

**THE USE OF PATIENT-REPORTED EXPERIENCE MEASURES FOR CHILDREN
AFTER PEDIATRIC SURGICAL PROCEDURES**

Julia Loyola Ferreira, MD

Department of Experimental Surgery Faculty of Medicine and Health Sciences McGill
University, Montreal
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ABSTRACT

Background: Patient-reported outcomes measures (PROMs) and patient-reported experience measures (PREMs) are increasingly recognized as important healthcare quality indicators.

PREMs measure patients' perception of the care they have received, differing from satisfaction ratings, which measure their expectations. The use of PREMs in pediatric surgery is limited, prompting this systematic review to assess their characteristics and identify areas for improvement.

Methods: A search was conducted in eight databases from inception until January 12, 2022, to identify PREMs used with pediatric surgical patients, with no language restrictions. We focused on studies of patient experience but also included studies that assessed satisfaction and sampled experience domains. The quality of the included studies was appraised using the Mixed Appraisal Tool.

Results: Following title and abstract screening of 2,633 studies, 51 were included for full-text review, of which 22 were subsequently excluded because they measured only patient satisfaction rather than experience, and 14 were excluded for a range of other reasons. Out of the 15 included studies, questionnaires used in 12 studies were proxy-reported by parents and in 3 by both parents and children; none focused only on the child. Most instruments were developed in-house for each specific study, without patients' involvement in the process, and were not validated.

Conclusions: Although PROMs are increasingly used in pediatric surgery, PREMs are not yet in use, being typically substituted by satisfaction surveys. Significant efforts are needed to develop and implement PREMs in pediatric surgical care in order to effectively capture children's and families' voices.

RESUMÉ

Contexte : Les mesures de résultats déclarés par les patients (PRO) et les mesures d'expérience déclarées par les patients (PREM) sont de plus en plus reconnues comme des indicateurs importants de la qualité des soins de santé. Les PREM mesurent la perception des patients sur les soins qu'ils ont reçus, ce qui diffère des évaluations de satisfaction, qui mesurent leurs attentes. L'utilisation des PREM en chirurgie pédiatrique est limitée, d'où cette revue systématique pour évaluer leurs caractéristiques et identifier les domaines à améliorer.

Méthodes: Une recherche a été menée dans huit bases de données depuis leur création jusqu'au 12 janvier 2022 pour identifier les PREM utilisées chez les patients pédiatriques en chirurgie, sans restriction de langue. Nous avons ciblé les études portant sur l'expérience des patients, mais avons également inclus des études évaluant la satisfaction et les domaines d'expérience échantillonnés. La qualité des études incluses a été évaluée à l'aide de l'outil d'évaluation mixte.

Résultats: Après le dépouillement des titres et des résumés de 2 633 études, 51 ont été retenues pour une revue complète, dont 22 ont été ultérieurement exclues car elles ne mesuraient que la satisfaction des patients plutôt que leur expérience, et 14 ont été exclues pour diverses autres raisons. Sur les 15 études incluses, les questionnaires utilisés dans 12 études étaient rapportés par les parents et dans 3 par les parents et les enfants; aucun ne se concentrait uniquement sur l'enfant. La plupart des instruments ont été développés en interne pour chaque étude spécifique, sans l'implication des patients dans le processus, et n'ont pas été validés.

Conclusions: Bien que les PRO soient de plus en plus utilisés en chirurgie pédiatrique, les PREM ne le sont pas encore, étant généralement remplacés par des enquêtes de satisfaction. Des efforts significatifs sont nécessaires pour développer et mettre en œuvre des PREM dans les soins chirurgicaux pédiatriques afin de capturer efficacement les voix des enfants et des familles

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DISCLOSURES

Julia Loyola Ferreira has no conflicts of interest, and all contributions to this thesis were unpaid.

CONTRIBUTION OF AUTHORS

Concept and design: Ferreira J, Poenaru D, Guadagno E

Acquisition, analysis, or interpretation of data: Ferreira J, Patel P

Writing manuscript: Ferreira J

Critical revision of the published manuscript for important intellectual content: Ferreira J, Poenaru D, Wray J, Ow N, Emil S, Guadagno E

Supervision: Poenaru D

LIST OF ABBREVIATIONS

PROs: Patient-reported outcomes

PREs: Patient-reported experiences

PROMs: Patient-reported outcome measures

PREMs: Patient-reported experience measures

CYP: Children and young people

COSMIN: Consensus-based standards for the selection of health measurement instruments

HIC: High-income countries

MMAT: Mixed-methods appraisal tool

OECD: Organisation for economic co-operation and development

RCT: Randomized controlled trial

ROB: Risk of bias

CHAPTER 1 - INTRODUCTION

1.1 Rationale

Objective measures – such as mortality rates, adverse events, clinical outcomes, and expenses – have been the primary focus of healthcare for decades. However, with the paradigm shift towards patient-centred care, patient-reported outcomes (PROs) and patient-reported experience (PRE) have become increasingly important in providing a comprehensive understanding of patients' health.^{1,2} Currently, multiple health authorities encourage the inclusion of PROs and PRE in research and clinical consultations to capture the patient's perspective and improve the quality of care.^{1,3,4} This trend indicates progress mainly in the field of patient experience, which has advanced from being interested in patients' feedback, to collecting it and valuing it as a means of quality improvement.³

Patient experience encompasses the full range of interactions that patients have with the healthcare system and their care - from health plans, doctors, nurses, hospital staff, and other healthcare facilities. Patient-reported experience measures (PREMs) are designed to capture *what* happened during an episode of care and *how* it happened from the patient's perspective.⁵ They cover domains like communication with staff, access to information, care received, physical and emotional support, shared decision-making, and consideration of the hospital environment.² Through partnerships with patients, monitoring and evaluating healthcare services can yield critical information to understand what works, inform improvement actions, and increase the value generated for patients.⁶ Thus, the patient perspective measured in terms of experience offers a promising pathway towards better quality and more efficient care.⁶

Existing literature indicates that using PREM data can facilitate positive changes to administrative practices and to the most critical patient experience domains.⁶ Thus, PREMs can be powerful in orientating the efforts of healthcare organisations and professionals toward more patient-centred care.⁴ By examining various aspects of patient experience, one can assess the extent to which patients receive care that is respectful of and responsive to individual patient preferences, needs, and values. In addition, patient surveys can be used to introduce and evaluate new services and innovations.⁶ More importantly, PREMs can give patients a critical role in the organisational design, management, and policymaking of healthcare services.⁶

