

## Abstract

According to WHO, around 9.6 million fatalities (One in six deaths) were attributed to cancer in 2018. Cancer is known as an illness that occurs when some body cells proliferate out of control and spread to other bodily organs. So, cancer makes it the second most common cause of death worldwide. Drug-related problems (DRPs) can lead to adverse events and are significant difficulties that disrupt the effectiveness of treatment. In locating and addressing the DRPs, pharmacists are essential. Therefore, this study was designed to analyze drug-related problems (DRPs) during an appropriateness review of chemotherapy protocols in cancer hospital Jakarta. This study aimed to analyze categories of detected drug-related problems (DRPs) during an appropriateness review process of chemotherapy protocols in cancer hospital Jakarta. This study design uses an observational and descriptive study. The data were collected prospectively during the period of February - April 2025 in cancer hospital Jakarta with the sample size for this study is according to the purposive population. The methods were used in this study according to the PCNE classification for Drug-Related Problems V9.1, the DRPs identification and classifications were identified in cancer patients that have the basic classification such as: the problems, causes, planned interventions, intervention acceptance, and status of the DRP. Also, has the completeness of the protocol of anti-cancer therapy that has been appropriateness reviewed by the pharmacy department. After all the data were collected, the data were compiled in *Microsoft Excel* and *Google documents* and it was analyzed. The results showed that from 1.331 protocols, 65 protocols detected drug related problems (DRPs) during an appropriateness review process of chemotherapy protocols in cancer hospital Jakarta. Then, based on the PCNE classification for Drug-Related Problems V9.1 that had been appropriateness reviewed by the pharmacy department, the higher/most common problems that were found related to the drug related problems were other (P3). Then, the most common causes that were found related to the problems due to dispensing (C5). Because of those causes, the planned interventions (I) that were planned based on the problems of the interventions were done at prescriber level (I1). After all of the problems were prescribed, the intervention finding was accepted and fully implemented (A1.1) and the status of the drug related problems were totally solved (O.1.1).

Keywords: Cancer, Chemotherapy, Drug Related Problems (DRPs), PCNE