

Pragmatic Clinical Trials: A crucial building block for health systems and treatment?



The work starts when a technology reaches the market.

Efficacy & therapeutic benefit

Market access

Pre-clinical research

Regulatory approval

Optimisation Applied Multidisciplinary Clinical Research

E.g.: Combination Sequence / Dosage

De-escalation

Duration Benchmarking Specific populations

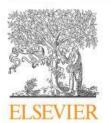
Health System **Optimisation**

Health Services & **Implementation** Research

Access / costs **Guidelines Cancer control plans**

Clinically relevant endpoints for patients

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Original Research

Characteristics of clinical trials for haematological malignancies from 2015 to 2020: A systematic review



William Wesson ^a, Vincent L. Galate ^a, Douglas W. Sborov ^b, Brian McClune ^b, Aaron M. Goodman ^c, Bishal Gyawali ^d, Vinay Prasad ^e, Saqib Abbasi ^a, Ghulam Rehman Mohyuddin ^{b,*}

European Journal of Cancer 167 (2022) 161-163



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Editorial Comment

Contemporary clinical trials in hematologic cancer: Have we forgotten where we came from?



Manju Sengar a, Christopher M. Booth b,c,*



Low-Dose Immunotherapy in Head and Neck Cancer: A Randomized Study

Vijay Maruti Patil, MBBS, MD, DM¹; Vanita Noronha, MBBS, MD, DM¹; Nandini Menon, MBBS, MD, DNB¹; Rahul Rai, MBBS, MD¹; Atanu Bhattacharjee, PhD²; Ajay Singh, MBBS, MD, DM¹; Kavita Nawale, PDCR¹; Shweta Jogdhankar, MSc¹; Rupali Tambe, BCom¹; Sachin Dhumal, BHMS¹; Riddhi Sawant, PDCR¹; Mitali Alone, MSc¹; Devanshi Karla, MSc¹; Zoya Peelay, MSc¹; Shruti Pathak, MSc¹; Arun Balaji, MASLP³; Suman Kumar, MBBS, DNB⁴; Nilendu Purandare, MBBS, DNB⁵; Archi Agarwal, MBBS, DNB⁵; Ameya Puranik, MBBS, DNB⁵; Abhishek Mahajan, MBBS, DNB⁴; Amit Janu, MBBS, DNB⁴; Gunjesh Kumar Singh, MBBS, MD, DM¹; Neha Mittal, MBBS, MD⁶; Subhash Yadav, MBBS, MD⁶; Shripad Banavali, MBBS, MD¹; and Kumar Prabhash, MBBS, MD, DM¹



Cost Savings and Increased Access With Ultra-Low-Dose Immunotherapy

Aaron P. Mitchell, MD, MPH1; and Daniel A. Goldstein, MD2,3,4,5

The Wild West of Checkpoint Inhibitor Development

Julia A. Beaver, M.D., and Richard Pazdur, M.D.

ver the past 7 years, the Food and Drug Administration (FDA) has approved seven antibodies directed against the programmed death 1 (PD-1) or programmed death ligand (PD-L1) pathway and more than 85 oncology indications for this class of checkpoint inhibitor drugs. More than 2000 clinical trials are evaluating at least 33 anti–PD-1 or anti–PD-L1 antibodies.¹ Although

these products have similar identical, mechanisms of safety profiles, and clinicality, no studies have direct pared them. And althordevelopment of immuno

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The New England Journal of Medicine

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Analysis

thebmi

Replacing RCTs with real world data for regulatory decision making: a self-fulfilling prophecy?

BMJ 2023; 380 doi: https://doi.org/10.1136/bmj-2022-073100 (Published 02 March 2023) Cite this as: BMJ 2023;380:e073100

Article

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Metrics

Responses

Peer review

Beate Wieseler, head of drug assessment department1, Mattias Neyt, senior researcher2,

Thomas Kaiser, head of drug assessment department1, Frank Hulstaert, senior researcher2, Jürgen Windeler, director1

Author affiliations >

Institute for Quality and Efficiency in Health Care (IQWiG), Cologne, Germany

Correspondence to: B Wieseler beate.wieseler@iqwig.de



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ANALYSIS

New drugs: where did we go wrong and what can we do better?

More than half of new drugs entering the German healthcare system have not been shown to add benefit. Beate Wieseler and colleagues argue that international drug development processes and policies are responsible and must be reformed

Beate Wieseler head of department of drug assessment, Natalie McGauran researcher, Thomas Kaiser head of department of drug assessment

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James William Thomas Yates, AstraZeneca, United Kingdom

REVIEWED BY

Qingfei Pan,

St. Jude Children's Research Hospital United States

*CORRESPONDENCE

Ravindhi Murphy

Ravindhi.Murphy@cancer.org.uk Stefan Nicholas Symeonides

Stefan.Symeonides@ed.ac.uk

SPECIALTY SECTION

This article was submitted to Pharmacology of Anti-Cancer Drugs, a section of the journal Frontiers in Oncology

Project Optimus, an FDA initiative: Considerations for cancer drug development internationally, from an academic perspective

Ravindhi Murphy^{1*}, Sarah Halford¹ and Stefan Nicholas Symeonides 1,2*

¹Centre for Drug Development, Cancer Research UK, London, United Kingdom, ²Edinburgh Experimental Cancer Medicine Centre, University of Edinburgh, Edinburgh, United Kingdom

Project Pragmatica

Advancing evidence generation for approved oncology medical products

Pragmatica-Lung study: Ramucirumab Plus Pembrolizumab vs Usual Care for Treatment of Stage IV or Recurrent Non-Small Cell Lung Cancer Following Immunotherapy