However, despite the available evidence, there is much still needed to make better use of PREM data, and the full potential of PREMs has yet to be uncovered.^{4,6,7} A critical question remains about how to bridge the gap between the potential usefulness and the successful use of PREMs in healthcare.^{6,8} In practice, more must be done to ensure that the collection of patient experience data can be translated locally into service improvements.³

In pediatric surgery, although patient-reported outcomes measures (PROMs) are increasingly being used,⁹ the use of PREMs is much less frequent, with very few PREMs developed or completed by children.^{10,11} Although PREMs are available for multiple medical conditions; ² none of the validated instruments used are specific to the pediatric surgical population.¹² Therefore, it is difficult to draw aggregated conclusions from their results.¹² Surgery adds stress and complexity to the relationship between parents and healthcare providers in an environment where multiple teams interact with the family, making evaluating patient and family experiences challenging.¹² Additionally, there is little guidance regarding the choice of an appropriate experience measure,¹² and in the few existing publications on PREMs in pediatric surgery the concepts of experience and satisfaction are often conflated,^{12,13} therefore compromising the accuracy of the findings. Thus, little is known about the routine use of ‘true’ PREMs in pediatric surgical settings, and how often children actually provide information about their own experiences.

1.2 Research Question

What is the current use of patient-reported experience measures (PREMs) in pediatric surgical patients?

1.3 Hypothesis

Few PREMs are used in pediatric surgery, typically being substituted by satisfaction surveys developed for specific studies, without psychometric rigour or patient involvement.

1.4 Objectives

As the use of PREMs in pediatric surgery is limited, the primary objective of this thesis was to review studies of patient experiences in pediatric surgery and identify the PREMs currently being used. The second objective was to dispel misconceptions, raise awareness of the importance of PREMs, and provide guidance on the best PREMs to use in the future. To fulfil these objectives, a systematic review was conducted. This review is hoped to enhance the development of high-quality

PREMs and assist surgical teams and researchers in making informed choices to capture the perspectives of children and families.

To our knowledge, this is the first systematic review to examine PREMs in pediatric surgery. This work has been published in the Journal of Pediatric Surgery and is described in the following chapter.

CHAPTER 2 - PUBLISHED ARTICLE (MANUSCRIPT-BASED THESIS)

2.1 Article information

Ferreira J, Patel P, Guadagno E, Ow N, Wary J, Emil S, Poenaru D. *Patient experience or patient satisfaction? - A systematic review of child- and family-reported experience measures in pediatric surgery*. Journal of Pediatric Surgery, 2023. DOI: 10.1016/j.jpedsurg.2023.01.01

2.2 Introduction

Patient-reported outcome measures (PROMs) and patient-reported experience measures (PREMs) are critical for collecting information on patient care.¹⁴ PROMs can measure patients' health status and the impact of a disease or treatment, including patient symptoms, functional status, quality of life, and health-related quality of life (HRQOL).^{5,15} PREMs measure patients' perception of their experience with the healthcare received.⁵ The use of PROMs and PREMs has been shown to lead to shared decision-making, improved communication, and detection of overlooked problems, ensuring better and individualized care.¹⁶ These instruments can also influence healthcare interventions, resource allocation, and policymaking^{14,16,17} PROMs and PREMs are complementary tools and should be used together to capture a complete patient-centered journey.² A PREM exists to capture “what” happened during an episode of care and “how” it happened from the patient's perspective.⁵ PREMs cover domains like communication with staff, access to information, care received, physical and emotional support, shared decision-making, and consideration of the hospital environment.² Despite PREMs and satisfaction measures being used interchangeably, they are not the same. While PREMs report more tangible patient experiences,¹⁸ satisfaction surveys are highly subjective and indicate if patients' expectations were met or not.⁵ Another confusion is the use of PROMs to assess patients' satisfaction with treatment and treatment preferences. These outcomes represent a distinct measurement construct and should not be confused.¹⁹

Although PROMs are increasingly used in pediatric surgery,⁹ the use of PREMs is much less frequent, and most of the literature comes from adult experiences, with very few PREMs developed or completed by children.^{10,11} Additionally, the sparse publications regarding PREMs in pediatric surgery conflate the concepts of experience and satisfaction,^{12,13} compromising the accuracy of their findings. Thus, little is known about the routine use of ‘true’ PREMs in surgical settings for children, and how often children actually provide information about their own

experiences.

To address misconceptions and increase PREMs awareness in the field, this study systematically reviewed the use of PREMs in pediatric general surgery. The study objectives were to identify the instruments used, assess their characteristics, and identify areas in which the use of PREMs could be improved. We believe that this review can enhance the development of high-quality PREMs and assist surgical teams and researchers in selecting the most promising tools to capture children's and families' voices.

2.3 Methods

We conducted a systematic review of the published literature to broadly investigate patient experience as a process measure in pediatric surgery.

The Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines and checklist for conducting systematic reviews were used,²⁰ and the review was registered with the National Institute for Health Research's PROSPERO website (CRD42022324146).²¹ The search strategy was developed by a senior medical librarian (EG) and the following databases were searched from the inception of each database until January 12, 2022: Medline (Ovid), Embase (Ovid), Cochrane (Wiley), CINAHL (Ebsco), Global Health (Ovid), Global Index Medicus (WHO), Africa-Wide Information (Ebsco), and Web of Science (Clarivate Analytics). Variations in terms that relate to key concepts, found in the text words of the title, abstract or keyword fields, and relevant subject headings were adopted to retrieve articles looking at patient or family satisfaction and experience measures related to surgery in the pediatric population, with no language restrictions. Reference lists of included studies were reviewed and an additional search for gray literature was also performed.

Translation of articles in foreign languages was undertaken by members of the research team as needed. The full PRISMA checklist can be found in the Supplementary material and the search strategy is in the thesis' appendix. The PRISMA-S extension was used for reporting and is included in the Supplementary material.

References found were imported into EndNote X9, where duplicates were removed. Records were imported into the online platform Rayyan²² to perform the screening. The initial title and abstract screening as well as the full-text screening were completed by two independent reviewers (JF &

PP), with a third reviewer (DP) resolving any discrepancies. The primary reasons for study exclusion were documented in an Excel spreadsheet.

