Precision Medicine Testing Recommendations For:

Melanoma

Melanoma - Genetic Risk

Who should be tested?

- No biomarker testing is recommended by NCCN with the exception of risk stratification. Genetic counseling and testing if any of the following are indicated:
  - Early age at diagnosis (<30 years of age)
  - History of other primary cancers in the patient
  - Family or personal history of other cancers known to be associated with a hereditary syndrome:
    - BAP1: RCC, mesothelioma, cutaneous melanoma, cholangiocarcinoma, meningioma
    - BRCA, PALB2: breast, ovarian, or pancreatic cancers

When and what should be tested?

- Upon or before presentation
- Peripheral blood, saliva or buccal mucosa swab

What tests should be considered?

- NCCN/FDA Approved (uveal melanoma only)
  - Low Risk
    - Disomy 3
    - Gain of function chromosome 6p
    - EIF1AX mutation
  - Medium Risk
    - SF3B1 mutation
  - High risk
    - Monosomy 3
    - Gain of chromosome 8q
    - BAP1
    - PRAME expression
    - MBD4
    - NF-1

Cutaneous Melanoma

Who should be tested?

- Treatment eligible
- Metastatic disease

When and what should be tested?

- At time of initial diagnosis
- Recurrence
- Tissue or liquid

What tests should be considered?

- NCCN/FDA Approved
  - BRAF*
  - NTRK 1,2,3**
  - TMB
- Emerging Biomarkers
  - KIT
  - NRAS
  - ALK
  - ROS1
  - RET

*Include for metastatic and stage III
**Ensure inclusion into the molecularly targeted set of testing recommendations

Uveal Melanoma

Who should be tested?

- Treatment eligible
- Unresectable or metastatic disease

When and what should be tested?

- At time of initial diagnosis
- Recurrence
- Tissue or liquid (liquid only at recurrence unless another tissue biopsy obtained)

What tests should be considered?

- NCCN/FDA Approved
  - HLA-A *02:01