

BMJ Open Public performance reporting and hospital choice: a cross-sectional study of patients undergoing cancer surgery in the Australian private healthcare sector

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ABSTRACT

Objectives National mandatory public performance reporting (PPR) for Australian public hospitals, including measures of cancer surgery waiting times, was introduced in 2011. PPR is voluntary for private hospitals. The aims of this study were to assess whether PPR of hospital data is used by patients with breast, bowel or lung cancer when selecting a hospital for elective surgery and how PPR could be improved to meet their information needs.

Design A national cross-sectional postal questionnaire.

Setting Australian private healthcare sector.

Participants Private patients with breast, bowel or lung cancer who attended a public or private hospital for elective surgery (n=243) in 2016.

Outcome measures Patients' choice of hospital, use of PPR information and preferred areas of PPR information. Descriptive and conventional qualitative content analyses were conducted.

Results Two hundred and twenty-eight respondents (94%) attended a private hospital. Almost half could choose a hospital. Choice of hospital was not influenced by PPR data (92% unaware) but by their specialist (90%). Respondents considered PPR to be important (71%) but they did not want to see the information, preferring their general practitioners (GPs) to tell them about it (40%). Respondents considered surgery costs (59%), complications (58%) and recovery success rates (57%) to be important areas of information that should be publicly reported. Almost half suggested that quality indicators should be reported at the individual clinician level. Analysis of the open-ended questions identified four themes: (1) decision-making factors; (2) data credibility; (3) unmet information needs and (4) unintended consequences.

Conclusions PPR of hospital data had no substantial impact on patients' choice of hospital. Nonetheless, many respondents expressed interest in using it in future. To increase PPR awareness and usability, personalised and integrated information on cost and quality of hospitals is required. Dissemination of PPR information via specialists and GPs could assist patients to interpret the data and support decision-making.

INTRODUCTION

There are growing efforts within health-care systems internationally to measure and

Strengths and limitations of the study

- This study used a national cross-sectional questionnaire in the private healthcare sector to assess the use of public performance reporting of hospital data to inform hospital choice among patients with breast, bowel or lung cancer.
- The results are not generalisable to other cancer elective surgeries, younger patients or public hospital settings, because of the non-population representative characteristics of respondents.
- Given the nature of the study, there is a risk of recall bias, particularly among elderly respondents.

publicly disseminate healthcare providers' (ie, hospitals and clinicians) performance data for greater transparency, to increase accountability and to improve quality of care.^{1,2} Public performance reporting (PPR) of healthcare providers' data is aimed at improving the quality of care by guiding consumers to select high-quality providers over low-quality providers. It aims to stimulate quality improvement among providers by identifying areas in which they underperform. These pathways are interconnected by providers' motivation to maintain or increase their market share.³

In many countries, such as the USA and the UK, PPR of hospital and individual clinician's performance data has been a central feature of government health policy.⁴ In Australia, national mandatory PPR of public hospital data was introduced in 2011. All public hospitals are required to provide data to the Australian Institute of Health and Welfare, which are then reported via the MyHospitals website.⁵ Quality indicators reported on the MyHospitals website are underpinned by the Performance and Accountability Framework. The framework identifies 48 indicators, of which 17 are hospital indicators and

31 are primary healthcare indicators. Hospital indicators publicly reported include: hand hygiene; *Staphylococcus aureus* infections; time patients spent in emergency department; cancer surgery waiting times and financial performance of public hospitals. Indicators yet to be publicly reported, due to their associated methodological issues, include: measures of mortality; unplanned readmission rates; patient experiences and access to services by type of service compared with need.