2.3.1 Inclusion and exclusion criteria

Studies were included regardless of study design if they used a questionnaire or quantitative assessment to evaluate the experience (or experience and satisfaction together) from the patient's and/or family's perspective, and the sample included children aged from 0 to 18 years who underwent a surgical procedure within the specialty of pediatric surgery. Studies that had mixed populations were only included if children's data were analyzed separately from that of the adult data. Studies assessing parental experience (parents of children who underwent general pediatric surgery) were also included.

Studies were excluded if they reported only satisfaction or outcomes, but not experience; assessments from physicians or other professionals; conditions treated medically rather than surgically, and other surgical specialties besides pediatric surgery. We also excluded studies focused solely on PREMs development, pilot testing, language translation, and measure validation, since the focus of our search was to assess the PREMs actually used in pediatric surgery. Lastly, qualitative studies that did not use any questionnaire or PREM were excluded.

2.3.2 Data extraction and analysis

Data were collected by two reviewers (JF & PP) and compiled in an Excel spreadsheet. The following data were extracted from all studies: year of publication, country of origin, study design, condition studied, instruments used, and their characteristics. To analyze the content of each PREM, we collected information about the instrument type, number of items, domains covered, type of respondent (parent and/or child), survey administration method, and instrument psychometric properties. We verified the instruments' validation status based on evidence found in the literature.²³ Modified previously validated questionnaires or those which were designed *ad hoc* for specific studies were considered not validated and were classified as "in-house" questionnaires. Since many studies used patient experience and satisfaction interchangeably, we also classified the included questionnaires into three categories:

- Experience measures which only included experience questions (PREMs)
- Experience measures which also included satisfaction questions
- Satisfaction measures which also included experience questions

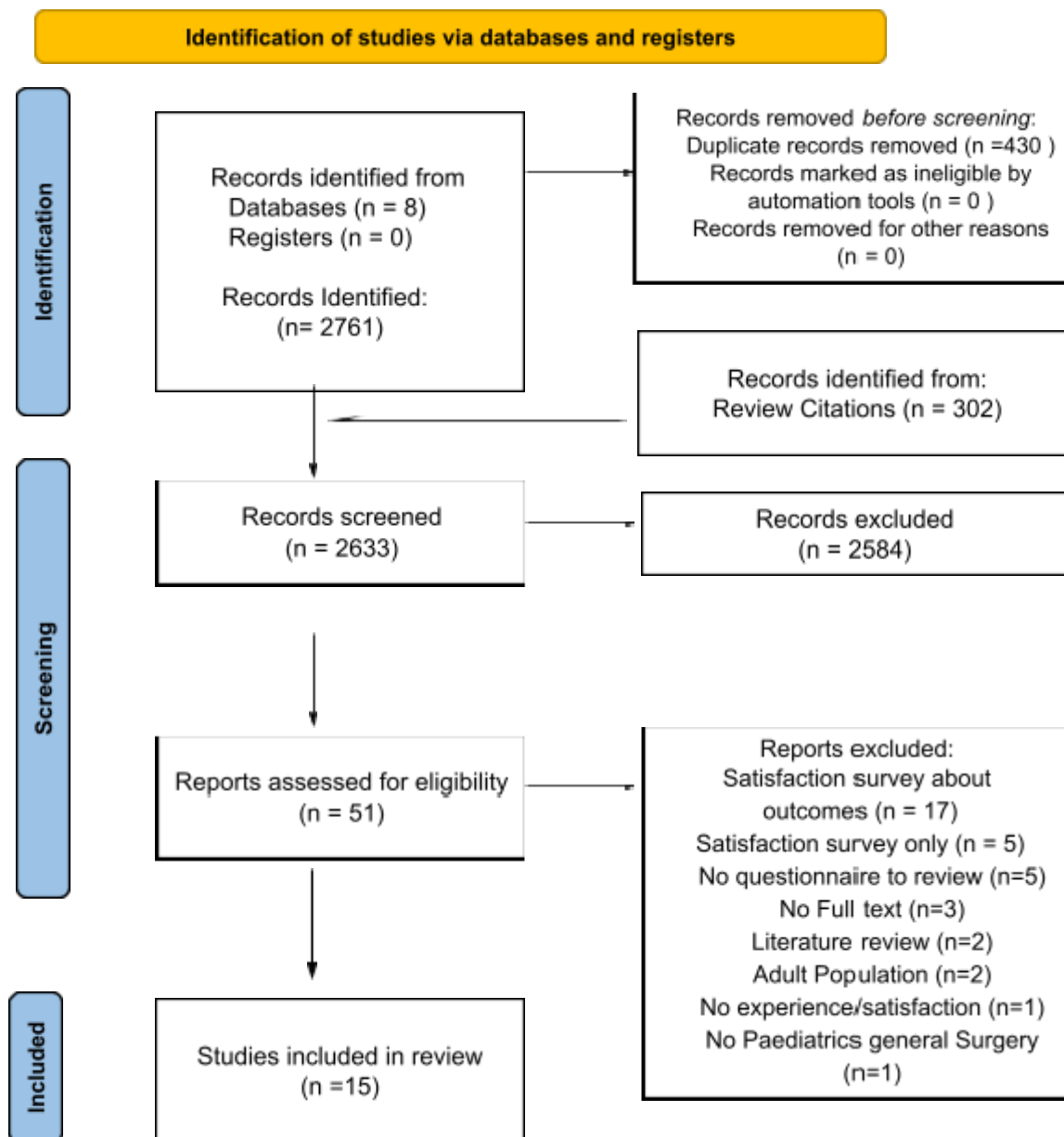
2.3.3 Quality assessment

The risk of bias assessment was undertaken by two independent reviewers (JF & PP). The quality of the included studies was appraised using the Mixed Methods Appraisal Tool (MMAT),²⁴ a tool designed for the appraisal of systematic mixed study reviews. The MMAT allows the appraisal of the most common types of study methodologies and designs, including qualitative research, randomized controlled trials, non-randomized studies, quantitative descriptive studies, and mixed methods studies.²⁴

2.4 Results

The initial search yielded 2761 results. After duplicate removal, 2331 titles and abstracts and an additional 302 references from systematic reviews were included for screening. Out of 2633, 51 studies were included for the full-text review, with 15 meeting the inclusion criteria for final data extraction (see Figure 1, PRISMA flow diagram).

