



(SHORT COMMUNICATION)



## Why is it difficult to enrol patients in clinical cancer research?

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### Abstract

Patient recruitments are a crucial part of clinical research, especially in the medical oncology field. Despite its significance, 2-3% of patients with cancer participate in clinical trials. Beyond the bureaucratic and financial barriers in most trials, the recruitment can be directly impacted by the study design, referrals and patient beliefs. Therefore, this study points out the difficulties related to the process of patient recruitments in oncology, followed by options that contribute to their improvement.

**Keywords:** Medical oncology; Clinical trials; Patient recruitments; Referrals; Research; Cancer patients.

### 1. Introduction

Advances in oncology directly depend on clinical research. In the past decade, the focus has been on the drug efficacy along with a better toxicity profile. [1] At present, clinical trial designs have become considerably more complex, allowing more personalized treatment. This could potentially avoid unnecessary exposure to patients who are less likely to respond to a specific therapy. [2]

Despite its significance, less than 3% of patients with cancer participate in clinical trials. [3] Beyond the bureaucratic and financial barriers in most trials, the recruitment can be directly impacted by some factors as the study design, referrals and patients' beliefs. [4,5,6] The relevant factors that make it difficult for patient enrolment and some options to improve them are summarized in Table 1.

In order to avoid bias, study designs focus on diminishing the interference of confounder factors by methodically considering inclusion and exclusion criteria. On the one hand, this method often allows a clear interpretation of the study results without considering bias, which is virtually not possible. On the other hand, the real-world scenario is not a controlled environment. This impairs the generalization of clinical trials and the outcomes are frequently worse when compared with those of clinical practice. Additionally, a considerable number of trials do not reach the recruitment target and they are finalized prematurely. On occasion, this happens without the capability to test the objectives proposed previously in the study.

Strategically, clinical research should be seen as a complementary activity to clinical practice. This could diminish the workload of the teams in clinics as the research team is taking over patient care. As a result of this, it is possible to offer

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patients other treatment options. The technology of pre-clinical models and contemporaneous study designs allows for a more reliable drug benefit and toxicity prediction, which is the actual aim of what researchers do and patients seek.

**Table 1** Factors related to poor recruitment in cancer clinical trials.

<b>Related Factor</b>	<b>How to improve</b>
<b>Study-related</b>	
Restricted inclusion (lines of treatment) and exclusion criteria (adverse events)	Consider broader inclusion criteria More comprehensive exclusion criteria
Some comorbidities are excluded	Control comorbidities on study arms
<b>Referrals-related</b>	
High workload impair discussion about research	Schedule time to discuss research
Major focus on standard therapy	Protocol presentation to referral teams
Increased work to refer patients	Easier referral procedure (e-mail)
Studies are scarce in most cancer populations	Improve discussion during scientific events
Fewer research units depending on the geographic area	Less bureaucracy, allowing the creation of new research units in less central geographic regions.
<b>Patient-related</b>	
Lack of trust and fear about what is done in clinical research	Improve patient knowledge about the clinical trial through education according to their level of understanding
Hesitation when using experimental drugs	Offer more information about the study drug; provide an evaluation by monitoring possible toxicity effects
Wasting time by receiving a placebo	Avoid placebo whenever possible and explain about the placebo effect
High financial costs due to frequent visits to the study centre	Limit to necessary visits and procedures; offer financial support

## 2. Conclusion

Therefore, knowing these barriers is the first step to overcome them. Those recommendations should be performed by individualizing the needs of every institution with a focus on patient preferences.

## Compliance with ethical standards

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### *Disclosure of conflict of interest*

All of the authors declare they have no conflict of interest, financial or otherwise.

## References

- [1] Bhatt A. (2010). Evolution of Clinical Research: A History Before and Beyond James Lind. *Perspective In Clinical Research*, 1(1), 6–10.
- [2] Goldberg RM, Wei L and Fernandez S. (2017). The Evolution of Clinical Trials in Oncology: Defining Who Benefits from New Drugs Using Innovative Study Designs. *Oncologist*, 22(9), 1015–1019.

- [3] Unger JM, Vaidya R, Hershman DL, Minasian LM and Fleury ME. (2019). Systematic Review And Meta-Analysis Of The Magnitude Of Structural, Clinical, And Physician And Patient Barriers To Cancer Clinical Trial Participation. *JNCI Journal of the National Cancer Institute*, 111(3), 245-255.
- [4] Unger JM, Cook E, Tai E and Bleyer A. (2016). The Role of Clinical Trial Participation In Cancer Research: Barriers, Evidence, And Strategies. *American Society of Clinical Oncology Educational Book*, 35,185-198.
- [5] Spencer KR and Mehnert JM. (2016). Importance of including patients with comorbidities in clinical trials. *The Lancet Oncology*, 17(1), 17–18.
- [6] Mills EJ, Seely D, Rachlis B, Griffith L, Wu Ping, Wilson K et al. (2006). Barriers to Participation In Clinical Trials Of Cancer: A Meta-Analysis And Systematic Review Of Patient-Reported Factors. *The Lancet Oncology*, 7(2), 141-148.

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