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Audit of acute referrals to the Department of Dermatology at Waikato Hospital: comparison with national access criteria for first specialist appointment

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Abstract

Aim This audit was designed to compare current referral practice with the Ministry of Health elective services National Access Criteria for first Specialist Assessment (ACA) guidelines, to identify specific problems, and (if possible) to improve the use of acute dermatology services.

Method Information regarding referral source, information provided, urgency and diagnostic accuracy, time interval between referral and consultation date, and follow-up arrangements was collected via data sheet on each referral received. We confined the audit to acute referrals—ie, 'immediate and urgent cases' from general practitioners (GPs) that had been discussed with the dermatologist by phone, and internal referrals when an urgent consultation had been requested.

Results More acute referrals came from other hospital departments (74%) than from general practitioners (26%). Acute referrers, especially hospital teams, tended to overestimate the urgency with which a dermatological condition needed to be seen. Information about inpatients was often considered inadequate for triage. GP referrals contained more useful information. GP referral diagnostic accuracy is in keeping with other studies (approximately 50%) but the diagnostic accuracy of hospital doctors is well below this level. All acute referrals were seen within the recommended timeframe. Follow-up patterns were similar (whether referrals came from general practitioners or hospital teams) but for both groups there was a relatively high failure to attend rate.

Conclusions Inappropriate referrals are time-consuming and reduce our capacity for seeing community patients on the waiting list. To improve referral triage, we recommend that a referral letter that clearly specifies the information that should be provided. The majority of acute referrals did not comply with the ACA guidelines. We recommend applying the ACA guidelines to internal acute dermatology referrals (as well as those from GPs) to reduce unnecessary inpatient reviews, and to provide a better urgent service for those persons who truly require it.

Like other specialist services, the Department of Dermatology at Waikato Hospital receives a large number of acute referrals each week from inpatient teams and primary care. However, our impression is that many of these acute referrals to our service are inappropriate. Indeed, many do not comply with the Ministry of Health elective services' National Access Criteria for first Specialist Assessment (ACA) guidelines (at http://www.nzgg.org.nz or Surgical Unit policy, which requires that the referral is made by a consultant when it impacts on the acute admission. Furthermore, other referrals provide insufficient information, or are illegible.

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The National ACA guidelines identify criteria and conditions that help determine how urgently a patient should ideally be seen by a hospital specialist service. Whilst they are primarily developed for referrals from primary care, the same criteria can be used for inpatient referrals. The guidelines state that Category 1 (urgent) cases should be seen within 1 week (eg, erythroderma, eczema herpeticum, pemphigus, toxic epidermal necrolysis), Category 2 (semi-urgent) within 4 weeks (eg, melanoma, acute contact dermatitis, toxic erythema, impetiginised eczema), and Category 3 (routine) within 16 weeks (eg, basal cell carcinoma, acne, eczema, congenital naevus). Category 4 cases include venous ulceration, sexually transmitted diseases, minor cosmetic conditions, and bee-sting allergy and are not seen. Our departmental policy is to comply with these waiting times, although routine cases are currently waiting for more than 16 weeks and up to 26 weeks. The guidelines state—'immediate and urgent cases must be discussed with the specialist or registrar in order to get appropriate prioritisation, and then a referral letter sent with the patient, faxed or emailed *(there may be local variations to this)*'.

Aim

This audit was designed to compare current referral practice with the Ministry of Health elective services' National Access Criteria for first Specialist Assessment (ACA) guidelines, to identify specific problems, and (if possible) to devise solutions to these problems.

Method

When an acute referral was received, a handwritten standard tick-box data sheet was completed by reception staff and/or the registrar (see Appendix 1 at the end of this paper). Additional information was added after the patient was seen in the department. Over a 5-month period (October 2002 to April 2003), the following information was collected on the referrals:

- Time of day and date referral received.
- Date first seen by dermatologist.
- Referral source (general practitioner [GP], inpatient service).
- Referral method (fax, mail, telephone).
- Referral urgency as marked by referrer.
- Referral urgency as judged by dermatologist on basis of referral.
- Referral urgency as judged by consultant if and when patient was seen.
- Referral diagnosis.
- Dermatologist's diagnosis.
- Follow-up arrangements.
- Comments (including adequacy of referral information and reporting previous referrals).

To reduce bias, the referring services were not advised in advance that this audit was being carried out.