Figure 1: PRISMA Flow Diagram



From: Page MJ, McKenzie JE, Bossuyt PM, Boutron I, Hoffmann TC, Mulrow CD, et al. The PRISMA 2020 statement: an updated guideline for reporting systematic reviews. *BMJ* 2021;372:n71. doi: 10.1136/bmj.n71

For more information, visit: <http://www.prisma-statement.org>

Table 1 displays all included articles and their characteristics based on author, year, country of origin, study design and objectives, condition studied, and the instrument used.

Table 1: Included Articles

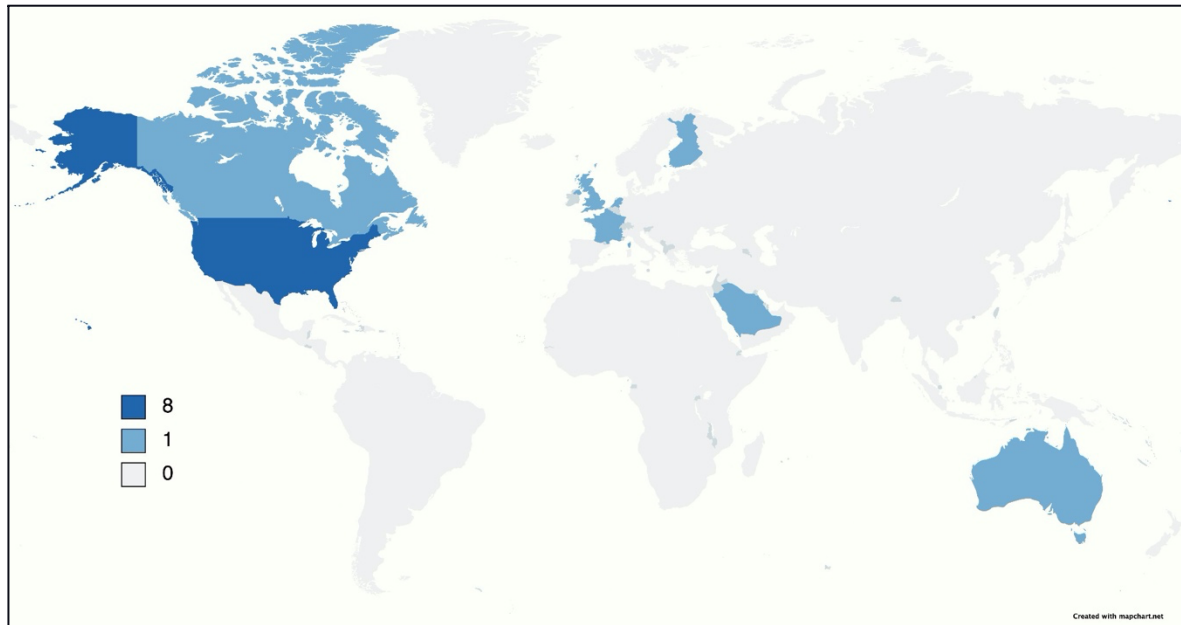
Author and year	Country of origin	Study design	Study aim	Condition studied/surgical intervention performed	Instrument
<i>Barnett, et. al.</i> 2012 ²⁷	USA	Cohort study	Assess if patients can be evaluated in an outpatient clinical setting, have their diagnosis confirmed, and undergo the operation on the same day	Umbilical, epigastric, or inguinal hernias	In-house questionnaire
<i>Pederiva, et. al.</i> 2018 ²⁸	UK	Cohort study	Evaluate the quality of life and family impact in patients with Small Bowel Syndrome	Small bowel Syndrome	PedsQL™ Healthcare Satisfaction Generic Module Parent Report
<i>Minnecci, et. al.</i> 2019 ²⁹	USA	Non-RCT	Evaluate the effectiveness of non-operative management of uncomplicated pediatric appendicitis	Appendicitis	PedsQL™ Healthcare Satisfaction Generic Module Parent Report
<i>Minnecci, et. al.</i> 2019 ³⁰	USA	Randomized clinical trial	Evaluate whether a patient activation tool (PAT) can improve decision-making and patient-centered outcomes among pediatric patients and their caregivers who choose between surgery and nonoperative management for their child's appendicitis	Appendicitis	PedsQL™ Healthcare Satisfaction Generic Module Parent Report
<i>Kassmann, et. al.</i> 2012 ³¹	USA	Case-control	Describe the use of telephone follow-up in a pediatric general surgical practice for children recovering from ambulatory surgical procedures	Inguinal hernia, biopsy, gastrostomy, circumcision, appendectomy, splenectomy, cholecystectomy	In-house questionnaire
<i>Downs, et. al.</i> 2014 ²⁶	Australia	Case-control	Explore the caregiver's satisfaction or gastrostomy surgical experience in children with rett's syndrome	Gastrostomy	In-house questionnaire
<i>Karisalmi, et. al.</i> 2020 ²⁵	Finland	Case-control	Measure experiences of children and their parents during day-surgery in hospital setting	Day-Surgery (unspecified) pre-operative cannulation procedure	In-house questionnaire
<i>Mahmoud, et. al.</i> 2021 ³⁸	Saudi Arabia	Cross-sectional	Evaluate the effectiveness of telemedicine (virtual clinic) and assess if it can help overcome the social barriers imposed by covid-19	Circumcision, inguinal hernia, hydrocele, orchidopexy, umbilical hernia, lipoma, dermoid cyst, lymph node biopsy, thyroglossal duct, pilonidal sinus, polydactyly/syndactyly	In-house questionnaire

