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ANATOMICAL PATHOLOGY

'Why don't they ever call?' Expectations of clinicians and pathologists regarding the communication of critical diagnoses in dermatopathology

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Summary

Certain diagnoses in dermatopathology have significant implications for patient management and on occasion appropriate clinical care may be facilitated by a phone call from the reporting dermatopathologist to the referring doctor. Whether this is appropriate depends on a number of factors. The concept of 'critical diagnoses' is now well established in surgical pathology, having evolved from critical value policies in clinical pathology and haematology. However, only limited attempts have been made to assess perceptions among different clinical groups. We designed a survey to assess the attitudes of pathologists, dermatologists, surgeons and general practitioners as to what circumstances warrant telephone contact in addition to a standard written report, as well as their approaches to routine histology follow-up. The survey was distributed Australia-wide via a combination of specialist colleges, medical forums and collegiate contacts. A total of 262 responses were received, encompassing representations from all of the targeted specialties. Approximately 20% of respondents were aware of adverse outcomes or 'near misses' which they felt had been due in some part to inadequate communication of histopathology results. While most practitioners have formal systems in place to review histopathology reports, this practice is not universal. There were a number clinical situations where there was a discrepancy between the expectations of clinicians and those of pathologists, in particular with regard to a diagnosis of cutaneous melanoma as well as cutaneous lesions which might be associated with inherited cancer syndromes. It is our hope that the results of this study will facilitate discussion between pathologists and referring clinicians at a local level to minimise the potential for miscommunication.

Key words: Dermatopathology; critical diagnoses.

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INTRODUCTION

The adequate communication of histopathological findings is a critical component of clinical practice, the neglect of which can lead to a delayed or missed diagnosis and subsequent inappropriate therapy with potentially disastrous consequences.[1] In a large survey to assess physician satisfaction with pathology laboratories, the lowest satisfaction scores all related to poor communication, including the notification of significant abnormal results.[2] The practice of directly informing the clinical team of critical laboratory results was first championed over 40 years ago, when Lundberg described a 'critical value' as a 'pathophysiological state at such variance with normal as to be life threatening unless something is done promptly and for which some corrective action could be undertaken'.[3] The concept of urgent notification of medical staff when a critical value is detected has become well established in clinical pathology and hematology[4–8] and is increasingly being discussed in the radiology literature.[9–11] There is broad agreement that critical diagnoses also exist in anatomical pathology,[12] and the concept of an analogous system for anatomical pathology was first introduced in the 1990s.[3] Subsequent to further work in this area, the Association of Directors of Anatomic and Surgical Pathology published guidelines in 2006 based on the surveyed opinions of a large number of surgical pathologists.[13–17] These guidelines have remained relatively broad by necessity, as the importance of any given histological finding relies greatly upon the clinical situation, and it is implied that institutions will adapt them as appropriate to their own sphere of practice. The recommendation for institution-specific policies to be developed has been reiterated by other groups,[18] and there is evidence for improved communication of 'critical diagnoses' when such policies are adopted.[19] By 2009 approximately 75% of anatomical pathology laboratories had such a policy in place.[20]

One aspect which is critical to the success of this endeavour is that referring clinicians and pathologists agree on which findings should be communicated urgently. Pereira *et al.* recognised this, and in their small survey of five clinicians and 11 pathologists they noted marked disagreement regarding the requirement for a phone call in various situations,[13] although curiously a subsequent study focusing on cytology cases showed much more agreement.[15] More recently, a similar study by Renshaw *et al.* found considerable disagreement between six pathologists and 44 non-pathologist personnel (incorporating non-medical team members) regarding which diagnoses could be regarded as

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'critical'.[21] Anecdotally we have encountered situations where a mismatch in expectations between the two parties has led to a delay in diagnosis and treatment. To further improve communication between pathologists and clinicians we designed a survey to assess and compare perceptions between different specialist groups regarding what dermatopathological findings might warrant urgent communication. While our survey has focused on dermatological scenarios, we expect that the findings could be reasonably extrapolated to other areas of anatomical pathology. To our knowledge this is the largest survey to date to address this issue.

METHODS

After receiving institutional approval, a survey was created using the online data collection platform SurveyMonkey (www.SurveyMonkey.com) and responses were collected over a 5-month period from October 2016 to March 2017, focusing on Australian practitioners only. The survey was anonymous, collecting data regarding the Australian State of practice, number of years in practice and specialty, with no identifying information requested. Respondents were subsequently directed to either a 'pathologist' or 'clinician' stream of questions. Pathologists were asked how many skin biopsies they report on an average reporting day and how often they make phone calls to clinicians about results. Clinicians were asked how many skin biopsies they perform in the average week, how often they receive phone calls from pathologists regarding skin biopsy results and whether they have a formal system in place for ensuring all histopathology results have been checked. Those that answered 'Yes' to the latter question were then asked to specify the type of system. Additionally, clinicians were asked if they were aware of any adverse outcomes or 'near misses' in their own clinical practice that were to some extent caused by inadequate communication of histopathology results.

