

Preferences for Adjuvant Immunotherapy in Respondents with Resected Stage III Melanoma: A Discrete Choice Experiment (DCE)

Ann Livingstone

PhD candidate

NHMRC Clinical Trials Centre

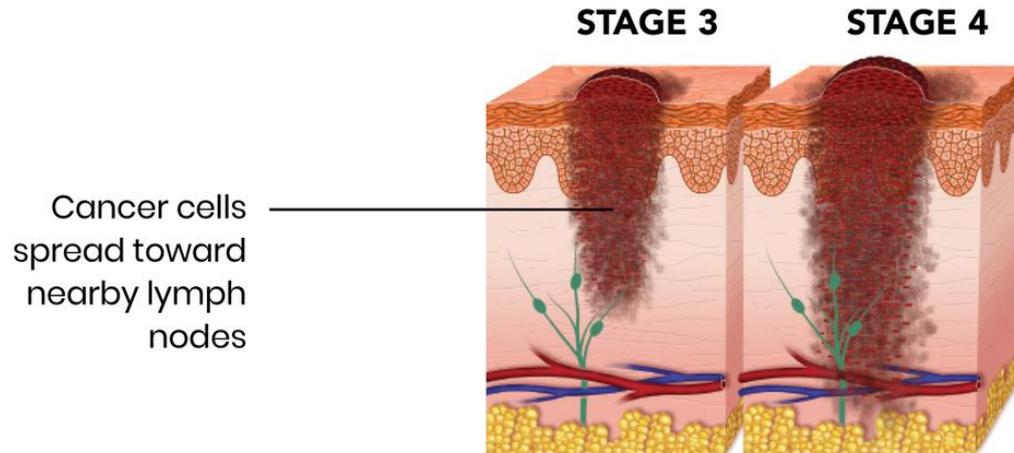
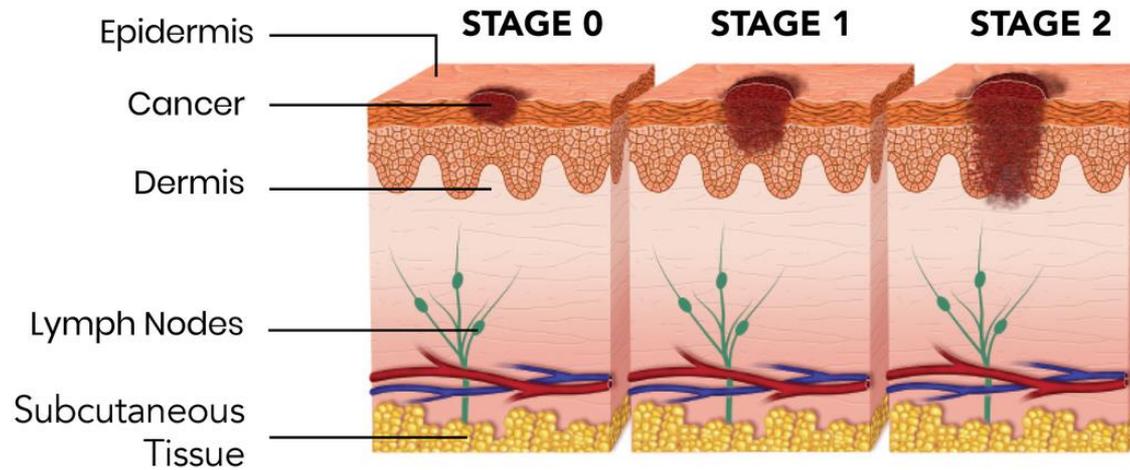