Results

There were 200 acute referrals during the 23-week period—17 October 2002 to 1 April 2003. Using data collected in the full months of November, December, January, February, and March, this was an average of 44 referrals per month (range 26-54) and 9.8 referrals each week. Most referrals were received on Mondays, Tuesdays, and Fridays (Figure 1). Forty-nine percent of acute referrals came before midday and 51% after midday. Ninety-eight (49%) referrals were initially made via telephone, 86 (43%) by fax, 8 (4%) by mail, and 8 (4%) in person. A written referral was eventually

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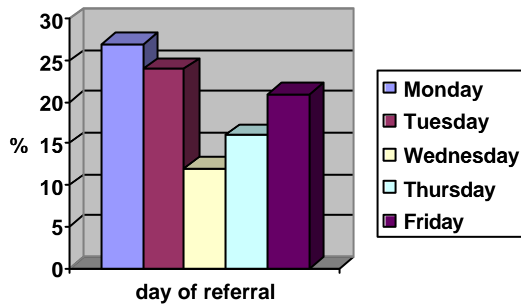
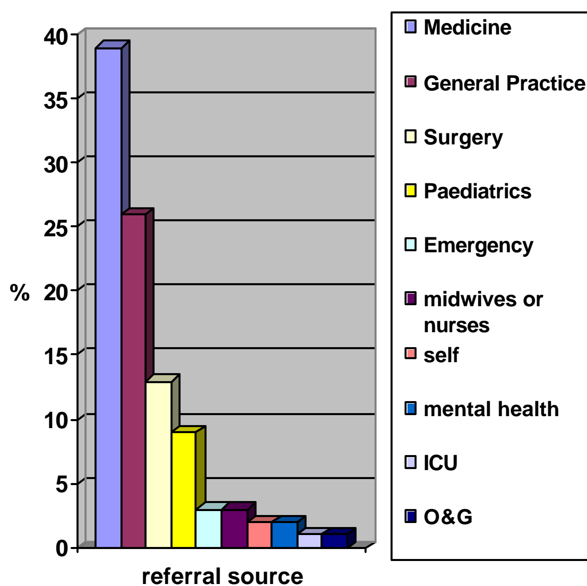
received for all patients. The registrar had an additional 15 telephone consultations that did not require the patient to be seen face-to-face. All except six (3%) referrals were seen by the registrar in the first instance.

Figure 1. Percentage of referrals by day of the week



Seventy-four percent of all acute referrals were made by other hospital teams, and 26% by GPs. Thirty-nine percent of all referrals came from the Department of Medicine (52% of hospital referrals). Figure 2 illustrates referral source according to speciality.

Figure 2: Referral source by speciality



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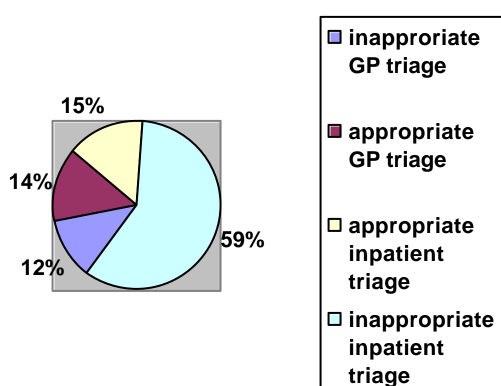
Referral prioritisation based on the referral diagnosis was retrospectively compared with ACA guidelines. If no referral diagnosis was given, categorisation was based on the information given. If there was insufficient information, the referral was categorised as not complying with the guidelines. Overall, 29% of referrals were prioritised in accordance with ACA guidelines and 71% were not (Figure 3). Fifty-five percent of GP referrals were prioritised appropriately by the referrer compared with 20% of inpatient referrals. Sixty-six percent of all acute referrals were marked by the referrer as ‘urgent’. However, only 20% of the referrals were correctly categorised as urgent, as 40% should have been marked semi-urgent, and 38% routine. Two percent would not have been seen as they were category 4 referrals.

Figure 3. Overall triage appropriateness



Referral adequacy was assessed according to whether triage was possible for the dermatologist receiving the referral. In most (but not all) circumstances, this required the patient’s age, sex, a brief description of their skin complaint, its duration, previous treatment—and other illness, medications, occupational, or social circumstances. Ninety-seven percent of GP referrals and 61% of inpatient referrals supplied adequate information. Thirty percent of all referrals contained insufficient information for adequate triage. Overall, 32% of referral diagnoses were the same as the diagnosis made by the dermatologist who saw the patient. Forty-five percent of GP and 28% of inpatient referral diagnoses were considered correct.

