



Chemotherapy in the Intensive Care Unit: A Lifesaving Procedure

7\Yfa YhhY'AUf[U i l'

Department of Cancer Research, University of Paris, Paris, France

Corresponding author: Chermette Margaux, Department of Cancer Research, University of Paris, Paris, France, E-mail: margaux.chermette@wandoo.fr

Received: 29-Apr-2024, Manuscript No. AOT-24-133520; **Editor assigned:** 02-May-2024, PreQC No. AOT-24-133520 (PQ); **Reviewed:** 16-May-2024, QC No. AOT-24-133520; **Revised:** 23-May-2024, Manuscript No. AOT-24-133520 (R); **Published:** 30-May-2024, DOI: 10.4172/aot.1000275

Citation: Margaux C (2024) Chemotherapy in the Intensive Care Unit: A Lifesaving Procedure. J Oncol Res Treat. 9:275.

Copyright: © 2024 Margaux C. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

Description

Chemotherapy is a mainstay of cancer treatment that is increasingly given to severely sick cancer patients in the Intensive Care Unit (ICU). The administration of chemotherapy in the Intensive Care Unit (ICU) poses distinct problems and possibilities for oncologists and critical care experts, despite being conventionally linked with outpatient clinics or inpatient oncology wards [1]. To maximize results and reduce problems in this high-acuity setting, this life-saving surgery necessitates a multidisciplinary approach, attentive observation, and careful consideration of patient-specific circumstances [2].

Chemotherapy in the Intensive Care Unit (ICU) necessitates a thorough clinical examination and careful evaluation of the patient's overall health, taking into account organ function, comorbidities, disease status, and underlying cancer diagnosis [3]. Cancer patients who are critically unwell frequently have complicated medical conditions that demand for immediate attention and close observation, such as sepsis, organ failure, or Acute Respiratory Distress Syndrome (ARDS). Intensivists, oncologists, and other multidisciplinary ICU team members work closely together to create customized treatment programs that are suited to each patient's unique requirements and care objectives [4].

In the Intensive Care Unit (ICU), the choice to start chemotherapy is influenced by a number of criteria, such as the patient's cancer diagnosis, disease stage, treatment objectives, and expected benefits compared to risks of medication. Chemotherapy administered in an Intensive Care Unit (ICU) may be necessary in certain circumstances to manage complications related to cancer [5]. These complications may include tumor lysis syndrome, hypercalcemia of malignancy, or malignant spinal cord compression, which require prompt attention to avoid additional morbidity or death. Furthermore, chemotherapy may be necessary for critically sick patients with active cancer in order to slow the growth of the tumor, relieve symptoms, or increase overall survival, especially when the cancer is hematologic or solid and aggressive. Numerous criteria, including as the patient's renal and hepatic function, hemodynamic stability, nutritional state, and therapeutic tolerance, affect the choice of chemotherapy drugs and dose regimens in the Intensive Care Unit (ICU) [6]. Patients who are critically unwell and have limited organ function or hemodynamic instability may benefit more from chemotherapy drugs with decreased renal clearance or less cardiopulmonary toxicity. To reduce treatment-related problems and maximize therapeutic results, dose modifications, supportive drugs, and preventive measures including growth factors and antiemetics are frequently used [7].

Chemotherapy patients in the Intensive Care Unit (ICU) require close monitoring in order to evaluate treatment response, watch for

side effects, and quickly address problems. In this population, hematologic toxicity, infectious complications, and organ dysfunction brought on by chemotherapy are significant concerns that necessitate close observation of vital signs, laboratory results, and clinical condition. In order to preserve patient stability and reduce treatment-related toxicity, supportive care techniques including fluid resuscitation, electrolyte replacement, antimicrobial therapy, and hemodynamic support are essential parts of Intensive Care Unit (ICU)-based chemotherapy procedures [8]. Important ethical questions about informed consent, treatment objectives, and end-of-life care conversations are brought up when chemotherapy is administered in the critical care unit. Because of their medical conditions, critically sick patients may not be able to make decisions about their own care, therefore family members or legal guardians must make decisions on their behalf. In order to effectively communicate with patients and their families about the possible effects of chemotherapy administered in an Intensive Care Unit (ICU) on overall prognosis and quality of life, clinicians must be upfront and honest about all associated risks, benefits, and uncertainties [9].

Conclusion

In a high-acuity situation, chemotherapy in the Intensive Care Unit (ICU) offers the possibility of disease management, symptom alleviation, and increased survival. Chemotherapy is a potentially life-saving technique for critically sick cancer patients. Successful ICU-based chemotherapy procedures must include multidisciplinary cooperation, cautious patient selection, customized treatment planning, and constant monitoring. Healthcare professionals may improve results, lessen suffering, and give cancer patients compassionate care during periods of critical illness by addressing the special possibilities and challenges related to giving chemotherapy in the Intensive Care Unit (ICU).

References

1. Lavoue V, Huchon C, Daraï E (2018) Should hyperthermic intraperitoneal chemotherapy be the new standard of care in ovarian cancer?. J Gynecol Obstet Hum Reprod 47(10):497.
2. Butte MJ, Kobayashi RH (2022) An Updated Survey of SCID Outcomes Without Preconditioning Chemotherapy. J Allergy Clin Immunol Pract 10(4):1084-1085.
3. Tsao LR, Otani IM (2021) One-bag desensitization protocols in the management of chemotherapy hypersensitivity. J Allergy Clin Immunol Pract 9(11):4055-4059.
4. Braga S (2011) Why do our patients get chemotherapy until the end of life?. Ann Oncol 22(11):2345-2348.
5. Gianni L (2002) High-dose chemotherapy for breast cancer: Any use for it?. Ann Oncol 13(5):650-652.

6. Passaro A, Peters S, Mok TS, Attili I, Mitsudomi T et al. (2020) Testing for COVID-19 in lung cancer patients. *Ann Oncol* 31(7):832-834.
7. Honecker F, Bokemeyer C (2010) Patients with advanced non-seminomatous germ-cell tumour: The art of the start. *Ann Oncol* 21(8):1569-1571.
8. Yu Q, Ahmed O (2024) Hepatic Arterial Infusion Chemotherapy for Unresectable HCC: Ready for Primetime?. *Acad Radiol*
9. Jones KA, Goodfield NE (2023) Early prediction of chemotherapy-induced cardiotoxicity. *J Nucl Cardiol* 30(5):2112-2113.