# Analysis of complaints lodged by patients attending Victorian hospitals, 1997–2001

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## ABSTRACT

**Objective:** To describe complaints by patients and compare rates of complaint in demographic subgroups of patients and hospital departments.

**Design and setting:** Retrospective analysis of complaints made by patients attending 67 hospitals (metropolitan, 25; rural, 42) in Victoria, and lodged with the Victorian Health Complaint Information Program (January 1997 – December 2001).

**Main outcome measures:** Demographic characteristics of patients lodging complaints and the hospital department involved; nature and outcome of complaints.

**Results:** From a total of over 13 million patients presenting to hospital during the study period, 19 156 patients or their representatives (mostly their parents, children or spouses) lodged 26 785 "issues" of complaint (overall complaint rate, 1.42 complaints/1000 patients). Significantly more complaints ($P < 0.001$) were lodged by (or on behalf of) female patients (complaint rate ratio, 1.3; 95% CI, 1.2–1.3), public patients (rate ratio, 2.1; 95% CI, 2.0–2.2) and Australian-born patients (rate ratio, 8.9; 95% CI, 8.3–9.6). The complaint rate for general wards was 6.2/1000 patients (95% CI, 6.1–6.3). Intensive care units had a similar rate of 5.9/1000 (95% CI, 5.4–6.5), but aged-care departments had a significantly higher rate of 45.2/1000 (95% CI, 39.5–51.7), while emergency departments (1.9/1000; 95% CI, 1.8–2.0), operating theatres (1.0/1000; 95% CI, 1.0–1.1), day-procedure units (0.5/1000; 95% CI, 0.5–0.6) and outpatient departments (0.4/1000; 95% CI, 0.4–0.4) had significantly lower rates. Complaints relating to communication (poor attention, discourtesy, rudeness), access to healthcare (no/inadequate service, treatment delays) and treatment (inadequate treatment and nursing care) accounted for 29.2%, 28.5% and 22.5% of complaints, respectively. Most (84.5%) complaints were resolved. Apologies or explanations resolved 27.8% and 27.5% of complaints, respectively.

**Conclusion:** Interventions to decrease the number of complaints in the areas of communication and access to healthcare need to be implemented. The active use of complaint data for quality-improvement activities is recommended.


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Patient satisfaction — the subjective experiences of patients using the healthcare system — correlates with improved medical compliance,[1] decreased utilisation of medical services,[1] less malpractice litigation,[1,2] and greater willingness to return to the healthcare provider.[1-3] Accordingly, quantitative measurement of patient complaints is a comparative measure of service quality,[4-6] and several authorities believe that quality-assurance measures should include patient satisfaction and an analysis of patient complaints.[3,6-8]

Complaints may arise from poor quality of service[4,6] or unmet patient expectations.[4,9] Some complaints appear minor, but many relate to more serious events and lead to remedial action or compensation. Analysis of the nature of complaints is important to identify problems and assist in their elimination.[1,2,10]

For quality-assurance purposes, individual hospitals may analyse and act on the complaints they receive. However, on any larger scale, the nature, frequency and outcomes of complaints have been poorly examined in Australia.

We have analysed data on patient complaints relating to a large sample of hospitals in the state of Victoria between 1997 and 2001, inclusive. We sought to identify subgroups of patients and hospital departments at higher risk of involvement in complaints, and to provide an evidence base for intervention strategies that aim to decrease patient complaint rates.

## METHODS

We retrospectively analysed patients' complaints about their care in 67 Victorian hospitals between 1 January 1997 and 31 December 2001 (5 years). Forty-two rural and 25 metropolitan hospitals (62 public and 5 private) contributed.

We defined a *complaint* as the unsolicited index communication from a patient (or representative) to a hospital (generally to a hospital liaison officer or hospital department head), containing one or more *issues of complaint* about the patient's management. For example, one complaint might relate to the separate issues of staff rudeness and delay in treatment. Each hospital receiving a complaint is responsible for resolving all related issues. The department about which the complaint is made usually assumes this responsibility, although referral to the hospital management or board, legal representation or a patient advocate may be required. Regardless of the outcome, complaint data from all participating hospitals are subsequently forwarded, on a quarterly basis, to the Health Complaint Information Program (HCIP) of the Victorian Health Services Commissioner for statewide quality-assurance purposes.

