



Sentinel Lymph Node Biopsy (SLNB) - as **NOT** Standard of Care

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Melanoma Prognosis - Staging

SLNB significant in staging of melanoma and predictor of risk/survival

Other key features – ulceration, Breslow thickness

Other clinical features – mitotic rate, microsatellites, LVI, PNI/neurotropism, histology

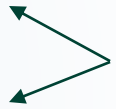
Deviations from SLNbx

Ongoing discussion in the field regarding utility in thick melanomas - >T3b

-Reasoning and Rationale -

SLNB positivity increases with Breslow thickness

T Category	SLN +
T1 ($\leq 1\text{mm}$)	6.5% (291/4,443)
T2 ($> 1.0\text{-}2.0\text{mm}$)	15.3% (968/6,319)
T3 ($>2.0\text{-}4.0\text{mm}$)	30.8% (1,004/3,264)
T4 ($>4.0\text{mm}$)	40.7% (694/1,705)



Approx 85 % negative
SLNB

Stage IIB or higher which are automatically a candidate for therapy

Deviations from SLNB

Questionable use of SLNB in pure desmoplastic melanomas ($\geq 90\%$), more often SLNB negative

- Increased risk for local and distant recurrences

Older and frailer patient population

- risks of procedure and potential treatment

- underlying comorbidities limit life expectancy > melanoma

Procedural Considerations

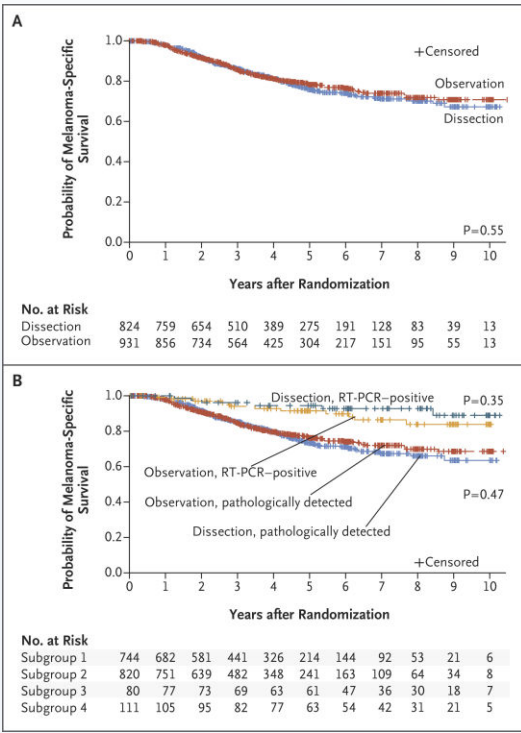
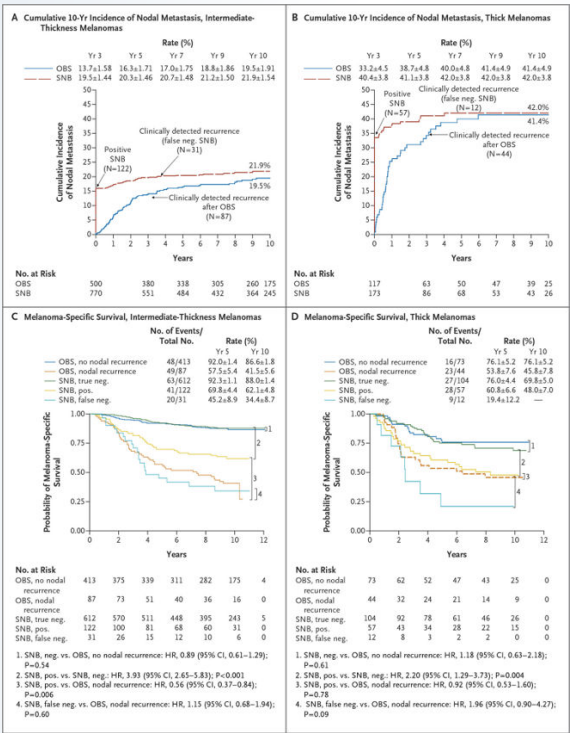
- Technical challenges with lymphatic mapping

- Prior surgery or extensive scarring affecting drainage patterns

- Anatomic considerations increasing procedural risk

Patient choice

Changes in melanoma monitoring and surveillance



Sentinel-node status was the strongest predictor of disease recurrence or death from melanoma.

