

Tailoring Metastatic Surveillance in Uveal Melanoma Based on Individual Metastatic Risk

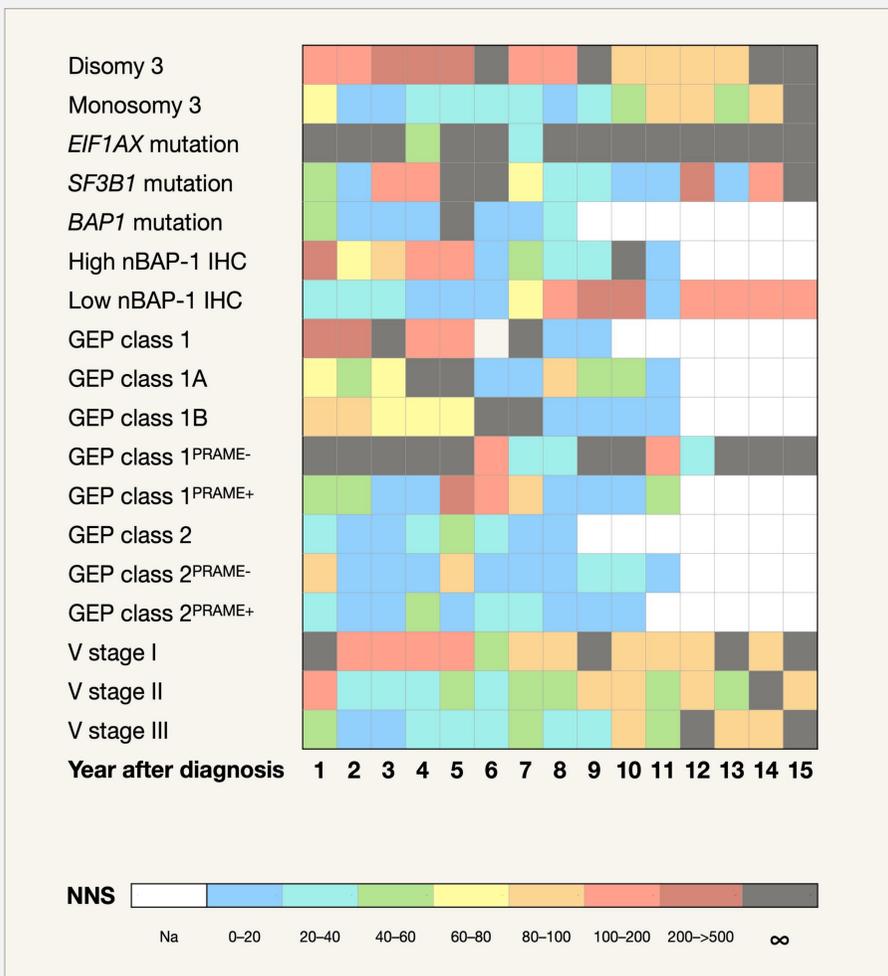
Anna Hagström¹, Hans Witzhausen¹, Gustav Stålhammar^{1,2}

¹Department of Clinical Neuroscience, Division of Eye and Vision, Karolinska Institutet, Stockholm, Sweden

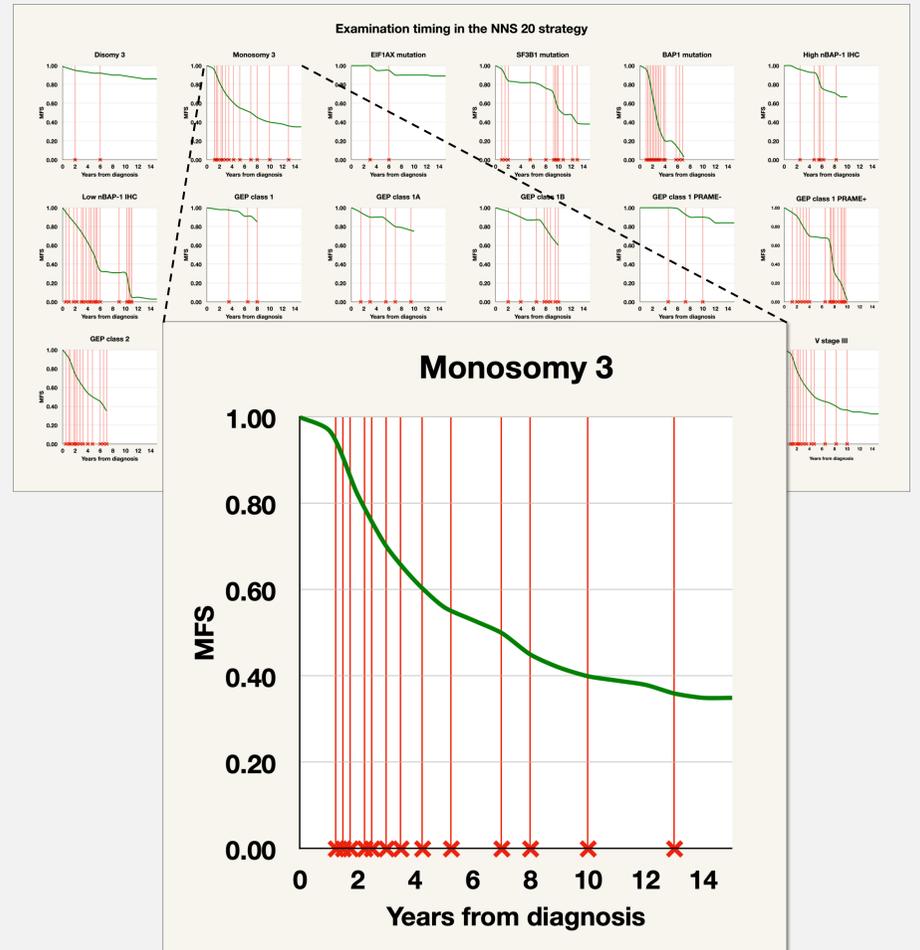
²Ocular Oncology Service and St. Erik Ophthalmic Pathology Laboratory, St. Erik Eye Hospital, Stockholm, Sweden

Customizing uveal melanoma surveillance to match individual metastatic risks could transform current practices, ensuring more precise protocols, reducing unnecessary examinations, and directing healthcare resources to those in greatest need.

Additionally, this approach, utilizing the Number Needed to Screen (NNS) concept and weighted-average metastasis-free survival rates (MFS) from a systematic review and meta-analysis, provides a versatile framework for developing surveillance strategies across various cancer types.



Evaluation of NNS in a typical surveillance schedule with patients undergoing biannual examinations for the first 5 years post-diagnosis, followed by annual check-ups from years 6 to 10. Black cells signify an 'infinite' NNS, indicating that scanning an unlimited number of patients would be required to detect a single case of metastasis. The green line in the accompanying plots shows the temporal fluctuations in NNS for each prognostic group, with values ≥ 4000 equated to infinity.



Timing of examinations under the NNS 20 surveillance strategy. Metastasis-free survival (MFS) is represented by green lines. The red vertical lines and crosses mark the scheduled timings for radiological examinations in the NNS 20 strategy, where it is anticipated to detect one metastatic case for every 20 patients scanned.

Tailor surveillance of any cancer:

$$I = \frac{1}{M \times NNS_{target}}$$

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