Complaints lodged at each participating hospital are categorised according to hospital department and the nature of the complaint using HCIP software. The major complaint categories are given in Box 1.

### Study data

All complaint data for our study were obtained from HCIP. We obtained numera-

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**1 Complaint categories**

- **Communication:** personal interaction, communication breakdown, information provision, consultation
- **Access:** adequacy of service, delays, discharge/transfer procedures, waiting lists
- **Treatment:** adequacy of care, diagnosis and treatment, outcomes, medication errors, competence and negligence
- **Rights:** property, discrimination, privacy, confidentiality, records, consent
- **Administration:** policy, standards, documentation, response to request
- **Environment:** amenities, comfort, parking, food
- **Cost:** billing, level of service, insurance, determination of public/private patient status

tor data for the generation of complaint rates for hospital departments and some major demographic characteristics of the patients making the complaints (sex, type of patient, country of birth) (Box 2). Denominator data were derived from databases recording the total number of patients presenting to hospital during the study period. The Agency Information Management System (AIMS) provided denominator data for calculating emergency department and outpatient department complaint rates. However, these databases only provided total patient numbers and data for the 3-year period 1999–2001. Hence, complaint rates for the demographic subgroups of patients did not include emergency department and outpatient department patients. The Victorian Admitted Episodes Dataset (VAED) provided data for the remaining hospital departments and demographic subgroups for the full study period. All data (HCIP, AIMS, VAED) were provided in summary format only, and access to individual patient information was not possible.

Some HCIP data were incomplete, as hospitals occasionally failed to lodge quarterly reports. Hence, the absolute number of complaints received is an underestimate. To estimate complaint rates for hospitals that failed to provide HCIP reports for certain quarters, the AIMS and VAED data for that hospital were omitted from the denominator for those quarters.

### Data analysis

Rate ratios with 95% confidence intervals were calculated using Poisson regression methods to compare departments and patient subgroups. Stata statistical software was used to perform all calculations.[11]

## RESULTS

### Complainants

During the study period, a total of over 13 million patients presented to the 67 hospitals, and 19 156 complaints, comprising 26 785 issues of complaint, were lodged (mean, 1.4 issues/complaint; overall complaint rate, 1.42 complaints/1000 patients). Patients lodged 8274 complaints personally (43.2%; 95% CI, 42.5%–43.9%). Parents, children and spouses lodged 3683 (19.2%; 95% CI, 18.7%–19.8%), 2594 (13.5%; 95% CI, 13.1%–14.0%) and 1450 (7.6%; 95% CI, 7.2%–8.0%) complaints on behalf of a patient, respectively. Members of Parliament and the Minister for Health lodged 287 (1.5%; 95% CI, 1.3%–1.7%) and 59 (0.3%; 95% CI, 0.2%–0.4%) complaints, respectively. The remaining 2809 complaints (14.7%; 95% CI, 14.2%–15.2%) were lodged by a variety of people, including friends and other family members, hospital staff, the Health Services Commissioner, the Department of Veterans' Affairs and legal representatives.

### Demographic characteristics of patients

Overall, female patients generated 10 856 complaints (56.7%; 95% CI, 56.0%–57.4%), public patients 18 447 (96.3%; 95% CI, 96.0%–96.6%) and Australian-born patients 18 110 (94.5%; 95% CI, 94.2%–94.9%). Complaint rates according to the patients' demographic subgroup (for all departments except emergency and outpatients) are given in Box 2. Females (rate ratio, 1.3; 95% CI, 1.2–1.3), public patients (rate ratio, 2.1; 95% CI, 2.0–2.2) and Australian-born patients (rate ratio, 8.9; 95% CI, 8.3–9.6) had significantly higher complaint rates than comparison subgroups ($P < 0.001$).

### Hospital departments involved

The overall complaint rate for all hospital departments (excluding admissions, hospital grounds and "other departments", for which denominator data were not available) was 1.42 complaints/1000 patients (95% CI, 1.40–1.44). As the number of complaints per department type reflects the number of patients managed, departmental complaint rates (Box 3) are more useful for comparison. Compared with general wards, aged-care departments had a significantly higher complaint rate ($P < 0.001$). The intensive care unit (ICU) rate was similar to the general ward rate, and complaint rates for all other departments were significantly lower ($P < 0.001$).

