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Evidence Check

Surveying patient experience of surgical care

An **Evidence Check** rapid review brokered by the Sax Institute for the NSW Bureau of Health Information. November 2017.

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This report was prepared by:
Jane Young, Daniel Steffens, Rebecca Venchiarutti, Lyndal Alchin, Katie McBride

The Surgical Outcomes Research Centre (SOuRCe) and RPA Institute of Academic Surgery

November 2017
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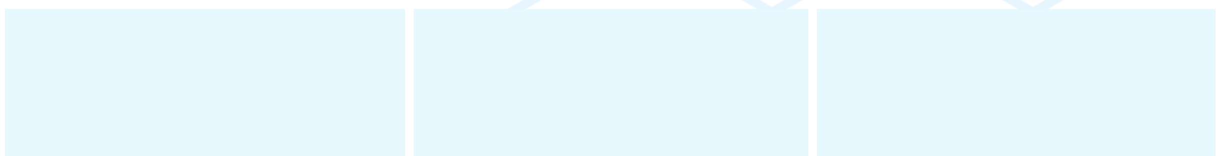

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List of abbreviations

AIHW	Australian Institute of Health and Welfare
ANZCA	Australian and New Zealand College of Anaesthetists
BHI	Bureau of Health Information
CAHPS	Consumer Assessment of Healthcare Providers & Systems
ECPES	English Cancer Patient Experience Survey
ED	Emergency Department
GRS	Global Rating Scale
GSCOES	General Surgery Clinic Outpatient Experience Survey
ICU	Intensive Care Unit
INPES	Irish National Patient Experience Survey
NHS	National Health Service
NHS-AIS	National Health Service — Adult Inpatient Survey
NHS-DCSQ	National Health Service — Day Case Surgery Questionnaire
NICPES	Northern Ireland Cancer Patient Experience Survey
NZNAIES	New Zealand National Adult Inpatient Experience Survey
OAS-CAHPS	Outpatient Ambulatory Surgery — Consumer Assessment of Healthcare Providers & Systems
OECD	Organisation for Economic Co-operation and Development
PGASS	Press Ganey Ambulatory Surgery Survey
PROMs	Patient Reported Outcomes Measures
PREMs	Patient Reported Experience Measures
PRIMs	Patient Reported Incidence Measures
PSQ	Patient Satisfaction Questionnaire
PSS	Patient Satisfaction Survey
SCPES	Scottish Cancer Patient Experience Survey
SIPES	Scottish Inpatient Patient Experience Survey
SOuRCe	Surgical Outcomes Research Centre
WCPES	Wales Cancer Patient Experience Survey
WHO	World Health Organisation

Executive summary

Background

Patient experience surveys can be an important component of health service performance monitoring. Patient-reported measures allow the experience of those for whom health services are designed to provide feedback on their care, so that services can be optimised to best meet patients' needs. With a surgical procedure occurring during approximately one in four hospital separations in Australia, surgical care is a major part of the health system. Surgical patients face some issues that are distinct to the surgical context that may not be adequately addressed in generic patient experience surveys.

This review was commissioned by the NSW Bureau of Health Information (BHI) to provide input into the development of two possible surveys for NSW:

- A survey of patient experience of planned surgery
- A survey of patient experience of emergency surgery.

The purpose of this review was to provide a summary of surveys in current use in Australia and internationally that assess any aspect of surgical patients' experience of their care for the purpose of health service performance measurement. Patient-reported experience measures (PREMs), patient-reported outcome measures (PROMs) and patient-reported incidence measures (PRIMS) used to assess the quality of health systems or services were within the scope of this review.

Review questions

This review aimed to address the following questions:

1. What methods, approaches and tools have been used to survey the experience of patients that have undergone surgery?
2. Of the surveys found in question one, what aspects of care are most commonly covered in surveys of surgical patient experience?
3. Of the methods, approaches and tools identified in question one, what was the main aim/purpose of surveying patient experience in the applied context?

Summary of methods

Search strategy

The literature search had two components. First, a systematic search for grey literature was performed (for example, reports and papers published by government departments, public or private health service providers, non-government agencies, consumer organisations, professional bodies, advocacy groups). A list of organisations, societies and professional bodies involved in health performance measurement or quality improvement in English-speaking Organisation for Economic Co-operation and Development (OECD) countries was compiled. The website of each organisation was then searched for information pertaining to surgical patient surveys and the use of PREMs, PROMs or PRIMs. In addition, each organisation was contacted directly to enquire about the existence of surgical patient experience surveys. Second, a literature search of the Medline database and the Cochrane Library was conducted to identify potentially eligible studies in the peer-reviewed literature.

Selection of studies and surveys

One reviewer evaluated each website and the title and abstract for each citation identified in the Medline and Cochrane searches and excluded clearly irrelevant studies or surveys. For the remaining surveys, copies

of questionnaires and the full text of articles or supporting documents were obtained and assessed against the study inclusion and exclusion criteria. Where there was doubt, a second reviewer assessed the relevance of the article. Key information was extracted from each survey report and tabulated to address the specific review questions.

Key findings

Q1: What methods, approaches and tools have been used to survey the experience of patients that have undergone surgery?

The review identified 19 instruments in use to measure surgical patient experience. These comprised 10 surgery-specific questionnaires and an additional nine generic patient experience questionnaires that included some surgery-specific items. Of the 10 surgery-specific questionnaires, most were designed for surgical patients generally, with the exception of the Department of Health, UK/King's Fund suite of PROMs questionnaires which were procedure-specific for hernia, hip replacement, knee replacement and varicose veins surgery, and the Agency for Healthcare Research and Quality's Consumer Assessment of Healthcare Providers and Systems (CAHPS) Cancer Care Survey for patients who have cancer surgery. Four of the 10 questionnaires were designed for use with patients who had surgery in either a day surgery or hospital inpatient setting, three were specific for day surgery, one was for patients attending pre- or post-operative consultations in ambulatory settings and one was for patients having planned colonoscopy as an outpatient. One questionnaire specifically addressed patients' experience of anaesthesia. There were no specific questionnaires for patients who had emergency surgery, either as a result of an unplanned admission through an emergency department or as an unplanned, urgent procedure while a hospital inpatient.

The majority (7/9) of generic patient experience questionnaires that included items specific to surgical patients were from the United Kingdom, with one additional questionnaire from the Republic of Ireland and one from New Zealand. The number of surgery-specific items included in these questionnaires ranged from two to 11.

Q2: Of the surveys found in question one, what aspects of care are most commonly covered in surveys of surgical patient experience?

The majority of surveys (18/19) addressed patient experience of the processes of care (PREMs). Only the UK was found to be using surgery-specific PROMs questionnaires, currently limited to patients undergoing one of four procedures. These questionnaires assess relevant pre-operative symptoms and post-operative outcomes but do not address patients' experience of care. Of the remaining nine surgery-specific questionnaires, five addressed both patient experience and patient-reported outcomes. No surveys were found that were used explicitly for measurement of patient-reported incidence measures (PRIMs) for a jurisdiction.

None of the questionnaires found in this review investigated early stages of the surgical care pathway such as the experience of presenting to a general practitioner, undergoing diagnostic investigation or deciding which surgeon to consult. Four questionnaires from the US, Australia and the UK, (the CAHPS Surgical Care Survey and CAHPS Cancer Care Survey – Cancer Surgery version, General Surgery Clinic Outpatient Experience Survey, and National Health Service (NHS) – Day Case Surgery Questionnaire) addressed pre-operative care in a clinic or surgeon's office. Experience of involvement in decision-making was addressed in four of the surgery-specific questionnaires. Items addressing decision-making ranged from questions about whether the person was involved as much as they wanted to be in the decision-making process and whether patients were asked in the pre-operative period about their preferred treatment options.

Most questionnaires identified in this review addressed patients' experience of preparation for surgery, with a focus on provision of information and the opportunity to ask questions about the proposed surgical procedure. Items relating to ease of getting appointments, finding the facility, cleanliness, privacy, adequacy

of information, communication with clinical staff and being treated with dignity and respect were common in these questionnaires.

Seven of the 10 surgery-specific questionnaires addressed patients' experience of the actual surgical procedure or anaesthetic and seven included questions about the discharge process.

Q3: Of the methods, approaches and tools identified in question one, what was the main aim/purpose of surveying patient experience in the applied context?

The majority (18/19) of questionnaires identified in this review were developed for the purpose of gathering information to monitor and improve the quality of health care services, either at the level of a facility, region or health system (for example, the NHS). The exception is one survey focussing on patients' experience of anaesthesia that is used by Fellows of the Australian and New Zealand College of Anaesthetists as part of their continuing professional development.

Gaps in the evidence

There were many components of the surgical patient journey that were not covered in existing patient experience questionnaires, including:

- Presentation to a general practitioner with a symptom, diagnostic investigation, decision to consult a surgeon
- Decision-making around referral pathway (choice of hospital and surgeon), preferences for surgical modality (e.g. laparoscopic, open, robotic surgery)
- Experience of pre-operative fasting
- Experience of being given an anaesthetic (local, regional block or general)
- Experience during the procedure (for those not having a general anaesthetic) and in the recovery room
- Post-operative inpatient stay, care from allied health professionals, in-hospital complications or return to theatre
- Experience of emergency surgery (either resulting from emergency department attendance or urgent, unplanned procedures for hospital inpatients)
- Participation in hospital-based research.

Discussion of key findings

This review identified 10 surgery-specific questionnaires and a further nine generic instruments that included surgery–specific items to measure PREMs and PROMs for patients who have a surgical procedure. No questionnaires specifically addressed emergency surgery and none covered the entire surgical patient journey. Among the currently-available questionnaires, the CAHPS Surgical Care Survey from the US and the Global Rating Scale (GRS) from Canada provided the most comprehensive coverage of a typical surgical patient journey. Australian questionnaires are currently available for public outpatient surgical care, anaesthesia and day case surgery but not for inpatient surgical care. Even when a component of the surgical journey was covered, there were major gaps in content in all questionnaires reviewed.

Conclusion

While the identified questionnaires address important issues about surgical procedure, communication with clinicians and administrative processes and health care facilities, there were significant gaps related to decision-making and the experience of care in the surgical setting in NSW. Given the unique makeup of the Australian health care system, a bespoke surgical patient experience instrument, or suite of surgery-specific items, would enhance collection of context-specific patient experience data in NSW for health system and health service improvement.

Background

Measurement of patients' experiences of their care is an important component of comprehensive assessment of quality of care and health service performance. Such measures allow the experience of those for whom the health services and systems are designed to provide feedback on their care, so that services can be improved and optimised to best meet patients' needs. With a surgical procedure occurring during approximately one in four hospital separations in Australia[1], surgical care is a major part of the health system. Surgical patients face some issues that are distinct to the surgical context that may not be adequately addressed in generic patient experience surveys.

This review was commissioned by the NSW Bureau of Health Information (BHI) to provide input into the development of two possible surveys for NSW:

- A survey of patient experience of planned surgery
- A survey of patient experience of emergency surgery.

The Surgical Outcomes Research Centre (SOuRCe) was contracted by the Sax Institute to undertake the Evidence Check Rapid Review. During an initial briefing and follow-up teleconference, the intent and scope of the review was clarified and refined.

The overarching purpose of this review is to provide a summary of the surveys in current use in Australia and internationally that assess any aspect of surgical patients' experience of their care for the purpose of health service performance measurement. Patient-reported experience measures (PREMs), patient-reported outcome measures (PROMs) and patient-reported incidence measures (PRIMS) used to assess the quality of health systems or services were within the scope of this review. However, PREMs, PROMs or PRIMs used only for clinical or research purposes were not relevant for this review. Furthermore, this review does not include measures of patient satisfaction, as these are closely related to patients' expectations rather than their experience per se, and so are not ideal for performance measurement. This review aims to synthesise and provide assessment of the questions used in survey instruments (questionnaires), and to map these to the stages along a typical surgical patient journey, as well as to describe the survey methods and approaches used.

