

# Onco Critical Care: The need of the hour

Sudhir Kumar Rawal MS, MCH 

<sup>1</sup> Medical Director, Rajiv Gandhi Cancer Institute and Research Centre

Email: rawal.sudhir@rgcirc.org

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World health organisation reported that cancer is the leading cause of death before the age of 70 years in 112 of 183 countries around the world.<sup>1</sup> The GLOBOCAN 2020 estimates presented that 19.3 million new cases of cancer and almost 10 million deaths from cancer will be reported in the year 2020.<sup>2</sup> National Cancer Institute's Surveillance Epidemiology and End Results (SEER) database showed that one in every two American male will have cancer in their lifetime. But only half of those who have cancer will die because of it.<sup>3</sup> Although incidence of cancer has been increasing, cancer therapy is also developing in similar pace. The history of cancer therapy can be traced to 3000 BC, widely known as 'Edwin Smith Papyrus'. In last couple of decades, most of the progress in medical researches has been seen in the field of oncology. This progress has been evident in application of cancer therapy. Surgery continues to be the first line of treatment of many cancers therapy, it becomes precise and minimal. Application of robots and artificial intelligence during surgeries is a common practice now a days. Chemotherapy, has become more effective and are with lesser side effects than earlier time due to better dosing regimens, adjuvant administration, and combination of therapies. Radiotherapy is more effective, precise and targeted. The advent of targeted therapy and immunotherapy has revolutionized the treatment of cancer. CAR-T cell is one step forward from conventional immunotherapy, where patient's own T cell are engineered to target cancer cells. These T cells can multiply and survive in patient's body and can behave like "living medicine".

The progress of cancer therapy has positively effect on survival and overall health quality of patients with cancer. Five-year survival has improved to 68% for all cancers.<sup>4</sup> 5 years survivability of breast cancer has increased from 77% to 92%.<sup>5</sup> Lung cancer was formerly considered as cancer with high mortality rate, but inhibitors targeting EGFR has caused dramatic change of clinical management with

response rates in the range of 65–90%.<sup>6</sup> Number of cancer survivors are definitely increased due to early diagnoses and improved treatment and those who are not cured, their life expectancy has also increased. Therefore, to a certain extent, it can be said that cancer is now a chronic disease of 21th century.

Critical care units are backbone of hospitals. Intensivists take care the sickest patient in that health facility. As cancer survivor and over all life expectancy of cancer patient increase, an ICU has to cater more such patients with a health issue related or unrelated to cancer. During cancer therapy, a patient may face a plethora of medical issues / crisis. They may have blast crisis, sepsis, opportunistic infections, cytochrome Strome, electrolyte imbalances, encephalopathy, drug toxicity and many more. These patients have to be manged in ICU. Cancer patient also need ICU for post operative care, pain management or threatened airway. Some of these problems are unique to cancer patients. An Intensivist has to be trained and experienced dealing with these medical conditions. Few studies have examined the benefits of having specialized organ specific ICUs, and these have shown mixed result. Specialised ICU for neurology, cardiology, pulmonology has been providing specialised care for a long time. In recent time, specialised ICU for oncology patients have been set up in the India and around the globe. Intensivist, working in those ICUs along with oncologists and oncosurgeons are providing excellent care to critically ill patients. It is needless to say that, Rajiv Gandhi Cancer Institute and Research Centre being a pioneer cancer institute has been promoting education and research in the field of onco critical care for many years.

Now, we need more doctors who are experienced and trained in onco critical care to cater rising number cancer patients. To promote education and research in this sub speciality, Dr Parveen Kaur and her team have taken the initiative to form Onco Critical Care Society and organise

their first annual conference on 4<sup>th</sup> August 2023. "Onco Critical Care" is their official journal and these are the major steps to grow this subspeciality. I congratulate them for this novel endeavour and wish them luck for the future.

Conflict of Interest: Author is the patron of the Onco Critical Care Society

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