**2 Complaint rates (for all departments except emergency and outpatients) according to patients' demographic subgroups ($n = 16\,383$)**

| | Number of complaints | Number of patients | Complaint rate/1000 patients (95% CI) | Rate ratio (95% CI) | *P* |
|---|---|---|---|---|---|
| **Sex** | | | | | |
| Male | 6 710 | 2 211 994 | 3.0 (3.0–3.1) | 1.0 | — |
| Female | 9 331 | 2 456 303 | 3.8 (3.7–3.9) | 1.3 (1.2–1.3) | < 0.001 |
| Unknown | 342 | 111 | — | — | — |
| **Type of patient** | | | | | |
| Public | 15 390 | 4 113 573 | 3.7 (3.7–3.8) | 1.0 | — |
| Private | 701 | 331 380 | 2.1 (2.0–2.3) | 0.6 (0.5–0.6) | < 0.001 |
| Department of Veterans' Affairs | 171 | 146 478 | 1.2 (1.0–1.4) | 0.3 (0.3–0.4) | < 0.001 |
| Traffic Accident Commission | 54 | 19 925 | 2.7 (2.1–3.5) | 0.7 (0.6–1.0) | 0.018 |
| Workcover | 15 | 11 814 | 1.3 (0.8–2.1) | 0.3 (0.2–0.6) | < 0.001 |
| Other* | 52 | 45 238 | 1.2 (0.9–1.5) | 0.3 (0.2–0.4) | < 0.001 |
| **Country of birth** | | | | | |
| Other | 824 | 1 498 824 | 0.5 (0.5–0.6) | 1.0 | — |
| Australia | 15 559 | 3 169 584 | 4.9 (4.8–5.0) | 8.9 (8.3–9.6) | < 0.001 |

**Numerator data:** Health Complaint Information Program (HCIP) data, excluding emergency and outpatient department complaints. **Denominator data:** Victorian Admitted Episodes Dataset (VAED) demographic data for all departments except emergency and outpatients. * Unknown, ineligible, other eligible.

**3 Number of complaints and complaint rates, by hospital department**

| | Number of complaints | Number of patients | Complaint rate/1000 patients (95% CI) | Rate ratio* (95% CI) | *P* |
|---|---|---|---|---|---|
| General wards† | 10 168 | 1 642 405 | 6.2 (6.1–6.3) | 1.0 | — |
| Aged care† | 210 | 4 648 | 45.2 (39.5–51.7) | 7.3 (6.4–8.4) | < 0.001 |
| Intensive care† | 451 | 76 727 | 5.9 (5.4–6.5) | 1.0 (0.9–1.0) | 0.29 |
| Emergency ‡ | 3 531 | 1 865 137 | 1.9 (1.8–2.0) | 0.3 (0.3-0.3) | < 0.001 |
| Operating theatres† | 1 014 | 995 524 | 1.0 (1.0–1.1) | 0.2 (0.2–0.2) | < 0.001 |
| Day procedures† | 918 | 1 743 151 | 0.5 (0.5–0.6) | 0.1 (0.1–0.1) | < 0.001 |
| Outpatients‡ | 2 550 | 6 970 405 | 0.4 (0.4–0.4) | 0.1 (0.1–0.1) | < 0.001 |

* Relative to general ward rate. † Victorian Admitted Episodes Dataset (VAED) (5 years, 1997–2001).
‡ Agency Information Management System (AIMS) database (3 years, 1999–2001).

### Nature of the complaint

Box 4 summarises the nature of the "issues" of complaint according to hospital department. The issues varied between departments and generally reflected the function of the department. Overall, however, issues relating to "communication", "access" and "treatment" accounted for most complaints. Within the "communication" category, poor attention, discourtesy and rudeness accounted for 2439 (31.2%) issues. Also, communication breakdown and inadequate information accounted for 1826 (23.4%) and 1237 (15.8%) issues, respectively. Within "access", no service or inadequate service and delay in treatment accounted for 1618 (21.2%) and 1613 (21.2%) issues, respectively. Also, absence of caring and inadequate discharge arrangements accounted for 900 (11.8%) and 868 (11.4%) issues, respectively. Importantly, a close examination of emergency department data revealed that delay-in-treatment issues were common and accounted for 633 (36.2%) "access" issues in emergency departments. Within the "treatment" category, inadequate treatment and inadequate nursing care accounted for 1471 (24.5%) and 1192 (19.8%) issues, respectively. Indeed, inadequate nursing care was the largest category of issues among general ward patients. Other issues relating to "treatment" varied widely, including inadequate or wrong diagnosis, unexpected outcomes, medication errors, and rough, negligent or incompetent treatment. Overall, issues relating to "rights", "administration", "atmosphere" and "environment", and "cost" varied considerably.