Ninety-two percent of all acute referrals were seen within 1 week, and all acute referrals were seen within the timeframe recommended by the ACA guidelines (Figure 4). All (100%) of ACA Category 1, 93% of Category 2, 89% of Category 3, and 33% of Category 4 patients were seen within 1 week. Of all the acute referrals, 11 patients were not seen (5.5%). These were all inpatient referrals. Four referrals were cancelled on the same day as they were referred ‘because the rash had gone’, six referrals were returned to the referrer with the recommendation that they bring the problem to the attention of the GP on discharge, and one patient died of an unrelated complaint before being seen.

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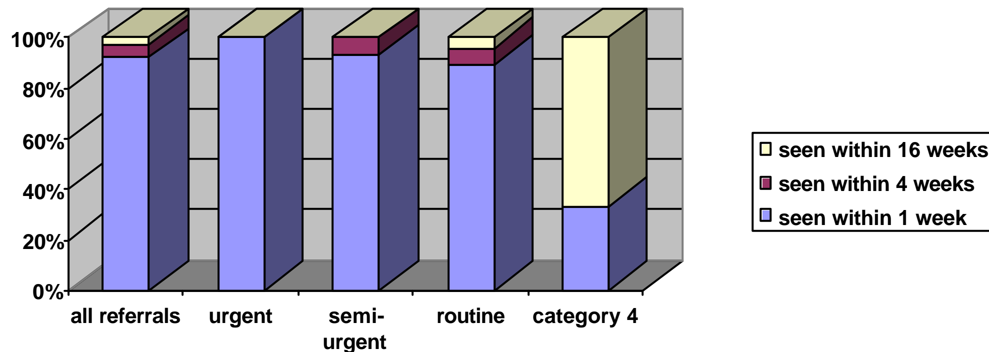
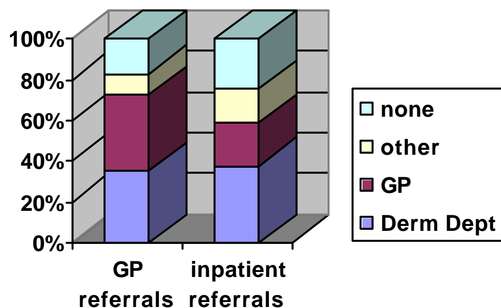
Figure 4: Time to review according to urgency



Follow-up appointments were arranged for 127 (73%) of patients seen acutely. Sixty-one patients (35%) were booked for review in Dermatology Outpatients, 50 (29%) were advised to see their GP, and 16 (9%) were referred to another speciality such as Plastic Surgery. Two patients (1%) were admitted to hospital. The percentage of patients who received follow-up appointments was similar, regardless of referral source (Figure 5). Of the 61 patients that received follow-up appointments at dermatology outpatients, 24 (34%) did not attend. During the same period, only 22 of the 774 non-acute patients booked to see the registrar (3%) failed to attend. The hospital-wide rate for non-attendance is 14%.

Figure 5. Follow-up arrangements



Discussion

There are few skin diseases that must be seen immediately by a specialist dermatologist. In fact, most patients with an acute dermatological condition are systemically well and present to a primary care physician in the first instance. Generally, GPs prefer to manage dermatological conditions themselves, referring (to specialists) only when in difficulty.[1] Indeed, although they can be very distressing, very few dermatological conditions are acutely life-threatening. In fact, a large proportion of the general public has a skin condition of some type (approximately 25% worthy of medical attention in most studies, and up to 50% of people have skin

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disease on examination).[2] It is widely known by doctors and the general public that a rash can indicate serious underlying systemic illness. Therefore, the appearance of an undiagnosed rash or skin lesion can be very alarming.

In our department, the acute referrals were nearly all seen by the registrar and (including follow-up visits) accounted for 25% of her total number of consultations each month. The workload included telephone discussions preceding about half of the referrals. Approximately 10% of acute referrals were seen on the ward. Referrals were usually directed at the registrar due to greater availability—but the majority were also seen by a consultant and the remainder were discussed with a consultant. If the referrer preferred to discuss the issue with a consultant, they were redirected to an available consultant.

