The oncology team began their efforts by developing and conducting a survey for their clinicians to assess gaps in knowledge and care around the identification and management of irAEs. The survey was sent to non-oncology clinicians and revealed the need for education about when irAEs may occur and around the clinical management of irAEs. The survey also revealed that 67% felt it would be useful to have an electronic clinical alert on the EHR informing them that the patient is being treated on immunotherapy. To meet these needs, the lung cancer oncologists began by delivering educational presentations at morning meetings, noon conferences, and grand rounds. They developed an infographic (see image on back side) to reinforce key aspects of irAEs and posted these in public places such as nursing break rooms, conference rooms, etc.

By working with the hospital IT department, the lung cancer team developed and launched an electronic alert to notify clinicians that patients were being treated with immune checkpoint inhibitors and may develop symptoms that are consistent with irAEs (see image below). The alert was designed to remind clinicians to consult medical oncology promptly so that irAEs could be managed in a timely fashion.

Conclusion

Recognizing that a growing number of patients were receiving immunotherapy for multiple types of cancers, the immunotherapy toxicity working group plans to develop additional educational resources for clinicians and to expand their efforts at improving awareness about irAEs.
FOSTERING EXCELLENCE IN CARE AND OUTCOMES IN PATIENTS WITH STAGE III/IV NSCLC
O’Neal Comprehensive Cancer Center at the University of Alabama

IMMUNE RELATED ADVERSE EVENTS

What are Immune Checkpoint Inhibitors?
Immune checkpoint inhibitors are antibodies that block the function of inhibitory immune checkpoints (e.g., PD-1, PD-L1, CTLA-4). They “take the brakes off” the immune system, allowing it to recognize and kill cancer cells.

What cancers do they treat?
Immune checkpoint inhibitors are now FDA approved for over 50 indications in solid tumors as well as some types of lymphoma.

What are their side effects?
Immunotherapy side effects are called immune related adverse events. These side effects can mimic other diseases such as autoimmune disorders, infections, or tumor progression.

Immune related adverse events can affect any organ and sometimes multiple organs!

When do immune related adverse events occur?
Duration of risk for immune related adverse events is unknown, occurring as early as within 24 hours to 100 days after the last dose of treatment.

How are immune related adverse events treated?
Treatment requires multidisciplinary input. The Hematology Oncology consult team should be alerted if immune related adverse event is suspected.

Immune related adverse events can affect any organ and sometimes multiple organs!

Central Nervous System
- Aseptic meningitis
- Encephalitis

Endocrine
- Hypophysitis
- Hyper-/Hypothyroidism
- Adrenal insufficiency
- Hyperglycemia/Diabetes Mellitus

Cardiac
- Pericarditis
- Myocarditis

Ocular
- Uveitis
- Episcleritis

Pneumonitis

Gastrointestinal
- Diarrhea/Enterocolitis
- Hepatitis
- Acute pancreatitis
- Elevated Amylase/Lipase

Musculoskeletal
- Inflammatory arthritis
- Myositis
- Polymyalgia rheumatica/Giant cell arteritis

Dermatologic
- Maculopapular rash
- Pruritus
- Steven Johnson syndrome

Nephritis

Neurologic
- Myasthenia gravis
- Guillain Barre syndrome
- Peripheral neuropathy
- Transverse myelitis

To learn more about management of immune related adverse events, go to:
doi.org/10.1200/JCO.2017.77.6385