Methods

This review focussed on patient experience surveys that have been used as part of health performance measurement for a jurisdiction. It excluded patient experience surveys that have been used within individual research projects or for clinical purposes. As such, the primary source of evidence was the grey literature rather than peer-reviewed literature.

Search strategy plan

The literature search had two components. First, a systematic search for grey literature (reports and other documents not included in bibliographic databases) was performed. Second, a focussed search of peer-reviewed literature was undertaken using bibliographic databases.

Grey literature

A jurisdictional approach was taken to searching for existing questionnaires or surveys in use to measure patients' experience of surgery. First, a grey literature search was undertaken for informally published material from websites of organisations, societies and professional bodies involved in performance measurement or quality improvement for a jurisdiction. A list of relevant organisations in English-speaking Organisation for Economic Co-operation and Development (OECD) countries (Australia, New Zealand, UK, Ireland, Canada and the US) was compiled from extant knowledge and web searching, with input from the BHI. For each country, systematic web searching was undertaken at the national level as well as for administrative regions (states, provinces) within countries to identify health departments or other organisations that undertake hospital performance monitoring or quality improvement at a jurisdictional level. The website of each organisation was then searched for information pertaining to surgical patient surveys and the use of patient-reported experience, outcome or incidence measures. In addition, each organisation was contacted directly to enquire about the existence of surgical patient experience surveys that were not reported or accessible on the organisational website. The list of organisations searched and contacted, and the outcomes from these searches is available in Appendix 1.

Peer review literature

A search of electronic medical databases was conducted to identify relevant peer-reviewed journal articles that reported jurisdictional surveys of surgical patient experience. The search strategy aimed to provide an appropriate balance between comprehensiveness (sensitivity) and specificity for the purposes of this Rapid Review. MEDLINE (via Ovid) and the Cochrane Library (via www.cochranelibrary.com) were searched for potentially eligible studies from 1st January 2007 to 20th July 2017. Reference lists from identified articles were also reviewed and potentially relevant citations were assessed. The final electronic search strategies are presented in Appendices 2 and 3.

Inclusion and exclusion criteria

Results from searches were assessed against the review inclusion and exclusion criteria outlined below:

Inclusion criteria:

- Article or report describes a survey of surgical patients in the pre-admission, inpatient or post-discharge period
- Survey collects information on surgery-specific patient-reported experience measures (PREMs), patient-reported outcome measures (PROMs) or patient-reported incidence measures (PRIMs)
- Survey was developed to investigate system performance or quality of care at a jurisdictional level
- Survey is in current use to collect jurisdictional-level data

- Survey was conducted in an English-speaking OECD country (Australia, New Zealand, UK, Ireland, Canada, US)
- Survey was for adults aged 18 years and over
- Survey participants were patients who have had a surgical procedure (including endoscopic procedures) during a hospital admission (including day-only admissions)
- Survey was conducted in English
- Survey was conducted or reported in 2007 or later.

Exclusion criteria:

- Survey reports patient satisfaction only
- Survey uses non-surgery specific instruments only
- Survey instrument has not actually been used for a jurisdictional survey (i.e. reports development or validation of instrument only)
- Survey was conducted as part of a clinical study
- Survey was of clinicians or family members, not of patients themselves.

During the first screening, one reviewer from SOuRCe evaluated each website and the title and abstract for each citation identified in the Medline and Cochrane searches, and excluded clearly irrelevant surveys or studies. Where there was doubt, the article or survey was considered potentially eligible and the full text of published articles or other resource material was reviewed. Two reviewers assessed each potentially eligible survey or study against the review inclusion and exclusion criteria. In case of disagreements, a third SOuRCe reviewer was consulted and disagreements were resolved by consensus.

Results

For the grey literature search, a total of 75 organisations were identified. Direct contact was made with 72 of these 75 organisations via email, phone or submission of an online enquiry form (Appendix 1). The remaining three organisations did not provide any information about how to contact them. Responses were received from 26 (36% response rate), with 17 organisations providing relevant information toward identifying a tool that fulfilled the selection criteria. A total of 16 surveys were identified through a grey literature search.

For the search of the peer-reviewed literature, after removal of duplicates, 392 titles were extracted and reviewed from a literature search of MEDLINE (Appendix 2). Following review of titles and abstracts, the full text of nine articles were reviewed, from which one was included in the final report (Figure 1). Review of reference lists for articles identified one additional article, and web-searching identified one additional article, for a total of three articles included in the report. A review of the Cochrane Library using the term "patient experience" yielded 86 results; however, none were relevant to this review (Appendix 3).

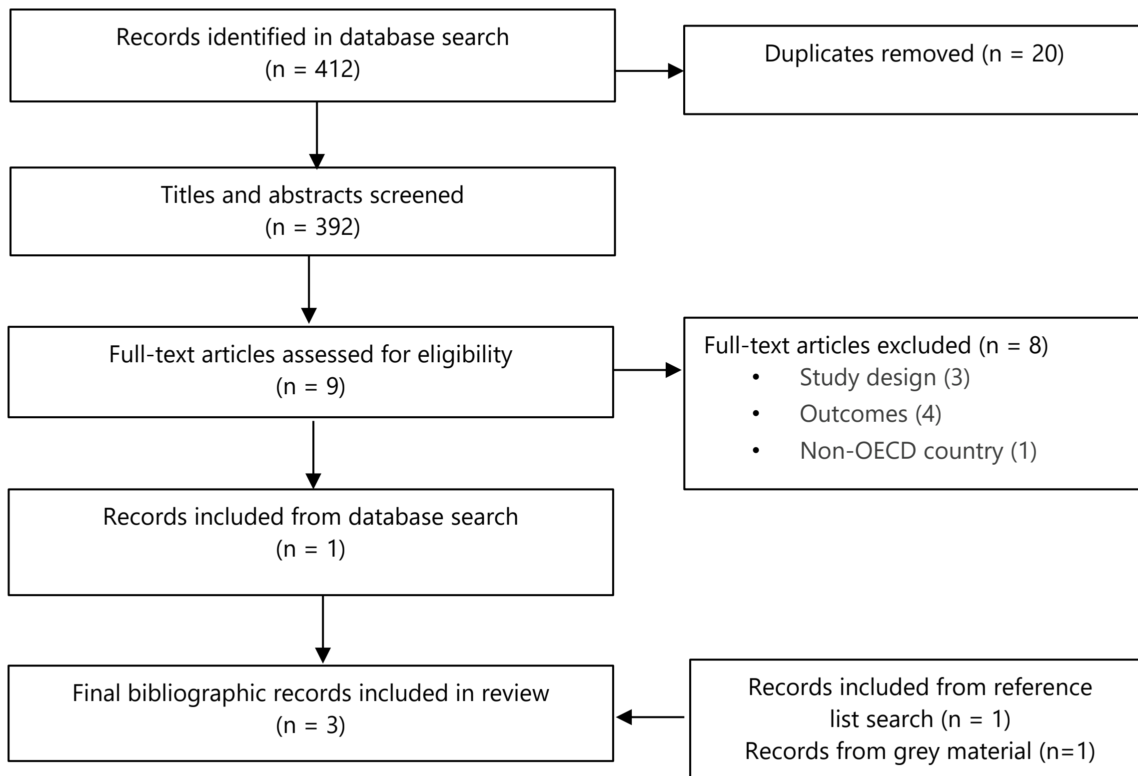

Figure 1: Flow diagram for results of bibliographic search

Findings

Question 1: What methods, approaches and tools have been used to survey the experience of patients that have undergone surgery?

The review identified 19 instruments in use to measure surgical patient experience. These comprised 10 surgery-specific questionnaires (Table 1a) and an additional nine generic patient experience questionnaires that included some surgery-specific items (Table 1b).

Surgery-specific questionnaires

Of the 10 surgery-specific questionnaires, most were designed for use with any surgical patient, with the exception of the Department of Health, UK/King's Fund suite of PROMs questionnaires which were procedure-specific for hernia, hip replacement, knee replacement and varicose veins surgery, and the Agency for Healthcare Research and Quality's CAHPS Cancer Care Survey[2] for patients who have had cancer surgery.

Five of the 10 surgery-specific questionnaires (ANZCA[3], UK PROMS[4], CAHPS Surgical Care Survey[5], CAHPS Cancer Care Survey-Surgical Care[2] and PSS[6]) were designed for patients who had a surgical procedure either as day surgery or during an overnight hospital admission, three were specific to day surgery (PGASS[7], PSQ[6], OAS-CAHPS[8]), one was for patients attending pre-admission or post-discharge consultations in public hospital outpatients' clinics (GSCOES[9]) and one was for patients having planned colonoscopy as an outpatient (GRS[10]).

Surgery-specific items within generic questionnaires

The majority (7/9) of generic patient experience questionnaires which included specific items for surgical patients were from the United Kingdom, with one additional questionnaire from the Republic of Ireland and one from New Zealand. The number of surgery-specific items included in these questionnaires ranged from two to 11.

Details of approaches and methods used to administer these surveys are summarised in Table 2, grouped by region.

Table 1a: Surgery-specific questionnaires used to measure surgical patient experience, by region

Survey Title	Organisation	Patient Cohort	# items	Timing	User rights	Link to survey Information
AUSTRALIA AND NEW ZEALAND						
General Surgery Clinic Outpatient Experience Survey, 2015-2016 (**GSCOES**)[9]	Department of Health, Queensland, Australia	Patients who have attended a Queensland public hospital general surgery specialist outpatient clinic (adults [16+] and children), including pre-admission and post-discharge consultations for elective surgical patients and post-discharge consultations for emergency surgery patients	51	Post-discharge	Copyrighted – not to be given to third party to be used on another survey. Other parties can apply to the Care Quality Commission (CQC) for use of the questions	https://www.health.qld.gov.au/system-governance/performance/patient-experience Questionnaire available upon request from Queensland Health
Anaesthesia and the Perioperative Period Patient Experience Survey (**ANZCA**)[3]	Australian and New Zealand College of Anaesthetists (ANZCA)	Patients who underwent anaesthesia for a surgical procedure either as day surgery or during overnight hospital admission in public or private sector	21	Inpatient (post-discharge acceptable)	Unclear	http://www.anzca.edu.au/documents/appendix_1a_patient_experience_survey.pdf
Press Ganey Ambulatory Surgery Survey (**PGASS**)[7]	Press Ganey, Australia	Adult day surgery patients in public or private sector	38	Post-discharge	Copyrighted, requires licence for use	http://www.pressganey.com.au/oursolutions.html Questionnaire available upon request from Press Ganey Australia
UNITED KINGDOM AND IRELAND						
PROMS – Hip Surgery Questionnaire (**UK PROMS**)[4]	Department of Health, United Kingdom/King's Fund	Surgical patients aged 12 and over undergoing elective uni-lateral hip replacement	27 pre, 31 post	Pre-surgery and 6 months post-surgery for each patient	Individual measures within questionnaire are licenced separately, but actual PROMS	http://webarchive.nationalarchives.gov.uk/+/http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_091815