PPR on the MyHospitals website is voluntary for private hospitals. In 2015–2016, there were 630 private hospitals in Australia⁶ and 36% voluntarily contributed to the MyHospitals website, but they did not necessarily report on all of the quality indicators (as public hospitals are required to do).⁵ Large private healthcare providers (eg, Healthscope with 46 hospitals⁷ and Ramsay Health Care with 73 hospitals⁸) publish their own PPR websites to help patients make informed decisions. In addition, most states/territory governments also have their own PPR websites (eg, the Victorian Health Services Performance⁹ and New South Wales Bureau of Health Information¹⁰). Quality indicators vary across MyHospitals, private healthcare providers and state/territory government websites. Examples of additional quality indicators reported on the private healthcare providers and state/territory government websites, but not on the MyHospitals website, include: patient experiences; Apgar scores for babies (assessment of a baby's well-being after birth); patient falls; pressure injuries and rehabilitation outcomes.

Prior research indicates that PPR changes healthcare providers' behaviour but has limited impact on consumers' healthcare decision-making.^{11–13} Previous research also suggests that consumers want more choice over their healthcare.¹⁴ However, results from surveys conducted in the USA and the Netherlands showed that most consumers did not use, or barely used, PPR information when selecting a specialist or hospital.^{15–18} This may be because many consumers are not aware of PPR information or do not have access to it or they do not understand or trust it.^{11 18 19} Instead, consumers rely on various sources of information to inform their choice of hospital, including: advice from their general practitioner (GP); their previous experience; family and friends' experiences; the reputation of the hospital and the distance of the hospital from their home.^{16 17 20 21}

Given the recent introduction of PPR in Australia, there have been few studies on the impacts of PPR on Australian consumers' choice of hospitals,²² particularly in the private healthcare sector.²³ The focus was on patients with access to private healthcare undergoing elective surgery for cancer—because for these patients, choice of hospital is likely to be possible, and cancer surgery waiting times are publicly reported for all public and some private hospitals.⁵ It should be noted that most surgeries for cancer are categorised as 'elective' because they fall outside of the category of 'emergency' surgery. Elective surgery does not imply non-essential or cosmetic surgery. In Australia, surgery for cancer is categorised

as elective because patient hospital admission can be delayed for at least 24 hours. Public patients are then placed on a hospital waiting list for planned surgery, with recommended maximum wait times classified as: urgent (within 30 days); semi-urgent (within 90 days) or non-urgent.⁵ In the private sector, patients can usually access elective surgery more quickly than in the public sector, especially for semi-urgent or non-urgent cases. Better understanding of factors that influence hospital choice, including PPR information, can help explain consumers' decision-making processes and inform policymakers on whether greater resources should be allocated to PPR. Therefore, the present study aimed to assess (among patients with breast, bowel or lung cancer): whether PPR of hospital data was used to inform their choice of hospital; factors that influence their choice of hospital; their level of demand for PPR; barriers to their use of PPR and how PPR could be improved to meet their information needs.

METHODS

Australian healthcare system

Australia has a universal, publicly funded, health insurance scheme (Medicare) that provides free access to public hospitals.²⁴ Private healthcare insurance is also available and encouraged by government policy (ie, high-income earners receive a tax penalty for not purchasing and middle-income earners receive a private health cover rebate).²⁵ In 2014–2015, there were 10.1 million (57%) Australian adults with private healthcare insurance.²⁶ Private patients can choose to be treated in either public or private hospitals. To access public or private hospital for non-emergency care, patients must be referred by their GP. Issues around payment of private hospital bills are generally discussed during the consultations.²⁷ Medicare covers 75% of the Medicare Benefits Schedule (MBS) fee for private patients. The remaining 25% is either paid entirely by private healthcare insurers, co-paid by patients with their private healthcare insurer or self-funded if the patient does not have private healthcare insurance. Compared with public patients, private patients can exercise greater choice in specialist, hospital and timing of procedures.

Study design

This study was part of a larger research programme which aimed to improve understanding of how PPR might improve quality of care in public and private hospitals in Australia, by examining the perspectives of multiple stakeholders. Previous components of the research programme included interviews with healthcare consumer advocates, providers, purchasers (public and private funders of healthcare services),²⁸ senior hospital clinical administrators^{29 30} and GPs.³¹ This component of the research programme used a quantitative approach to understand the use of PPR information when selecting a hospital for surgery among patients with breast, bowel

or lung cancer. A national cross-sectional study design of the private healthcare sector was conducted using postal questionnaires.

