AUDITOR GENERAL
Western Australia

A Stitch In Time

Surgical Services in Western Australia

performance examination

Report No 8 – November 1999

AUDITOR GENERAL

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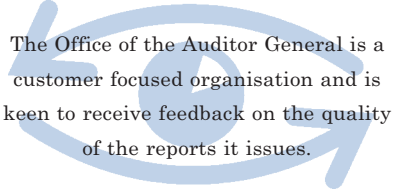

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A Stitch In Time

Surgical Services in Western Australia

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THE SPEAKER
LEGISLATIVE ASSEMBLY

THE PRESIDENT
LEGISLATIVE COUNCIL

PERFORMANCE EXAMINATION – A Stitch In Time – Surgical Services in Western Australia

This Report has been prepared consequent to an examination conducted under section 80 of the *Financial Administration and Audit Act 1985* for submission to Parliament under the provisions of section 95 of the Act.

Performance examinations are an integral part of my overall Performance Auditing Program and seek to provide Parliament with assessments of the effectiveness and efficiency of public sector programs and activities thereby identifying opportunities for improved performance.

The information provided through this approach will, I am sure, assist Parliament in better evaluating agency performance and enhance Parliamentary decision-making to the benefit of all Western Australians.

D D R PEARSON
AUDITOR GENERAL

November 24, 1999

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Background

Over 250 000 patients are admitted to hospitals in WA each year for treatment that includes a surgical procedure. The 55 per cent of these patients who use the public health service account for a large proportion of the $1 billion plus spending by government hospitals. Surgical services range from minor procedures performed at small country hospitals by local general practitioners (GPs) to advanced and complex operations only available at the teaching hospitals.

Three key issues concerning surgical services are:

- ***quality*** – assuring that standards of care are maintained or improved;
- ***access*** – determining what services should be available, where they should be provided and how long patients have to wait; and
- ***cost*** – containing costs under the pressures of a larger population, increasing expectations about health care and advances in medicine.

This report gives an overview of the organisation and delivery of surgical services in the State, and highlights some challenges and opportunities for the future.

Overall findings and conclusions

Trends and achievements

Demand and efficiency

- The number of patients admitted to all WA hospitals for surgical treatment has increased by 49 per cent over the last ten years.
- Average length of stay for surgical cases in public hospitals has decreased from 5.7 days in 1988-89 to 3.5 days in 1998-99. About half of admitted patients are now treated as same-day cases.

Executive summary

- If the 1998-99 public cases had needed the same length of stay as ten years earlier, about 1 000 extra hospital beds would have been required.

Waiting lists and times

- Numbers on metropolitan elective surgery waiting lists rose to 17 000 in mid 1998 and have subsequently fallen to around 12 000.
- Waiting list information is improving but remains imperfect. There is no consolidated reporting for country hospitals. The delays between seeing a GP and a specialist are not recorded.
- Many patients are not admitted within the clinically desirable times.
- The Central Wait List Bureau has arranged the transfer of more than 2 400 patients from teaching to non-teaching hospitals for earlier treatment.

Service initiatives

- Visiting services provide surgery to significant numbers of patients in areas where there are no locally-based specialists.
- New funding arrangements and patient costing systems at hospitals are being introduced, in part to encourage efficiency and improve accountability.

Issues and opportunities

Assuring quality

Throughout the world, the benefits of many medical interventions have not been fully evaluated. In WA there is no system-wide assessment of the quality of outcomes of surgical treatment. Quality assurance measures in place or in progress include:

- the University of Western Australia's 'Quality of Surgical Care' program evaluating the outcomes of selected operations;
- credentialling schemes to ensure that appointed surgeons and anaesthetists have appropriate expertise and experience; and
- an increasing interest in 'evidence-based medicine' to encourage the adoption of the most effective clinical practices.

WA generally provides an excellent standard of hospital care. However, clinicians and managers widely recognise the potential benefits to patients, doctors and hospitals of more systematic surgical audit and peer review.

Managing access

- The current practice of GPs referring public elective surgical patients to named specialists or hospitals limits the ability of the public hospital system to plan and control patient flows.
- An alternative approach, particularly in the metropolitan area, could be to make referrals to a central elective surgery office. Patients could then be allocated to hospitals and surgeons to maximise convenience to patients and minimise costs to the government health system.
- Providing more than minor surgery at smaller country hospitals remains a problem. However, visiting services can be cost-effective and more convenient to patients.

Containing costs

Opportunities for containing the growth in costs to the State of accommodating the increasing demand for surgical services include:

- health promotion and preventive health measures;
- encouraging the use of private health insurance;
- reducing the availability of some surgical procedures;
- maximising the use of same-day surgery and minimising length of stay for more complex procedures without compromising quality of care;
- employing more doctors on salaried or sessional terms at non-teaching hospitals; and
- better understanding patient episode costs so that expensive providers can be identified and corrective action taken.

Recommendations

The Health Department and health services should:

- **maximise the use of same-day surgery and minimise length of stay for other cases;**
- **review the medical staffing arrangements at non-teaching hospitals;**
- **exercise greater influence over the referral of elective surgery patients;**
- **review the range of surgery that will be offered to public patients;**
- **review the surgical facilities and services to be provided at country hospitals;**
- **include the delay from GP referral to specialist or outpatient consultation in the measurement of waiting times for elective surgery;**

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- **improve and extend the reporting of waiting list numbers and times to all hospitals;**
- **refine the assessments of clinical urgency for elective surgery patients and ensure they are consistently applied;**
- **develop visiting services where appropriate and practical;**
- **conduct research into variations in the delivery of surgical care, overall and by individual procedures;**
- **extend programs of surgical audit and peer review;**
- **enhance the monitoring of operating theatre activity; and**
- **encourage the use of 'evidence-based medicine' findings in the development of clinical practice.**

Introduction

Background

What is surgery?

Ill or injured patients admitted to hospital are broadly classified as surgical or medical. Surgical procedures are normally performed under an anaesthetic in an operating theatre by specialist doctors.

The boundaries of hospital inpatient surgery are not precisely defined. There are several grey areas.

- *Who does the operation?* – Some GPs, particularly in the country, operate on patients who would normally be referred to specialist surgeons.
- *What facilities are needed?* – Many minor procedures can safely be performed outside an operating theatre. In larger hospitals, special facilities such as endoscopy suites are usually provided for procedures that use theatre time elsewhere.
- *Is a procedure surgical or medical?* – A large number of procedures, particularly diagnostic endoscopies, are on the boundary between medicine and surgery and may be undertaken by physicians or surgeons.
- *Is a hospital admission necessary?* – Different clinical practices preferred by doctors, or the domestic circumstances of patients (such as home support and distance from where they are treated), may determine whether a patient is formally admitted to hospital.