Survey Title	Organisation	Patient Cohort	# items	Timing	User rights	Link to survey Information
PROMS – Knee Surgery Questionnaire (**UK PROMS**)[4]	Department of Health, United Kingdom/King's Fund	Surgical patients aged 12 and over undergoing elective uni-lateral knee replacement	27 pre, 31 post	At least six months after surgery	Questionnaire has no licences.	http://webarchive.nationalarchives.gov.uk/+/http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_091815
PROMS – Varicose Veins Surgery Questionnaire (**UK PROMS**)[4]	Department of Health, United Kingdom/King's Fund	Surgical patients aged 12 and over undergoing elective varicose veins surgery	28 pre, 32 post	At least six months after surgery		http://webarchive.nationalarchives.gov.uk/+/http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_091815
PROMS – Hernia Surgery Questionnaire (**UK PROMS**)[4]	Department of Health, United Kingdom/King's Fund	Surgical patients aged 12 and over undergoing elective groin hernia repair surgery	15 pre, 18 post	At least three months after surgery		http://webarchive.nationalarchives.gov.uk/+/http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_091815
Patient Satisfaction Survey (**PSS**)[6]	Hafiz & Kurrimboccus 2015 North Manchester General Hospital	Adult patients who had an inpatient surgical procedure (elective or emergency) in the NHS	39	At least three months after surgery	Free to use with reference to authors	http://www.ingentaconnect.com/contentone/afpp/jpp/2015/00000025/00000010/art00007
Patient Satisfaction Questionnaire (**PSQ**)[11]	McCloy & McCutcheon, 2016 Day Surgery Unit, Mid Ulster Hospital, Northern Health & Social Care Trust	Adult who had an elective day surgery procedure as a public patient	34	Pre-discharge	Free to use with reference to authors	http://www.magonlinelibrary.com/doi/10.12968/bjon.2016.25.13.736
UNITED STATES						
Outpatient Ambulatory Surgery CAHPS® (**OAS CAHPS**)[8]	Centers for Medicare & Medicaid Services (CMS)	Adult (18+) who had an elective day surgery procedure in a public outpatients or private ambulatory clinic setting	2016: 37 2018: 49	Post-discharge	Free to use, permission not required – survey users must use complete instrument to represent survey as CAHPS survey	https://oascahps.org/Survey-Materials

Survey Title	Organisation	Patient Cohort	# items	Timing	User rights	Link to survey Information
CAHPS® Surgical Care Survey **(CAHPS® Surg Care Survey)**[5]	Agency for Healthcare Research and Quality (AHRQ)	Adult (18+) patients who had an elective or emergency surgical procedure as a day case or during an overnight hospital admission	47	Post-discharge	Free to use, permission not required – survey users must use complete instrument to represent survey as CAHPS survey	https://www.ahrq.gov/cahps/surveys-guidance/surgical/instructions/get-surg-care-survey-instruct.html
CAHPS® Cancer Care Survey - Cancer Surgery Version (**CAHPS Cancer-Surgical)**[2]	Agency for Healthcare Research and Quality (AHRQ)	Adult (18+) patients with cancer who had an elective or emergency surgical procedure as a day case or during an overnight hospital admission Supplemental items (access, information from providers, shared decision-making) are cancer-specific but not surgery-specific	56 + 16 supplemental items	Post-discharge	Free to use, permission not required – survey users must use complete instrument to represent survey as CAHPS survey	https://www.ahrq.gov/sites/default/files/wysiwyg/cahps/surveys-guidance/cancer/surg-eng-cancer-553a.pdf
CANADA						
Global Rating Scale (**GRS**)[10]	de Jonge *et al*, 2010 Hospitals within Alberta Health Services	Patients undergoing elective colonoscopy	21 pre 32 post	Pre- and post-procedure for each patient	Free to use and adapt	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2975474/pdf/cjg24607.pdf

NB Abbreviations or shortened titles that will be used throughout this report in bold

Table 1b: Surgery-specific items within generic questionnaires used to measure patient experience, by region

Survey Title	Organisation	Patient Cohort	# surgery-specific items	Timing	User Rights	Link to Survey Information
AUSTRALIA AND NEW ZEALAND						
New Zealand National Adult Inpatient Experience Survey (**NZNAIES**)[12]	Health Quality & Safety Commission New Zealand (HQSC)	Adult (15+) overnight admitted patients in public hospitals	2	Post-discharge	Copyrighted – uses Picker questions, and the HQSC purchased a license from the CQC	https://www.hqsc.govt.nz/assets/Health-Quality-Evaluation/PR/patient-experience-methodology-and-procedures-Jul-2014.pdf
UNITED KINGDOM AND IRELAND						
NHS Adult Inpatient Survey – 2016 (**NHS-AIS**)[13]	Care Quality Commission (CQC), United Kingdom	Adult (16+) overnight admitted patients in NHS hospitals	8	Post-discharge	Copyrighted	http://www.nhssurveys.org/survey/1754
NHS Day Case Surgery Questionnaire (**NHS-DCSQ**)[14]	Care Quality Commission, United Kingdom	Adult (16+) elective day case patients attending NHS hospitals	11	Post-discharge	Copyrighted	http://www.nhssurveys.org/Filestore//documents/Day_Case_Surgery_allquestions.pdf
Irish National Patient Experience Survey (**INPES**)[15]	Health Information and Quality Authority, Republic of Ireland	Adult (18+) overnight admitted patients in public hospitals	4	Post-discharge	Copyrighted	https://www.patientexperience.ie/about-the-survey/
Scottish Inpatient Patient Experience Survey (**SIPES**)[16]	Department of Health, United Kingdom (Scottish Government)	Adult (16+) elective and emergency overnight admitted patients in public hospitals	6	Post-discharge	Copyrighted	http://www.gov.scot/Resource/0049/00498045.pdf
Northern Ireland Cancer Patient	Quality Care/NHS Northern Ireland	Adult (16+) elective and emergency, day case and overnight admitted	4	Post-discharge	Copyrighted	https://www.quality-health.co.uk/resources/surveys/northern-ireland-cancer-patient-experience-survey/northern-

Survey Title	Organisation	Patient Cohort	# surgery-specific items	Timing	User Rights	Link to Survey Information
Experience Survey (**NICPES**)[17]		cancer patients in NHS hospitals				ireland-cancer-patient-experience-survey-1/2015-northern-ireland-cancer-patient-experience-survey/northern-ireland-cancer-patient-experience-survey-material/372-northern-ireland-cancer-patient-experience-survey/file
Wales Cancer Patient Experience Survey (**WCPES**)[18]	Welsh Government/ Macmillan Cancer	Adult (16+) cancer patients, elective and emergency, day cases and overnight admitted in NHS hospitals	5	Post-discharge	Copyrighted	https://www.quality-health.co.uk/resources/surveys/welsh-cancer-experience-survey/2013-welsh-cancer-eperience-survey/welsh-cancer-experience-promotional-material/313-the-welsh-cancer-patient-experience-survey-english/file
Scottish Cancer Patient Experience Survey (**SCPES**)[19]	Scottish Government	Adult (16+) cancer patients, elective and emergency, day cases and overnight admitted in NHS hospitals	4	Post-discharge	Copyrighted	http://www.gov.scot/Resource/0050/00501127.pdf
English Cancer Patient Experience Survey (**ECPES**)[20]	NHS England	Adult (16+) cancer patients, elective and emergency, day cases and overnight admitted in NHS hospitals	3	Post-discharge	Copyrighted	http://www.ncpes.co.uk/index.php/reports/2016-reports/guidance-material-and-survey-materials/3212-2016-national-cancer-patient-experience-survey-questionnaire/file

Table 2a: Methods of survey administration and dissemination of results used in jurisdictional surveys of surgical patient experience for surgery-specific questionnaires, by region

Instrument	Source of Questions/ Development	Mode	Inclusion/Exclusion Criteria	Frequency/ timing of collection	Sampling methods	Dissemination of Results
AUSTRALIA AND NEW ZEALAND						
General Surgery Clinic Outpatient Experience Survey, 2015-2016 (**GSCOES**)[9]	Developed by Queensland Health during a series of multidisciplinary working group meetings (incl. consumer representation); questions based on Outpatients Department Survey 2011 Question Bank (copyright Care Quality Commission) with questions added, modified, or removed to suit local requirements	Telephone survey	Inclusions – adults (aged 16+) and children attending a public hospital general surgery specialist outpatient clinic from October 2015 to January 2016. Exclusions – left clinic before being seen, deceased, requested an interpreter, usual resident of an institution, selected in a previous round of sampling, insufficient contact information, refused consent to be contacted to give feedback, or unable to complete interview due to language barriers, speech/hearing impairment, or cognitive difficulty, or if unable to be contacted during data collection period	Conducted biennially, data collected within three months of attendance	State-wide random sample from each Hospital and Health Service	Facility reports disseminated to Hospital and Health Services (individual reports for facilities) in October 2016; 2017/18 survey results will be compared to 2015/16 survey, and a state report is also produced (results not publicly available)
Anaesthesia and the Perioperative Period Patient Experience Survey (**ANZCA**)[3]	Unclear	Telephone or paper-based	Inclusions – patients who underwent anaesthesia for a surgical procedure Exclusions – unclear	Administered within two weeks of surgery	Minimum of 15 surveys per specialist, and sampling should reflect general practice of anaesthetist	Used as part of CPD for anaesthetist; practitioner given a survey summary sheet and discussed with 'feedback provider'

Instrument	Source of Questions/ Development	Mode	Inclusion/Exclusion Criteria	Frequency/ timing of collection	Sampling methods	Dissemination of Results
Press Ganey Ambulatory Surgery Survey (**PGASS**)[7]	Originally developed in 1994, revised in 2002	Paper-based (mail)	Inclusions – attended an ambulatory surgery clinic. Exclusions – deceased, patients requesting exemption, patients transferred to other acute/palliative care facilities, current inpatients or patients that stayed >24 hours, newborns, patients with overseas address, patients with no fixed address	Continuous surveying over 12 months with weekly, monthly and quarterly reporting timeframes, or selected survey periods over a minimum of 8 weeks, or as a point-of-care solution prior to discharge	For 'small' databases, a minimum of 30 (50 preferred) surveys is required, for 'large' databases, a minimum of 106 (204 preferred) surveys is required Random sampling is required	Formal reports in a PDF and PowerPoint format; individual results are owned by the facility/client; aggregated, de-identified data is incorporated into comparative benchmarks
UNITED KINGDOM AND IRELAND						
PROMS – Hip Surgery Questionnaire (**UK PROMS**)[4]	Collection of EQ-5D™ and EuroQol Visual Analogue Scale (EQ-VAS) (from EuroQol Group) and the Oxford Hip Score, plus additional post-operative questions	Paper-based (pre-operative questionnaire completed in hospital, post-operative questionnaire completed by mail); moving toward digital collection	Inclusions – aged 12+ and undergoing unilateral hip replacement surgery Exclusions – patients undergoing a bilateral procedure, aged <12 years	At least six months after surgery	All consenting patients undergoing an elective unilateral hip replacement surgery	Data released annually with procedure-level summaries http://content.digital.nhs.uk/proms