### Outcomes of complaints

Most issues (22 642/26 785; 84.5%) were resolved easily (Box 5). Importantly, more than half were resolved with an apology or explanation. Very few resulted in specific changes to hospital policy or procedure. Overall, compensation was paid to only 114 patients (0.4%) at 23 public hospitals. Compensation relating to "rights" was paid to 76 of these patients (66.7%), and in most cases resulted from property loss in general wards. Compensation for "treatment" issues was paid to only 13 patients (11.4%). These issues represented a range of treatment problems, including unexpected outcome and inadequate diagnosis and treatment. Only six patients (0.08%) were compensated for "communication" issues.

## DISCUSSION

As there have been few studies of patient complaints at the state (or equivalent) level, many health professionals do not have comparison data on complaint rates.[2] Our finding that female patients generate more complaints than male patients has been reported previously,[4,12] but the reason is not known. Likewise, the higher complaint rate in public patients has not been explained. The lower complaint rate of non-Australian-born patients may relate to language difficulties confounding ethnic and cultural factors, and lack of familiarity with the healthcare system. However, contrary to our findings, Carrasquillo et al[13] reported that non-English-speaking patients made more complaints.

Our overall complaint rate (1.42 complaints/1000 patients) is similar to that reported from one major Australian hospital (1.12 complaints/1000),[7] but a higher rate was reported in a US hospital (5 complaints/1000).[14] A previous report also found considerable variation in department complaint rates,[10] but comparing department rates is difficult, as the nature of service provision varies considerably. For example, the clear difference in rates between the inpatient (aged care, general wards, intensive care) and outpatient/specialist departments may relate to "time at risk" or length of exposure to the hospital system.

Overall, the nature of the complaints is consistent with that reported by others,[2,7,10,12,15] although billing and payment difficulties are more common in the United States.[2,10] Complaints relating to communi-

**4 Number of issues of complaint in each complaint category, by hospital department**

| Complaint category | Admissions | Aged care | Day procedure unit | ED | Hospital grounds | ICU | Operating theatre | Out-patients | Ward | Other | Total | Percentage (95% CI) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Communication | 89 | 79 | 248 | 1 497 | 137 | 148 | 254 | 1 511 | 2 927 | 919 | 7 809 | 29.2% (28.6%–29.7%) |
| Access | 395 | 26 | 339 | 1 751 | 332 | 67 | 224 | 1 342 | 2 276 | 869 | 7 621 | 28.5% (27.9%–29.0%) |
| Treatment | 6 | 48 | 166 | 1 524 | 23 | 164 | 361 | 514 | 2 744 | 467 | 6 017 | 22.5% (22.0%–23.0%) |
| Rights | 20 | 29 | 59 | 337 | 55 | 59 | 77 | 227 | 881 | 402 | 2 146 | 8.0% (7.7%–8.4%) |
| Administration | 45 | 3 | 67 | 116 | 67 | 5 | 67 | 179 | 493 | 291 | 1 333 | 5.0% (4.7%–5.3%) |
| Environment | 25 | 18 | 10 | 34 | 159 | 5 | 1 | 25 | 583 | 83 | 943 | 3.5% (3.3%–3.8%) |
| Cost | 53 | 7 | 29 | 142 | 41 | 3 | 30 | 117 | 264 | 230 | 916 | 3.4% (3.2%–3.7%) |
| **Total** | **633** | **210** | **918** | **5 401** | **814** | **451** | **1 014** | **3 915** | **10 168** | **3 261** | **26 785** | **100%** |

ED = emergency department. ICU = intensive care unit.

cation were common, as also reported in other studies.[2,6,7,10,12] This indicates a fundamental failure of staff to interact appropriately with patients. Furthermore, explanation, information provision, and resolution of misunderstandings contributed to a successful outcome for many patients, suggesting that communication problems may underpin most complaints lodged. In one respect, this could be encouraging, as relatively simple intervention strategies may have a profound impact on staff–patient interaction.