Questionnaire design

We developed a short questionnaire with four sections: (1) cancer type; (2) hospital stay; (3) hospital choice and (4) about you (see online supplementary file 1). The first section included questions about the type of cancer participants had, period of diagnosis and confirmation of cancer surgical treatments between 1 January 2016 and 31 December 2016. Section 2 included questions about the type of hospital attended (ie, public or private hospital) and patient status (ie, public or private). The third section included questions on factors influencing hospital choice, awareness and use of the available PPR information, preferred areas of PPR information (ie, quality and performance indicators), level of data presentation, the importance of PPR information and barriers to using PPR information. Two open-ended questions were included to capture other issues, concerns or experiences of PPR that respondents might want to share. The final section captured demographic characteristics such as gender, age, marital status, education, employment status, occupation, income and healthcare insurance status.

Patient and public involvement

The questionnaire was piloted with a consumer group from Peter MacCallum Cancer Centre in Victoria³² to identify ambiguities or difficult questions and to ensure that it could be completed in a timely manner. The consumer group included five women aged between 35 and 45 years; four previously had cancer—including three in the last 12 months. The questionnaire was revised in response to their comments. The consumer group was not involved in the recruitment and conduct of the study. Upon completion of the study, a summary of the results will be provided to the consumer group.

Sample

Participants were identified and contacted by the Australian Government Department of Human Services (DHS) through their MBS records (including procedure codes). Eligibility criteria included: participants aged 18 years and over; diagnosed with breast, bowel or lung cancer and attended an Australian hospital for cancer surgical treatments between 1 January 2016 and 31 December 2016. MBS is a list of Medicare services subsidised by the Australian government.³³ Therefore, the sample included only those who made a Medicare claim (ie, private patients in public or private hospitals). Patients who did not make a Medicare claim (ie, public patients in public hospital in which there are no costs to the patients) were not included because their records are managed by individual state governments. The selection of the appropriate MBS procedure codes (see online supplementary file 2) was done by the researchers in consultation with a surgeon

who specialised in cancer care. In total, 29 793 eligible participants were identified (52% with breast cancer, 32% with bowel cancer and 16% with lung cancer). Stratified sampling by cancer type was performed for 1000 eligible participants. Samples within each stratum were selected with simple random sampling.

Data collection

The postal questionnaire was open between April and July 2017. Study invitations were mailed out to a random sample of 1000 eligible participants by the Australia Government DHS. A sample size calculation for this cross-sectional study was conducted.³⁴ The confidence level was set at 90% with a 5% margin of error. The estimate proportion of the population who used PPR when selecting a hospital was set at 0.4. The required sample size was 261 participants. The expected response rate, based on previous research conducted by the Centre for Health Policy, was approximately 20–30%. Researchers were not provided with contact details of the selected sample. Study invitations included a cover letter from the DHS, a plain language explanation of the study, the questionnaire and a reply-paid envelope addressed to the researchers. Each participant received a \$10 e-gift card as reimbursement for their time if they included an email address with their return questionnaire.

Data analysis

Descriptive analyses of the closed-ended questions were conducted using the Statistical Package for the Social Sciences (SPSS) V.23. A conventional qualitative content analysis of the two open-ended questions was conducted using QSR NVivo 11. Conventional qualitative content analysis aims to interpret meaning inductively from the content of text data without using preconceived categories.³⁵ Codes were derived directly from the text data and then grouped into categories that represented similar meaning.

Ethical considerations

The return of the questionnaire was taken as an indication of voluntary consent to participate.