For the purposes of the examination, surgical cases were defined as inpatient episodes that include a 'principal procedure', as recorded on the Hospital Morbidity Database System (HMDS) of the Health Department of Western Australia (HDWA), with some exclusions[1].

[1] The exclusions are haemodialysis (ICD9 code 39.95) and the 'miscellaneous diagnostic and nonsurgical procedures' (ICD9 codes 87 – 99). Diagnostic endoscopies (of the stomach, colon, lungs, bladder, etc) are included within the definition although these are often performed by physicians in special endoscopy units. They are included because in smaller hospitals, without special facilities, they will generally be performed in operating theatres.

Introduction

What are the main developments and trends?

The main trends and developments in surgical services in recent years have been:

- *Increased demand* – resulting from a growing and ageing population combined with greater health awareness and expectations. The total number of surgical cases in WA rose by 49 per cent from 181 000 to 270 000 between the years 1988-89 and 1997-98, compared to a 19 per cent increase in the estimated resident population. Over the same period, the number of cases admitted to public hospitals rose 28 per cent from 114 000 to 145 000, a lower growth rate because of the increase in the use of private hospitals.
- *Clinical advances* – such as less invasive 'keyhole' surgery, an extending range of diagnostic and therapeutic techniques and developments in anaesthetics.
- *Changes in patient management* – most significantly the growth in same-day cases (48 per cent of all surgical cases in 1997-98), offering more convenient and less expensive care to patients who might previously have been admitted to hospital for several days.

Where are services provided?

Public hospitals in WA range from the large teaching establishments in Perth, offering comprehensive secondary and tertiary health services, to small country hospitals (many with fewer than 20 beds) where medical services are mainly provided by local GPs.

There is also a well-developed private sector, chiefly in the metropolitan region. The private hospital surgical workload depends to a large extent on the number of people with health insurance and the willingness of patients to make a personal contribution to their care. Insured patients retain the right to free service at public hospitals. The proportion of all surgical cases admitted to public hospitals fell from 63 per cent to 54 per cent between 1988-89 and 1997-98.

Figure 1 shows how the surgical episodes in 1997-98 were shared between teaching, metropolitan secondary, country and private hospitals.

Figure 2 shows the public hospitals treating at least 2 500 surgical cases in 1997-98, and the breakdown between emergency and elective[2] admissions.

[2] Emergencies are admitted and treated immediately. Electives are referred to a specialist for assessment and then booked in or placed on a waiting list for admission at a later date.

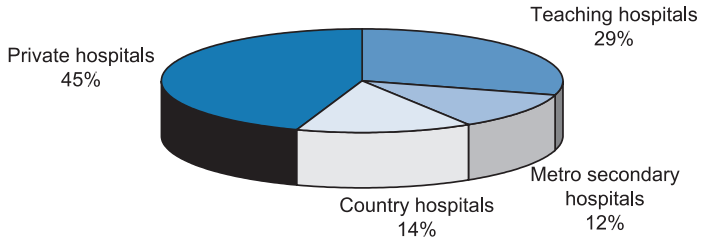

Figure 1: Breakdown of surgical episodes by hospital type in 1997-98

The teaching hospitals treated more surgical cases than all other public hospitals combined. Private hospitals admitted 45 per cent of surgical cases.

Source: Hospital Morbidity Database System

Many of the minor procedures will not have taken place in operating theatres, especially at the larger hospitals[3]. Few private hospitals have emergency departments, placing the burden of emergency surgery almost entirely on the public health sector.

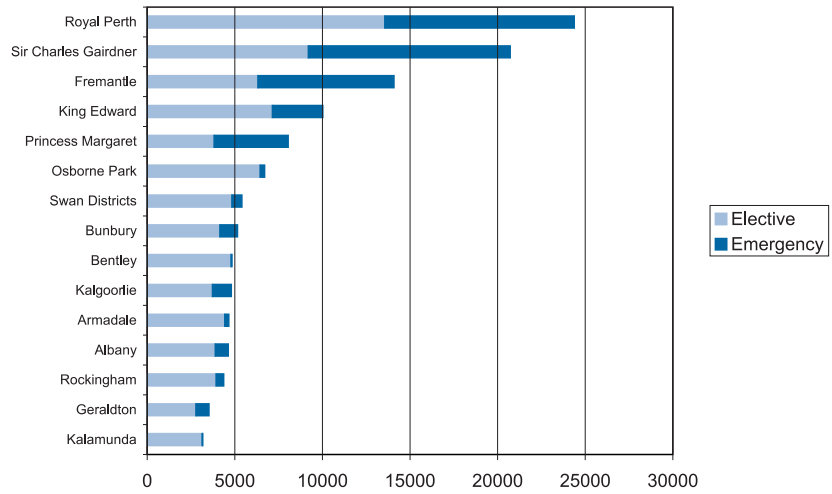

Figure 2: Emergency and elective admissions at public hospitals with more than 2 500 surgical episodes in 1997-98

Almost half the surgical admissions at teaching hospitals are emergencies. All country hospitals provide some emergency facilities but some secondary metropolitan hospitals do not have emergency departments.

Source: Hospital Morbidity Database System

[3] The morbidity database does not record whether a procedure was carried out in an operating theatre or the type of anaesthetic administered.

Introduction

How are services organised?

There are differences between teaching and non-teaching hospitals in the organisation of surgical care for elective patients. Patients first see a GP who refers them to a teaching hospital outpatient clinic or a specialist in his or her rooms[4].

Teaching hospitals – All elements of surgical care for public patients at teaching hospitals are provided by salaried or sessional doctors and funded by the State. Much of the care is delivered by junior doctors working under the supervision of a consultant who may not be personally involved in the treatment of some patients.

Non-teaching hospitals – The hospital episode is paid for by the State but the initial consultation with a specialist and post-operative care following discharge (whether by the specialist or a GP but excluding transfers to other public hospitals) is Commonwealth funded. With a few exceptions[5], surgeons and anaesthetists are paid on a fee-for-service basis, as set out in the prescribed schedules.

Many surgeons divide their time between working in a teaching hospital, acting as visiting medical practitioners at non-teaching hospitals and undertaking some private practice. Identical patients could be treated by the same specialist for the same condition under either of the significantly different organisational and funding regimes at teaching and non-teaching hospitals.

Recent and future developments

Metropolitan Health Service – The Metropolitan Health Service and its controlling board (the MHSB) were established in July 1997, bringing together eleven separately managed hospitals with the aim of providing better coordinated care throughout the metropolitan region. The new arrangements offer opportunities for improved management of surgical services. One of the prime aims of government policy, in Perth and throughout the State, is to provide hospital services as close as possible to home without compromising quality and efficiency.