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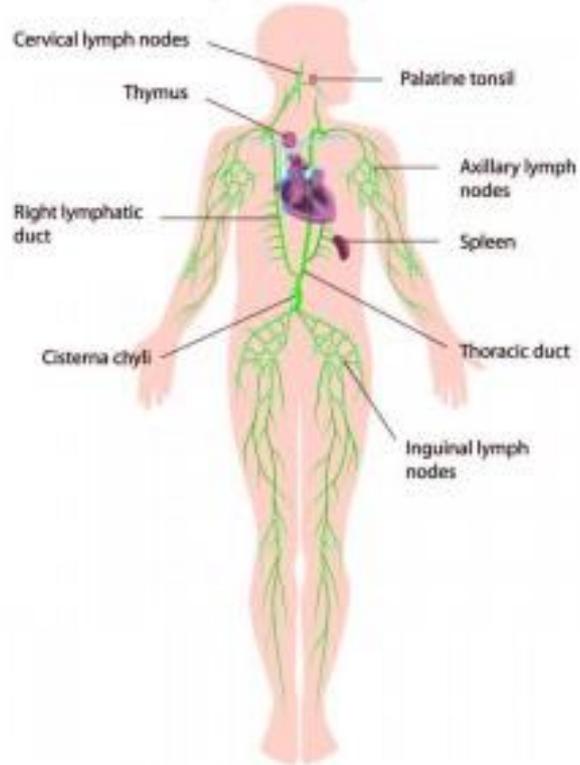


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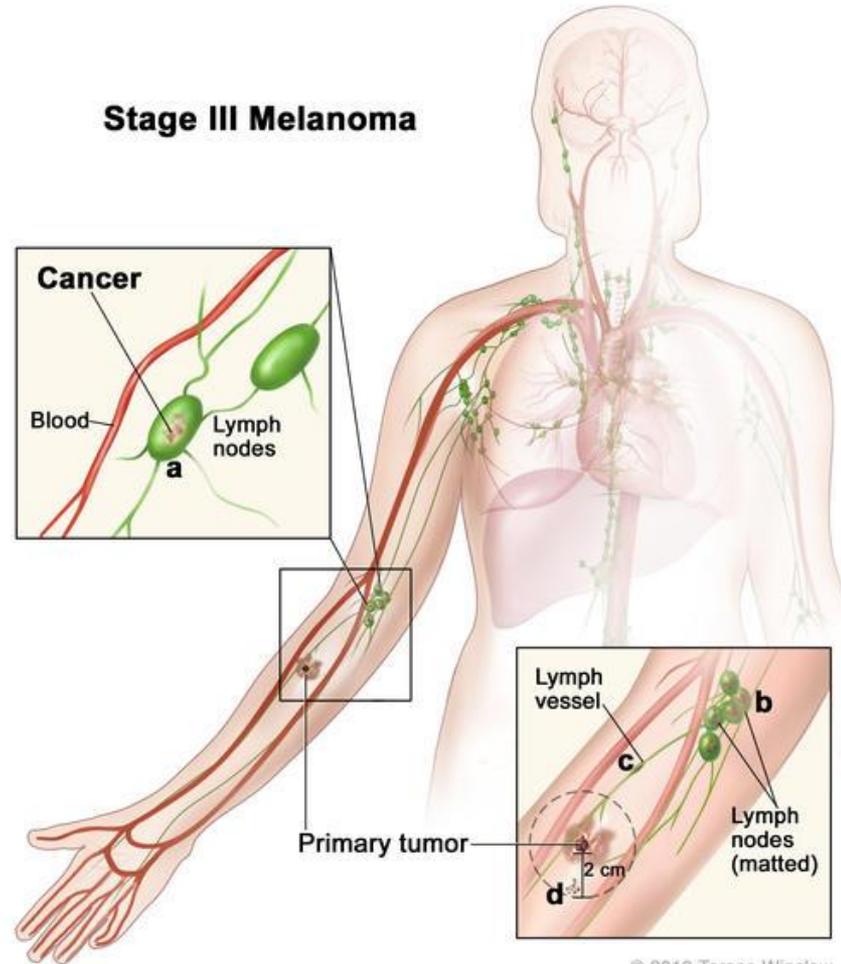