RESULTS

Sample characteristics

In total, 243 participants completed the questionnaire (24% response rate). Compared with respondents, non-respondents were more likely to be men and younger. The sample was somewhat representative of the Australian population who has had cancer elective surgery. Patients with breast cancer (64% vs 58%) and lung cancer (9% vs 7%) were slightly over-represented, whereas patients with bowel cancer were under-represented (27% vs 35%).³⁶

The characteristics of the respondents are described in [table 1](#). Almost 64% of respondents were diagnosed with breast cancer, 27% with bowel and 10% with lung

Table 1 Demographic characteristics of respondents (n=243)

	N (%)
Cancer type	
Breast	155 (63.8%)
Bowel	65 (26.7%)
Lung	23 (9.5%)
Diagnosis period	
Less than 12 months	176 (72.4%)
Between 1 and 5 years ago	65 (26.7%)
More than 5 years ago	2 (0.8%)
Gender	
Male	49 (20.2%)
Female	191 (78.6%)
Missing	3 (1.2%)
Age groups	
25–34	3 (1.2%)
35–44	13 (5.3%)
45–54	36 (14.8%)
55–64	77 (31.7%)
65–74	73 (30.0%)
75–84	32 (13.2%)
85+	6 (2.5%)
Missing	3 (1.2%)
Country of birth	
Australia	186 (76.5%)
Others*	53 (21.8%)
Missing	4 (1.6%)
Language spoken at home	
English	230 (94.7%)
Others†	8 (3.3%)
Missing	5 (2.1%)
Marital status	
Single/never married	10 (4.1%)
Married/in a defacto relationship	193 (79.4%)
Widowed/divorced/separated	37 (15.2%)
Missing	3 (1.2%)
Education	
Postgraduate	25 (10.3%)
Bachelor	45 (18.5%)
Diploma/certificate	75 (30.9%)
High school	93 (38.3%)
Missing	5 (2.1%)
Employment	
Full-time	45 (18.5%)
Part-time/casual	34 (14.0%)
Self-employed	18 (7.4%)

Continued

Table 1 Continued

	N (%)
Retired/pensioner/unemployed	124 (51.0%)
Other‡	18 (7.4%)
Missing	4 (1.6%)
Occupation (limited to those working)	
Manager	22 (22.7%)
Professional	39 (40.2%)
Technician or trades worker	4 (4.1%)
Community of personal service worker	3 (3.1%)
Clerical or administrative worker	15 (15.5%)
Sales worker	0 (0.0%)
Machinery operator or driver	0 (0.0%)
Labourer	0 (0.0%)
Never worked for a wage	0 (0.0%)
Other	13 (13.4%)
Missing	1 (1.0%)
Household income	
Less than \$25 000	22 (9.1%)
\$25 000–\$49 999	51 (21.0%)
\$50 000–\$99 999	69 (28.4%)
\$100 000 or more	51 (21.0%)
Prefer not to stay	36 (14.8%)
Missing	14 (5.8%)
Healthcare benefits	
Yes	107 (44.0%)
No	134 (55.1%)
Missing	2 (0.8%)
Private health insurance	
Yes	235 (96.7%)
Hospital cover only	28 (11.9%)
Extras cover only	1 (0.4%)
Hospital and extras cover	206 (87.7%)
No	5 (2.1%)
Missing	3 (1.2%)

*Others include Argentina, Bosnia and Herzegovina, Canada, China, Croatia, Denmark, England, France, Germany, Hungary, India, Iran, Ireland, Italy, Malta, New Zealand, Philippines, Romania, Scotland, Taiwan, The Netherlands, Uruguay, the USA, Vietnam and Wales.

†Others include Danish, Farsi, French, Italian, Mandarin, Serbian and sign language.

