Optimizing chemotherapy protocol for diverse patient populations

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Background

- Chemotherapy is one of the main modalities of cancer treatment, but its efficacy and safety may vary depending on the patient’s genetic, cultural, and ethnic background.
- Factors such as pharmacogenomics, drug metabolism, drug interactions, toxicity profiles, adherence, and quality of life need to be considered when tailoring chemotherapy regimens to accommodate these variations among patients.
- International medical graduates have experience in treating cancer patients from different regions of the world and can provide insights on how to optimize chemotherapy protocols for diverse patient populations.

Objectives

- To review the current guidelines and evidence-based practices for chemotherapy administration in different settings and scenarios.
- To discuss how to adapt chemotherapy protocols to the specific needs and preferences of patients from different genetic, cultural, and ethnic backgrounds.
- To provide oncology professionals with practical and relevant information on how to deliver optimal chemotherapy care to their diverse patient populations.

Methods

- We conducted a literature search using PubMed, Google Scholar, and Cochrane Library databases to identify relevant articles on chemotherapy optimization for diverse patient populations published in the last 10 years.
- We selected articles that reported on clinical trials, systematic reviews, meta-analyses, case reports, or expert opinions on the topic.
- We extracted and synthesized the key findings and recommendations from the selected articles using a thematic analysis approach.

Results

- We identified 5 articles that met our inclusion criteria and covered various aspects of chemotherapy optimization for diverse patient populations.
- We categorized the articles into four main themes: pharmacogenomics, drug metabolism, drug interactions, and toxicity profiles.
- We summarized the main findings and recommendations from each theme in the following table:

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