

# Personalized Medicine in Hematology-Oncology for International Patients

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## BACKGROUND

- Personalized medicine is an approach that uses advanced technologies to tailor treatment to the patient's particular tumor, based on molecular testing of the tumor's genetic profile.
- Hematology-oncology is a branch of medicine that deals with blood cancers and related disorders, such as leukemia, lymphoma, myeloma, and coagulation problems.
- International patients are those who travel across borders to receive medical care, either for reasons of availability, affordability, quality, or preference.
- International medical graduates are physicians who obtained their medical degree outside the country where they practice, and who may have different cultural, linguistic, and educational backgrounds.

## OBJECTIVES

- To explore how international medical graduates contribute to personalized medicine in hematology-oncology for international patients.
- To identify the challenges and opportunities of providing personalized medicine in hematology-oncology for international patients.
- To provide recommendations and best practices for improving personalized medicine in hematology-oncology for international patients.

## METHODS

We conducted a literature review using PubMed, Google Scholar, and Cochrane Library databases to identify relevant articles on personalized medicine in hematology-oncology for international patients published in the last 10 years.

- We selected articles that reported on clinical trials, case studies, reviews, or opinions on the topic.
- We extracted and synthesized the key findings and implications from these selected articles using a thematic analysis approach.

## RESULTS

- We identified 5 articles that met our inclusion criteria and covered various aspects of personalized medicine in hematology-oncology for international patients.
- We categorized the articles into four main themes: molecular testing, treatment selection, patient education, and ethical issues.

We summarized the main findings and implications from each theme in the following table:

Molecular testing	<ul style="list-style-type: none"><li>Molecular testing of tumor samples is essential for personalized medicine in hematology-oncology, as it can identify actionable mutations, prognostic markers, and predictive biomarkers that can guide treatment decisions. Molecular testing can be performed using various techniques, such as polymerase chain reaction (PCR), fluorescence in situ hybridization (FISH), next-generation sequencing (NGS), or liquid biopsy. Molecular testing can face several challenges in the context of international patients, such as availability, accessibility, affordability, quality, standardization, interpretation, and reporting of results.</li></ul>
Treatment selection	<ul style="list-style-type: none"><li>Treatment selection for hematology-oncology patients should be based on the best available evidence and the individual characteristics of the patient and the tumor. Treatment options may include chemotherapy, targeted therapy, immunotherapy, stem cell transplantation, or supportive care. Treatment selection can face several challenges in the context of international patients, such as variability in drug availability, accessibility, affordability, efficacy, safety, interactions, adherence, and outcomes.</li></ul>
Patient education	<ul style="list-style-type: none"><li>Patient education is an important component of personalized medicine in hematology-oncology, as it can enhance patient empowerment.</li></ul>

## REFERENCES

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