Melanoma-specific survival rate not powered for this endpoint. However, among patients in whom same-basin nodal metastases developed after a negative result of sentinel-node biopsy was similar to that among patients in whom nodal metastases developed during observation (no SLNB).

With MSLT-II, melanoma-specific survival was not different between the immediate CLND and observation with US arms in the MSLT-II trial.

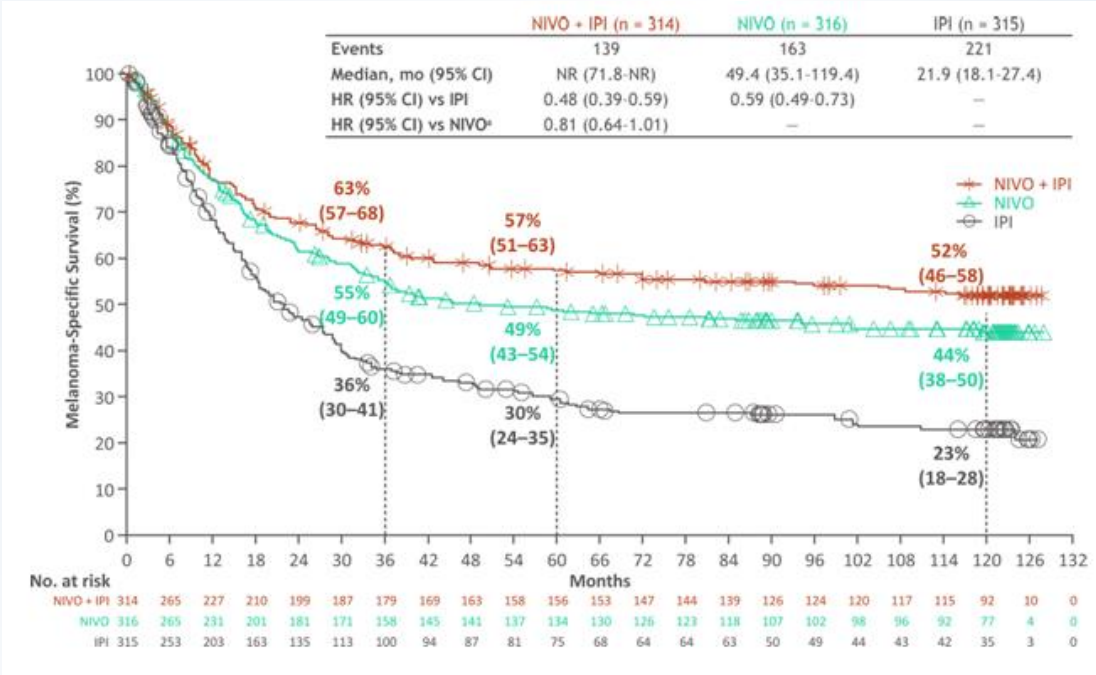
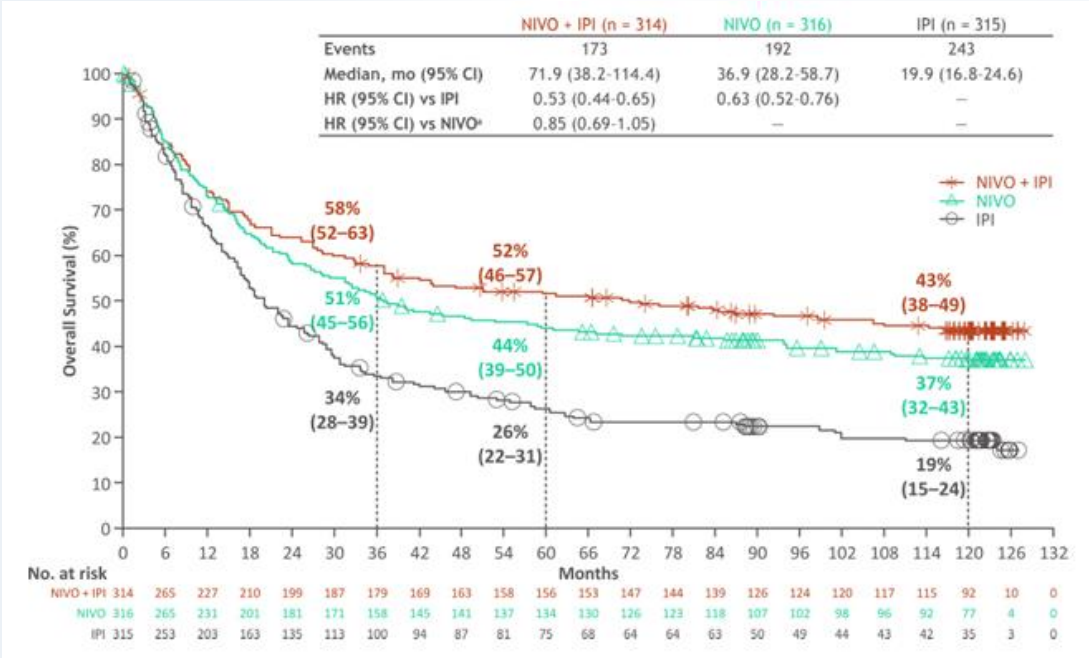
Morton DL et al NEJM 2014; Faries MB et al. NEJM 2017