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[4] For the convenience of patients, GPs and visiting specialists, some hospitals provide on-site consulting facilities.

[5] A few hospitals employ surgical interns provided by the teaching hospitals. In the north-west some visiting specialists still work on sessional rather than fee-for-service terms.

Central Wait List Bureau (CWLB) – A major problem in elective surgery is the increasing referral of patients to teaching hospitals who could be treated at metropolitan secondary hospitals. In the period 1988-89 to 1998-99 the teaching hospital share of all surgical cases at public hospitals rose from 49 per cent to 55 per cent.

Earlier policy objectives of reducing waiting lists to 4 500 patients and ensuring that all patients are admitted within the clinically desirable times for the urgency of their conditions are still far from being achieved. From early 1998 the CWLB has been holding metropolitan waiting lists and encouraging the transfer of patients to where they can be admitted earlier and treated closer to where they live.

Health 2020 – HDWA is engaged in a major review of hospital and other health services in the metropolitan region over the next 20 years. The 'Health 2020' discussion document has been published. Some major reforms are suggested, including a number of new 'ambulatory care centres' that would provide a wide range of health services, including same-day surgery. Final decisions on this long-term vision, which could have far-reaching effects on the surgical activity at existing hospitals, have yet to be made.

Examination objectives, scope and method

The objectives of the examination were:

- to review selected aspects of surgical services in WA; and
- to raise issues related to the future delivery of effective and efficient services.

The key matters addressed by the examination are:

- ***Efficiency*** – What efficiency gains have been achieved?
- ***Access*** – How accessible are surgical services?
- ***Equity*** – Are surgical services equitably delivered to the State's population?
- ***Quality*** – How is quality of care assured?
- ***Accountability*** – Are accountability arrangements adequate?

Introduction

The main methods of the examination were:

- interviews with HDWA, hospital and health service staff and other stakeholders;
- review of annual reports, planning papers and other relevant documents;
- analysis of Hospital Morbidity Database System patient episode records;
- a questionnaire to all health services; and
- invitations to HDWA, hospitals and health services to comment on an interim 'Key Facts and Issues' paper.

Length of stay and costs

- ***Average length of stay has decreased by 2.2 days in public hospitals since 1988-89, avoiding the need to provide about 1 000 extra surgical beds.***
- ***Hospitals are now funded according to the cases they treat. This improves accountability and provides incentives to seek further efficiency gains.***
- ***Most country hospitals use their operating theatres for the equivalent of less than half a day a week.***
- ***Opportunities for containing surgical costs include employing more salaried doctors and better controlling the allocation of public patients to surgeons and hospitals.***

Length of stay

Average length of stay – The average length of stay for all surgical admissions to WA's public hospitals decreased from 5.7 days in 1988-89 to 3.5 days in 1998-99 (see Figure 3). Had this saving not been achieved, approximately 1 000 additional surgical beds would have been needed to accommodate the 152 000 public surgical cases in 1998-99.

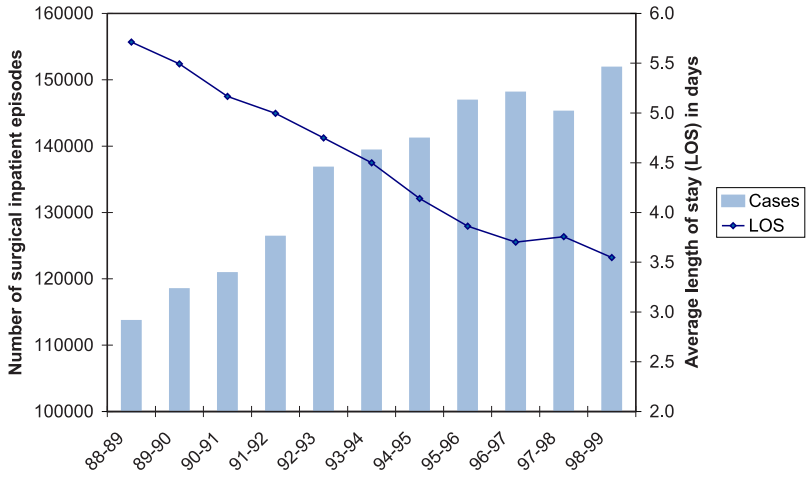

Figure 3: Number of surgical cases and average length of stay (LOS) at public hospitals 1988-89 to 1998-99

While patient admissions to public hospitals for surgery have increased, the average length of stay has reduced from 5.7 to 3.5 days.

Source: Hospital Morbidity Database System

Length of stay and costs

Same-day cases – The most important contribution to shorter lengths of stay has been the growth of same-day cases. By 1997-98 the same-day proportion of all surgical episodes had reached 48 per cent and is likely to increase further. For some common procedures the reductions in length of stay have been particularly striking. For example, cataract operations and hernia repairs used to require admissions for three to five days but are now routinely done as same-day cases by many surgeons.

Hospital episode costs and the budget reform process

The public hospital system is in the early years of a major budget reform process. The principle is to fund activity on the basis of 'case mix'. Inpatient episodes are assigned to one of several hundred diagnostic related groups (DRGs). Normal episodes of care within each DRG attract a 'piece work' fee. Separate cost schedules apply to teaching and non-teaching hospitals. In addition, there is a special pool of funds for exceptional episodes.

Not all managers and clinicians regard the funding arrangements for hospitals and the payment schemes for visiting medical practitioners (VMPs) to be in the best interests of the health service as a whole. One respondent commented: "*The funding system rewards providing treatment to patients and discriminates against treatments that prevent illnesses or promote health. We have a culture amongst patients, hospitals and doctors that encourages intervention and hospitalisation.*"

The detailed costing of surgical episodes at individual hospitals is still under development. Reliable cost comparisons for similar work at different hospitals are not yet available. Metropolitan hospitals are all adopting the TRENDSTAR system, with Royal Perth Hospital in an overseeing role, but the feeder information systems (such as those apportioning pathology costs to individual episodes) are of variable quality. The situation at country hospitals is less advanced.

There are two important consequences of more precise episode costing and funding hospitals according to their case mix:

- Hospitals have an incentive to compare their costs with the funding 'earned' by the cases they treat. More expensive care (for example, because of above average lengths of stay) will prevent a hospital from completing its workload within the funding limits, providing a spur to improve efficiency.

- A better understanding of costs, coupled with more flexibility in allocating elective surgical cases, has the potential to allow patients to be directed to where they can be treated most efficiently.

The use of operating theatres in small hospitals

Low surgical workloads at small country hospitals prevent the full utilisation of operating theatres, and make it more difficult to justify the provision of additional specialised equipment and facilities that will be rarely used.