²Belgian Health Care Knowledge Centre (KCE), Brussels, Belgium

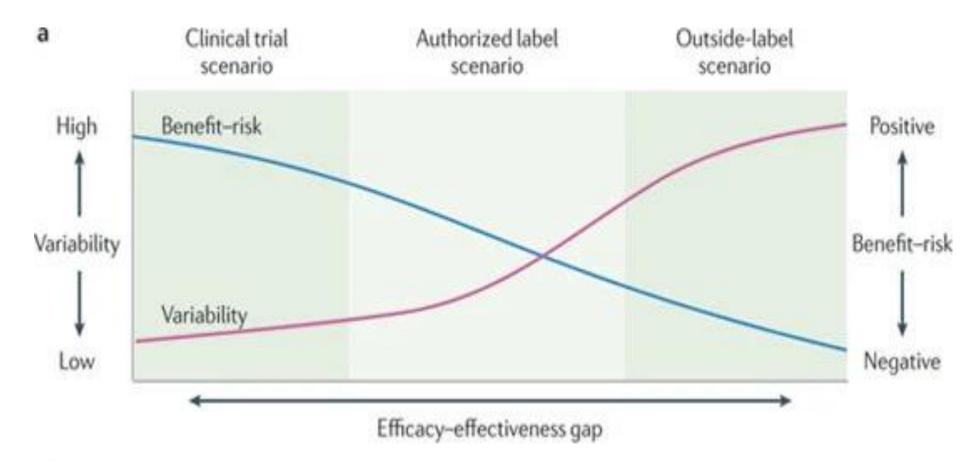


Pragmatic Clinical Trials (PCT)

What is it all about?



The efficacy-effectiveness gap



Treatment efficacy > **Treatment effectiveness**

>99% of trials

<1% of trials

Eichler et al. *Nat Rev Drug Discov* (2011) Chalkidou et al. *Trials* (2012)

Complementarity of clinical trials The continuum drug development- access

Explanatory Clinical Trials

- Strict eligibility
- Additional procedures and processes as compared to standard
- Conducted at specific institution, organized for the complexity
- Extensive data collection and curation
- Endpoints targeting scientific knowledge and understanding of disease / intervention processes

Limited to poor external validity: the obtained estimates may not be representative of effects in the day-to-day practice. This includes both effectiveness and safety.

Pragmatic Clinical Trials

- Wide inclusion criteria
- Procedures as per standard practice
- Conducted in extended networks including community hospitals
- Limited data collection relevant to decision makers
- End-points directed to answer clinically relevant questions based on patient centric end-points

Good external validity: provides information on the applicability of therapeuticinterventions



The value of pragmatic trials

Pragmatic trials are especially valuable to:

- Patients, by painting a more realistic picture of a treatment's benefits and harms for the average patient
- Clinicians, by guiding clinical decision-making
- Payers, by informing reimbursement-related decision-making

Pragmatic trials combine the methodological strengths of RCTs with the inclusiveness of studies that analyze real-world data

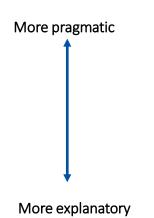
→ Sources of robust and actionable real-world evidence

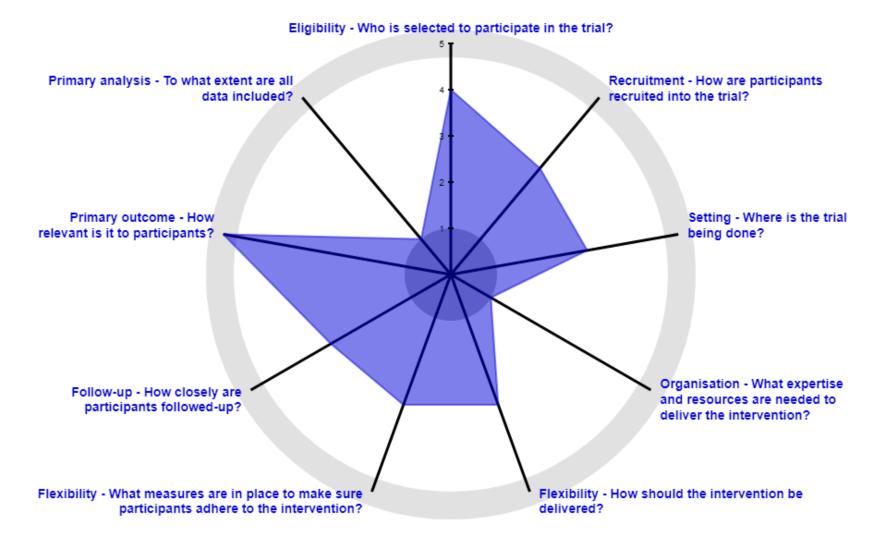
Simon et al. *N Engl J Med* (2020) Neyt et al. *J Comp Eff Res* (2016) Zuidgeest et al. *J Clin Epidemiol* (2017)



How can you recognize a pragmatic trial?

PRECIS-2 wheel





Loudon et al. BMJ (2015)



Articulations for forward thinking

- Improve the understanding of PCTs
- Discuss The value and benefits of PCTs for the different stakeholders
- Understand how can PCTs help addressing the gap efficacy –effectiveness
- Identify how can PCTs subscribe to the evolving health care systems
- Alert policy makers on the need to take PCTs into account in the evolving regulatory and legal landscape
- Address the challenges to run PCTs.