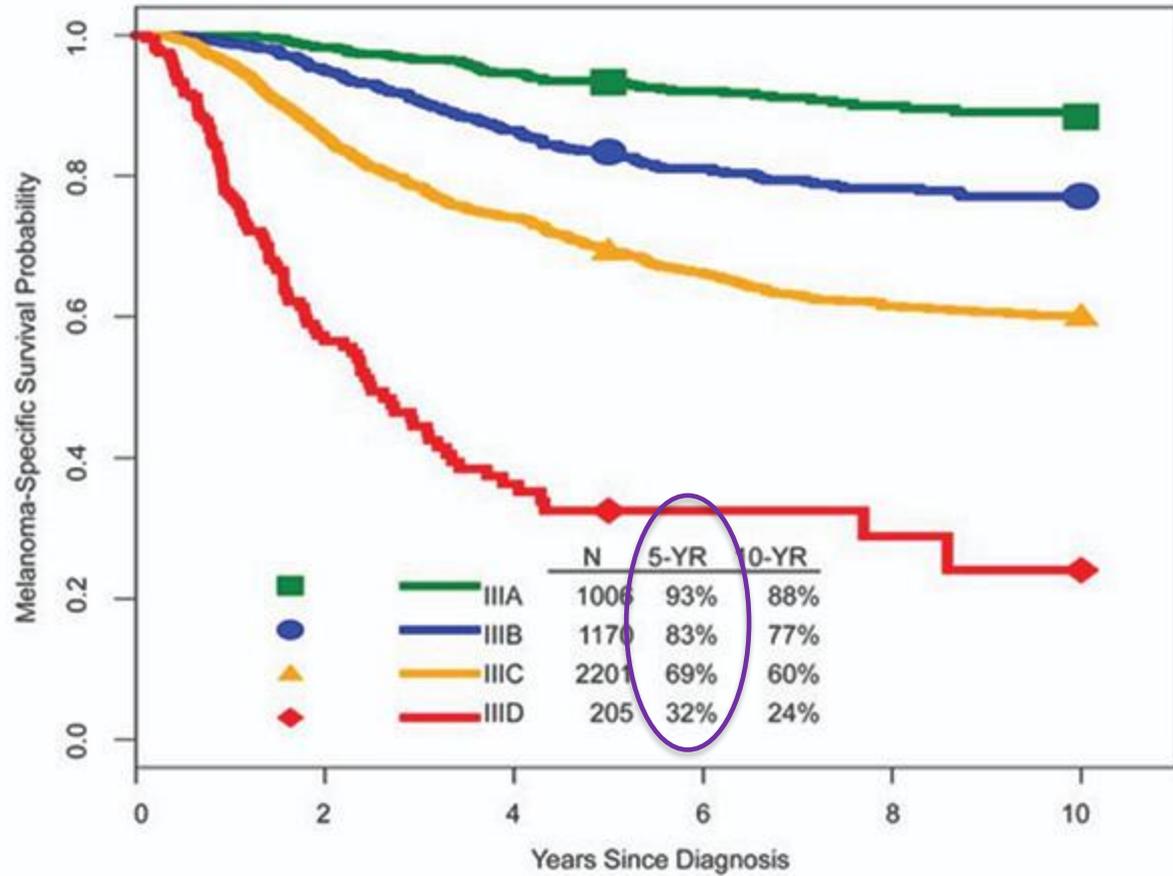
The Lymphatic System



Stage III Melanoma



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Background



In 2020, 57,000 people died of melanoma¹



Adjuvant immunotherapy for resected stage III melanoma improves survival²⁻⁵



Potential significant life-long toxicities i.e. diabetes



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1. Arnold M, et al. Global Burden of Cutaneous Melanoma in 2020 and Projections to 2040. JAMA Dermatol. 2022 May 1;158(5):495-503. doi: 10.1001/jamadermatol.2022.0160

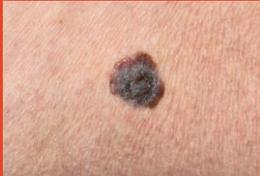
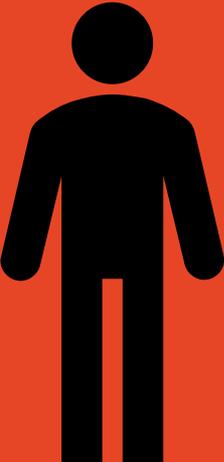
2. QVIA Institute for Human Data Science (May 2018). Global Oncology Trends 2018, Innovation, Expansion and Disruption

3. Eggermont AMM, et al. Adjuvant ipilimumab versus placebo after complete resection of high-risk stage III melanoma (EORTC 18071): a randomised, double-blind, phase 3 trial. Lancet Onc 2015

4. Eggermont AMM, et al. Adjuvant Pembrolizumab versus Placebo in Resected Stage III Melanoma. N Engl J Med 2018

5. Weber J, et al. Adjuvant Nivolumab versus Ipilimumab in Resected Stage III or IV Melanoma. N Engl J Med 2017

Treatment



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Aims



Quantify preferences for adjuvant immunotherapy in respondents with resected stage III melanoma