A half-day operating list of minor to intermediate cases typically treats at least four or five patients. This gives an annual minimum capacity of about 2 000 to 2 500 cases for a single operating theatre. In 1997-98, 55 of the 86 hospitals recording surgical episodes handled fewer than 500 cases, with 42 of these hospitals reporting under 100 episodes. In effect, the majority of country hospital operating theatres are used for the equivalent of less than half a day per week. An example of the low and intermittent rate of performing surgery at a district hospital handling around 500 surgical cases a year is shown in Figure 4.

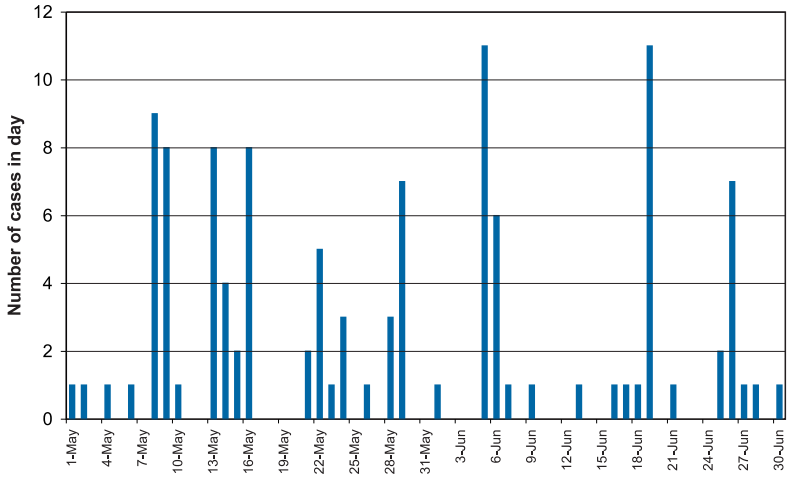

Figure 4: Daily numbers of patients receiving surgical procedures over two months at a district hospital

Small country hospitals make low and intermittent use of their operating theatres, generally treating no more than one case a day.

Source: Hospital Morbidity Database System

Under-utilisation of operating theatres is unavoidable if surgical services are to be maintained at all but the largest country hospitals. Arguments for maintaining the widest practical range of surgical services at small hospitals include:

- the convenience to patients of local treatment;
- the desirability of maintaining facilities and skills for the more effective treatment of occasional life-threatening emergencies;
- the provision of greater job variety and satisfaction, assisting recruitment and retention of hospital staff; and
- the provision of income and more varied work for country GPs.

Some respondents, particularly from within the metropolitan area, questioned the benefits of maintaining so many lightly-used operating theatres:

- "*I am amazed at the under-utilisation of theatres in country hospitals. The cost of maintaining theatre facilities would be difficult to justify other than to placate an electorate.*"
- "*The public will gladly travel to high volume centres of clinical excellence which provide optimum care and excellent outcomes rather than have a second rate service close to home. It is irresponsible to misrepresent the capabilities of the system by promoting a notion of all things to all people in all locations.*"

Opportunities for containing costs

Public hospitals face increasing demands because of higher expectations and health awareness, a growing and ageing population and continuing advances in medicine. However, there are possible strategies for containing costs in surgery.

Employing more salaried doctors – The medical staffing cost for an operating list is lower if salaried doctors are used rather than VMPs. A salaried senior consultant at a teaching hospital receives in direct salary about $400 for a half-day operating list, excluding on-costs (for superannuation and other items) estimated at about 50 per cent by one medical director. Visiting fee-for-service surgeons, such as an ophthalmologist performing a list of seven cataract operations, can earn $5 000 in the same time. Some visiting surgeons earn $250 000 or more per year for their part-time appointments at non-teaching hospitals.

The Metropolitan Health Service Board commented: "*The issue of payment methods to doctors is a very real and complex one. The ability to attract doctors to the peripheral hospitals will be lessened if services are to be provided on a sessional or full-time basis. It is agreed that there is a need to review and change the current remuneration methods.*"

Length of stay and costs

Maximising the use of same-day and short stay surgery – Although the proportion of same-day surgical cases is already high in WA, there are combinations of hospital, surgeon and procedure where more day cases should be possible. Some procedures are suitable for '23 hour' surgery, where a post-operative overnight stay is preferred for patient comfort and safety, rather than a same-day discharge.

For non same-day cases, it is still common to admit patients the day before an operation. The MHSB acknowledged that: "*The majority of patients can be admitted on the day of surgery if they have been properly prepared. The potential for savings in bed days would be enormous if this practice were adopted more generally.*"

Keeping minor cases out of operating theatres – Some minor operations do not require full theatre facilities and can safely be done in a GP's surgery or a specialist's rooms. One non-teaching hospital reported that it had instructed a visiting surgeon to stop using the operating theatre for procedures as minor as cauterizing warts. All hospitals should ensure that surgeons are not admitting patients who could and should be treated in less expensive facilities.

Limiting the range of surgery available in public hospitals – Many operations are non-therapeutic (e.g. sterilisations) or partly cosmetic (e.g. the removal of benign skin lesions and treatment of minor varicose veins). Operations carried out for purely cosmetic reasons are not offered to public patients. Some operations, including reversal of sterilisations and circumcisions for non-medical reasons, are no longer offered at public hospitals. In principle, the list could be augmented.

One teaching hospital commented: "*A rationalisation of what surgery can be undertaken would take enormous pressure off the existing system and significantly reduce the waiting lists.*" A health service manager suggested that any excluded procedures might still be made available at country hospitals, but require a contribution from the patient, because of the more difficult access to private hospitals.

Controlling patient flows – The present GP referral system pays no regard to the cost of treatment by individual surgeons at individual hospitals. A better understanding of surgical costs and outcomes could allow patients to be allocated to the most effective and efficient surgeons, taking due account of waiting times, location and planned activity levels at hospitals.

Length of stay and costs

Flows of elective surgery patients could be influenced by providing GPs with better information or arranging greater central powers of direction. Preserving a system in which referrals are based on incomplete information, often resulting in excessive waiting times and admissions not in order of clinical urgency, is not in the best interests of public patients or the government health system.

Encouraging private health insurance – Insurance shifts the cost of care from the public to the private sector. However, there need to be incentives (such as the prospect of shorter waiting times) to persuade people to incur the personal contributions that are normally required for private treatment. HDWA commented that it is unacceptable for public hospitals to favour those private patients they treat on any grounds other than clinical priority.

The public hospital system is potentially vulnerable to a downturn in the use of private health insurance for surgical treatment. If the public hospital share of the total number of inpatient cases returned to 63 per cent, as in 1988-89, this would produce around 25 000 more public cases per year requiring about 250 extra beds.