‡Others include those who are currently not working due to their illness and home duties.

cancer, with the majority diagnosed in the last 12 months (72%). Almost all respondents were women (79%) aged between 55 and 74 years (62%). The majority were born in Australia (77%) and spoke English at home (95%) and were married/in a defacto relationship (79%). Almost 30% had a bachelor/postgraduate degree (a

slight under-representation of Australian women with a bachelor degree or higher³⁷). Half of the respondents were pensioners/retirees and 40% were employed. Of those employed, over 60% worked in a professional or managerial position. Over half had a household income less than AUD\$100 000 (the median annual gross household income in Australia for the 2015–2016 period was \$84 032³⁸). Fewer than half (44%) held a healthcare benefits card (eg, healthcare card which entitles access to cheaper prescription medicines). Almost all respondents (97%) had private health insurance that included hospital treatment, and most (88%) had insurance that also covered ‘extras’ such as outpatient physiotherapy.

Hospital stay and choice

Respondents self-reported that 94% attended a private hospital and 6% attended a public hospital for cancer surgery. Among those who attended a public hospital, 87% were private patients and 13% were public patients. The small proportion of public patients in the sample may suggest that some of the care provided involved a private component (eg, certain diagnostic imaging and pathology services are not fully covered by Medicare³⁹). Alternatively, this could have been a clerical error in the MBS records. Costs of private hospitals were reportedly co-paid by the respondents and their health insurer (49%) or fully covered by their health insurer (47%). Three per cent of respondents self-funded their treatments. Almost half (48%) of respondents attended their preferred hospital, 28% did not have a choice in hospital and 25% did not have a hospital preference. Of those who did not have a choice of hospital, 37% indicated that they would have liked to have had a choice.

Awareness and use of PPR information

Ninety-two per cent of respondents reported no awareness of PPR information. Of those who were aware of it, 88% did not use it when selecting a hospital and 56% considered PPR to be of little or no importance to inform their choice of hospital. Reasons cited for not using PPR information included limited choice of hospital, as well as prior experience with certain hospitals, and trust in the advice of their doctor:

We only have a private and public hospital where I live, so choice was limited regardless of the information provided (Respondent #111);

I was too sick to do any research at the time. I took advice from my specialist (Respondent #113).

Factors influencing hospital choice

Table 2 presents the factors that influenced the choice of hospital. PPR data did not influence choice of hospital for any respondent. The most common factors that impacted hospital selection were: specialists (90%); reputation of the hospital (24%); distance to the hospital from home (24%); patients’ previous experience (18%) and GPs’ advice (17%).

Table 2 Factors influencing hospital choice*

	N (%)
Specialist	218 (89.7%)
Distance to the hospital from home	57 (23.5%)
Reputation of the hospital	57 (23.5%)
Own experience	44 (18.1%)
General practitioners (GPs)	42 (17.3%)
Length of waiting list	37 (15.2%)
Health insurer provider	20 (8.2%)
Family members/friends	22 (9.1%)
Hospital catchment area	17 (7.0%)
Size of the hospital	4 (1.6%)
Hospital/other website	3 (1.2%)
Performance reporting website	0 (0.0%)
Booklet/leaflet or someone else at GP clinic	0 (0.0%)

*Total does not reflect 100% as patients could select multiple factors.

Barriers affecting the use of PPR

Table 3 shows the barriers affecting the use of PPR in selecting a hospital. The most common barriers impeding the use of PPR data included: lack of PPR awareness (74%); lack of PPR relevance (11%) and interested in PPR for their condition solely (10%).

Source of PPR information

Despite the lack of PPR awareness and barriers to the use of PPR, overall, 71% of respondents considered PPR to be ‘very important’ or ‘important’ to inform their choice or family members’ future choice of hospital. However, most did not want to access PPR information themselves, preferring their GPs or other healthcare providers to tell them about it (40%). Other preferred sources of PPR information included: websites (35%); printed books/directories (10%) and mobile phone applications (3%). A proportion of respondents did not want any PPR information (9%).

