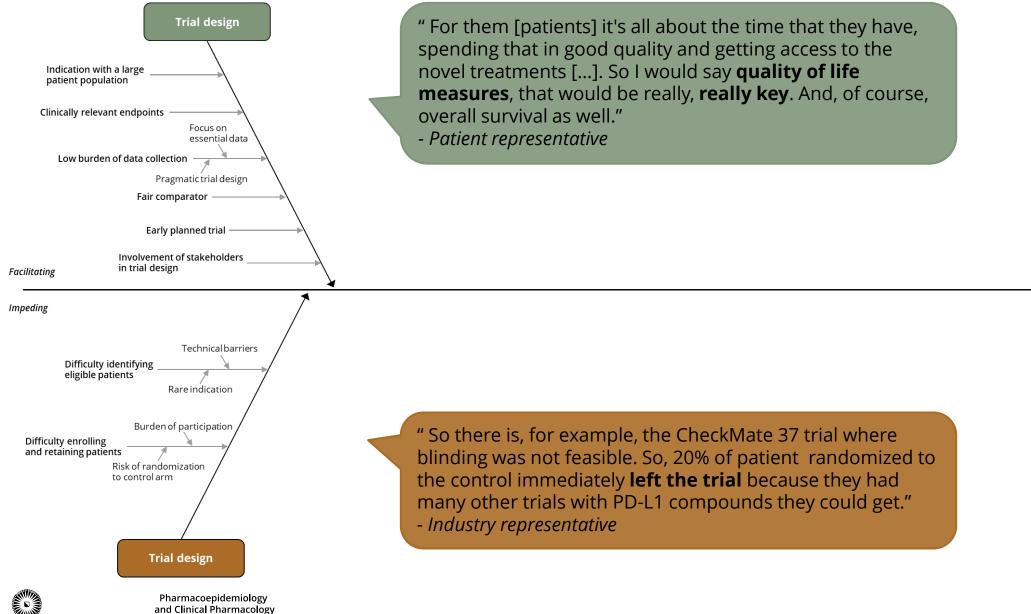
	Patient representatives	Physicians	Medical ethicists	Industry representatives
No. respondents (n)	5	6	6	11
<b>Experience in role</b> (median (range) - years)	4 (3 - 5)	15 (5 - 19)	25.5 (8 - 40)	25 (8 - 35)
Understanding of regulatory system (1-5 (median(range))	4 (3 - 5)	3 (3 - 4)	4 (3 - 5)	4 (2 - 5)

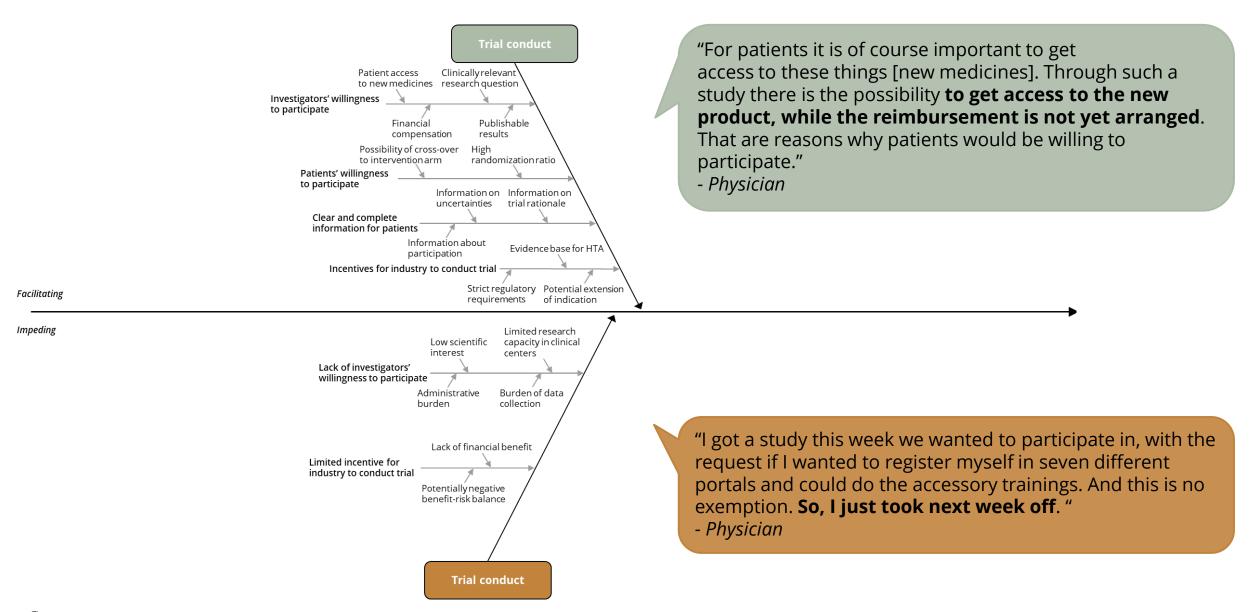


### **Results were categorized under 4 themes**

- Trial design
- Trial conduct
- External factors
- Post-authorization discussion with regulators