Health promotion and preventive health programs – Many conditions requiring surgery are related to personal habits, such as diet, smoking and alcohol consumption. Prevention is better and often cheaper than cure. Additionally, carefully designed screening and outreach programs can be successful in detecting the early onset of disease when it can be treated at less expense and with better outcomes. Health promotion is now a separate HDWA program with an expanding budget.

Recommendations

HDWA and health services should:

- **maximise the use of same-day surgery and minimise length of stay for other cases;**
- **review the medical staffing arrangements at non-teaching hospitals;**
- **exercise greater influence over the referral of elective surgery patients;**
- **review the range of surgery that will be offered to public patients; and**
- **review the surgical facilities and services to be provided at country hospitals.**

Access to surgical services

- ***In most country areas the majority of surgical patients use hospitals outside their health service of residence.***
- ***Waiting list information is improving but remains incomplete and of uncertain quality.***
- ***Many patients are not seen within the clinically desirable times. Total waiting times from seeing a GP to hospital treatment are not known.***
- ***Greater control over the allocation of public surgical cases would allow earlier and more local treatment for many patients. The Central Wait List Bureau has arranged more than 2 000 transfers from teaching hospitals.***
- ***Visiting surgeons extend the range of services at some small hospitals.***

The small and dispersed population of WA makes it impossible to offer a full range of surgical services within easy reach of all country patients. Low workloads, the shortage of local medical skills, the difficulty of attracting visiting specialists and the impracticality of providing specialised equipment and support require many patients to travel considerable distances for treatment.

Wherever patients are treated, it remains important that they have their operations within the clinically desirable times for the urgency of their conditions. A key feature of government health policy is to take services to patients, within the constraints of safety and cost, and to ensure that waiting times are not excessive.

Where patients live and are treated

The proportions of surgical cases receiving their operations at hospitals within their health service of residence are shown in Figure 5. Some areas have no major hospitals and are able to provide only a small fraction of the treatment for their resident populations.

Patients requiring tertiary treatment have to be referred to the Perth teaching hospitals. When necessary, evacuations are arranged with the Royal Flying Doctor Service. Patients can claim financial assistance from the Patient Assisted Travel Service (PATS) scheme for consultations with the nearest appropriate specialist and subsequent treatment at a distant hospital. In

1996-97, nearly 30 000 trips were made costing $6.8 million. However, minor and intermediate cases could often, in principle, be treated nearer to home if facilities and specialists were available.

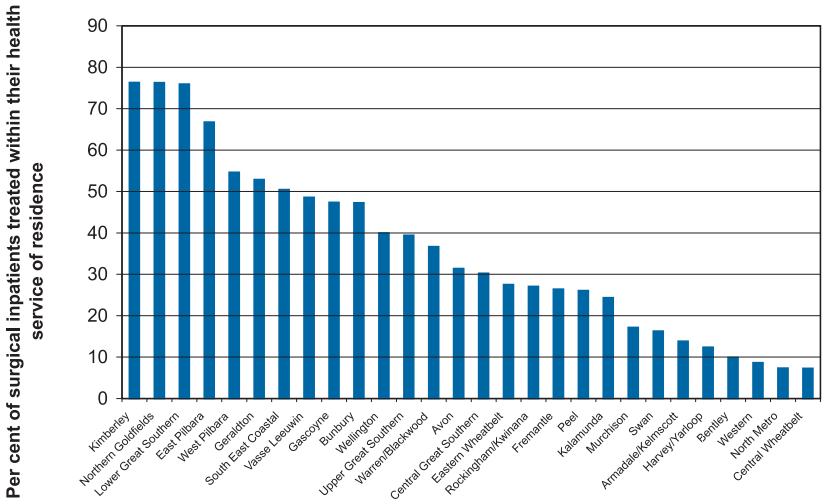

Figure 5: Proportions of all surgical cases treated at public hospitals in their health service of residence in 1997-98

Many surgical patients receive hospital care outside the health service area where they live.

Source: Hospital Morbidity Database System

Waiting lists and times

Waiting list trends

The quality of waiting list information at metropolitan hospitals is improving. Initially the Central Wait List Bureau (CWLB) provided advice on how lists should be audited by each hospital but it has subsequently assumed this responsibility directly. Figure 6 shows the total numbers of patients on teaching hospital waiting lists in successive census periods and the numbers added, admitted and deleted (without being admitted as a public patient to a metropolitan hospital) in each period.

About 8 000 cases have been deleted from teaching hospital wait lists each year since 1995 without being admitted. The CWLB has typically found in its auditing processes that about 20 per cent of patients are on more than one list or no longer require the operation, often because they have had the procedure privately to avoid excessive waiting times.

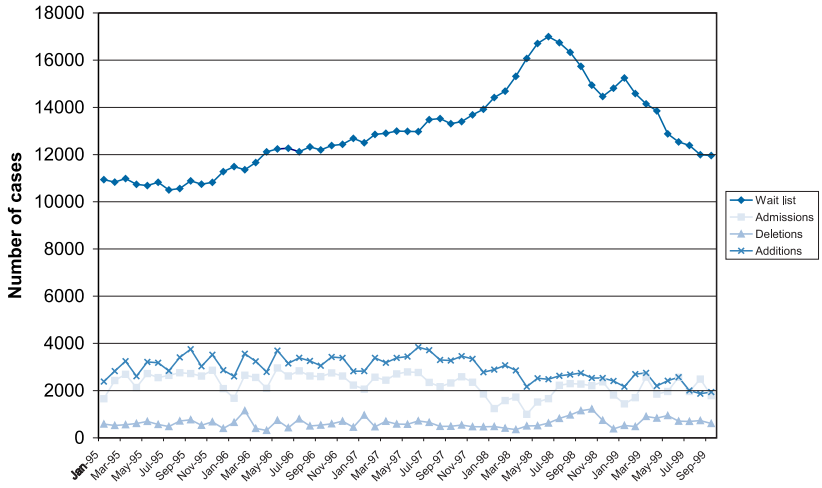

Figure 6: Teaching hospital wait list numbers, admissions, additions and deletions

Teaching hospital wait lists peaked in mid 1998. The numbers have since dropped by more than 25 per cent, not because of increased admissions but because of fewer new cases and deletions due to audit and transfers.

Source: CWLB

Admissions from waiting lists within clinically desirable times

All elective surgery patients are classified according to their assessed urgency when placed on waiting lists. The classification defines three groups ('urgent', 'semi-urgent' and 'non-urgent') but there are no standardised rules for categorising patients. One teaching hospital described the urgency ratings as "*too crude for clinical use*" and is looking at introducing a much more detailed waiting list classification system, similar to one used in New Zealand.