Instrument	Source of Questions/ Development	Mode	Inclusion/Exclusion Criteria	Frequency/ timing of collection	Sampling methods	Dissemination of Results
PROMS – Knee Surgery Questionnaire (**UK PROMS**)[4]	Collection of EQ-5D™ and EQ-VAS (from EuroQol Group) and the Oxford Knee Score, plus additional post-operative questions	Paper-based (pre-operative questionnaire completed in hospital, post-operative questionnaire completed by mail); moving toward digital collection	Inclusions – aged 12+ and undergoing unilateral knee replacement surgery Exclusions – patients undergoing a bilateral procedure, aged <12 years	At least six months after surgery	All consenting patients undergoing an elective unilateral knee replacement surgery	Data released annually with procedure-level summaries http://content.digital.nhs.uk/proms
PROMS – Varicose Veins Surgery Questionnaire (**UK PROMS**)[4]	Collection of EQ-5D™ and EQ-VAS (from EuroQol Group) and Aberdeen Varicose Vein, plus additional post-operative questions	Paper-based (pre-operative questionnaire completed in hospital, post-operative questionnaire completed by mail); moving toward digital collection	Inclusions – aged 12+ and undergoing varicose veins surgery Exclusions – aged <12 years	At least three months after surgery	All consenting patients undergoing an elective varicose veins surgery	Data released annually with procedure-level summaries http://content.digital.nhs.uk/proms
PROMS – Hernia Surgery Questionnaire (**UK PROMS**)[4]	Condition-specific questions, not based on a pre-existing questionnaire	Paper-based (pre-operative questionnaire completed in hospital, post-operative	Inclusions – aged 12+ and undergoing open or laparoscopic groin hernia repair Exclusions – aged <12 years	At least three months after surgery	All consenting patients undergoing an elective groin hernia repair surgery	Data released annually with procedure-level summaries

Instrument	Source of Questions/ Development	Mode	Inclusion/Exclusion Criteria	Frequency/ timing of collection	Sampling methods	Dissemination of Results
		questionnaire completed by mail); moving toward digital collection				http://content.digital.nhs.uk/proms
Hafiz & Kurrimboccus, 2015 Patient Satisfaction Survey (**PSS**)[6]	Created by authors, not adapted from other surveys	Paper-based (in hospital)	Inclusions – all elective or emergency surgical patients admitted on two general surgery wards at a single institution Exclusions – patients with discomfort, dementia or audiovisual impairment	During inpatient stay	Patients on wards sampled over one month; 80 patients completed the questionnaire (61.5% response rate) – 51 female, 29 male; 52 non-elective, 28 elective	Peer-reviewed literature
McCloy & McCutcheon, 2016 Patient Satisfaction Questionnaire (**PSQ)**[11]	Adapted from a validated questionnaire (Done In A Day Questionnaire) from Boyle (2001)	Paper-based (in hospital)	Inclusions – admitted for day surgery, aged 16+, English speaking Exclusions – patients who opted out, unable to provide consent, aged <16 years, did not speak English	During inpatient stay	Patients sampled over one month; 98 questionnaires returned out of 130 (75% response rate) – non-probability convenience sample of consecutive patients	Peer-reviewed literature
UNITED STATES						
Outpatient Ambulatory Surgery CAHPS (**OAS-CAHPS**)[8]	Developed by the Centers for Medicare and	Mail only, telephone only, or mixed-	Inclusions – adults (18+) at time of surgery, surgical procedure is OAS-CAHPS eligible, most	At least 21 days after the end of the reporting month (if	All consenting eligible patients within each reporting month –	Released to client, will be publicly available

Instrument	Source of Questions/ Development	Mode	Inclusion/Exclusion Criteria	Frequency/ timing of collection	Sampling methods	Dissemination of Results
	Medicaid Services (US Government)	methods (including email) (may be administered yearly, quarterly, or continuously)	recent record only, must have a US domestic address	monthly) – typically 6 months look-back period	multiple sampling methods acceptable depending upon the components and volume of eligible patients, and analytic goals of client	from 2018 unless suppressed by facility
CAHPS® Surgical Care Survey (**CAHPS® Surg Care Survey**)[5]	Developed by the Centers for Medicare and Medicaid Services (US Government)	Mail only, telephone only, or mixed-methods (including email) (may be administered yearly, quarterly, or continuously)	Guidance documents currently not available – patients require at least one visit to provider/practice in the target time frame, only the most recent visit is included	At least 21 days after the end of the reporting month (if monthly) – typically 6 months look-back period	All consenting eligible patients within each reporting month	Released to client
CAHPS® Cancer Care Survey -Cancer Surgery Version (**CAHPS Cancer-Surgical**)[2]	Developed by the Centers for Medicare and Medicaid Services (US Government)	Mail only, telephone only, or mixed-methods (including email) (may be administered yearly, quarterly, or continuously)	Inclusions – adults (18+) receiving surgery for cancer for any purpose (curative/palliative) at any time in cancer continuum (newly diagnosed, recurrent) in any treatment setting, at any stage Exclusions – diagnosed with cancer but not treated, breast or cervical carcinoma in situ	At least 21 days after the end of the reporting month (if monthly) – typically 6 months look-back period	All consenting eligible patients within each reporting month	Released to client

Instrument	Source of Questions/ Development	Mode	Inclusion/Exclusion Criteria	Frequency/ timing of collection	Sampling methods	Dissemination of Results
CANADA						
de Jonge *et al*, 2010 Global Rating Scale (**GRS**)[10]	Adapted from the Global Rating Scale developed in Britain and from the previously validated Group Health Association of American nine-item survey (Yacavone et al 2001)[21] and from the 'Health Belief Model'	Paper-based	Inclusions – patients scheduled to undergo a colonoscopy at one of four hospital-based endoscopy clinics in Canada Exclusions – none apart from those unable to give informed consent	Enrolment between May and August 2008 of consecutive colonoscopy patients at four hospital-based endoscopy clinics	1,187 completed pre-procedure questionnaire – 634 completed post-procedure questionnaire	Peer-reviewed literature; has been translated into Dutch

Table 2b: Methods of survey administration and dissemination of results used in jurisdictional surveys of surgical patient experience within generic questionnaires, by region

Instrument	Source of Questions/ Development	Mode	Inclusion/Exclusion Criteria	Frequency/ timing of collection	Sampling methods	Dissemination of Results
AUSTRALIA AND NEW ZEALAND						
New Zealand National Adult Inpatient Experience Survey (**NZNAIES**)[12]	Selected from the Picker Institute library of questions and altered for the NZ context	Online or mail (paper)	Inclusions – surgical inpatients aged 15+ with at least one overnight stay Exclusions – admission to mental health facility, transferred from another facility, or patients who died in hospital	Patients discharged from a District Health Board (DHB) over a specified 2-week period are contacted 9 days after discharge; occurs quarterly	Random sampling of 400 patients from each DHB and weighted according to demographic characteristics	Results for each DHB are available online, and comparison is made against results from all New Zealand
UNITED KINGDOM AND IRELAND						
NHS Adult Inpatient Survey – 2016 (**NHS-AIS**)[13]	Selected from the Picker Institute library of questions	Mail (paper)	Inclusions – adult (aged 16+) inpatients with at least one overnight stay within the trust Exclusions – deceased, aged <16 years at sampling, obstetrics/maternity service users, psychiatry patients, day case patients, private patients, current inpatients, patients without UK postal address, patients who have opted out from such surveys	Eligible inpatients consecutively discharged from 31st July 2016; occurs annually	Data collected on 1350 patients for a final inclusion of 1250 (allowing for sampling errors)	Used for performance monitoring by the NHS and trusts within the NHS
NHS Day Case Questionnaire **(NHS-DCSQ)**[14]	Selected from the Picker Institute library of questions	Mail (paper)	Inclusions – adult (16+) surgical day case patients Exclusions – inpatients (whose day case led to overnight stay),	Consecutive patients discharged working backwards from the last day	Sample is mutually exclusive from the Adult Inpatient Surveys; 900 patients	Used for performance monitoring by the NHS and trusts within the NHS

			outpatients, diagnostics, aged <16 years, obstetrics/maternity users, deceased, psychiatry patients, private patients, current inpatients, patients with no UK postal address, those included in other survey samples	of the sampling month	to be included in final sample	
Irish National Patient Experience Survey (**INPES**)[15]	Selected from the Picker Institute library of questions	Online or mail (paper)	Inclusions – adult inpatients (18+) with minimum 24 hours in a public acute hospital Exclusions – day cases, maternity, psychiatric, paediatric, and other specialist services, or hold a postal address outside the Republic of Ireland	First conducted in May 2017	Consecutive patients discharged from 40 hospitals invited to participate (27,140 patients)	National report to be published in December 2017; individual and hospital-group reports also provided
Scottish Inpatient Patient Experience Survey (**SIPES**)[16]	Selected from the Picker Institute library of questions	Mail (paper), online, or telephone	Inclusions – adult (16+) inpatients with at least one overnight stay Exclusions – received care in a private hospital or hospice, non-Scottish residents, outpatient/day case patients, patients admitted for termination of pregnancy/maternity units, deceased patients, patients in mental health/learning disability units, residents in long-stay hospitals	Eligible patients discharged between April and September 2015; survey is run biennially	Random sample (17,767 responses) taken from an extract of the Scottish Morbidity Register database of hospital admissions	Reporting at the hospital and Board level http://www.careexperience.scot.nhs.uk/Results2016.html
Northern Ireland Cancer Patient	Selected from the Picker Institute	Mail (paper)	Inclusions – adults (16+) with a confirmed cancer diagnosis, admitted patients	Eligible patients discharged after an inpatient episode	Questionnaire sent to 5388 patients having treatment over a	Reported at the Health Trust/Board

Experience Survey (**NICPES**)[17]	library of questions		Exclusions – ICD-10 diagnosis C44 or C84, deceased, non-cancer or non-confirmed cancer patients, current inpatients, outpatients, those without Northern Ireland postal address, private patients	or day case attendance	defined 6 month period (December 2013 and May 2014)	level and published online https://www.quality-health.co.uk/resources/surveys/northern-ireland-cancer-patient-experience-survey/2015-northern-ireland-cancer-patient-experience-survey/northern-ireland-cancer-patient-experience-survey-reports
Wales Cancer Patient Experience Survey (**WCPES**)[18]	Selected from the Picker Institute library of questions	Mail (paper)	Inclusions – adults (16+) confirmed cancer diagnosis, admitted patients Exclusions – ICD-10 diagnosis C44 or C84, deceased, non-cancer or non-confirmed cancer patients, current inpatients, outpatients, those without UK postal address, private patients	Sent to all patients in July 2016 who received cancer treatment in Wales in 2015	Sent to all patients (~11,000) who received cancer treatment in Wales in 2015	Reported at the Health Trust/Board level, published online http://gov.wales/docs/dhss/publications/170705national-reporten.pdf
Scottish Cancer Patient Experience Survey (**SCPES**)[19]	Based upon the English Cancer Patient Questionnaire, developed from Picker	Mail (paper)	Inclusions – confirmed cancer diagnosis, admitted patients, adults (16+) Exclusions – ICD-10 diagnosis C44 or C84, deceased patients, non-cancer or non-confirmed cancer patients, current inpatients, outpatients, those without UK	Annual, last conducted in 2015	Sampling frame was a national dataset containing records of acute hospital activity – used to identify adults with an inpatient or day care record with any	http://www.gov.scot/Resource/0050/00501127.pdf

			postal address, private patients, received care in a private hospital or hospice, non-Scottish residents, patients admitted for termination of pregnancy/maternity units, deceased patients, patients in mental health/learning disability units, residents in long-stay hospitals		mention of cancer between 1st January 2014 and 30th September 2014	
English Cancer Patient Experience Survey (**ECPES**)[20]	Selected from the Picker Institute library of questions	Mail (paper)	Inclusions – confirmed cancer diagnosis, admitted patients, adults Exclusions – ICD-10 diagnosis C44 or C84, deceased, non-cancer or non-confirmed cancer patients, current inpatients, outpatients, those without UK postal address, private patients	Annual, last conducted in 2016	Eligible patients with discharge date between 1st April 2016 and 30th June 2016	National and local trust reports published on the Quality Health Website https://www.quality-health.co.uk/surveys/national-cancer-patient-experience-survey

Question 2: Of the surveys found in question one, what aspects of care are most commonly covered in surveys of the surgical patient experience?