Up to eight acute referrals are booked into a specific half-day acute clinic each Friday afternoon. Others are double-booked onto existing clinics, or seen at lunchtime. Clerical, nursing, and medical staff must find the medical records, vet the referral forms, take phone calls, and see the patients. These are often complex cases that require lengthy consultation with one or more medical staff and time-consuming procedures such as skin biopsies. Our aim is to reduce the number of inappropriate acute referrals so we can give urgent specialist care to those that truly require it.

Almost three-quarters of referrals in this audit did not comply with ACA guidelines—almost without exception, the referrer had overestimated the urgency. Many referrals are non-specific (for example 'rash'), so are seen urgently in case the patient has a serious condition. GPs appeared to refer appropriately and their assessments were consistent with the guidelines more than 50% of the time, compared with only 20% for hospital doctors. All acute referrals were seen within the recommended limits. GPs were generally satisfied with the 1-week timeframe for urgent conditions, whereas inpatient teams often indicated that they felt the patient should be seen the same day. This was frequently agreed to, as it was just as convenient to double-book them immediately as to do so 4 weeks later. (Waikato Hospital does not get any funding for non-urgent conditions seen while patients are in hospital.)

Why are we getting so many inappropriate referrals from hospital doctors?—inpatient teams most often referred a non-urgent skin condition urgently because they wanted to discharge the patient that day, or because the patient was from a remote area, or simply because the patient had brought the skin condition to their attention. Some inpatients had received perfectly suitable management of their skin condition under the care of their GP. On several occasions, the referrer appears to have failed to read the case notes (as the patient had already been seen and treated by the Dermatology Department for the same condition).

Commonly, patients were unaware that a referral had been made—or the reason for it. We considered many would have been suitable for GP management, including those with longstanding inflammatory skin diseases such as mild acne, seborrhoeic dermatitis, venous eczema, solar keratoses, and small non-melanoma skin cancers. This is consistent with the objectives of the New Zealand Government's strategy titled *Reduced Waiting Times for Public Hospital Elective Services* (released March 2000). The 'one-stop-shop' approach (where as many problems as possible are dealt with while patients are in hospital) may be an admirable ideal—but it is not always

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practical. To reduce inappropriate referrals, we recommend the ACA guidelines should be used for inpatient referrals as well as those from general practice.

In community practice, the more common reasons for urgent referral of a non-urgent skin condition appeared to relate to potential loss of employment for the patient, pressure from the patient to refer to a specialist service, or failure of a trial of treatment. However, these referrals were appropriate to be seen by the Dermatology Department on a routine basis—that is, they had been managed as far as possible by the GP before referral.

It is impossible to categorise referrals if referral information is inadequate. This audit has confirmed the tendency to offer these patients an urgent appointment in case they have a very serious condition. However this process is inequitable, and means that those patients with well-described (but clearly elective) complaints must wait months to be seen. Frequently, we are not informed of the patient's past medical history, current illness, and medications although these frequently impact on diagnosis and management of their skin complaint. Almost all acute referrals from GPs were made via telephone, which, although time-consuming, allowed the registrar to directly ask for relevant information.

In this audit, referral information from GPs and inpatients was superior to those in a study of outpatient referrals to an Irish general medical service (where information and pre-referral management was inadequate in more that 50% of referrals)[3]—but inpatient referrals, in particular, were still less than ideal. The Ministry of Health's *Reference Manual for Managing Elective Services; Summary for Outpatient Clinics*. (Draft; February 2003) lists minimal information to be included in standard referral forms. Waikato Hospital's referral form complies with these recommendations and is clearly laid out. Should these forms also be used for inpatient referrals?

Inappropriate categorisation may arise from incorrect diagnosis made by the referrer. However, an experienced dermatologist may infer diagnosis from a carefully composed referral letter even when the referrer has been incorrect. Previous studies have shown that approximately 50% of referrals to a dermatology service have the correct diagnosis.[4,5] GP diagnostic accuracy in this study was close to this figure, but only 28% of inpatient referrals had the correct diagnosis. As we may not be able to teach non-dermatologists how to diagnose skin diseases, we should encourage referring practitioners to provide us with comprehensive and careful historical data. A slowly increasing number of referrals are accompanied by printed clinical images, and these are proving very helpful for categorisation.