Table 3 Barriers affecting the use of public performance reporting information*

	N (%)
Not aware	179 (73.7%)
Not relevant	26 (10.7%)
Results about own condition	23 (9.5%)
Accuracy of the information	8 (3.3%)
No internet access	7 (2.9%)
Too difficult to understand	3 (1.2%)
It was out of date	2 (0.8%)
Unsure how to use the information	0 (0.0%)

*Total does not reflect 100% as patients could select multiple factors.

Table 4 Preferred types of public performance reporting information*

	N (%)
Costs of surgery	144 (59.3%)
Complication rates	141 (58.0%)
Successful recovery	138 (56.8%)
Patient's experience/satisfaction	132 (54.3%)
Medical errors	110 (45.3%)
Waiting times	109 (44.9%)
Readmission rates	91 (37.4%)
Mortality rates	72 (29.6%)
Length of stay	45 (18.5%)

*Total does not reflect 100% as patients could select multiple factors.

Preferred types of PPR information

Table 4 lists the types of PPR information that respondents most wanted access to. Over half of all respondents considered costs of surgery (59%), complication rates (58%), recovery success rates (57%) and information on patient's experience and satisfaction (54%) to be important areas to report on. Respondents indicated that they preferred PPR information to be reported at the individual clinician level (48%), followed by hospital level (31%) and specific clinical unit level within hospitals (18%).

Additional comments and concerns related to PPR

Almost half of the respondents (48%) provided information in one or both open-ended questions. Analysis of their responses revealed four themes: (1) decision-making factors; (2) data credibility; (3) unmet information needs and (4) unintended consequences. Themes 2, 3 and 4 provided further insights into PPR of hospital data which were not captured in the quantitative findings.

Decision-making factors

Consistent with the quantitative findings, choice of hospital was determined by advice from specialists or GPs rather than PPR information. Although respondents perceived PPR to be important for hospital accountability and transparency, they reported that their choices were restricted to the hospital or hospitals where their specialist performed surgery. Other respondents had relied on their GP for a specialist recommendation:

I did not check on the hospital. My surgeon was recommended as the 'best' by my GP who I trust and she could operate quickly and worked out of a specific hospital—no choice to be made. (Respondent #39)

Some respondents preferred their GPs to be informed about PPR information and relay it to them or direct them to an appropriate website or other resource to inform their decision. Additional factors influencing patients' selection of hospital included family and friends.

Data credibility

Although over 90% of respondents reported not being aware of PPR, they nonetheless raised concerns with the reliability, validity and timeliness of the data. Some were cynical and suspicious of the data, questioning their trustworthiness:

The hospital's information accuracy. No hospital is going to let 'issues' out, otherwise loss of patients means loss of money and so it goes. In an ideal world, we could 'believe' the information and make our decisions as consumers with accuracy. I don't believe the information will truly reflect the real world. I have seen government departments fudge stuff. (Respondent #200)

Some respondents expressed concern around the lack of clarity around who collected the data (ie, independent body), how it was collated (ie, qualifications and experiences of the people and data quality processes) and why certain areas of information (ie, quality and performance indicators) were chosen to be reported.

Unmet information needs

Respondents reported the following areas of information (currently not available on the MyHospitals website) to be of interest: patient experiences; hospital cleanliness; food quality; nursing standards (eg, bedside manners) and hospital facilities (eg, available entertainment such as movie/tablet rentals). However, several respondents worried that reporting patient experiences may be misleading and damaging to a hospital's reputation if there were no site moderators:

As a patient I am not a medical expert as are other patients (not medical experts). We can comment on the level of care but not the medical treatment. So, my opinion and that of other patients is very subjective. Just like 'TripAdvisor' someone could rubbish a hospital with no medical grounds or expertise. (Respondent #52)

Unintended consequences

Additional PPR concerns raised by respondents included unnecessary stress and increased pressure on hospital staff because of PPR. Some respondents likened PPR of hospital data to the education reporting system which compares how a school is performing on the National Assessment Plan Literacy and Numeracy tests with other similar schools. A respondent claimed that increased focus on reporting in the education sector resulted in poorer education and expressed concern that PPR of hospital data could similarly lead to a deterioration in the quality of care provided. Some respondents suggested that PPR systems need to be designed in a way which minimises administrative burden and is supportive of hospital staff:

It would have to be carefully designed to be fair to all involved without creating excessive administrative and pressure and hierarchy, as sometimes happens in

schools reporting—overly burdensome for staff, so counter-productive. (Respondent #57)

DISCUSSION

The results of the study, which are reflective of experiences in the private healthcare sector, highlighted that many respondents did not use PPR information to inform their hospital choice, mainly because they were not aware of it. This is consistent with previous studies.^{15–18} Instead, as patients, they were guided by their specialists when selecting a hospital. Almost half of respondents reported that they did have a choice of hospital, which suggests they were involved in the decision-making process with their specialists. Others have reached similar conclusion.⁴⁰ Although determining how the specialists and patients selected hospitals was not part of this study, the responses to the open-ended questions revealed that the availability of specialists, and where he/she performed the elective surgery, generally determined which hospital was attended. Future research is required to explore the decision-making process between specialists and patients, and whether the dissemination of PPR information to patients via specialists (as potential mediators of patient choice) is feasible.

The limited awareness of PPR among respondents may be associated with the lack of mandatory PPR for private hospitals. Over a third of Australian private hospitals voluntarily participate on the MyHospitals website.⁵ Some private healthcare providers (eg, Healthscope and Ramsay Health Care) publish their own PPR websites.^{7,8} However, Ramsay Health Care reports aggregated data on quality indicators for all of their private hospitals combined, instead of individual hospitals, clinicians or conditions—this limits its relevance and usability for healthcare consumers. Recently, Healthscope launched the MyHealthscope website which allows healthcare consumers to view and compare the performance of each of their hospitals against the industry rate. Again, the results are not stratified by conditions nor reported at the individual clinician level.

Almost half of the study respondents proposed that publicly reported hospital-related information (which includes quality and performance indicators) be reported at the level of individual clinicians. In the USA and the UK, ratings of individual clinicians working in hospitals are publicly reported.⁴ There is evidence that public reporting of such data has led to improvement in the quality of care.^{41,42} However, unintended consequences such as ‘cream-skimming’ and ‘gaming’ (ie, avoiding treating high-risk patients who are likely to have poor outcomes) have also been reported.^{43,44} In Australia, debates surrounding PPR of individual specialist level continue.^{45–47}

Consistent with previous research, we found the following performance indicators to be of relevance to patients: costs of surgery; complications rates; success rates; patient experiences; hospital cleanliness and food quality.^{48,49} None of these quality indicators are currently reported on the MyHospitals website.⁵ Patient experience is one of the 17 indicators recommended to be publicly reported on the

MyHospitals website; methodological issues (ie, lack of national comparable information), however, have prevented this. In contrast, several state-based performance websites do report on patient experience, complications and standards of cleaning—to various level of details.^{9,10,50,51} The Bureau of Health Information in New South Wales is the most thorough and interactive in its web-based reporting.¹⁰ Although some of the quality indicators collected by the state governments are similar, there is no consistency in the tools used to collect the data. For example, the inpatient experience surveys conducted in Victoria (92 questions),⁵² New South Wales (99 questions)⁵³ and South Australia (71 questions)⁵⁴ are drawn from various sources, including the National Health Service inpatient survey, the Picker Institute Questionnaire, the Patient Experience Information Development Working Group, each state’s key performance indicators and a national set of core common patient experience questions. This limits comparison at the national level, but allows hospital comparison within states. In other countries, such as England, the Netherlands and the USA, the patient reported experience and outcomes are routinely collected and available for consumers to view. These measures are found to be positively associated with delivery of care,⁵⁵ clinical outcomes,⁵⁶ clinical effectiveness and patient safety.⁵⁷