Improved adjuvant therapy → improved melanoma survival

Therapy	Landmark Trial	HR for Recurrence/Relapse	Approximate Relative Risk Reduction
Interferon-α	ECOG 1684	~0.75–0.80	~20–25%
Ipilimumab	EORTC 18071	0.75	~25%
Nivolumab vs Ipilimumab	CheckMate 238	0.66	~34%
Pembrolizumab vs Placebo	KEYNOTE-054	0.57	~43%
Dabrafenib + Trametinib vs Placebo	COMBI-AD	0.47	~53%

Kirkwood et al. *N Engl J Med* 1996 (ECOG 1684); Eggermont et al. *Lancet Oncol* 2015 (EORTC 18071); Weber et al. *N Engl J Med* 2017 (CheckMate 238); Eggermont et al. *N Engl J Med* 2018 (KEYNOTE-054); Long et al. *N Engl J Med* 2017 (COMBI-AD); Luke et al. *N Engl J Med* 2022 (KEYNOTE-716); Luke et al. *Nat Med* 2023 (CheckMate 76K).

Improved survival with treatment - salvage



Wolchock JD et al. NEJM 2024

Conclusions – **NOT** performing a SLNB

SLNB is primarily a staging procedure. May be omitted in situations especially when there will be no influence on disease management.

Tumor-Related Factors – low risk melanoma or high risk features

Patient-Related Factors – comorbid conditions, poor PS, decr life expectancy

Disease-Related Factors – clinically apparent disease, de novo metastatic disease, outcome does not change treatment decisions

Conclusions – NOT performing a SLNB

Treatment Considerations – stage already meets criteria for systemic therapy, management plan will not change based on SLNB

Patient Preference – declines surgery, comorbidities, concern for cost, QOL

Procedural Considerations – questionable LN mapping, prior surgeries, anatomic considerations, increased procedural risks

Overall, improved melanoma surveillance, monitoring, and treatment options (both adjuvant and salvage therapy) has increase overall survival and melanoma specific survival in melanoma patients → calling into question utility of SLNB