Supplementary Online Content

Watts CG. Cust AE, Menzies SW, Coates E, Mann GJ, Morton RL. Specialized surveillance for individuals at high risk for melanoma: a cost analysis of a high-risk clinic. *JAMA Dermatol*. Published online November 12, 2014. doi:10.1001/jamadermatol.2014.1952.

eMethods. Health System Costs

eFigure. High-Risk Clinic Patients Included in the Microcosting Study

eTable. Comparison of Costs for Surveillance Strategies for Individuals at High Risk of Cancer From the Perspective of the Health System

This supplementary material has been provided by the authors to give readers additional information about their work.

eMethods. Health system costs

It was assumed that all services provided through the high-risk clinic (HRC) (surveillance and public hospital procedures) and primary care physicians (procedures related to surveillance) were health system costs; ie, that the patient was 'bulk-billed' the equivalent of the Medicare Benefits Schedule item number and no out-of-pocket costs were incurred. For patients that were booked to attend during the study period, but had cancelled or did not attend, the date of their most recent visit was taken as the starting date for the 12 month review.

When equipment was used for purposes other than the HRC, a proportion of the total cost was estimated based on the percentage of time it was used by the HRC and an annual cost for equipment was calculated. Based on the mean number of consultations at the HRC in 1 year, a cost per consultation was derived.

There is a health system cost for the medical practitioner for the excision and another for pathology services. The cost of pathology varies with the complexity of the sample being examined. The cost for an excision is dependent on the diagnosis provided by the pathologist, the body site and the number of sites excised in the one visit. Multiple services rules applied for excisions requested within the same visit and are charged at 100% for the first and highest value service, then 50% and 25% cost of subsequent services. Costs were ascertained from original pathology reports and through personal communication with hospital pathology staff.

If there were 3 'extended length' surveillance consultations noted within a calendar year, only the last 2 were included to avoid over-counting consultations which were scheduled at 6 monthly intervals.

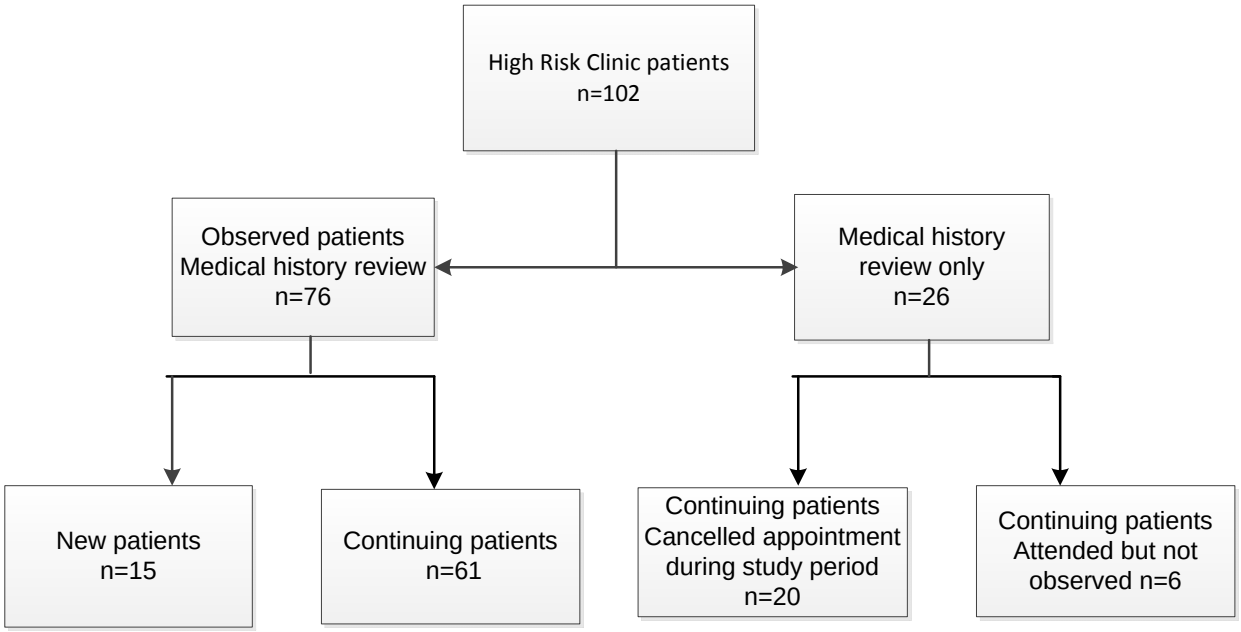
Out-of-pocket and opportunity costs

Appointment dates and treatment information in patients' medical records were used to calculate how many trips had been made for surveillance or related procedures and if leave from work had been taken and the time required for the visit. We assumed transport arrangements were consistent over 12 months. For patients who reported travelling by private car, the travel cost to the patient was calculated at the rate for a work-related kilometre at 0.76 cents per kilometre for a standard vehicle with a medium size engine[1] and a parking charge of $6 in the hospital car park was also included. For patients using public transport, travel costs were calculated using the NSW Transport website[2] based on patients reported mode of

travel. If patients were over 60 years it was assumed they were a ‘NSW Seniors Card’ holder and a reduced fare was used. A cost for accommodation was not allocated if patients reported staying with family members.

To ascertain out of pocket costs incurred for visits to private clinicians outside the high risk clinic, a group of dermatology and plastic surgeon clinical practices in Sydney were contacted in order to estimate mean fees and out of pocket costs for these services. Calculation of out of pocket costs was based on the standard reimbursement of the Medicare Benefits Schedule fee.

eFigure. High-risk clinic patients included in the microcosting study



Patients recruited December 2013 to May 2014. Of 102 patients included in the study, 15 were new patients and 87 patients had been attending the clinic for 12 months. Of 87 patients, 67 were directly observed, and 20 patients rescheduled their appointments and had medical record review only**.**

eTable 1 Comparison of costs for surveillance strategies for individuals at high risk of cancer from the perspective of the health system

Author, year	Target population	Screening intervention	Total cost	US$2013
Yang,KY et al (2010)[3]	Women from Hereditary Non Polyposis Colon Cancer families.	Annual gynecological examination over a lifetime	US$100,484	$107,351
Yang,KY et al (2010)[3]	Women from Hereditary Non Polyposis Colon Cancer families.	Annual gynecological examination including surveillance using trans-vaginal ultrasound, endometrial biopsy and serum CA125 testing over a lifetime	US68,392	$73,066
Breheny,N et al (2002)[4]	Individuals at risk of Familial Adenomatous Polyposis	Mutation testing, colonoscopy and prophylactic surgery over a lifetime	AU$90,096	$121,210
Alexandrescu D et al (2009)[5]	Individuals with a history of Stage 1A melanoma-surveillance only	Dermatology visits and follow-up as per recommendations over 5 years	US$3,759	$4,081
Present study	Individuals at high risk of melanoma with a history of an invasive melanoma	Dermoscopy, total body photography, and sequential digital dermoscopy imaging and excisions of lesions if morphological change over 5 years.	AU$4,587	$3,114

References

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