<i>Criss, et. al</i> 2018 ³⁹	USA	Cross-sectional	Evaluate the patient and staff satisfaction following the implementation of same clinic day surgery program	Abdominal hernias, toenail excision, gastrocutaneous fistula repair, pilonidal cyst excision/drainage, circumcision and/or chordae release, incision, and drainage of abscess, and cyst, skin tag, lipoma, and keloid excision	In-house questionnaire
<i>Dreuning, et. al</i> 2021 ³²	Netherlands	Non-RCT	Evaluate the efficiency, (cost-)effectiveness, and family satisfaction of one-stop inguinal hernia surgery compared with usual care	Inguinal hernia	Modified version of the PedsQL™ Healthcare Satisfaction Hematology/Oncology Module
<i>Koulack et. al,</i> 1993 ³³	Canada	Cross-sectional	To determine the perceived necessity for the follow-up visit	Inguinal Hernia	In-house questionnaire
<i>Mariani et. al,</i> 2018 ³⁴	France	Cross-sectional	Investigate the safety of outpatient thoracoscopy and to assess parental opinions on the advantages and disadvantages of a pediatric thoracoscopy outpatient setting	Congenital Pulmonary Malformation	In-house questionnaire
<i>Minnecci, et. al,</i> 2020 ³⁵	USA	Non-RCT	Determine success rate of nonoperative management and compare differences in treatment-related disability, satisfaction, health-related quality of life, and complications between nonoperative management and surgery in children with uncomplicated appendicitis	Appendicitis	PedsQL™ Healthcare Satisfaction Generic Module Parent Report
<i>Minnecci et. al,</i> 2014 ³⁶	USA	Non-RCT	Investigate the feasibility of non-operative management of uncomplicated acute appendicitis in children	Appendicitis	PedsQL™ Healthcare Satisfaction Generic Module Parent Report
<i>Olson et. al,</i> 2018 ³⁷	USA	Cohort Study	Determine family satisfaction, cost savings to families, and institutional financial feasibility of SVS	Umbilical hernia repair, inguinal hernia repair, excision of soft tissue/skin lesions, orchidopexy, and circumcision	PedsQL™ Healthcare Satisfaction Generic Module Parent Report and in house questionnaire

Legend: USA- United States of America; UK- United Kingdom; RCT- randomized control trial, PedsQL™- Pediatric Quality of Life Inventory; SVS- same visit surgery.

The number of studies published each year progressively increased between 1993 and 2021. As shown in Figure 2, most of the studies originated in the United States (USA) (8), and the remainder came from high-income countries (HICs) as defined by the World Bank, with most questionnaires available in English only.

Figure 2: World map of included studies



Legend: The countries are colored according to the number of studies published. Grey: no studies identified, Skyblue: 1 study, Dark blue: 8 studies

Regarding study design, there were four non-randomized controlled trials, four cross-sectional studies, three cohort studies, three case-control studies, and one randomised control trial.

Ten distinct questionnaires were identified in the included papers, nine of which were created for the specific study and classified as non-validated, in-house, questionnaires. The remaining questionnaire, used in six studies, was the Pediatric Quality of Life Inventory (PedsQL™) Healthcare Satisfaction Generic Module–Parent Report, a validated generic satisfaction tool with patient experience domains.²³ With the exception of the PedsQL™ Healthcare Satisfaction Generic Module, no information was available about the psychometric properties of any of the other questionnaires, and only one questionnaire²⁵ was piloted before use. Out of the 10 instruments found, only two had patient/parent involvement in their content creation, PedsQL™ Healthcare Satisfaction Generic Module, and the questionnaire from reference.²⁶ The remaining

tools had no mention of patient/parent involvement, with descriptions of items being generated based on literature review and input from clinical experts. Table 2 displays the questionnaires found and their characteristics.

Table 2: Instruments

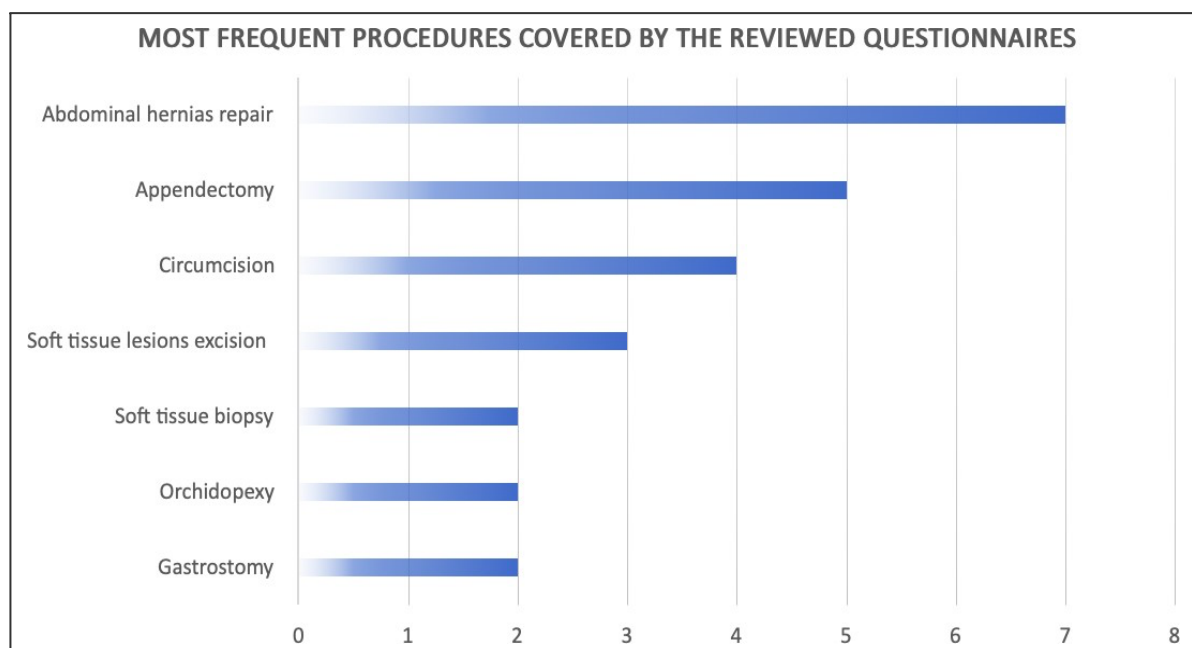
Reference	Instrument	Validation	Psychometric properties	Respondent	Domains	Only experience questions (True PREM)	Mostly Satisfaction questions with experience questions	Mostly Experience questions with satisfaction questions
27	In-house questionnaire	No	No	Parent	Scheduling process information, care and attention, convenience	x	✓	x
28–30,35–37	PedsQL Healthcare Satisfaction Generic Module	Yes	Yes	Parent	Information, inclusion of family, communication, technical skills, emotional needs, and overall satisfaction	x	✓	x
31	In-house questionnaire	No	No	Parent	Emotional support, role responsibilities, information needs	x	x	✓
26	In-house questionnaire	No	Patient involvement in questions development	Parent	Specific aspects of hospital processes, overall satisfaction, and functional outcomes following surgery	x	✓	x
25	In-house questionnaire	No	Digital tool was piloted	Child and Parent	Survey of children - feelings, pain, aspect of hospital stay and feedback Questions for parents - information, emotions and expectations,	x	x	x
38	In-house questionnaire	No	No	Child and Parent	fluency of the procedure and fluency of the hospital day General satisfaction, information, communication, fluency of process and hospital stay	x	x	✓

