Commentary

Antibiotic Resistance in Oncology Critically Ill Patients: The Urgent Need for Action

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Antibiotic resistance is a pressing global healthcare concern, particularly for critically ill oncology patients.[1]The lack of new antibiotic options, irrational antibiotic use, and infection control issues present significant challenges in treating critically ill oncology patients. However, amidst this crisis, Indian intensivist and oncologists have emerged as a group that who are highly aware of the issue of AMR. As an Infectious Diseases physician working in a leading oncology centre in India, I can attest to the support provided by our oncologists. Our centre has developed an exemplary Antimicrobial Stewardship (AMS) program with the active involvement of oncologists. This collaboration has resulted in one of the most established and well-functioning AMS programs, effectively addressing the challenge of antibiotic resistance. The teamwork between infectious diseases physicians, intensivists and oncologists have not only reduced mortality rates among febrile neutropenic patients with carbapenem-resistant gram-negative infections but also instilled confidence in patients who are well-informed about the superbug crisis and its impact on cancer patients.

Urgent Measures Required: In a country burdened by high AMR rates, critically ill oncology patients face significant hurdles due to the lack of effective antibiotics. Gram-negative bacteria, known for their resistance mechanisms, pose a formidable threat. The limited development of new antibiotic options further exacerbates the problem, leaving healthcare professionals with few treatment choices against these resistant pathogens. Additionally, irrational antibiotic use in both community and healthcare settings contributes to the development and spread of drug-resistant infections.

To address this crisis effectively, urgent measures are needed on multiple fronts. Firstly, there is an immediate need for the Emergency Use Authorization of promising antibiotics in Phase 3 clinical trials, such as Cefepime-Zidebactam, to be made available in the country. These antibiotics show potential in combating drug-resistant gram-negative infections and can significantly expand the treatment options for critically ill oncology patients. Similarly, licensed antibiotics from other countries, such as Cefiderocol, should be considered for authorization in India to alleviate the lack of effective treatment choices.

In addition to the availability of new antibiotics, implementing stringent infection control measures is crucial in healthcare facilities. It is important to acknowledge the varying infrastructural and financial constraints faced by different cancer care centres throughout the country. While striving for excellence, a pragmatic approach that takes into account the resources and capabilities of each institution should be adopted. Emphasizing proper hand hygiene, implementing effective sterilization practices, and ensuring appropriate patient isolation protocols can significantly reduce the transmission of multidrug-resistant organisms and safeguard patient well-being.

The significance of rapid diagnostics in oncology settings cannot be overstated. Timely identification of pathogens and their susceptibility patterns enables targeted therapy, allowing healthcare professionals to tailor antibiotic treatment to the specific needs of each patient. The adoption and accessibility of innovative diagnostic technologies, such as rapid molecular tests and advanced microbiological techniques, can revolutionize the management of critically ill oncology patients.

Collaboration and teamwork among healthcare professionals are crucial in combating antibiotic resistance. Indian intensivists have played a pivotal role in this regard, demonstrating a high level of awareness and commitment to

addressing AMR. Their understanding of appropriate antibiotic use in oncology patients, coupled with their dedication to patient care, has been instrumental in the development of effective AMS programs. The collaboration between infectious diseases physicians, oncologists, intensivists, and other stakeholders has resulted in improved patient outcomes, particularly in the management of febrile neutropenic patients with carbapenem-resistant gram-negative infections.[2]

The rise of antibiotic resistance in critically ill oncology patients demands urgent action. While the challenges are formidable, the collaborative efforts between Indian oncologists and other stake holders such as infectious diseases physicians and intensivists serve as an inspiring example of effective teamwork and patient-centred care. Urgent measures, including the availability of promising antibiotics, prioritizing infection control measures tailored to institutional resources, and embracing rapid diagnostics, are essential in mitigating the impact of antibiotic resistance in oncology. By working together, healthcare professionals can inspire change and strive towards a future where effective treatment options are available for critically ill oncology patients.

Conflict of interest: Nil

References

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