

Priority Project Reports

Melanoma

1. Project Title: Melanoma Recurrence in NSW:
Assessment of the feasibility of measuring melanoma recurrence in the NSW Central Cancer Registry

2. Project Coordinator(s) Contact details

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3. Project Description

Assessment of the feasibility of measuring the recurrence of melanoma in the NSW Central Cancer Registry (NSWCCR).

Recurrence is an important outcome indicator in the treatment of melanoma. Currently there is no state wide collection of information on the recurrence of melanoma. Data on recurrence could provide melanoma clinicians with an understanding of the performance of melanoma care in NSW and the epidemiology of recurrence. It could also provide a basis for national and international benchmarking.

The project involves the following tasks:

- NSW Central Cancer Registry notification processing analysed to identify points at which recurrent melanoma might be identified.
- Protocol developed based on the analysis Ethics Committee approval sought.
- Review of pathology reports and other relevant documents as identified in the protocol.
- Identification of indicators of recurrence in these reports.
- Application of systematic method for reviewing recurrence to the most recent 12 months of complete data.

- Assessment of completeness of the recurrence data.
 - Validation of the recurrence data collected in the Central Registry against 100 known recurrences in the Sydney Melanoma Unit database.
 - Modification of the systematic method to account for missing data or missing notification of recurrences.
 - Report on proposed method for monitoring recurrences.
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4. Deliverables as detailed in project contract

- Protocol for evaluation of data on recurrence of melanoma.
 - Report on recurrence of melanoma in NSW over the past five years.
 - Report on proposed method for ongoing monitoring of recurrences of melanoma.
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5. Description of activities undertaken

Phase I: Cross-validation

A cross-validation study was conducted in order to determine if known recurrences from the SMU were being reliably notified to the NSWCCR. In summary, the cross-validation study revealed that the NSWCCR database (CHARON) alone is not sufficient to report on all recurrences. However, information in the database, specifically pathology episodes (type = P), does reliably point to electronically archived pathology reports that contain the necessary indicators for a definitive diagnosis of recurrence in 97 per cent of histopathologically diagnosed recurrences. Therefore it is possible to measure histopathologically diagnosed recurrence of melanoma by employing a combined approach of extracting pathology episode data from CHARON, and manually reviewing archived pathology reports in Workdesk.

Phase 2: Measurement Protocol

Based on the cross validation study and a more detailed understanding of the Charon database, we developed a protocol to identify potential histopathologically diagnosed recurrences. The measurement protocol involves three major steps; (1) select a cohort of melanoma patients of interest, (2) apply the measurement algorithm, or date test, to extract only possible recurrence pathology episodes from CHARON, and (3) manually retrieve and confirm the pathology reports listed as possible recurrences from the electronic archive (Workdesk).

Phase 3: Pilot Measurement

A pilot measurement was conducted on a cohort of all patients notified to the NSWCCR with a diagnosis of primary invasive melanoma in 2001 (n=3364).

Application of the protocol resulted in the identification of 629 patients (19%) with possible recurrence pathology that would need to be reviewed manually by a researcher. This equates to exactly 1071 pathology reports that would need to be sighted to confirm and classify actual recurrences. Thus, our protocol reduced the number of patients for which pathology reports need to be manually reviewed from 100% of patients down to 19% of patients.

This is possible by employing the three step measurement protocol developed. We estimate it would take a researcher approximately six–eight weeks to conduct a review of possible recurrences for a one year cohort of patients once the data extract and measurement algorithm have been run at the NSWCCR. The result would be a recurrence measurement for a one year retrospective cohort of primary invasive melanoma patients.

3. What do you believe will be the ongoing benefits of this project?

There are two specific changes to the NSWCCR database that could reduce the workload required for future measurements of recurrence in the registry.

1. Code pathology slide reviews as a unique episode type (i.e. type = V).
2. Provide filenames for notifications in Workdesk that include the date of the episode instead of the date the notification was scanned.

6. Project outcome(s)

a. Did the project complete all the deliverables listed in the contract?

Yes No

b. Please describe any other outcomes (if any) that the project has contributed to achieving

Based on the findings of the cross-validation and the reliability of the piloted measurement protocol, it is feasible to conduct a measurement of histopathologically confirmed melanoma recurrences in the NSW Central Cancer Registry.