Within this imprecise urgency framework, many patients are not admitted within the clinically desirable times, the numbers varying by hospital, specialty, surgeon and over time. For example, the wait list 'snapshot' at 31 March 1999 for all metropolitan hospitals showed that:

- 42 per cent of 797 *urgent* patients had waited more than 30 days;
- 47 per cent of 2 946 *semi-urgent* patients had waited more than 90 days; and
- 35 per cent of 16 392 *non-urgent* cases had waited more than one year.

Non-urgent patients are often admitted while urgent and semi-urgent cases remain untreated. For example, in March 1999 a total of 2 016 non-urgent cases waiting for less than twelve months had their operations at metropolitan hospitals, while at the end of the month there were 338 urgent patients who had waited more than 30 days and 1 395 semi-urgent cases who had waited more than 90 days.

Access to surgical services

This apparent queue-jumping largely happens because each surgeon has his or her own wait list, with many having separate lists at two or more hospitals. Overloaded surgeons are unable to clear their backlogs of urgent cases while others need to admit non-urgent cases to fill their operating lists.

At the beginning of February 1999, when the total metropolitan wait list numbered almost 24 000, three surgeons had lists of more than 500 patients while 114 surgeons had fewer than 50 waiting patients. Surgeons are not interchangeable because of their different specialties and procedural skills, but there are opportunities to balance the workloads of individual surgeons.

There is no consolidated information about waiting lists and times at country hospitals. Many surgeons give patients admission dates at the initial consultation rather than place them on waiting lists. Anecdotally, few patients have to wait excessively and it is not uncommon for a consultation in the morning to be followed by surgery later in the same day.

Waiting times, as currently reported, do not include the interval between seeing a GP and visiting a specialist or outpatient clinic. All the published information therefore understates the total time patients spend from first seeking advice to receiving treatment. One teaching hospital noted that waiting lists can be artificially reduced by increasing the delays for outpatient appointments.

Median waiting times of cases on list and admitted for surgery

There are large variations in the median[6] waiting times on waiting lists for different surgical specialties at the general teaching hospitals (Figure 7), indicating a considerable imbalance in the capacity to deal with referred patients.

The median waiting times for patients admitted to teaching hospitals from wait lists are considerably lower (Figure 8), generally in the order of one month apart from some hard-pressed specialties. This is because more urgent cases are favoured for selection. A consequence is that many non-urgent cases referred to teaching hospitals are never likely to be admitted. For example, Royal Perth and Fremantle Hospitals admitted 17 patients for varicose veins surgery in the whole of 1997-98 but had 244 cases remaining on their lists, a backlog that would take 15 years to clear if the same admission rate was maintained.

[6] At a 'snapshot' moment, half the patients remaining on a wait list have waited less than the median time and the other half for longer.

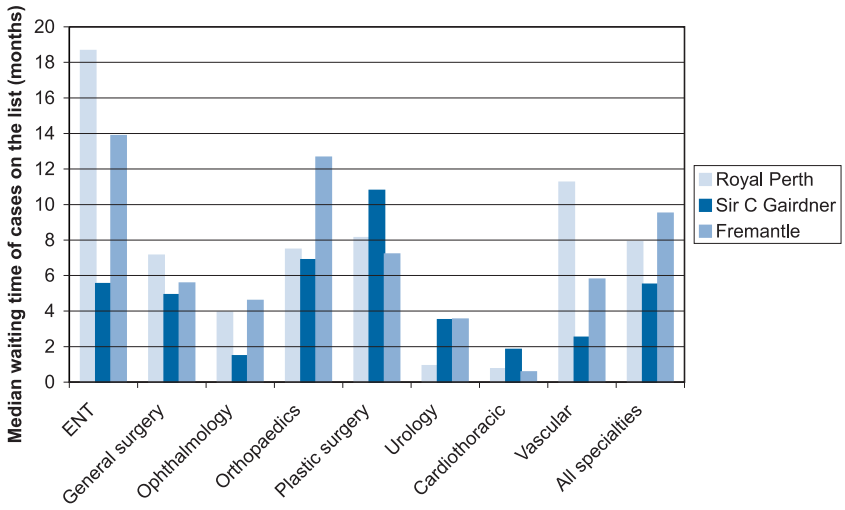

Figure 7: Median waiting times by specialty and teaching hospital for cases on wait lists at 30 June 1999

Median waiting times for cases on teaching hospital wait lists vary from less than one month to over 18 months.

Source: CWLB

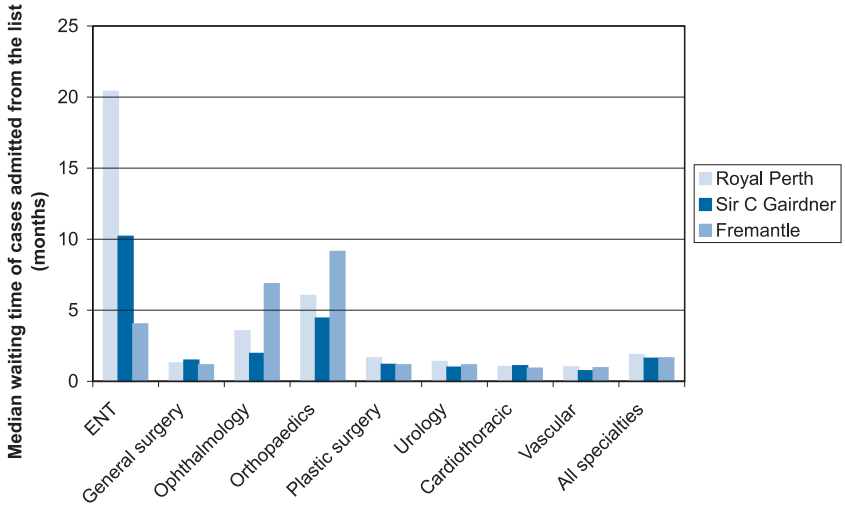

Figure 8: Median waiting times of patients admitted from teaching hospital wait lists in June 1999

Waiting times of admitted patients are lower because of the preference given to more urgent cases. Median waiting times are not good indicators of expected waiting times for non-urgent cases, many of whom are never likely to be selected for admission.

Source: CWLB

Access to surgical services

Waiting list information for GPs

In addition to the monthly 'Elective Surgery News' published by the MHSB, more detailed electronic information about metropolitan waiting times is available to GPs via the HDWA Internet website. The current design of this service is far from 'user-friendly'. It requires many separate steps to identify the surgeons, hospitals and probable waiting times where a given operation could be performed. One respondent remarked: "*It was slow and difficult to follow - hardly the sort of thing that is going to be accessed from a busy GP's surgery*".