Overview of PREMs, PROMs, and PRIMs used to measure patient experience of surgery

The majority of surveys (18/19) address patient experience of the processes of care (PREMs). Only one jurisdiction (the UK Department of Health/King's Fund) was found to be using surgery-specific PROMs questionnaires. This suite of procedure-specific questionnaires assesses relevant pre-operative symptoms and post-operative outcomes but does not address patients' experience of care. Of the remaining nine surgery-specific questionnaires, five addressed both patient experience and patient-reported outcomes (the ANZCA Anaesthesia and Perioperative Period Patient Experience Survey[3], the Press Ganey Australia Ambulatory Surgery Surgery[7], the Patient Satisfaction Survey[11], the OAS CAHPS[8], and the CAHPS Cancer Care Survey[2]). No surveys were found that were used explicitly for measurement of patient-reported incidence measures (PRIMs) for a jurisdiction. However, these statistics could be calculated for some measures (for example, incidence of post-operative pain, infection, readmission to hospital) from surveys collecting PROMs.

Stage in patient surgical journey assessed by surveys of the surgical patient experience

There are several routes that can lead a patient towards having a surgical procedure. As summarised in Figure 2, this journey starts with a patient developing a symptom leading to a consultation in primary care, or an urgent event that leads to an emergency department attendance. Regardless of the urgency of the situation, a varying number of diagnostic tests and consultations would then be needed to make a diagnosis and to determine whether surgery is appropriate. A schematic for the surgical patient journey is presented in Figure 2.

The contents of the 19 identified surgical patient experience questionnaires (including surgery-specific questionnaires and surgery-specific items within generic questionnaires) across this surgical patient journey are summarised in Table 3. It should be noted that some items in the included questionnaires did not map to specific components of the surgical patient journey. These items have not been included in Table 3. Furthermore, the timing of administration of the survey, rather than the wording of the item, would determine the point in the patient journey for some items, for example, questions relating to symptoms that could be asked at any time point.

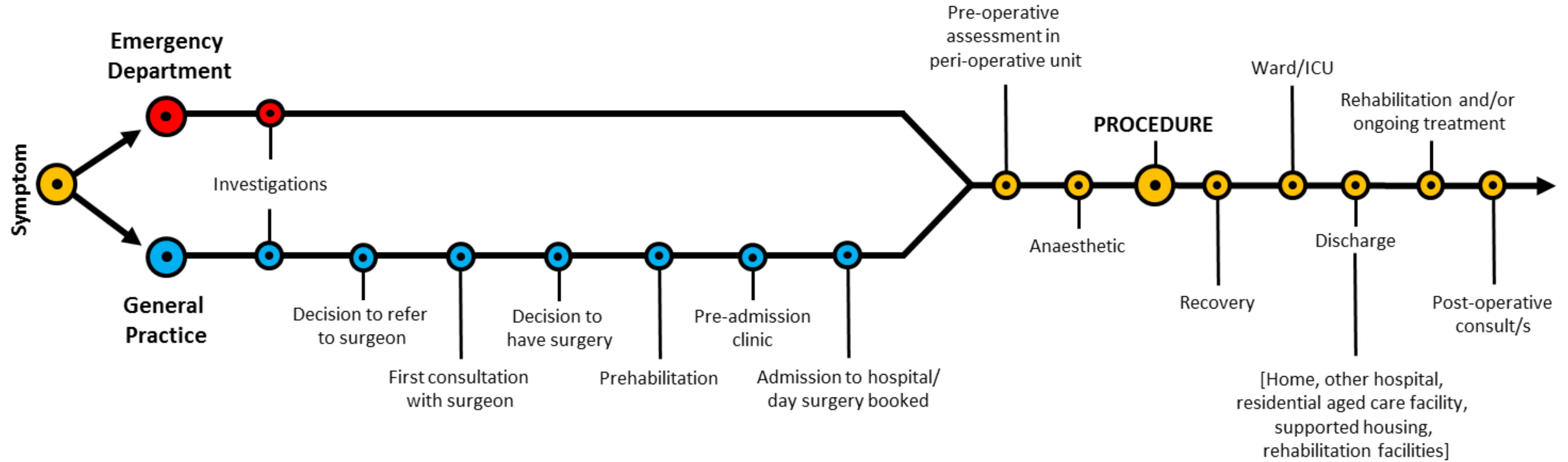

Figure 2: Flow diagram of Patient Journey

Table 3: Content of surgical patient experience questionnaires by stage in surgical patient journey

Survey / questionnaire	Symptoms/ diagnosis /referral	ED	Decision to have surgical procedure	Preparation for admission	First Consultation with Surgeon	Admission to hospital/ day surgery	Anaesthetic and surgical procedure	Post operative hospital stay	Discharge	Post-discharge	Longer term recovery	Total
Surgery-specific questionnaires												
General Surgery Clinic Outpatient Experience Survey, 2015-2016 (**GSCOES**)[9]	X		X	X	X	X			X			**6**
Anaesthesia and the Perioperative Period Patient Experience Survey (**ANZCA**)[3]				X		X	X	X				**4**
Press Ganey Ambulatory Surgery Survey (**PGASS**)[7]				X		X	X	X	X			**5**
UK PROMS[4]	X										X	**2**
Patient Satisfaction Survey (**PSS**)[6]		X		X		X	X	X	X	X		**7**
Patient Satisfaction Questionnaire (**PSQ**)[11]				X		X	X	X	X			**5**

Survey / questionnaire	**Symptoms/ diagnosis /referral**	**ED**	**Decision to have surgical procedure**	**Preparation for admission**	**First Consultation with Surgeon**	**Admission to hospital/ day surgery**	**Anaesthetic and surgical procedure**	**Post operative hospital stay**	**Discharge**	**Post-discharge**	**Longer term recovery**	**Total**
Outpatient Ambulatory Surgery CAHPS (**OAS-CAHPS**)[8]				X		X	X		X	X		**5**
CAHPS® Surgical Care Survey **(CAHPS® Surg Care Survey)**[5]			X	X	X	X	X	X	X	X		**8**
CAHPS® Cancer Care Survey - Cancer Surgery Version (**CAHPS Cancer-Surgical**)[2]	X		X		X						X	**4**
Global Rating Scale (**GRS**)[10]	X		X	X	X	X	X		X	X		**8**
Total (within surgery-specific questionnaires)	**4**	**1**	**4**	**8**	**4**	**8**	**7**	**5**	**7**	**4**	**2**	
Surgery-specific items within generic questionnaires												
New Zealand National Adult Inpatient Experience							X	X				**2**

Survey / questionnaire	Symptoms/ diagnosis /referral	ED	Decision to have surgical procedure	Preparation for admission	First Consultation with Surgeon	Admission to hospital/ day surgery	Anaesthetic and surgical procedure	Post operative hospital stay	Discharge	Post-discharge	Longer term recovery	Total
Survey (**NZNAIES**)[12]												
NHS Adult Inpatient Survey – 2016 (**NHS-AIS**)[13]							X	X				**2**
NHS Day Case Surgery Questionnaire (**NHS-DCSQ**)[14]						X	X	X				**3**
Irish National Patient Experience Survey (**INPES**)[15]							X	X				**2**
Scottish Inpatient Patient Experience Survey (**SIPES**)[16]							X	X				**2**
Northern Ireland Cancer Patient Experience Survey (**NICPES**)[17]							X	X				**2**

Survey / questionnaire	Symptoms/ diagnosis /referral	ED	Decision to have surgical procedure	Preparation for admission	First Consultation with Surgeon	Admission to hospital/ day surgery	Anaesthetic and surgical procedure	Post operative hospital stay	Discharge	Post-discharge	Longer term recovery	Total
Wales Cancer Patient Experience Survey (**WCPES**)[18]							X	X				**2**
Scottish Cancer Patient Experience Survey (**SCPES**)[19]							X	X				**2**
English Cancer Patient Experience Survey (**ECPES**)[20]							X	X				**2**
Total (within generic questionnaires)	**0**	**0**	**0**	**0**	**0**	**1**	**9**	**9**	**0**	**0**	**0**	
Grand Total	**4**	**1**	**4**	**8**	**4**	**9**	**16**	**14**	**7**	**4**	**2**	

Surgery-specific questionnaires

Most of the surgery-specific questionnaires included in this review covered over 50 per cent of the content within the surgical patient journey described in Figure 2 (Table 3). The GRS (eight out of 11 stages) and PSS (seven out of 11 stages) questionnaires covered the most number of stages, and the UK PROMS questionnaires covered the least number of stages (two out of 11 stages). Most patient experience questionnaires included experiences related to preparation for admission (eight out of 10 questionnaires), anaesthetic and surgical procedure (seven out of 10 questionnaires) and preparation for discharge (seven out of 10 questionnaires). Only a few questionnaires explored the patient experience in the emergency department (one out of 10 questionnaires) and long term recovery (two out of 10 questionnaires).

Four questionnaires from the US, Australia and the UK (the CAHPS Surgical Care Survey[5], CAHPS Cancer Care Survey – Cancer Surgery version[2], GSCOES[9], and NHS-DCSQ[14]) addressed pre-admission care in a clinic or surgeon's office, with the CAHPS Surgical Care Survey[5] investigating this in most detail, including patients' experience of information provision and involvement in decision-making. While the CAHPS Cancer Care Survey – Cancer Surgery version[2] is purported to be a surgery-specific questionnaire, it should be noted that the actual items are quite general in nature, and would apply to patients undergoing other treatment modalities for cancer.

Experience of involvement in decision-making was addressed in four of the surgery-specific questionnaires. Items addressing decision-making ranged from questions about whether the person was involved as much as they wanted to be in the decision-making process (GSCOES[9], CAHPS Cancer Care Survey – Surgical Care[2]) and whether patients were asked in the pre-admission period about their preferred treatment options (CAHPS Surgical Care Survey[5]). In terms of assessing choice, this was restricted to two items in the GRS[10] that asked about choice of dates for the procedure and whether patients were asked about their preferences for the gender of the doctor who performed their colonoscopy.

Seven of the 10 surgery-specific questionnaires addressed patients' experience of the actual surgical procedure or anaesthetic (ANZCA[3], PGASS[7], PSS[11], PSQ[6], OAS-CAHPS[8], CAHPS Surgical Care Survey[5], CAHPS Cancer Care Survey – Surgical Care[2]). The ANZCA[3] and CAHPS Surgical Care Survey[5] included items about experience with the anaesthetists, including whether the anaesthetist visited the patients before surgery, whether there was sufficient time to ask the anaesthetist questions and whether talking with the anaesthetist helped patients feel more relaxed. No questionnaires investigated patients' experience of fasting for the procedure or whether this was of longer duration than anticipated due to delays.

Seven questionnaires included questions about the discharge process, including whether enough notice was given (PSS[11]), whether patients received information or instructions about the recovery period (CAHPS Surgical Care Survey[5], OAS-CAHPS[8], GSCOES[9], GRS[10]), and what to do if they developed a problem at home (PSQ[6]). Several questionnaires addressed the actual process of leaving hospital: delayed discharge (PSS[11], GRS[10]); whether they felt well enough to leave (PGASS[7], PSQ[6]); whether the patient was assessed by staff before they left or asked if they had someone to take them home (PSQ[6]), whether they had help when they got home (OAS-CAHPS[8], PSQ[6]); and whether they were given pain medication (if needed) when discharged (PSQ[6]). Additionally, the OAS-CAHPS[8] includes an item about whether patients were contacted after discharge to see how they were recovering.