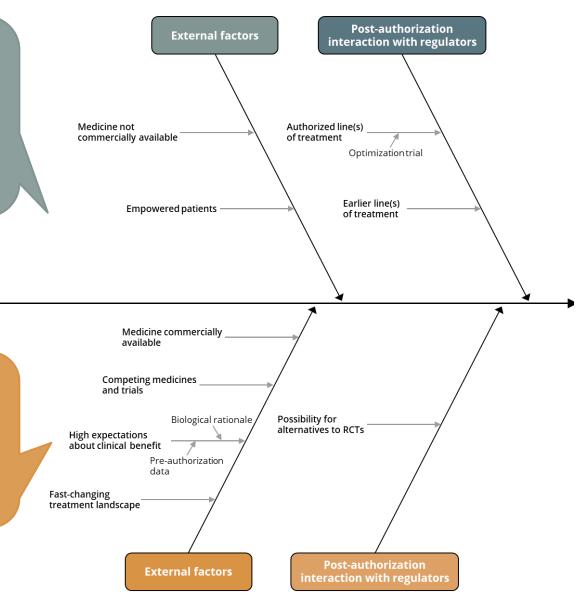






"I think there's a lot of subjectivity. For instance, is it ethical to propose a medicine that gives an 80% chance of one-month life prolongation at the cost of a 40% increase in toxicity? [...] Research ethic committees, I think, should set a limit, as complex, subjective, and arbitrary as it may be. **Within this limit, it is up to the patient**."