Calculate trade-offs/marginal rates of substitution/willingness-to-pay

Methods



Attribute/levels: qualitative interviews with respondents/partners, lit review

D-efficient, 12 choice tasks, 2 alternatives, 2-3 levels, 2 constraints

Recruitment via 8 Australian consumer groups



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Methods - DCE

Factors	Adjuvant immunotherapy	No adjuvant immunotherapy
Chance 3-year melanoma recurrence	42%	56%
Chance mild side-effects	12%	0%
Chance permanent side-effects	14%	0%
Chance fatal side-effects	1%	0%
Out-of-pocket costs	\$\$\$	\$
Dosing regimen	3 weekly by IV infusion	None
Treatment choice	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Methods

Observation +/- adjuvant immunotherapy

Attribute	Drug treatment	No drug treatment
	Levels	
Chance 3-year recurrence	36 42 50 (out of 100)	50 56 62 (out of 100)
Chance mild side-effects	1 12 37 (out of 100)	0 (out of 100)
Chance permanent side-effects	1 10 14 (out of 100)	0 (out of 100)
Chance fatal side-effects	0 1 3 (out of 100)	0 (out of 100)
OOP costs per year (AU\$)	\$750 \$1500 \$6000	\$0
Dosing regimen	IV 3 weekly 1 year IV 4 weekly 1 year	None

Socio-demographic/clinical factors: age, **gender**, children, education, income, sub-stage, treatment

Mixed multinomial logit



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13 parameters, 10 random (8 normal distributed, 2 triangular), 3 non-random