For questionnaires investigating the experience of a surgical outpatients' clinic or day case surgery (GSCOES[9], PGASS[7], PSQ[6], OAS-CAHPS[8], GRS[10]) items addressed included ease of getting an appointment, finding the clinic, parking, waiting times and being informed about reasons for any delay. Similarly, most questionnaires that asked about experience of the hospital admission for surgery (either overnight stay or day case) had a focus on communication with the healthcare team, information provision and being given the opportunity to ask questions. For the ANZCA instrument[3], this specifically related to information about

the anaesthetic or pain control for the procedure. Most of the questionnaires also asked about the cleanliness of the facility and whether patients were afforded sufficient privacy. Additionally, most questionnaires included items that relate to being treated with dignity and respect, including items about courtesy, friendliness and helpfulness of administrative and clerical staff as well as clinical staff, and whether staff introduced themselves or talked in front of them. Several asked about patients' confidence in the doctors and nurses (GSCOES[9]) or perceived skill of clinical staff (PGASS[7], PSS[11]) and the adequacy of staffing levels (PSS[11]).

Surgery-specific items within generic questionnaires

Within the generic questionnaires, all have included patient experience questions relating to the anaesthetic (nine out of nine questionnaires) and surgical procedure and postoperative hospital stay (nine out of nine questionnaires) stages. Interestingly, these questions seemed to be derived or adapted from the Picker Institute suite of patient experience questions. None of the surgery-specific items within generic questionnaires specifically related to the decision to undergo surgery. However, it is possible that questions about involvement in decision-making more generally could have been included in other parts of these questionnaires.

Among the generic patient experience questionnaires that included some surgery-specific questions, all nine used varying combinations of the following questions developed by the Picker Institute, which focus on communication and provision of information about the surgical procedure:

- Before the operation, did staff explain the risks and benefits in a way you could understand?
- Beforehand, did a member of staff explain what would be done during the operation or procedure?
- Beforehand, did you have all the information you needed about your operation?
- Beforehand, were you given written information about your operation?
- Beforehand, did a member of staff answer your questions about the operation or procedure in a way you could understand?
- Beforehand, were you told how you could expect to feel after you had the operation or procedure?
- Before the operation or procedure, were you given an anaesthetic or medication to put you to sleep or control your pain?
- Before the operation or procedure, did the anaesthetist or another member of staff explain how he or she would put you to sleep or control your pain in a way you could understand?
- Did staff tell you how the operation went in a way you could understand?

Some questionnaires (e.g. NHS Scotland Cancer Patient Experience Survey [SCPES][19]) teased out slightly more detailed information about the adequacy of information provision before surgery through inclusion of separate response options for written and verbal information.

The NHS Day Case Questionnaire (NHS-DCSQ[14]) section on operations and procedures in addition included items relating to waiting times and having enough time to discuss care with the consultant:

- From the time you arrived at the hospital, did you feel that you had to wait a long time before having the operation or procedure?
- Were you told why you had to wait?
- Did you have enough time to discuss your operation or procedure with the consultant?

One of the major changes within a survey was observed in the NHS Adult Inpatient Survey (NHS-AIS[13, 22]), which is conducted annually. The 2016 version of the questionnaire had eight questions relating to operations and procedures (surgery) which was reduced to four questions in the recent 2017 version of this questionnaire. The four questions not included in the 2017 version were:

- Beforehand, did a staff member explain what would be done during the operation or procedure?

- Beforehand, did a staff member explain the risks and benefits of the operation or procedure in way you could understand?
- Before the operation or procedure, were you given an anaesthetic or medication to put you to sleep or control your pain?
- Before the operation or procedure did the anaesthetist or another member of staff explain how he or she would put you to sleep or control your pain in a way you could understand?

Removal of these items leaves no questions relating to the anaesthetic or pain control process which are integral components of many surgeries. The 2017 version still has one question evaluating how staff members answered any questions the patient had relating to their surgery; however, there is no question evaluating whether the staff member explained the procedure. Additionally the question relating to an explanation of the risks and benefits of the operation or procedure was omitted, which is also another important aspect of the surgical pathway. These components of the surgical pathway are closely linked to the decision-making process and omitting these critical points may lead to gaps in understanding the patients' experience of surgery. Finally, the decision-making process of elective and emergency surgery often differs significantly and therefore this may not be reflected if these concepts are not explored.

Gaps in the literature

While several questionnaires included an item about whether the patients were told how the operation had gone or whether it had gone as planned, none specifically addressed patients' experience of actually receiving a general or local anaesthetic or their time in the recovery room. Items asking about pain, comfort, anxiety or awareness during the actual surgical procedure, or choice of hospital, choice of surgeon or preferences around surgical access/technology (e.g. open, laparoscopic, robotic approaches to surgery) were absent from all instruments in this review. In terms of patients' in-hospital experience after the procedure, none of the questionnaires asked about complications or unplanned return to theatre, experience of care from allied health professionals or experience of enhanced recovery programs. Importantly, no questionnaires investigated the experience of presenting to a general practitioner, undergoing diagnostic investigations or deciding which surgeon to consult. Another area of the patient experience of surgery that was not explored in current questionnaires was involvement in research, including whether patients were advised about, or took part in, surgical clinical trials or other research studies, which are particularly common in large teaching hospitals. Generic surveys identified in this review were most lacking in range of questions relating to the patient surgical journey, with most of these surveys limiting questions relating to operations or procedures to broad topic areas. Overall, there is a clear gap in the literature related to patient experience questionnaires focusing on the emergency department (one out of 19 questionnaires), first consultation with surgeon (four out of 19 questionnaires) and longer term recovery (two out of 19 questionnaires) stages. The identified questionnaires could be used or adapted in the formulation of a new tool covering all stages of the patient journey.

Question 3: Of the methods, approaches and tools identified in question one, what was the main aim/purpose of surveying patient experience in the applied context?

The majority of questionnaires identified in this review were developed for the purpose of gathering information to monitor and/or improve the quality of health care services delivered from the patient perspective, either at the level of hospital/clinic, state/region or health system (e.g. the NHS). The exception is the ANZCA survey[3] which is intended for use by Fellows of the Australian and New Zealand College of Anaesthetists as part of their continuing professional development.

National patient experience surveys for inpatients, day cases, or for cancer-related care are conducted in almost all jurisdictions in the UK, with results freely available online, and these surveys are exclusively conducted in the public health system. In New Zealand, results of the National Adult Inpatient Experience Survey (NZNAIES[12]) also freely available, presents comparative information for each District Health Board

against aggregated results from all of New Zealand. The CAHPS suite of surveys[5] is widely used in the United States and in many other countries worldwide, and is able to be used for both private and public facilities, also with the aim of quality improvement. The sampling and reporting is therefore dependent upon the facilities' analytic goals. Results of the CAHPS suite of surveys are not currently publically available, as they are only provided directly to the facilities. However, from 2018 there will be mandatory use and reporting of results of the OAS-CAHPS.

Discussion of findings

Surgical care accounts for a large proportion of health care. According to the Australian Institute for Health and Welfare (AIHW[23]), one in four hospital separations in Australia involve a surgical procedure. Worldwide, surgical procedures are responsible for 13 per cent of the world's total disability adjusted life year (DALYs) according to the World Health Organisation (WHO[24]). Despite this high level of activity, routine measurement of patients' experience of surgical care is not common. This Evidence Check Rapid Review identified only 19 survey instruments in current use either in Australia or internationally that assess any aspect of surgical patients' experience of their care for the purpose of health service performance measurement. The majority of these investigate patient experiences of care (PREMs), with procedure-specific assessment of patient-reported outcome measures (PROMs) only currently undertaken within the National Health Service (NHS) in the UK for four specific procedures. The review did not identify any patient-reported incidence measures (PRIMs) in current usage.

Among the 10 surgery-specific questionnaires, the most comprehensive coverage of the surgical patient journey is provided by both the CAHPS Surgical Care Survey[5] and GRS[10]. The CAHPS Surgical Care Survey[5] instrument addresses patients' experience of their first consultation with their surgeon and the decision to have a surgical procedure through to preparation for surgery, hospital admission, post-operative inpatient care, discharge and the post-discharge follow up visit with the surgeon. The GRS focuses on the symptoms and diagnosis stage of the patient journey, and not post-operative hospital stay. Two other instruments (the PSS[11] and PSQ[6]) similarly cover several stages in the surgical patient experience. However, no instruments covered the entire surgical patient journey. Notably, no instruments were found that investigated patients' experience of early stages in this pathway such as their presentation to primary care with symptoms, the process of investigation, decision-making about a surgical referral or choice of surgeon or hospital (Figure 2). With growing trends towards centralisation of surgical services in response to evidence of better outcomes from high-volume centres for some complex procedures, and public reporting of surgical activity and outcomes data, choice of the most appropriate place of care is an important component of an evidence-informed health system. Furthermore, other considerations such as the timeliness of available appointments, waiting lists for surgery, and distance from surgical services, health insurance coverage and costs likely influence referral decisions, yet these are not addressed in current survey instruments. With minimally invasive and robotic approaches to surgery becoming widespread, decision-making and choice of surgical modality also is a striking omission in currently-available questionnaires.

A key question is whether the currently-available instruments are suitable and sufficient for a proposed survey of patients' experience of elective and emergency surgery in NSW. The Australian health care system comprises a unique combination of care in the public and private section, with fee for service and other forms of reimbursement across both primary and specialist sectors. The Australian primary health care system and the autonomy of GPs in terms of diagnostic investigation and referral decisions is markedly different to other countries, particularly the United Kingdom and US. Instruments designed primarily for use within other health systems are unlikely to provide sufficiently nuanced data for aspects of patient experience related to access, costs of care or coordination of care across sectors for example. While the existing Australian questionnaires have been developed for the local context, at present these are somewhat limited in scope as they focus specifically on public outpatient surgical care (GSCOES[9]), anaesthesia (ANZCA[3]) or day case surgery (PGASS[7]). While these instruments could be useful to investigate these aspects of care, additional instruments or items need to be developed to address other components of the surgical patient journey.

Patients' experience of surgical care could be investigated using generic patient experience questionnaires. This approach has advantages of comparability across patient groups; however, surgical patients face some issues that are distinct to the surgical context that may not be adequately addressed in generic patient experience surveys. A major difference with other patient groups in terms of decision-making about treatment is that most surgical procedures are irreversible. Thus there is a greater need for clinicians and patients to make the right decision the first time. Furthermore, when considering the potential benefits and harms of surgical treatment for a condition, patients must factor in often significant immediate risks of morbidity and mortality related to the procedure, and weigh these immediate risks against future risks from the underlying disease or perhaps non-surgical treatment options.

Surgical treatment itself presents patients with specific challenges, notably around the need for anaesthesia or pain control for the procedure itself, and pain control during post-operative recovery. One questionnaire identified in this review focused exclusively on anaesthesia (ANZCA[3]). It should be noted however, that this instrument was designed to be used by individual anaesthetists to review and improve their practice rather than for higher-level service or system improvement. Surprisingly, no questionnaires asked patients about their experience of being in the theatre suite, including being given a local or general anaesthetic or sedation, the experience of the procedure (for those not given a general anaesthetic) and time in the recovery area. With a large proportion of patients having surgical procedures while conscious, assessing their experience during the time of the actual procedure would provide useful information about this stressful time when patients are in a completely unfamiliar environment.

Other aspects of care and outcome that are specific to the surgical setting include cosmesis, wound care, bleeding and surgical site infection. With the trend towards minimally invasive surgery and short hospital length of stays, there is less time while the patient is still in hospital to help them prepare for hospital discharge and self-care. Furthermore, surgical complications that occur after hospital discharge are not routinely reported, but are an important aspect of the quality of surgical care. Several current patient experience measures do address post-operative complications, including the UK PROMs instruments that also ask about functional outcomes relevant to the procedure of interest. The OAS-CAHPS questionnaire[8] includes items about experience of pain, nausea and vomiting and signs of infection after the procedure for patients who had surgery in the ambulatory setting. Post-operative pain or pain control was assessed in several other questionnaires (PGASS[7], PSS[11], CAHPS Cancer Care Survey-Surgical[2]). However, this review did not identify any jurisdiction that was reporting incidence measures based on patient self-report of post-operative outcomes.