Transfers from teaching to other hospitals

All teaching hospitals were asked by the CWLB to review their waiting lists and identify patients who could be treated at non-teaching hospitals. Some teaching hospitals were reluctant to spend extra effort reviewing patients already assessed at outpatient clinics for possible referral to different specialists and treatment elsewhere.

Table 1 shows the numbers of patients who opted to transfer and were treated in the period March 1998 to June 1999.

Number of cases transferred from teaching hospitals		Number of cases received and treated	
Royal Perth	695	Swan Districts	181
Sir Charles Gairdner	903	Armadale Kelmscott	255
Fremantle	830	Rockingham Kwinana	82
Princess Margaret	24	Joondalup	835
King Edward	3	Osborne Park	411
		Bentley	116
		Kalamunda	15
		Other	560
Total	**2 455**	**Total**	**2 455**

Table 1: Elective surgery patients transferred from teaching hospitals between March 1998 and June 1999

2 455 patients were transferred as a result of interventions by the Central Wait List Bureau.

Source: CWLB

The CWLB initiative to transfer patients is an attempted solution to a problem resulting from GP referral practices. A secondary metropolitan hospital remarked: "*Increasing numbers of GPs in the catchment area work for big group practices on a part-time basis and tend to make referrals based on their past teaching hospital attachments without consideration of locally available services.*"

Observations by non-teaching hospitals inheriting patients from teaching hospital waiting lists include:

- 25 per cent of the cases referred no longer wanted or required the surgery.
- "*Our surgeons have confirmed how absolutely critical it is that they consult with and examine the patients themselves. They found a high proportion of patients actually required a different surgical procedure due to an incorrect diagnosis or major change in presentation or were medically not fit to be considered for any elective surgery.*"

Cataracts, hip and knee replacements

A special initiative targeted 3 270 patients on metropolitan hospital wait lists at August 7, 1998 for cataract or hip and knee joint replacement operations. One year later only 140 of the originally targeted patients remained on the list. However, of the 3 130 cases deleted from the list, fewer than half were admitted as public patients for their operations, the majority being removed from the wait list for a variety of other reasons.

University Rural Surgical Service

The University Rural Surgical Service sends surgical teams, normally on day trips by chartered light aircraft, to a number of small country hospitals within convenient travelling distance from Perth. The first visit was in November 1995 and the service has been continued beyond the initial two-year grant.

On average, the service visits about ten hospitals and sees about 80 patients each month. In the first two pilot years, $347 000 was spent on personnel, travel, equipment and other items. This cost was more than offset by the estimated $384 000 that would have been paid to the patients seen if they had travelled for consultations and treatment under the Patient Assisted Travel Scheme.

Access to surgical services

This visiting service provides a number of additional non-cost benefits:

- Patients are often assessed and treated in the same day and generally have shorter waits than many metropolitan patients with similar conditions.
- The inconvenience to patients of making lengthy trips for consultation and treatment, often for relatively small medical problems, is avoided.
- Visiting staff often undertake ward rounds and provide advice to local GPs.
- Skills are maintained at small hospitals, making the work more rewarding for staff and improving the capacity to deal with emergencies.
- Student doctors accompany most visits, allowing doctors in training to see types of patients and hospitals they might not otherwise encounter.

Comments from country hospitals about this visiting service included:

- Cancellations of visits are too frequent and the visiting surgeons are not around to deal with any complications.
- Some visits are wasteful as only a handful of minor cases are seen.
- Some of the work done could easily be handled at larger country hospitals no more than an hour's drive away.

Recommendations

HDWA and health services should:

- **include the delay from GP referral to specialist or outpatient consultation in the measurement of waiting times for elective surgery;**
- **improve and extend the reporting of waiting list numbers and times to all hospitals;**
- **refine the assessments of clinical urgency for elective surgery patients and ensure they are consistently applied; and**
- **develop visiting services where appropriate and practical.**

Equity, quality and accountability

- ***There are big variations in the uptake of surgical services in different areas, such as the balance between emergency and elective cases, the use of private hospitals and the mix of procedures performed.***
- ***A number of useful quality assurance measures are in place and being developed.***
- ***Information could be improved so that hospitals are more accountable for admitting patients according to clinical urgency, using operating theatre time efficiently and other matters.***

Equity

Equitable delivery of surgical services is an important principle of health care. The main inequalities and associated risks for the general public are:

- an absence of local facilities may deter people from receiving treatment readily accessible elsewhere;
- poor health awareness may lead to more emergency presentations for worsening conditions that could have been treated earlier; and
- specialists working on fee-for-service terms may be more inclined to recommend or offer surgery than salaried doctors in teaching hospitals.

Emergency and private cases by health area of residence

Emergency surgical admissions

For the whole of the state, 20 per cent of the 1997-98 surgical admissions were emergencies. Significantly higher proportions of emergencies were recorded in the northern health service areas: Kimberley (40 per cent), Murchison (40 per cent), Gascoyne (31 per cent) and East and West Pilbara (28 per cent).

Medical and nursing staff commented that people in the remote north frequently sought emergency treatment for conditions that had been allowed to deteriorate to a degree of severity and urgency that would rarely be seen elsewhere. Lack of access and health awareness are resulting in some parts of the State's population not receiving surgical services from which they would benefit.

Equity, quality and accountability

Treatment in private hospitals

The proportions of all surgical cases resident in different health service areas who used private hospitals for treatment varied in 1997-98 as shown in Figure 9. The availability of private hospitals combined with the ability and willingness of people to pay for hospital care produces a two-tier service with respect to the availability and waiting times for surgical treatment.

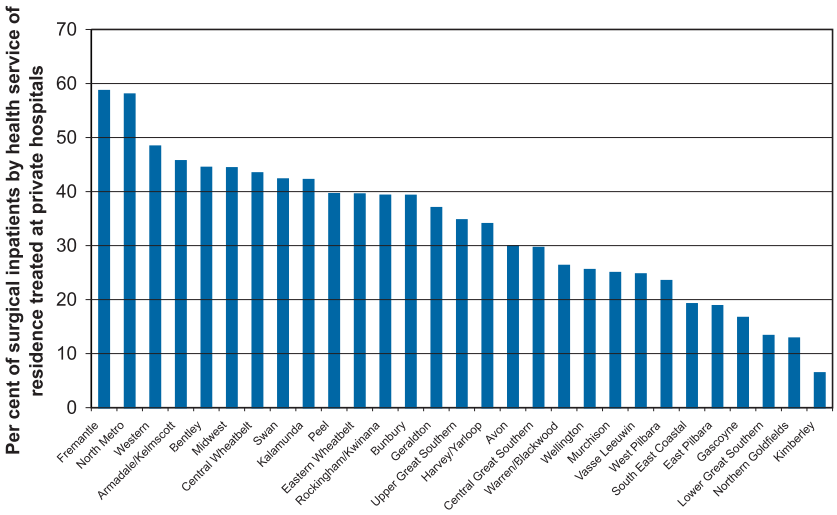

Figure 9: Private hospital share of surgical admissions by health service of residence in 1997-98

The proportion of surgical cases by health service of residence treated in private hospitals ranged from 6 per cent to 59 per cent.