Results

116



53%

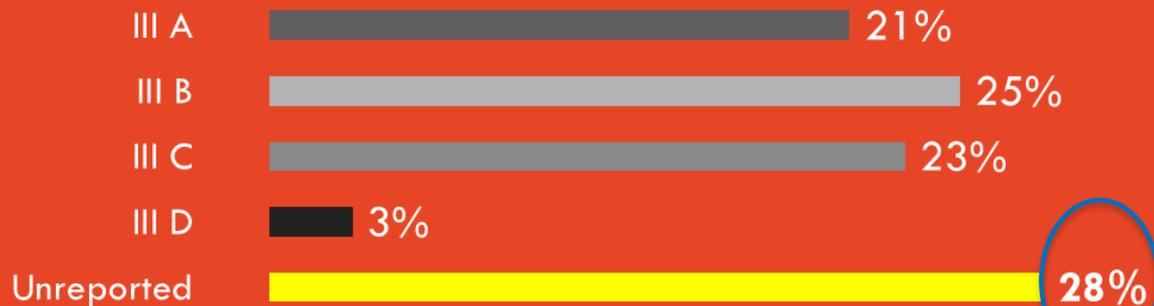


Median 60yrs

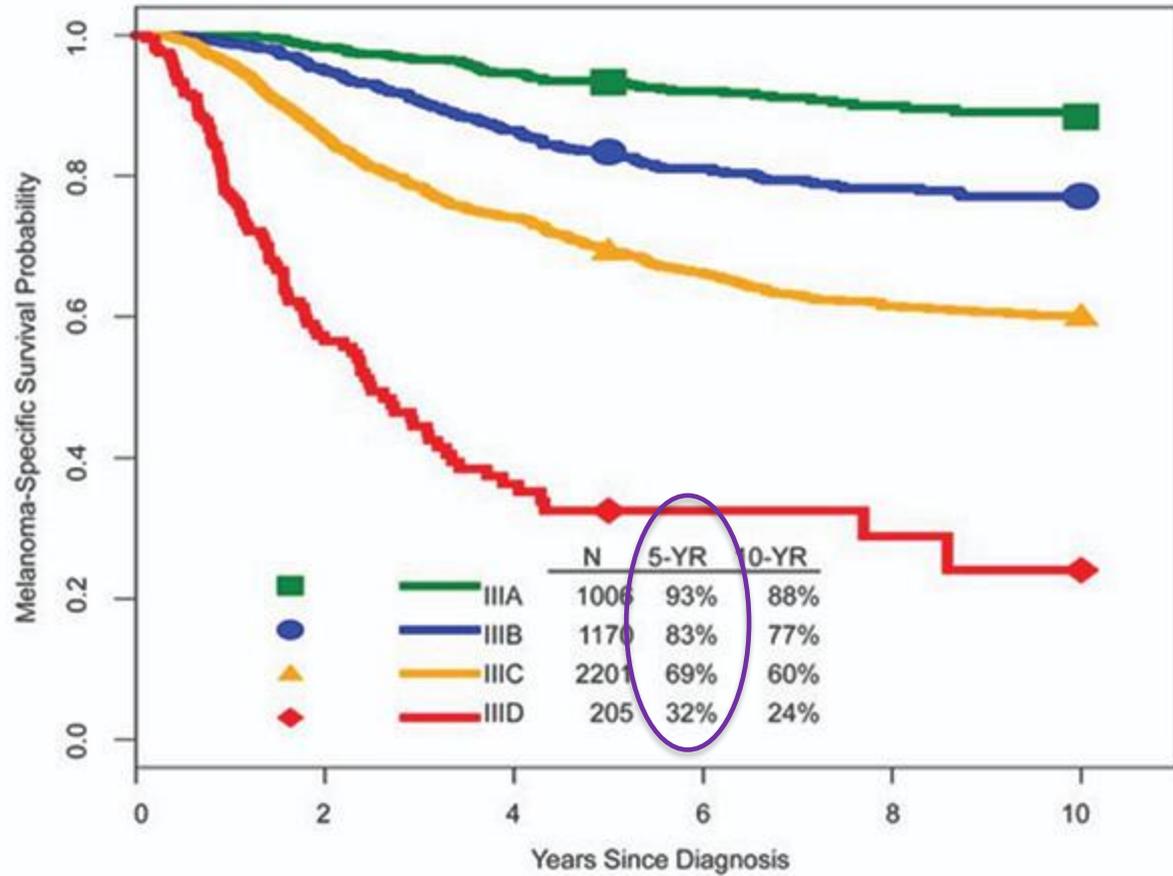
3/4 prior



Melanoma sub-stage



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Results

2/3 chose



Less likely prefer immunotherapy (per 1% increase in risk)

- 3-yr recurrence OR 0.76 95% CI 0.70–0.83 $p < 0.001$
- Fatal AEs OR 0.60 95% CI 0.44–0.80 $p = 0.006$
- Permanent AEs OR 0.94 95% CI 0.89–0.99 $p < 0.05$

Gender, age, children yes/no, melanoma sub-stage, annual household income

- Females less likely prefer immunotherapy v males OR 0.195% CI 0.02–0.66 $p = 0.02$



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Results

Marginal WTP \$\$\$

- 1% reduction in 3-yr risk of recurrence per year

Lower-income (<AU\$88K, <US\$60K) AU\$794 (US\$540) 95% CI AU\$ -741 to 1745

Higher-income (\geq AU\$88K, \geq US\$60K) AU\$2190 (US\$1500) 95% CI AU\$ -1651 to 4571

- 1% reduction in chance of fatal AE per year

Lower-income AU\$1531 (US\$1050) 95% CI AU\$ -1527 to 8417

Higher-income AU\$4266 (US\$2920) 95% CI AU\$ -3484 to 13997



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Results

Marginal Rate of Substitution (trade-off additional)



- 4% chance permanent AE to reduce 3-yr risk of recurrence by 1% 95% CI -10.44 to 23.41
- 2% chance of 3-yr recurrence to reduce risk of fatal AE by 1% 95% CI -12.35 to 34.54
- Increase chance of mild AE from 1% to 37% OR 2.06, 95% CI 1.13–3.78, $p=0.02$ in return for adjuvant immunotherapy



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Results

Sub-group analysis



Ceased immuno for tox (n=17)

- Stronger preference to lower chance of permanent AE OR 0.77 95% CI 0.61–0.96 p=0.02

Received immuno did not cease for tox (n=75)

- Lowering chance of permanent AE was of less concern OR 0.97 95% CI 0.91–1.04 p=0.39



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Key messages

- Most respondents chose adjuvant immunotherapy + observation over no adjuvant immunotherapy + observation
- Efficacy and safety are key decision drivers
- Preferences highly influenced by respondent's level of immunotherapy experience and gender



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Acknowledgements and contact info

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 @_AnnLiv

ann.livingstone@sydney.edu.au



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skin **cancertas**
Local people, caring for our community



Discussion

- Other DCE analysis
- Further research
- Sub-group analyses



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