All respondents were asked their opinion on what actions should be taken if the reporting pathologist is unable to contact the responsible clinician. This was followed by a 16-part question detailing various clinical scenarios and asking respondents whether they would regard phone contact as appropriate. The specific scenarios proposed were created by the authors using categories of critical values previously described in anatomical pathology[12,17] combined with anecdotal experience from our own practice. The scenarios could be broadly grouped into four potentially overlapping categories: diagnoses with potentially urgent clinical consequences; unexpected findings; specimen discrepancy or laboratory error; cases of academic interest. The specific scenarios disseminated in the survey are detailed in Table 1. Some scenarios represented variations on a theme (e.g., melanoma diagnosed on a biopsy of a pigmented skin lesion), with the scenarios differing regarding whether the diagnosis was clinically suspected/communicated to the laboratory. The complete survey is available as supplementary data (Appendix A).

Initially the survey was tested by five medical practitioners who provided feedback regarding the design and language. The survey was subsequently disseminated primarily via an electronic hyperlink or two-dimensional barcode. We utilised multiple avenues to sample a broad range of practitioners. This included requests to specialist colleges to distribute the survey to their members (including the Royal College of Pathologists of Australasia, The Australasian College of Dermatologists, Royal Australasian College of Surgeons, and Royal Australian College of General Practitioners). Other organisations including Health Cert and the Adelaide Primary Health Network were also utilised. Colleagues with an interest in dermatology or dermatopathology were contacted personally and a mail out was directed to clinicians who utilise our laboratory service. A link to the survey was also posted on a social media forum for medical practitioners.

Data were exported from SurveyMonkey.com and analysed using Microsoft Excel (Microsoft, USA). A two-tailed Fisher's exact test was employed for statistical analysis.

RESULTS

We received a total of 262 responses to the survey, with a completion rate of 95%. There were 13 incomplete surveys, therefore the number of responses varied slightly for each question. Survey responses were received from all over Australia (Table 2), with the greatest number of respondents originating from Western Australia (56.1%) followed by Victoria (11.5%) and New South Wales (11.1%). The respondents encompassed a range of experience levels (Table 2), and were predominantly general practitioners (40.5%) or pathologists (27.9%). There was also a representation from dermatologists (12.6%) and surgeons (13.0%) (Table 2). Regarding skin biopsy experience (both performing and reporting, in terms of number of cases per day) there was also a range, although most respondents were at the lower end of the spectra (Table 3).

A total of 51.1% of clinicians stated that they never received phone calls from pathologists, with only 1.1% receiving phone calls most weeks and 0.6% receiving phone calls most days (Table 4). Approximately 64% of general practitioners claimed that they never received phone calls, compared with 26% of surgeons and 21% of dermatologists. This contrasts with the pathologists, where only 11% stated that they never make calls to clinicians, with 24.4% calling clinicians on most weeks (Table 4).

One-quarter (25%) of clinician respondents did not have a formal system for ensuring their histopathology results are checked (Table 5). The systems utilised by those that did are listed in Table 6. We wondered whether the respondents without a formal system might be largely accounted for by younger practitioners, perhaps as a reflection of public hospital practice. However, further analysis for this question revealed no relationship to the number of years practising, although it did reveal that clinicians who perform more skin biopsies are more likely to have a formal system in place (data not shown).

Fifty-two respondents (20%) were aware of adverse outcomes or 'near misses' from their own practice which were to some extent caused by inadequate communication of histopathology results. Of these respondents, 60% believed that those situations could have been prevented or mitigated with a phone call from the pathologist. Several common themes emerged from these descriptions, including unexpected or rare malignancies, reports described as 'not definitive', delayed reports, incomplete excision margins or laboratory errors. Other factors which contributed to these incidents, but which were not specifically related to the pathology report, included frequently rotating staff (especially in the setting of public hospital outpatient clinics), patients visiting other doctors within the same clinic and patients failing to attend follow-up appointments.

There was unanimous agreement among the survey respondents that further action should be taken by a pathologist in the setting where a phone call has been attempted but the treating clinician cannot be reached. When designing the survey, we provided suggestions for alternative means of contact, and additional suggestions were added by respondents, including the use of SMS, email or fax, contacting another doctor or member of the treating team or requesting a call back (Table 7).

The primary objective of this survey was to determine the level of concordance between clinicians and pathologists regarding scenarios which might warrant a phone call. The results are summarised in Table 1. Two of the themes (melanoma and vasculitis) were presented as several scenarios which differed regarding information about the clinical suspicion. This was intended to assess to what extent the

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