Access issues varied considerably. The finding that emergency departments were particularly vulnerable to complaints about treatment and admission delays is likely to be related to the problem of access block in Victoria's emergency departments.[16]

It is encouraging that complaints relating to negligence, incompetence and wrong diagnosis were relatively uncommon. That emergency departments, intensive care units and operating theatres received the most complaints about treatment issues probably relates to the complexity of treatments provided in these departments. Although it is not known whether treatment issues did, indeed, reflect substandard treatment, relatively few treatment issues resulted in compensation payment.

Resolution of complaints was satisfactorily achieved in most cases, consistent with the findings of others.[7,14] Importantly, an apology was acceptable in over a quarter of cases. However, apologies do not necessarily acknowledge incompetence or negligent treatment and may be given for any confusion or misunderstanding created, or lack of satisfaction with the service provided.[6] Numerous authors have indicated that an apology given as soon as possible after a complaint may defuse the situation[2,3,6,17] and reduce the time and resources required for final resolution.[2,3]

Australian Standards and resources on best practice and complaint management are available.[18,19] Policy and protocol reviews are important in minimising adverse events.[20] We found that only a small proportion of the complaints resulted in changes in policy or procedure.

**5 Outcome of issues of complaint ($n = 26\,785$)**

| Outcome | Total | Percentage (95% CI) |
|---|---|---|
| *Resolved after discussion and/or explanation (n = 22 642)* | | |
| Apology | 7451 | 27.8% (27.3%–28.4%) |
| Explanation offered | 7375 | 27.5% (27.0%–28.1%) |
| Information provided | 1765 | 6.6% (6.3%–6.9%) |
| Patient's view acknowledged | 1538 | 5.7% (5.5%–6.0%) |
| Service or facility provided | 1400 | 5.2% (5.0%–5.5%) |
| Agreement reached | 745 | 2.8% (2.6%–3.0%) |
| Misunderstanding resolved | 654 | 2.4% (2.3%–2.6%) |
| Other† | 1714 | 6.4% (6.1%–6.7%) |
| *Lapsed (n = 1800)* | | |
| Unsubstantiated or unconfirmed | 1056 | 3.9% (3.7%–4.2%) |
| Allowed to lapse or withdrawn by patient | 744 | 2.8% (2.6%–3.0%) |
| *Remedial (n = 805)* | | |
| Remedial action taken | 635 | 2.4% (2.2%–2.6%) |
| Censure, reprimand, warning | 170 | 0.6% (0.5%–0.7%) |
| *Outcome pending, referred for further investigation* | 612 | 2.3% (2.1%–2.5%) |
| *Complaint not upheld* | 483 | 1.8% (1.7%–2.0%) |
| *Change in policy or procedure* | 443 | 1.7% (1.5%–1.8%) |

† Insufficient detail; no action possible or required; fee waived, reduced or refunded; compensation paid; frivolous complaint.

Our study has several limitations. Firstly, the data analysed only represent patient complaints actually passed on to the hospital liaison officers and may under-represent the true complaint rates. Secondly, the incomplete nature of the databases may have introduced selection bias. Thirdly, the effect of age of the patient could not be analysed, as the HCIP database did not specifically record patient age.[15] Fourthly, as the AIMS and VAED databases covered different time periods and utilised different software and data management procedures, there is a possibility of selection and measurement bias. Finally, despite HCIP classification guidelines, some complaint misclassification may have occurred.

We recommend the expanded use of complaint rates as quality assurance tools at the departmental and hospital level. High-quality data should be available for this purpose, and strategies to ensure that HCIP data are as complete and accurate as possible are indicated. Also, standardisation and streamlining of databases that record denominator data across all hospital departments will improve the accuracy of complaint rates. Finally, intervention strategies for high risk departments and patient subgroups are indicated to maximise patient satisfaction and minimise complaint rates.

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## COMPETING INTERESTS

None identified.

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