39	In-house questionnaire	No	No	Child and Parent	Information, emotional needs, fluency of hospital stay and process, convenience of stay	x	✓	x
32	Modified version of the Dutch Pediatric Quality of Life Healthcare Satisfaction Module	No	No	Parent	Information, inclusion of family, communication, technical skills, emotional needs, and overall satisfaction	x	✓	x
33	In-house questionnaire	No	No	Parent	Information and communication about followup	x	✓	x
34	In-house questionnaire	No	No	Parent	Aspects of hospital stay, respect of the dosage and administration schedule, pain management, and the recovery post-surgery at home	x	x	✓

Most of the studies (12/15) used the questionnaire only with parents,^{26–37} while three studies assessed both child and parental experience.^{25,38,39} Of all the questionnaires, six were obvious satisfaction tools including experience questions, PedsQL™ Healthcare Satisfaction Generic Module, and the questionnaire from references.^{26,27,32,33,39} Three included a majority of experience questions combined with satisfaction questions,^{31,34,38} and one was a combination of patient-reported outcomes and experience questions.²⁵ No stand-alone PREM was found in the included studies.

Nine articles focused on a single surgical intervention, while six included multiple procedures. The most frequent surgical procedures evaluated were abdominal hernia repair,^{27,31–33,37–39} appendectomy,^{29–31,35,36} and circumcision,^{31,37–39} followed by excision of cystic soft tissue lesions,^{37–39} orchidopexy,^{37,38} soft tissue biopsy,^{31,38} and gastrostomy placement^{26,31} (Figure 3).

Figure 3: Most Frequent Procedures Covered by the Included Questionnaires



Only one study²⁵ used the questionnaire in both preoperative and postoperative care, while the other 14 studies evaluated participants during the initial postoperative follow-up, mostly by phone,^{31,33,34,37,39} followed by in-person survey,^{25,29,30} email,^{25,32,38} and mail.^{27,28} The remaining articles did not mention how their survey was delivered.^{26,35,36}

The number of questions in each questionnaire varied from 3 to 27. All questionnaires were comprised of closed-ended questions with predetermined answers (including multiple-choice format, Likert scales, and ranking), and eight included at least one open question or comment section.^{25–27,31,33,34,38,39} The domains covered mainly patient information and communication, delivery of care, family inclusion, health professional technical skills, emotional support, hospital setting, and overall satisfaction.

2.4.1 Risk of bias

The risk of bias for each included study is shown in Table 3. Based on the MMAT, the included studies were all of good quality with positive answers to nearly all items. All studies were guided by clear research questions which were answered through the data generated and targeted the designated population. Only two studies had incomplete outcomes,^{30,33} one being an ongoing study. In two studies, we were not able to assess how confounders were addressed.^{27,38}

Table 3: Risk of Bias Assessment

Mixed Methods Appraisal Tool (MMAT)

Quantitative Randomised controlled trials							
Reference	Are there clear research questions?	Do the collected data allow us to address the research questions?	Is randomization appropriately performed?	Are the groups comparable at baseline?	Are there complete outcome data?	Are outcome assessors blinded to the intervention provided?	Did the participants adhere to the assigned intervention?
30							
Quantitative Nonrandomised (non-RCT, case-control, cohort, cross-sectional)							
Reference	Clear research questions	Do the collected data allow us to address the research questions?	Are the participants representative of the target population?	Are measurements appropriate regarding both the outcome and intervention (or exposure)?	Are there complete outcome data?	Are the confounders accounted for in the design and analysis?	During the study period, is the intervention administered (or exposure occurred) as intended?
29							
35							
36							
32							
27							
28							
25							
38							
39							
33							
34							
37							

Legend: the red color means "no", the green "yes", the yellow "can not tell" following MMAT predetermined answer

2.6 Discussion

This review examined PREM usage in pediatric general surgery. Notably, no true PREM was identified in our review, with most questionnaires being in-house instruments developed for specific studies, without psychometric rigour, validation, or patient involvement. The only validated tool found, the PedsQL™ Healthcare Satisfaction Generic Module Parent Report, is, as its name suggests, primarily a satisfaction survey with some patient experience domains.²³

Furthermore, the focus of most questionnaires was limited to the parents' experience, with only a few studies evaluating the child's experience.

The number of publications reporting both patient experience and satisfaction in pediatric surgery has increased in recent years but remains limited, especially when compared to the recent significant increase of PROMs in the field.⁹ Surgery adds stress and complexity to the relationship between parents and healthcare providers in an environment where multiple teams interact with the family,¹² making patient and family experience challenging to evaluate. However, omitting PREMs from research studies and routine evaluation excludes children's and families' voices from clinical and policy decisions.⁶

All included studies were from HICs, and predominantly from the USA. Healthcare systems in these countries are shifting toward a patient-centred care model, responsive to patient and family preferences, needs, and values.² In fact, some health-governing authorities in HICs have fostered guideline development for including PROMs and PREMs in research and clinical consultations.^{1,14}

While the merit of using PROMs and PREMs is evident, there is a lack of consensus in selecting the appropriate measures.^{9,10,40} Choosing an instrument may be deemed by some to be trivial, but measuring patient-reported outcomes and experiences is complex and requires considerable expertise.¹⁹ Additionally, high-quality instruments are scarce, and developing new ones can be challenging.^{9,18,19} Notably, including questions from validated surveys does not create a new equally valid survey.¹⁸ PROM and PREM development requires adequate modelling, content generation with patient engagement, correct scaling and testing, and psychometric evaluation.^{14,19}

Recent reviews examined the psychometric properties of existing PREMs and concluded that the available tools still have uncertain validity, reliability, and responsiveness.^{5,18}

The current review identified 10 distinct questionnaires among the 15 included articles, 9 created for specific studies, and classified as “in-house” questionnaires. These questionnaires are non-validated, lack reported psychometric properties, and with one exception were not piloted before use. In the absence of validity and reliability data, there is a risk of imprecise, biased, or misleading results,^{5,41} resource waste, and an ethical dilemma of patient input being unable to generate healthcare change.^{5,6,19} All tools also require piloting, a vital step in the process of identifying unsuitable items for each population.¹⁸