After first assessment, follow-up appointments were arranged for three-quarters of the patients with our department, another department, or their family doctor. Follow-up with our department was arranged to ensure efficacy or safety of recommended treatment. The high follow-up non-attendance rate of the acute patients may suggest that the patients did not view the skin condition as particularly problematic or that their skin condition may have significantly improved.

The main problems identified by this audit are as follows:

- Inappropriate selection of a significant number of inpatients by hospital medical staff for referral.
- Inappropriate triage of acute referrals, particularly by other hospital departments.

- Inadequate acute referral information from other hospital departments.
- Overbooked registrar clinics due to acute patients and their follow-up needs.
- High non-attendance rate for acute patient follow-up.

In general, GP referral practices were superior to those of hospital teams and frequently complied with ACA guidelines and Government elective services recommendations.

What can be done to improve the situation? Options:

- Educate other doctors about skin diseases.
- Reduce the number of non-urgent patients seen acutely by refusing inpatient referrals except when these clearly impact on current hospital admission (consultant referrals only).
- Reduce follow-ups.
- Increase the number of junior and/or senior medical staff.

To reduce the workload, we need to increase the number of junior and/or senior medical staff or see fewer patients. Perhaps fewer and more appropriate cases might be referred if we provided an intensive educational campaign. Medical practitioners have very little training in diseases of the skin and understandably find diagnosis mysterious and management confusing. With about 1500 diseases, it is not surprising that referral diagnoses are inaccurate. Evidence also suggests that training might instead increase the number of referrals.[6]

To refuse to see inpatients with minor skin complaints would be unpopular with hospital staff and will cause friction with our colleagues. Instead, if we reduce the number of appointments allocated to patients referred by GPs, we will aggravate the delay to see patients who have important and disabling skin complaints and we will be unable to comply with Government's strategy to provide first specialist assessment within 6 months. (The elective services' website states 'The Government's strategy [in a document] titled *Reduced waiting times for public hospital elective services* set out the following objectives: a maximum waiting time of six months for first specialist assessment [this is the fourth objective]'.)

It seems unlikely that we will be able to reduce the number of follow-up visits—as a departmental review conducted in April 2003 has indicated these are necessary for diagnosis, procedures, serious skin disease management, monitoring second-line drugs, and for teaching. Dermatology is not considered a priority for increased health spending, and repeated requests have not resulted in additional medical staff.

We plan to place the following notice on the Waikato District Health Board intranet, and send it to all medical staff:

> 'The Department of Dermatology has very limited capacity to see acute inpatient referrals. We are delighted to do so when the skin condition is affecting the management of the acute condition for which the patient is in hospital or if the need of a specialist dermatology assessment is genuinely urgent. In the latter case, please refer to the National Access Criteria for First Specialist Assessment (attached). We expect a consultant to request or approve of all such referrals. Please complete a yellow referral form and include the following information:

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- Site, severity, and duration of condition.
- How it affects inpatient management.
- Previous treatments by GP or specialist(s).
- Other medical conditions and medications.
- Relevant social history.
- How urgent is the request.

Inadequate referrals will be returned to the consultant of the referring team for completion'.

These recommendations aim to improve the adequacy of referrals from inpatient teams and hence reduce unnecessary load on clinics, thus allowing us to provide a better service to patients referred from the community. We plan to repeat the audit (after 12 months) to determine if these actions have had an effect.

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Appendix 1. Acute referrals to Waikato Hospital's Dermatology Department

Time of day of referral		**Day of week of referral**				
am	pm	Mon	Tues	Wed	Thurs	Fri

Month of referral

Jan	Feb	Mar	Apr	May	Jun
Jul	Aug	Sep	Oct	Nov	Dec

Date seen

Referral Source	**Referral Medium**
GP	fax
Inpatient (please specify consultant)	telephone
Other (eg. midwife, nursing staff)	mail

Referral urgency as marked by referrer

Today Urgent Semi-urgent Routine

Referral urgency as judged by dermatologist on basis of referral

Today Urgent Semi-urgent Routine

Referral urgency as judged by consultant once patient reviewed

Today Urgent Semi-urgent Routine

Referral diagnosis	**Dermatologist diagnosis**

Management of condition

Topical applications	Oral antimicrobials	Hospital admission
Oral immunosuppressives	Advice only	Other (please specify)

Follow-Up Arrangements

GP Derm OPC Other

Comments (incl. adequacy of referral information and any previous referrals).

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