- Ethicist

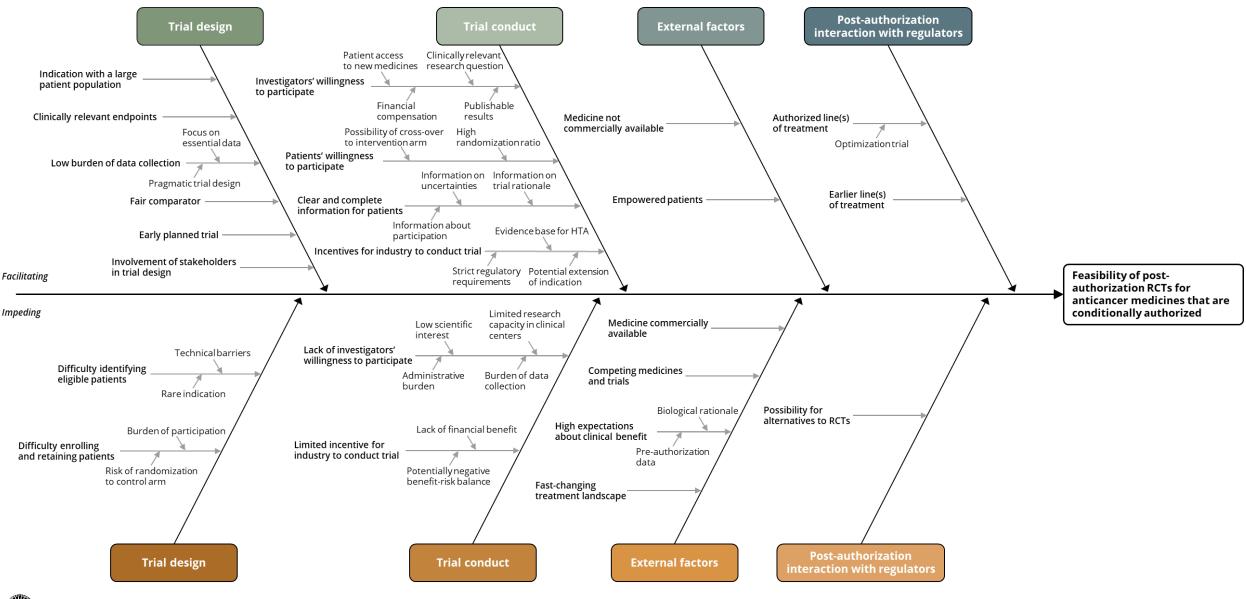


Facilitating

Impeding

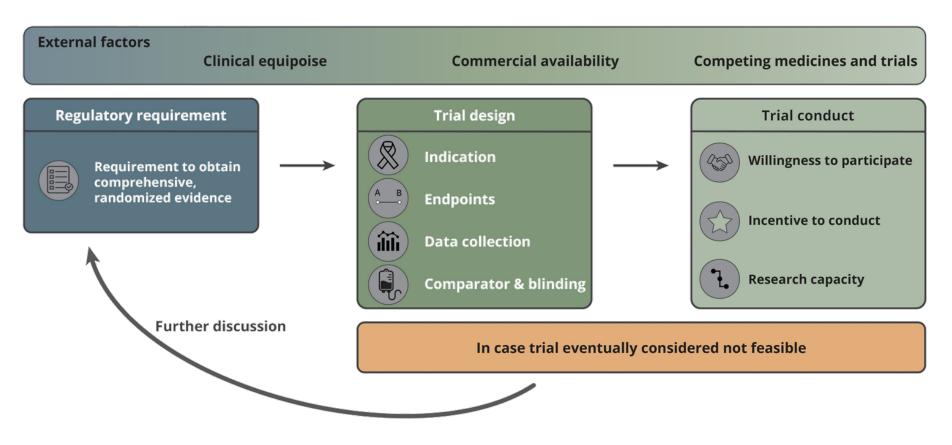
"The extent to which it is feasible, depends, I think, on the **enthusiasm in the field** about the new product. Because if it is a very promising product and the comparator is, well, in the eyes of a lot of people, inferior, then it will be very difficult to find people for such a trial." - *Physician* 





# Discussion

Feasibility of post-authorization RCTs: a process visualization





## Key takeaways

- Clinical equipoise perception varies between stakeholders
  - We recommend sponsors and regulators to better inform patients and physicians about remaining uncertainties
  - Empower to make well-informed decisions
- Tailor trial design to post-authorization setting
  - Pragmatism
  - Clinically relevant endpoints
  - Fair comparator



### Acknowledgements

Jolien de Groot (MEB) Jarno Hoekman (UU) Paula van Hennik (MEB) Esther Broekman (MEB) Gabe Sonke (MEB, NCI)





## **Thank you & Questions**





### References

- European Commission. Commission Regulation No 507/2006 of 29 March 2006 on the Conditional Marketing Authorisation for Medicinal Products for Human Use Falling Within The Scope of Regulation (EC) No 726/2004 of the European Parliament and of the Council. *OJEU*. L/92:6-9 (2006)
- Bloem LT, Mantel-Teeuwisse AK, Leufkens HGM, De Bruin ML, Klungel OH, Hoekman J. Postauthorization Changes to Specific Obligations of Conditionally Authorized Medicines in the European Union: A Retrospective Cohort Study. *Clin Pharmacol Ther*. 105(2):426–35 (2019).
- Simon R, et al. The role of nonrandomized trials in the evaluation of oncology drugs. Clin Pharmacol Ther. 97(5):502–7 (2015).
- Tenhunen O, Lasch F, Schiel A, Turpeinen M. Single-Arm Clinical Trials as Pivotal Evidence for Cancer Drug Approval: A Retrospective Cohort Study of Centralized European Marketing Authorizations Between 2010 and 2019. *Clin Pharmacol Ther*. 108(3):653–60 (2020).
- Hoekman J, Klamer TT, Mantel-Teeuwisse AK, Leufkens HGM. Characteristics and follow-up of postmarketing studies of conditionally authorized medicines in the EU. *Br J Clin Pharmacol*. 82:213–26 (2016).
- Cipriani A, *et al.* Generating comparative evidence on new drugs and devices after approval. *Lancet.* 395(10228):998–1010 (2020).
- de Groot S, *et al.* Which factors may determine the necessary and feasible type of effectiveness evidence? A mixed methods approach to develop an instrument to help coverage decision-makers. *BMJ Open*. 5(7):e007241 (2015).
- Gadke DL, Kratochwill TR, Gettinger M. Incorporating feasibility protocols in intervention research. *J Sch Psychol*. ;84:1–18 (2021)





The information in this presentation has been compiled with the utmost care, but no rights can be derived from its contents.

© Utrecht University