None of the performance websites in Australia describe costs of surgery. There are no costs associated with attending an Australian public hospital as a public patient. It may not be surprising then that costs of surgery, and associated out-of-pocket costs, are not reported. However, knowing out-of-pocket costs was considered important for patients with private healthcare insurance. Costs of elective surgery were fully covered by private healthcare insurance in only 47% of cases, with one respondent commenting that the out-of-pocket cost for her breast cancer surgery was AUD\$7500. In Australia, there are limited publicly available sources for patients to access information on out-of-pocket costs for inpatient and outpatient care.^{58,59} The Royal Australasian College of Surgeons, in collaboration with Medibank (an Australian private health insurer), publishes surgical variance reports which describe average out-of-pocket charges for surgeons and other medical services (ie, anaesthetist, assistant surgeon and for diagnostics). Their reports are not targeted at consumers but for specialists, to encourage improvement in private hospital clinical outcomes and patient care. In the USA, report cards and reporting websites (eg, OpsCost,⁶⁰ Healthcare Bluebook⁶¹ and Fair Health consumers⁶²) have been developed to help consumers compare hospital quality and cost of care. Evaluation of report cards with cost information, in an experimental setting, showed that some employees avoided low-cost providers because they perceived low-cost care as substandard and higher prices as a proxy for better quality.⁶³ The authors suggested that quality indicators, including costs data, may improve consumers’ decision-making. Given the limited research in this area, and the growth in comparative quality and cost websites, further studies are warranted to evaluate its accessibility, usefulness and content for consumers.

Although many respondents considered PPR to be important for transparency and accountability, they were sceptical of the reliability and validity of PPR data. The reason for this was unclear given that most patients were not aware of PPR. Some comments from the open-ended questions demonstrated lack of understanding of how PPR data are collected and collated and the methodologies used to construct the quality indicators. In support, past research suggests that consumers distrust PPR data because they have difficulties interpreting the information.^{11 19 64} In the USA, consumer-focused best practice guidelines have been developed for presenting, promoting and disseminating PPR data to improve their comprehensibility and perceived trustworthiness.^{49 65}

Patients preferred that the dissemination of PPR information occurs via their GPs. In Australia, GPs are gatekeepers to secondary care with patients requiring GPs' referrals for non-emergency access. Therefore, GPs are in a good position to help patients interpret PPR data or guide patients to appropriate resources to support decision-making. However, past research shows that GPs rarely used PPR information when referring patients to hospitals because they were unaware of PPR data and they had concerns about its reliability and validity.^{31 66 67} Addressing these barriers is essential if GPs are to be a viable source of PPR information for their patients.

Limitations

These findings should be interpreted carefully due to several limitations. Given the non-population representative characteristics of respondents (older women who used private hospitals), the results are not generalisable to other cancer elective surgeries, younger patients and public hospitals. Future research is needed to gather data from a larger sample and to expand this study to other elective surgeries and public patients in public hospital (who could be recruited via the individual state/territory government which holds their records). Recall bias may have also affected our results, particularly among elderly patients.^{68 69} However, we attempted to minimise recall bias by ensuring that only patients who had cancer elective surgery within the last 12 months were eligible to complete the questionnaire.

CONCLUSIONS

PPR of hospital data appears to have no substantial impact on selection of hospitals among a randomly selected cohort of Australian patients with breast, bowel or lung cancer who were treated as private patients. Almost one-third of respondents reported that they had no choice of hospital, and current PPR information did not appear to meet their information needs. Nevertheless, a substantial number of respondents expressed interest in PPR information and claimed that they would like to use it for their future decision-making. Given the growing prevalence of performance data being publicly disseminated through the internet, further efforts are required to develop and include quality and cost indicators that are of interest to patients. While

this study focused on people treated for cancer, it has relevance for all consumers of healthcare. Future dissemination of PPR information to patients via specialists and GPs may enable patients to make clinically and financially informed choices with the assistance of their medical doctors.

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