Another surprising finding of this review was that only two instruments had patient and family involvement in their development. The remaining tools described item generation based on informal literature reviews and input from clinical experts. Questionnaires prepared by clinical professionals answer questions that they consider important, and may collect information that is of scant relevance to patients.¹⁹ Patients and families are experts in their health and experiences; hence ensuring that their voices are at the centre of the instrument development processes is essential and justified by scientific ethics and rigor.^{2,6,14} Thus, instrument co-development and co-design are the new gold standards for PROMs and PREMs.²

A unique challenge in assessing patient experience in pediatric care is that it must be measured from the perspective of *both* the children and their parents.¹³ Disappointingly, most of the studies we reviewed evaluated only the perspective of parents, with very few including children as key stakeholders. As demonstrated by Wray et al., CYP have strong views regarding their hospital experience and are willing to share them.¹⁰ In this PREM development study, CYP engagement was excellent, suggesting that their healthcare experience was important to them, and they wanted their views to be heard and acted on. Thus, whenever possible, self-reported measures are preferable when surveying CYP.¹

Surprisingly, our review did not identify a single true PREM used in pediatric surgery. In the absence of a true PREM, we included in our review papers both experience and satisfaction items. We classified all the questionnaires into three categories: 1. Mostly satisfaction tools including experience questions, 2. Mostly experience tools including satisfaction questions, and 3. PREMs.

Papers reporting only satisfaction data were excluded, due to limited accuracy and value. PREMs report on the extent to which specific processes occurred during an episode of care.⁴² For example, a PREM might ask whether the patient received enough post-operative information - while a satisfaction measure would ask how satisfied the patient was with the information received. PREMs can therefore provide more specific information on how a service can be improved.⁴²⁻⁴⁴

In healthcare, the concept and measurement of patient satisfaction go back to the 1980s, while patient experience only gained importance during the last decade.⁴³ As noted, satisfaction is subjective and reflects judgments of healthcare adequacy, not quality. Measures of patients' satisfaction are driven by the fulfilment of patients' desires regardless of risks, costs, or effectiveness.⁴³ Indeed, high patient satisfaction may correlate not only with increased costs but also with higher morbidity.¹² Patient experience, on the other hand, can be an indicator of quality alongside patient safety and clinical effectiveness measures, though potentially confounded by quality-independent factors such as health outcomes.⁵ PREMs can also reveal variations between high- and low-performing clinical practices,⁴⁴ and encourage patients to reflect on the interpersonal aspects of their care,⁵ making them a more robust measurement tool.

Despite the increase in chronic and complex conditions addressed in pediatric surgery,¹⁶ none of the studies reviewed assessed patients and families after major congenital interventions, which constitute the most profound family experiences in our specialty. Instead, the most frequent surgical procedures surveyed were hernia repair, appendectomy, and the excision of soft tissue lesions. This bias in the literature results in major gaps in knowledge about patient experience in pediatric surgery and also misses the long-term longitudinal perspective unique to the developing child with a congenital malformation.⁶

Most studies surveyed their participants during early postoperative follow-up, mainly by phone. Different survey administration methods have unique disadvantages. Telephone surveys require brief questionnaires and can easily generate interviewer bias, postal surveys can be very time-consuming and expensive, while web-based surveys can exclude patients with impaired access to the internet.⁶ Recent studies have however shown that, with the increased democratisation of smartphones, web-based surveys no longer increase selection bias.⁶ Moreover, smartphone applications can collect patient-reported measures very efficiently, effectively, and longitudinally, and are appealing to children.⁴⁵ More contemporary survey delivery platforms are therefore needed

in our specialty.

As suggested in the literature,⁶ most questionnaires reviewed included open questions or at least a comment section. Closed-ended questions allow the collection of quantitative data and benchmarking within healthcare organisations, but may miss richer information on patient experience. Therefore, the inclusion of narrative information in questionnaires should be encouraged,⁶ although there are implications for resources for analysis.

Our study has several limitations. Due to the heterogeneity of instruments identified, our analysis was primarily descriptive. The included articles were also highly heterogeneous in domains evaluated, conditions included, design, and results reported. Some studies reviewed lacked a clear design, requiring our team to classify them following Grimes' algorithm of study designs,⁴⁶ hence adding potential classification bias. Furthermore, the small number of included articles may impair the generalizability of our findings. Publication bias must also be considered, since studies showing poor patient satisfaction or experience may be less likely to be published. Regarding the risk of bias analysis, the tool does not provide a final numerical scale, leaving the interpretation of the results to the user - again adding potential bias. Additionally, this review did not include other PREM reporting contexts such as unpublished hospital surveys. However, hospital surveys often have limited psychometric information,⁴² and their inclusion is unlikely to have changed our findings. Lastly, we excluded qualitative experience and satisfaction studies that did not use a formal questionnaire, as they were not the focus of this study.

2.7 Conclusion

Although PROMs are increasingly used in pediatric surgery, PREMs are not yet in use, being substituted by satisfaction surveys. Moreover, existing surveys are frequently developed in-house without psychometric due diligence and have not been used with patients undergoing complex procedures or over time. Well-developed PREMs are formulated by clinical and patient-centred researchers in partnership with children and families, comprising items relevant and meaningful to them.

Our results highlight the need for a more rigorous approach for patient-centred measures and an improved understanding of satisfaction and experience concepts among researchers and pediatric surgical providers. Our findings also call for a shift from developing and using in-house satisfaction surveys to creating psychometrically sound experience instruments for the pediatric

surgical population. Future research should consider improving the available tools or creating de novo PREMs able to generate credible data for health service improvement. Lastly, assessing patients' and families' experiences after major interventions remains an important target for the pediatric surgical community.

CHAPTER 3 - COMPLEMENTARY DISCUSSION

3.1 Patient Reported Experience Measures (PREMs)

From our literature review, we found that no true PREM is currently being used in pediatric surgery, with most questionnaires being satisfaction surveys developed for specific studies, without psychometric rigour, validation, or patient involvement. Surveys focused on the short postoperative period, without the longer-term data which are probably more meaningful. Most importantly, the focus of most questionnaires was limited to parental experience, with only a few studies evaluating the children's experience.