Some aspects of patient experience are similar for surgical and non-surgical patients, which calls into question the need for a surgery-specific questionnaire. Indeed, many of the items included in the surgery-specific questionnaires included in this review would equally apply to non-surgical patients. Of note, the CAHPS Cancer Care Survey – Surgical Care[2] comprises questions about structural aspects of the cancer centre, information about treatment generally, being listened to and being treated with dignity that would equally apply to patients undergoing other treatment modalities for cancer. Most other questionnaires contained a large number of these more generic items. There are few issues relating to the administrative components of care and physical facilities that are unique for surgical patients, so these aspects could be addressed using standard generic instruments. This would have the advantage of enabling comparisons to be made across patient groups and facilitating benchmarking.

In planning a new questionnaire to measure the experience of patients undergoing emergency surgery, it would be important to distinguish the aspects that are unique to the surgical context and those which are common for all patients who experience an emergency hospital admission. Some components of care may relate to the emergency context, regardless of whether the urgent treatment required is surgical or non-surgical. Other aspects may relate to surgery, and the challenge is to distinguish the differences between the

emergency and elective settings. Furthermore, the very scope of 'emergency surgery' can involve both unplanned admission through the emergency department as well as unplanned procedures among hospital inpatients. Further qualitative work with key stakeholders and the development of an underlying conceptual framework for the proposed NSW surgical patient experience surveys would be helpful in this regard.

This Evidence Check Rapid Review has a number of potential limitations. While every effort was made to conduct a comprehensive search for relevant surveys, it is possible that some were missed. Information for this review was gathered through desk-top research and direct contact with Australian and international organisations involved in health system performance management or quality improvement, together with a focused search of the peer-reviewed literature. It is possible that some articles may have been missed. For example, the terms 'patient experience survey' and 'patient satisfaction survey' are often confused and it is possible that some surveys categorised as 'patient satisfaction' may actually be collecting patient experience measure. The PSS[11] included in the review is one example of this. Furthermore, the review was limited to literature published, and surveys used since 2007 in English-speaking OECD countries. Other patient experience surveys may be used in countries outside of these parameters.

Conclusion

This review identified 10 surgery-specific questionnaires and a further nine generic instruments that included surgery-specific items to measure PREMs and PROMs for patients who have a surgical procedure. No questionnaires specifically addressed emergency surgery and none covered the entire surgical patient journey. While the identified questionnaires address important issues of the adequacy of information about the procedure, communication with clinicians and issues relating to administrative processes and health care facilities, there are significant gaps related to decision-making and the experience of care in the surgical setting. Given the unique makeup of the Australian health care system, a bespoke surgical patient experience instrument, or suite of surgery-specific items, would enhance collection of context-specific patient experience data in NSW for health system and health service improvement.

References

1. Australian Institute of Health and Welfare. Australia's Hospitals 2015–16 at a Glance. Health Services Series No. 77. Cat. No. Hse 189. Canberra: AIHW; 2017.
2. Agency for Healthcare Research and Quality. Cahps Cancer Care Survey. Rockville, Maryland: Agency for Healthcare Research and Quality; 2017. [Access Date. Available from: https://www.ahrq.gov/cahps/surveys-guidance/cancer/index.html
3. Australian and New Zealand College of Anaesthetists. Cpd Handbook and Appendices. Australia: Australian and New Zealand College of Anaesthetists,; 2017. [Access Date. Available from: http://www.anzca.edu.au/fellows/continuing-professional-development/handbook-and-resources/cpd-handbook-and-appendices
4. Department of Health. Proms Questionnaire. United Kingdom: Department of Health; 2013. [Access Date. Available from: http://content.digital.nhs.uk/proms
5. Agency for Healthcare Research and Quality. Get the Surgical Care Survey and Instructions. Rockville, Maryland: Agency for Healthcare Research and Quality; 2016. [Access Date. Available from: https://www.ahrq.gov/cahps/surveys-guidance/surgical/instructions/get-surg-care-survey-instruct.html
6. Hafiz S, Kurrimboccus MS. Patient Satisfaction Questionnaires in Surgery: Inpatients' Perceptions and Experiences of Surgical Wards in General Surgery. J Perioper Pract. 2015;25(10):197-203.
7. Press Ganey Associates Inc. Oas Cahps Regulatory Survey. United States: Press Ganey Associates Inc; 2017. [Access Date. Available from: http://www.pressganey.com/solutions/service-a-to-z/oas-cahps-regulatory-survey
8. Centers for Medicare & Medicaid Services. Outpatient and Ambulatory Surgery Cahps (Oas Cahps). Baltimore, Maryland: Centers for Medicare & Medicaid Services 2016. [Access Date. Available from: https://www.cms.gov/Research-Statistics-Data-and-Systems/Research/CAHPS/OAS-CAHPS.html
9. Queensland Health. Patient Experience. Queensland, Australia: Queensland Health; 2017. [Access Date. Available from: https://www.health.qld.gov.au/system-governance/performance/patient-experience
10. de Jonge V, Sint Nicolaas J, Lalor EA, Wong CK, Walters B, et al. A Prospective Audit of Patient Experiences in Colonoscopy Using the Global Rating Scale: A Cohort of 1187 Patients. Canadian Journal of Gastroenterology. 2010;24(10):607-13.
11. McCloy O, McCutcheon K. The Day Surgery Experience from the Perspective of Service Users. Br J Nurs. 2016;25(13):736-9.
12. Health Quality and Safety Commission New Zealand. Adult Inpatient Experience. New Zealand: New Zealand Government; 2017. [Access Date. Available from: https://www.hqsc.govt.nz/our-programmes/health-quality-evaluation/projects/patient-experience/adult-inpatient-experience
13. Survey Coordination Centre. Current Surveys: Adult Inpatient Survey 2016. United Kingdom: Care Quality Commission; 2017. [Access Date. Available from: http://www.nhssurveys.org/surveys/935
14. Survey Coordination Centre. Local Surveys: Day Case Surgery Local Survey. United Kingdom: Care Quality Commission; 2017. [Access Date. Available from: http://www.nhssurveys.org/surveys/461
15. Health Information and Quality Authority. National Patient Experience Survey. Dublin, Republic of Ireland: Health Information and Quality Authority; 2017. [Access Date. Available from: https://www.patientexperience.ie/about-the-survey/survey-questionnaire/
16. NHS Scotland. Inpatient Patient Experience Survey. Edinburgh, Scotland: NHS Scotland,; 2017. [Access Date. Available from: http://www.careexperience.scot.nhs.uk/index.html
17. Quality Health. Northern Ireland Cancer Patient Experience Survey 2013. Northern Ireland: Quality Health; 2015. [Access Date. Available from: https://www.quality-health.co.uk/surveys/northern-ireland-cancer-patient-experience-survey
18. Quality Health. Wales Cancer Experience Survey 2013. Wales: Quality Health; 2015. [Access Date. Available from: https://www.quality-health.co.uk/resources/surveys/welsh-cancer-experience-survey
19. NHS Scotland. Scottish Cancer Patient Experience Survey 2015/16. Scotland: NHS Scotland; 2016. [Access Date. Available from: http://www.gov.scot/Publications/2016/06/3957
20. Quality Health. National Cancer Experience Survey. England: Quality Health; 2017. [Access Date. Available from: http://www.ncpes.co.uk/index.php
21. Yacavone RF, Locke GR, 3rd, Gostout CJ, Rockwood TH, Thieling S, et al. Factors Influencing Patient Satisfaction with Gi Endoscopy. Gastrointestinal endoscopy. 2001;53(7):703-10.

22. Survey Coordination Centre. Current Surveys: Adult Inpatient Survey 2017. United Kingdom: Care Quality Commission; 2017. [Access Date. Available from: http://www.nhssurveys.org/surveys/1084
23. Australian Institute of Health and Welfare (AIHW). Surgery in Australia's Hospitals. 2017. [Access Date. Available from: http://www.aihw.gov.au/Haag13-14/surgery/
24. World Health Organisation (WHO). Safe Surgery. 2017. [Access Date. Available from: http://www.who.int/patientsafety/safesurgery/en/

Appendices

Appendix 1: Results of grey literature search - List of jurisdictions / agencies used in website search and results of contact made to obtain information regarding any surgical PREMs, PROMs, or PRIMs

Organisation	Website consulted	Person contacted	Email address	Outcome
Australia/New Zealand				
Australian Institute of Health and Welfare (AIHW)	http://www.aihw.gov.au/	General enquires form	http://www.aihw.gov.au/contact/	Responded, no relevant information
National Health Performance Authority (NHPA)	http://www.aihw.gov.au/health-performance/performance-and-accountability-framework/ Redirects to Australian Institute of Health and Welfare (AIHW) website	General enquires form	http://www.aihw.gov.au/contact/	No response
Australian Commission on Safety and Quality in Health Care	https://www.safetyandquality.gov.au	General email	mail@safetyandquality.gov.au	No response
Victorian Department of Health and Human Services	https://dhhs.vic.gov.au/	General email	enquiries@dhhs.vic.gov.au	No response
Queensland Health	https://www.health.qld.gov.au/	General enquires form	https://www.health.qld.gov.au/comments	Responded, provided relevant information toward the review

Organisation	Website consulted	Person contacted	Email address	Outcome
Department of Health, Western Australia	http://ww2.health.wa.gov.au/	General enquires form	http://ww2.health.wa.gov.au/About-us/Contact-us/Contact-us-Health-services-and-help-lines	Responded, no relevant information
Department of Health, South Australia	http://www.sahealth.sa.gov.au/	Ms Vickie Kaminski - Chief Executive	healthCE@sa.gov.au	No response
Department of Health and Human Services, Tasmania	http://www.dhhs.tas.gov.au/	General enquires form	http://www.dhhs.tas.gov.au/contact/contact_form	No response
Department of Health, Northern Territory Government	https://health.nt.gov.au	General email	Media.Dhcs@nt.gov.au	No response
Health Quality and Safety Commission New Zealand	https://www.hqsc.govt.nz/our-programmes/health-quality-evaluation/projects/patient-experience/	General email	info@hqsc.govt.nz	Responded, provided relevant information toward the review
Ministry of Health, New Zealand	http://www.health.govt.nz/publication/patient-experience-2011-12	General email	info@health.govt.nz	No response
Waikato District Health Board, New Zealand	https://www.waikatodhb.health.nz/for-patients-and-visitors/patient-safety/what-are-we-doing-to-improve/patient-experience-surveys/	General email	info@waikatodhb.health.nz	No response
Royal Australasian College of Surgeons (RACS)	https://www.surgeons.org/	General email	college.nz@surgeons.org; college.act@surgeons.org; college.nsw@surgeons.org; college.nt@surgeons.org; college.qld@surgeons.org; college.sa@surgeons.org; college.tas@surgeons.org;	No response

