The rapid adoption of new immune-based cancer therapies, including immune checkpoint inhibitors, has significantly increased the number of available treatment modalities. Unfortunately, these new modalities are also associated with new and varied acute complications (e.g., myocarditis, pneumonitis, colitis, dermatitis). The non-specific adverse events of immune-based therapies, which often mimic autoimmune disorders rather than traditional cytotoxic effects, pose a significant challenge to emergency medicine providers.

Emergency providers are trained to resuscitate and manage complications of acute and chronic conditions. Increasingly these front-line providers are evaluating, diagnosing, and treating acute cancer-related or cancer treatment-related complications. In the United States, approximately 4.5 million annual emergency department (ED) visits – an estimated four percent of all ED visits – are by patients with cancer. The data demonstrate that emergency providers play a significant role in the unplanned acute care of patients with cancer. The burden of providing acute care for patients with cancer is expected to increase as the U.S. population ages and treatments become more successful.

As a result, emergency medicine providers will need to play an increasingly key role in the acute management of immune-related adverse events (irAEs). These adverse events can be delayed by weeks to months following treatment completion or discontinuation, creating an additional obstacle. Both the non-specific and delayed presentations are two factors that need to be accounted for by emergency medicine providers and require a high index of suspicion when treating patients with cancer.

Correctly diagnosing irAEs is only possible if the emergency medicine provider recognizes the possibility of an irAE by obtaining a detailed cancer history. Obtaining said history can be difficult given the complexity of current treatment regimens and the need for a patient to recall therapies administered several weeks to months ago. This obstacle is particularly true in the community setting where access to cancer center records is often unavailable. Many cancer centers are providing patients with wallet cards listing current treatment regimens to address this issue, and emergency medicine staff should prompt patients for these cards. The emergency provider should not hesitate to promptly communicate directly with the patient’s primary oncologist. If referring a patient to the ED, an oncologist should notify the receiving ED of the expected patient and pertinent treatment-related details.

The Comprehensive Oncologic Emergencies Research Network demonstrates that many acute care visits are related to uncontrolled symptom burden. Correctly identifying irAEs among these presentations is challenging and only the first step. Once diagnosed, the emergency medicine provider must appropriately treat the irAE. The intervention and subsequent disposition will vary based on the severity and organ system(s) affected. The patient’s oncologist should be involved in the decision making. Emergency providers should familiarize themselves with the Common Terminology for Adverse Events grading system and refer to published irAE guidelines when determining a treatment plan. Of note, in the unstable patient the emergency medicine provider must rely on their emergency training to appropriately resuscitate the patient.

In conclusion, top priorities for emergency providers include 1) ongoing education relating to irAEs, 2) accessing a detailed cancer-related history, 3) considering irAEs as part of the clinical evaluation, and 4) engaging with oncologists to develop collaborative treatment plans.

What role do emergency medicine providers play in managing irAEs?

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REFERENCES


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