Source: Hospital Morbidity Database System

Surgery rates by place of residence

The likelihood of receiving some procedures depends on place of residence. Table 2 shows the rates of 'operations on the appendix' for residents of the 15 health services with populations greater than 25 000.

Health Service	Appendix operations per 1000 residents
Vasse Leeuwin	2.4
Bunbury	2.1
Northern Goldfields	1.7
Bentley	1.4
Kalamunda	1.4
Rockingham/Kwinana	1.3
Geraldton	1.3
Peel	1.3
Swan District	1.2
Lower Great Southern	1.0
Fremantle	0.9
Inner City	0.9
Kimberley	0.9
Armadale/Kelmscott	0.8
North Metro	0.5

Table 2: Appendix operations per 1 000 residents in 1997-98

In 1997-98, residents of Vasse Leeuwin and Bunbury health services were more than four times as likely to have an appendix operation as those in North Metro.

Source: Hospital Morbidity Database System

Determining whether surgery is being equitably delivered to different population groups is complex. Allowances must be made for age, sex, way of life and other differences. The epidemiological branch of HDWA is working on this important and sensitive issue, recognising the very large and incompletely understood variations in the rates of many operations for people living in different areas.

A teaching hospital respondent commented: "*Accountability must reside with the individual surgeons. Short of definitive practice guidelines, surgical audit and subsequent peer review, there are few avenues available to evaluate, dispute or direct the clinical practices of surgical staff.*"

Equity, quality and accountability

Quality

HDWA surveys report a high degree of public confidence in the standards of health care. There are numerous schemes to maintain and improve quality ranging from general accreditation schemes for hospitals to programs of clinical audit. Professional associations and academic units are active in promoting all aspects of quality.

Credentialling of surgeons

Doctors are not given a free rein to do what they want at public hospitals. Instead, they are credentialled by clinical appointments and medical advisory committees to perform only those procedures for which they have been trained and acquired sufficient practical experience. Similarly, GP anaesthetists are required to assist in a minimum number of cases to maintain their accreditation. Where the workload at a country hospital is insufficient, locum appointments in Perth are available.

Processes are being developed to control the introduction of new surgical procedures, both to ensure that they are medically beneficial and that surgeons are skilled in performing them.

Quality of surgical care program

The University of Western Australia is carrying out a series of research projects into the outcomes of a range of surgical treatments. A particular strength of health information in WA is the linked records for hospital care. This simplifies research into repeated admissions, the frequency with which conditions recur and other matters of research interest.

Evidence-based medicine

Despite the work in quality assurance, information about the effectiveness of many medical treatments remains uncertain. The fact that a surgical operation can be done does not always mean that it should be done. There is a growing interest in WA and throughout the world in evidence-based medicine involving detailed analyses of the effectiveness of alternative treatments.

Critical event reporting

The Health Consumers Council considers that critical event reporting, in surgery and other medical matters, could be improved. A perception remains that the medical profession is inclined to ‘close ranks’ when mistakes are made or in reporting unexpected events.

Patients are not routinely informed if their treatment has not gone according to plan, and are generally in a poor position to find out the details of their case. This is especially true in surgery where the patient is normally unconscious and the only other people present during the operation are doctors, nurses and orderlies.

Communication with patients

Communication with patients, both before and after surgery, is an important aspect of quality care. Before giving their informed consent, patients need to know and doctors have a duty to discuss the prognosis, risks, benefits and range of alternative treatments. Consultations are generally private and unrecorded apart from brief medical notes retained by the doctor. Patient anxiety and unfamiliarity with medical methods and language can be barriers to effective communication.

Written post-operative advice can be useful, especially for same-day cases who would benefit from information about the normal recovery process and any symptoms indicating that further medical advice should be sought.

Accountability

The MHSB and the CWLB are producing improved information relating to surgical services (such as the numbers and times on waiting lists), but there are several areas where accountability and information could be enhanced.

- *Range of services* – All hospitals should be clear about the range of surgical services to be provided. Non-teaching hospitals should verify that visiting medical practitioners are only bringing in suitable cases and are not using full theatre facilities for patients who could be treated in their rooms.
- *Waiting lists* – Hospitals should at all times be aware of the numbers and urgency mix of elective patients awaiting surgery. This should include patients who are given admission dates when they are seen by a specialist. Despite the prominence given to waiting list numbers and times for elective surgery, there is no comprehensive and consolidated reporting of this data beyond the metropolitan region.
- *GP referral to admission waiting times* – Elective surgery patients have two waits, firstly between seeing a GP and being seen by a specialist, and secondly from seeing the specialist to being admitted. There is presently no satisfactory information about the total waiting process for patients.

Equity, quality and accountability

- *Patient priority* – In general, surgeons draw up their own operating lists. In most cases hospitals do not check whether patients are being seen according to clinical urgency, or whether clinical urgency assessments are consistent. Surgeons should be accountable to hospitals for decisions to admit patients out of clinical urgency order.

- *Admission within clinically desirable times* – There is no full reporting of the extent to which elective surgical patients are admitted within the clinically desirable times according to their urgency. This information needs full waiting list data to be maintained and analysed at a fine level of detail. Overall figures for hospitals or specialties do not reflect the wide ranges for individual surgeons or procedures.

- *Use of theatre time* – Hospitals vary in the information they collect about the use of operating departments. It would be useful to have a core set of definitions and performance summaries on matters such as utilisation of planned theatre sessions, numbers of unplanned sessions and cancelled sessions and patients.

- *Length of stay* – The cost of a surgical case is often related to the treatment regime. For instance, some surgeons may perform a hernia repair under general anaesthetic (using a specialist anaesthetist) and prefer a two-night stay while others do the same operation as a same-day case under local anaesthetic. Hospitals and HDWA should monitor the activity of individual surgeons to identify where changes in practice could produce savings without compromising the quality of care.

Recommendations

HDWA and health services should:

- **conduct research into variations in the delivery of surgical care, overall and by individual procedures;**
- **extend programs of surgical audit and peer review;**
- **enhance the monitoring of operating theatre activity; and**
- **encourage the use of 'evidence-based medicine' findings in the development of clinical practice.**

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