Organisation	Website consulted	Person contacted	Email address	Outcome
			college.vic@surgeons.org; college.wa@surgeons.org;	
Australian and New Zealand College of Anaesthetists	http://www.anzca.edu.au/	General email Cathy O'Brien; Jo-Anne Chapman	nsw@anzca.edu.au; act@anzca.edu.au; qld@anzca.edu.au; sa@anzca.edu.au; tas@anzca.edu.au; vic@anzca.edu.au; wa@anzca.edu.au; anzca@anzca.org.au;	Responded, provided relevant information toward the review
Australasian College of Perioperative Nurses (ACORN)	https://www.acorn.org.au/	General email	administrator@acorn.org.au	No response
United Kingdom / Ireland				
Nuffield Department of Population Health	https://www.ndph.ox.ac.uk/	Elizabeth Gibbons, Senior Research Scientist, Nuffield Department of Population Health		Responded, provided relevant information toward the review
National Health Service (NHS) – Care Information	http://www.careinfoscotland.scot/	General email	CareInformationScotland@nhs24.scot.nhs.uk	No response
National Health Service (NHS) – Choices	http://www.nhs.uk/pages/home.aspx	General enquires form	http://www.info.doh.gov.uk/contactus.nsf/memo?openform	No response
National Health Service (NHS) – England	https://www.england.nhs.uk/	General email	england.contactus@nhs.net	No response
National Health Service (NHS) – Digital	http://content.digital.nhs.uk/home	General email	enquiries@nhsdigital.nhs.uk	No response
National Health Service (NHS) – Survey	http://www.nhssurveys.org/	General email	team@surveycoordination.com	No response
Health Quality Improvement Partnership (HQIP)	http://www.hqip.org.uk/	General email	communications@hqip.org.uk	No response

Organisation	Website consulted	Person contacted	Email address	Outcome
Public Health England	https://www.gov.uk/government/organisations/public-health-england	General email	enquiries@phe.gov.uk	No response
Care Quality Commission (CQC)	http://www.cqc.org.uk/	General email	datarequests@cqc.org.uk	Responded, provided relevant information toward the review
Care Opinion	https://www.careopinion.org.uk/	General email	info@careopinion.org.uk	No response
Data.gov.uk	https://data.gov.uk/data/search?theme-primary=Health	General enquires form	https://data.gov.uk/contact	No response
The Oxford Health Experience Institute	http://hexi.gtc.ox.ac.uk/	Ruth Loseby – Project manager	ruth.loseby@gtc.ox.ac.uk; hexi@gtc.ox.ac.uk; sian.rees@phc.ox.ac.uk	No response
National Institute for Health Research (NIHR)	http://clahrc-yh.nihr.ac.uk/	Dr Christine Smith – Program Manager	susan.mawson@sth.nhs.uk; christinesmith@nhs.net; daniel.wolstenholme@sth.nhs.uk	No response
Picker Institute	http://www.picker.org/	General email	Info@pickereurope.ac.uk	Responded, provided relevant information toward the review
UK Data Service	https://www.ukdataservice.ac.uk/	General email	helpline@jiscmail.ac.uk; rafkhami@essex.ac.uk	No response
Patient Opinion – Ireland	https://www.patientopinion.ie/	General email	info@patientopinion.org.uk	No response
Public Health Wales Observatory (PHWO)	http://www.publichealthwalesobservatory.wales.nhs.uk/home	General email	publichealthwalesobservatory@wales.nhs.uk	No response
National Institute for Health and Care Excellence (NICE)	https://www.nice.org.uk/	General email	nice@nice.org.uk	Responded, provided relevant

Organisation	Website consulted	Person contacted	Email address	Outcome
				information toward the review
GP Patient Survey	https://gp-patient.co.uk/practices-search	General email	gppatientsurvey@ipsos-mori.com	No response
The King's Fund	https://www.kingsfund.org.uk/	General email Hong-Anh, Information & Knowledge Services, Kings Fund	enquiry@kingsfund.org.uk	Responded, provided relevant information toward the review
Department of Health – UK	https://www.health-ni.gov.uk/	General email Annette Sparrowhawk, Ministerial Correspondence and Public Enquiries, Department of Health	webmaster@health-ni.gov.uk	Responded, no relevant information
National Patient Experience Survey – Republic of Ireland	https://www.patientexperience.ie/	General email	info@patientexperience.ie	No response
Health Information and Quality Authority	https://www.hiqa.ie/	General email Tina Boland, Research Officer, National Patient Experience Survey Tracy O'Carroll, Manager, National Patient Experience Survey Program, HIQA – Ireland	info@hiqa.ie	Responded, provided relevant information toward the review
Health Service Executive (HSE)	http://hse.ie/eng/	General email	hselive@hse.ie	No response
Department of Health – Republic of Ireland	http://health.gov.ie/	General email Dr Sarah Condell, National Patient Safety Office, Department of Health	info@health.gov.ie	Responded, provided relevant information toward the review

Organisation	Website consulted	Person contacted	Email address	Outcome
Framework for measuring impact	http://www.measuringimpact.org/background	General email	Edward.duncan@stir.ac.uk	No response
The Health Foundation	http://www.health.org.uk/	General email	info@health.org.uk	No response
Royal College of Surgeons of England	https://www.rcseng.ac.uk/	General email	chiefexecutive@rcseng.ac.uk	No response
Royal College of Surgeons of Ireland	http://www.rcsi.ie/	General email	info@rcsi.ie	No response
Quality Health	https://www.quality-health.co.uk/about-us	General email	webmaster@health-ni.gov.uk	No response
Welsh Government	http://gov.wales/?lang=en	General email	info@quality-health.co.uk CustomerHelp@Wales.GSI.Gov.UK	No response
Department of Health – Northern Ireland	https://www.health-ni.gov.uk/	General email	webmaster@health-ni.gov.uk	No response
Scottish Government	http://www.gov.scot/Topics/Statistics/Browse/Health/GPPatientExperienceSurvey	General email Louise Cuthbertson	patientexperience@gov.scot	Responded, provided relevant information toward the review
United States				
Agency for Healthcare Research and Quality (AHRQ)	https://www.ahrq.gov https://www.ahrq.gov/cahps/surveys-guidance/surgical/about/survey-measures.html	General enquires form Dr Caren Ginsberg, Director, CAHPS Division	https://info.ahrq.gov/app/ask	Responded, provided relevant information toward the review

Organisation	Website consulted	Person contacted	Email address	Outcome
	https://www.ahrq.gov/sites/default/files/wysiwyg/cahps/surveys-guidance/oas/about_cahps-oas-survey.pdf https://www.ahrq.gov/cahps/surveys-guidance/cg/instructions/downloadsurvey3.0.html			
The Commonwealth Fund	http://www.commonwealthfund.org/	General email	info@cmwf.org	No response
Medicare.gov and Centres for Medicare and Medicaid Services (CMS.gov)	https://www.medicare.gov/hospitalcompare/About/Survey- https://www.medicare.gov/hospitalcompare/search.html https://www.medicare.gov/hospitalcompare/About/Survey-Patients-Experience.html	General email	AmbSurgSurvey@cms.hhs.gov	Responded, provided relevant information toward the review
The Dartmouth Institute for Health Policy and Clinical Practice	http://tdi.dartmouth.edu/ http://tdi.dartmouth.edu/images/uploads/tdi_tr_pri_ia_sm.pdf	General email	Abigail.M.Underhill@Dartmouth.edu	No response
Energesse	http://www.energesse.com/patient-experience/	General email	info@energesse.com	No response
The Beryl Institute	www.theberylinstitute.org	General email Michelle Garrison, Director, The Beryl Institute	info@theberylinstitute.org	Responded, no relevant information
Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS)	www.hcahpsonline.org	General email	hcahps@HCQIS.org	Responded, provided relevant information toward the review
California Healthcare Performance Information System (CHPI)	http://www.chpis.org/programs/pas.aspx	General enquires form	http://www.chpis.org/contact/email-list.aspx	No response

Organisation	Website consulted	Person contacted	Email address	Outcome
UC Health (Colorado)	https://www.uchealth.org/about/about-our-patient-surveys/	General enquires form	https://www.uchealth.org/contact-us/	No response
Massachusetts Health Quality Partners	http://www.mhqp.org/	General email	info@mhqp.org	Responded, provided relevant information toward the review
Center for Patient Safety (Missouri)	http://www.centerforpatientsafety.org/	General enquires form	http://www.centerforpatientsafety.org/contact-us/	No response
The Leapfrog Group	http://www.leapfroggroup.org/	General email	info@leapfroggroup.org	No response
Press Ganey Associates	http://www.pressganey.com/	General email	info@pressganey.com	Responded, provided relevant information toward the review
RAND Corporation	https://www.rand.org/ surveys: https://www.rand.org/health/surveys_tools.html	General email	order@rand.org	Responded, provided relevant information toward the review
American College of Surgeons	https://www.facs.org/	General email	postmaster@facs.org	No response
Canada				
Canadian Institute for Health Information (CIHI)	https://www.cihi.ca/en	General email	prems@cihi.ca	Responded, no relevant information

Organisation	Website consulted	Person contacted	Email address	Outcome
Institute for Clinical Evaluative Sciences (ICES)	https://www.ices.on.ca	General enquires form	https://www.ices.on.ca/About-ICES/ICES-Contacts-and-Locations/contact-form	Responded, no relevant information
Cancer Quality Council of Ontario (CQCO)	http://www.cqco.ca/	General email	info@cqco.ca	No response
Health Quality Ontario	http://www.hqontario.ca/	General email	info@HQOntario.ca	Responded, no relevant information
Ontario Hospital Association	https://www.oha.com/	General email	info@oha.com	Responded, provided relevant information toward the review
Manitoba Centre for Health Policy (MCHP)	http://umanitoba.ca/faculties/health_sciences/medicine/units/chs/departmental_units/mchp/	General email	info@cpe.umanitoba.ca	No response
Alberta Health Services	http://www.albertahealthservices.ca/	General email	Evaluation.services@ahs.ca	No response
Saskatchewan Health Quality Council	http://hqc.sk.ca/	Patrick Falastein - Quality measurement office	pfalastein@hqc.sk.ca	Responded, no relevant information
New Brunswick Health Council	https://www.nbhc.ca/	General email	info@nbhc.ca	No response
Royal College of Physicians and Surgeons of Canada	http://www.royalcollege.ca	General email Katherine Marsdem, Manager, Maintenance of Certification Program, RCPSC	cpd@royalcollege.ca	Responded, no relevant information

Appendix 2: Search strategy for MEDLINE databases

Terms/combinations*		Number of citations returned
Medline (via Ovid)		
1	Surgery.mp or General Surgery/	1122127
2	Procedure.mp. or Methods/	843976
3	Operation.mp.	300962
4	Trauma.mp. or "Wounds and Injuries"/	278866
5	Emergency.mp. or Emergencies/	276110
6	Unplanned.mp.	9499
7	Endoscopy.mp. or Endoscopy/	115682
8	Preoperative Care/ or Elective Surgical Procedures/ or Elective.mp. or Vascular Surgical Procedures/	151801
9	1 or 2 or 3 or 4 or 5 or 6 or 7 or 8	2604328
10	Hospital.mp. or Hospitals/	1099927
11	Inpatient.mp. or Inpatients/	73906
12	Secondary Care.mp. or Secondary Care/	5171
13	10 or 11 or 12	1139287
14	Patient care/ Or patient care.mp.	168275
15	Patient Experience.mp.	3578
16	14 or 15	171482
17	“Surveys and Questionnaires”/	389170
18	16 and 17	8989
19	9 and 13 and 18	757
20	Limit 19 to (English language and humans and yr="2007 -Current")	392^
Number of citations not relevant to evidence Reason for exclusion		391 None specific to topic
Number of citations relevant to evidence		1
Additional citations identified through reference checking		1
Citations found through broad online search		1
Final number of citations included in review		3

Appendix 3: Search strategy for Cochrane Library

Terms/combinations*		Number of citations returned
Cochrane Library (includes Cochrane and other Systematic reviews)		
1	"Patient experience" in Title, Abstract, Keywords in Cochrane Reviews	86
Number of citations not relevant to evidence		86
Reason for exclusion		None specific to topic
Number of citations relevant to evidence		0