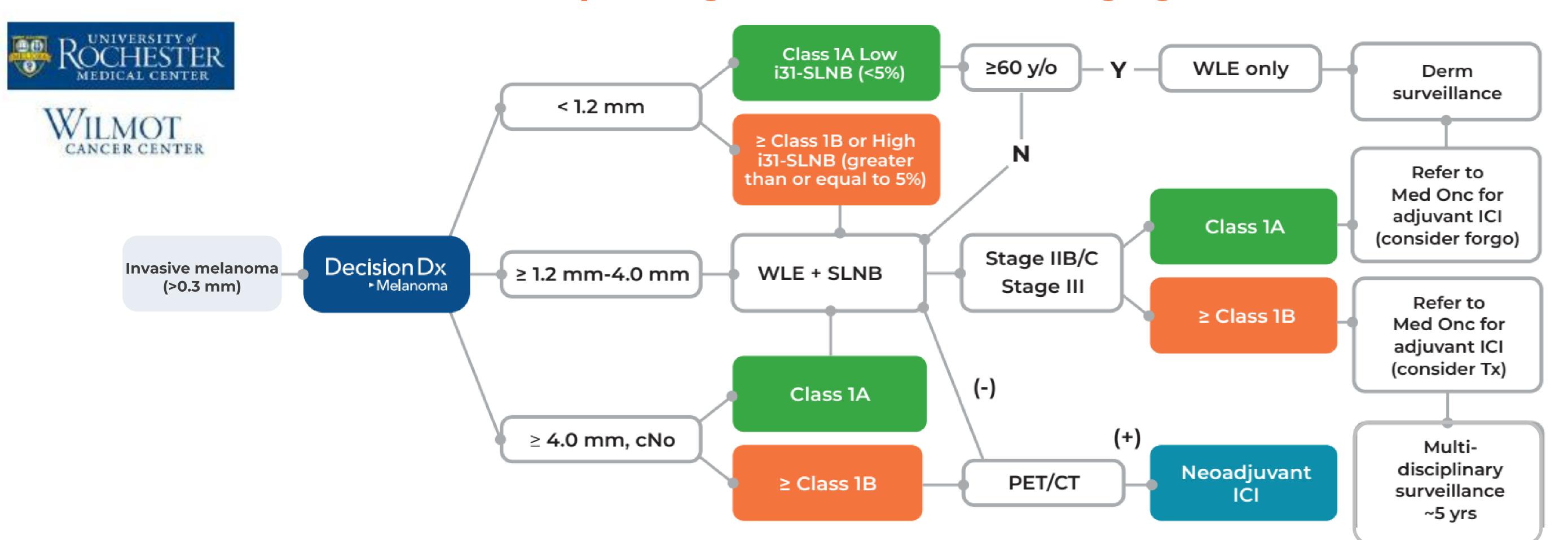
# Using 31-gene expression profile testing to help guide adjuvant therapy and sentinel lymph node biopsy discussions with patients: A case series

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### Workflow incorporating 31-GEP with AJCC staging



#### Case 1: 46-year-old female

- > Clinical: Bleeding, non-healing, ulcerated lesion on right arm
- > Tumor: T3b tumor: 4.0 mm, ulcerated, >2 mitoses/mm<sup>2</sup>
- > SLNB Positive
- > Stage IIIC
- > Staging imaging found solitary lung lesion
- 31-GEP: Class 2Bi31-SLNB: 31.8%
- Could this patient have avoided an SLNB and simply proceeded to staging imaging and systemic immunotherapy?

#### Case 2: 80-year-old male

- > Clinical: Ulcerated lesion of the posterior neck
- **Tumor**: T2a tumor: 1.6 mm, no ulceration, >1 mitoses/mm<sup>2</sup>, no regression
- > SLNB Positive
- > Stage IIIA
- > 31-GEP: Class 1A
- 31-GEP result helped guide adjuvant therapy discussions with patient
- > Patient declined adjuvant immunotherapy after discussion with medical and surgical oncologists.

## Conclusions

- Immunotherapy has provided significant improvements in advanced-stage melanoma survival, but adverse events can occur in the majority of patients. (Brahmer, et al. J Immun Can 2021)
- The 31-GEP provides personalized, independent risk stratification to guide shared decision-making discussions with patients about clinical management, imaging surveillance, and adjuvant therapy.
- The 31-GEP helps identify truly high- or low-risk patients who may benefit from different clinical or treatment decisions, allowing patients and their clinicians to be more confident in their decision-making.

#### Case 3: 58-year-old male

- > Clinical: Bleeding, evolving nevus of the right leg
- > **Tumor**: T2a tumor: 1.35 mm, no ulceration, 1 mitoses/mm<sup>2</sup>, no regression
- > SLNB Positive
- > Stage IIIA
- **> 31-GEP: Class 2B**
- ) i31-SLNB: 18.4%
- 31-GEP result guided patient and clinician personalized treatment planning
- Patient received adjuvant immunotherapy (nivolumab) and had no evidence of disease 11 months later