



Take-Home Points

Part B

Immune-Related Adverse Event (irAE) Management



Society for Immunotherapy of Cancer

Immune-Related Adverse Event (irAE) Management

MECHANISMS:

- The major function of CTLA-4 and the PD-1/PD-L1 pathway is to prevent occurrence of autoimmune diseases.
- Disruption of this crucial function by immune checkpoint blockade with anti-CTLA-4 or anti-PD-1/PD-L1 leads to development of irAEs in some individuals.

GENERAL CONSIDERATIONS

- Always consider/have high suspicion of irAEs in patients on immunotherapy, which can present with vague symptoms.
- Emphasize to patients to report symptom(s) early.
- Most irAEs occur in the first few months of therapy, but they can present late and potentially after discontinuation of drug.
- Combination anti-PD-1/CTLA-4 immunotherapy significantly increases the grade 3-4 AE rate.





Immune-Related Adverse Event (irAE) Management

NURSING PERSPECTIVE:

- It is imperative to implement a multidisciplinary approach with doctors, advanced practitioners, nurses, and pharmacists when treating patients undergoing cancer treatment with immunotherapy.
- Using the CTCA guidelines for prompt identification, treatment, and close monitoring of immune-mediated AEs can improve patient outcomes, improve QOL, and decrease prolonged hospitalizations.
- Nurses have a crucial role in empowering and educating patients and their families about the common and uncommon potential immune-mediated AEs, understanding that every patient is unique and that the grade and kind of toxicities might vary among patients.

MONITOR LABS FOR irAEs

- LFTs/metabolic comp
- Endocrine labs: TSH, T3, T4, glucose, cortisol: if excess fatigue, ↓BP
- CBC (yes, but less concerning)

IDENTIFICATION OF irAEs IN THE EMERGENCY DEPARTMENT

- When taking patient history for patients with cancer, inquire in more detail about their treatment; they may not report they are on immunotherapy.
- Emergency physicians who encounter apparent irAEs in the emergency department should contact the hematology-oncology team as soon as possible.



Immune-Related Adverse Event (irAE) Management

CONTINUE OR HOLD IMMUNOTHERAPY TREATMENT?

- Continue for mild to moderate AEs, i.e. rash, pruritus, vitiligo, hypothyroidism, arthralgias, slightly elevated LFTs, resolved mild diarrhea.
- Hold treatment if serious grade 3-4 AEs, i.e. colitis, hepatitis, diabetes, pneumonitis, etc.
- Grade 2 and above irAEs usually require hold of immunotherapy.
- Grade 3 and above irAEs usually require discontinuation.

TREATMENT OF irAEs

- When initiating immunosuppression, remember special risk groups:
 - Hx +PPD, HBcAb positive or HBsAg positive
 - PCP prophylaxis
- Steroids should be given at a high dose (at least 1 mg per kg prednisone equivalent), which are often required for several months, with a lengthy taper. Rapid steroid tapers are not advised.
- Treatment of irAEs requires a multidisciplinary team, since many patients have irAEs for more than one organ system; consult early with organ-specific consultants.