Although the number of publications reporting patient experience and satisfaction has increased in recent years, indicating recognition of positive patient experience as an important goal, it remains limited, especially when compared to the significant increase in PROMs use in pediatric surgery.⁹ PROMs and PREMs are complementary tools and should be used to capture a patient-centred journey.² Furthermore, omitting PREMs from research studies and routine outcome evaluation excludes children's and families' voices from clinical and policy decisions.⁶

Besides providing information regarding the patient-centredness of existing services,⁵ patient experience, alongside patient safety and clinical effectiveness, is acknowledged as a critical component of quality of care.⁵⁻⁷ In principle, patients are experts in their own lived experience of care, and listening to their unique insights has the potential to enhance quality.³

Patient experience is a multi-dimensional construct encompassing mainly relational and functional aspects of care.^{4,47} Relational aspects include emotional and psychological support, being treated with respect, receiving clear and comprehensive information, and transparent and honest communication. Functional aspects may include effective and timely treatment, expert management of physical symptoms, attention to physical needs, a clean, safe, and comfortable care environment, and the coordination and continuity of care.⁴ Thus, PREMs enable patients to reflect on the interpersonal aspects of their experience of care and allow facts to be established from the complex phenomena which is the quality of care.^{5,48} There is a positive association between patient experience and healthcare processes and outcomes, including patient adherence to medical advice, better clinical outcomes, improved patient safety practices, and lower utilisation of unnecessary healthcare services.⁴⁹

Patient experience data can be gathered in a wide variety of ways.⁴⁷ In routine clinical practice, patients' views are assessed using questionnaire surveys.⁴⁷ Interviews or focus groups are methods commonly used in research. Data collected through surveys can produce mild positive responses, while interview data more frequently come from negative care experiences.⁴⁷ Patients can also voluntarily provide feedback using social networks and institutional websites. However, this data source also presents several limitations, such as the impossibility of knowing the representativeness of the comments and the inability to use this information for benchmarking or monitoring trends.⁶ Although a combination of tools is required to capture the complexity of hospital care, PREMs can capture large samples of standardised data, essential for patient perspective to be equally represented alongside other aspects of care.⁴⁸ Thus, PREMs became popular with policymakers and are seen in public reporting, benchmarking of institutions, and hospital rankings.^{5,48} They have gained international recognition and remain the core method for measuring patient experience.^{5,7,48}

New technologies are driving innovative and cost-effective approaches for measuring patient experience.⁴⁷ In this review, most studies surveyed their participants during early postoperative follow-up, mainly by phone call. Surveys can also be conducted through messages to patients' phones and emails, smartphone applications, or handheld devices to get real-time feedback.⁴⁷ Online surveys no longer increase selection bias due to the increased democratization of smartphones.⁶ Smartphone applications can collect patient-reported measures very efficiently, effectively, and longitudinally, and recent studies show that they are appealing to children.⁴⁵ Lastly, real-time feedback systems can provide quicker responses to patients' issues and foster a culture of patient-driven quality improvement.⁶

Evidence confirms that PREM data can enhance the ability of healthcare providers to improve patients' experiences concerning waiting times at admission, communication, team coordination, and other key dimensions of the patient experience, which are measured with closed-ended standard questions. However, narrative questions also play a role in collecting patient experiences.⁶ In this review, most questionnaires included open narrative questions or at least a comment section. This practice should be encouraged as it provides additional information, enriching the quantitative results with details and context.⁶ Patients often report on specific episodes that allow learning-by-excellence processes of quality improvement.⁶

Despite the increase in chronic and complex conditions treated in pediatric surgery,¹⁶ none of the studies reviewed assessed patients and families after major congenital interventions, which would constitute the most profound family experiences in the speciality. Instead, the most frequent surgical procedures surveyed were hernia repair, appendectomy, and the excision of soft tissue lesions, reflecting a heavy emphasis on evaluating short-term care encounters. This literature bias results in critical gaps in knowledge regarding patient experience in pediatric surgery and misses the long-term longitudinal perspective unique to the developing child with a congenital malformation.⁶ Indeed, healthcare systems are still devoted to acute episodes of care, with PREMs developed for a one-off purpose.⁵ However, regular patient experience measurement, monitoring, and reporting are relevant in achieving and sustaining more substantial changes in healthcare.⁶

3.1.1 Psychometric Properties of PREMs

There are considerable challenges in measuring the patient perspective of hospital care using questionnaires.⁴⁸ While selecting an instrument may seem straightforward to some, measuring patient-reported experiences is complex and requires considerable expertise.¹⁹ Instruments are often chosen because they are commonly used, easy to administer, or available in specific languages.^{9,19} Although convenient and essential, these factors should be considered alongside the instrument's psychometric properties.¹⁹ Psychometrics is a branch of psychology which aims to measure behavioural and social phenomena using rigorous statistical methods.⁴ Validity, reliability, and responsiveness are key psychometric properties that assess instrument quality, thereby supporting the quality of the information collected by them.⁴

Validity refers to how accurate an instrument is at measuring what it intends to measure.^{4,50} There are three significant types of validity.⁵⁰ Criterion validity is based on correlation with a “gold standard”.^{4,50} Construct validity is based on the extent to which an instrument behaves as expected. Content validity is based on how an instrument adequately reflects the measured construct. This is considered the most important property, as it explores whether the items in an instrument are relevant, comprehensive, and understandable to the target population.^{4,50}

Reliability refers to the extent to which an instrument performs in consistent and predictable ways.⁴ It also shows how precisely the tool detects change due to an intervention or differences between individuals.^{5,41}

Validity and reliability are not ‘all or nothing’ concepts; they are a matter of degree. Evidence of these properties tends to be cumulative, as each new study further confirms an instrument’s ability to measure patient experience of hospital quality care.⁴⁸

Responsiveness refers to the power of an instrument to detect change over time.^{4,5} Testing responsiveness should be prioritised for instruments to be utilised repeatedly.⁵ PREMs should show responsiveness if they are used in an evaluative capacity, like the effect of a new intervention.⁴ While there is literature guidance on responsiveness and clinically significant differences for PROMs, the same cannot be said for PREMs. The subject of the psychometric evaluation of PREMs therefore needs further investigation.⁴ In light of the scarcity of guidance specific to PREMs, the Consensus-Based Standards for the Selection of Health Measurement Instruments (COSMIN) checklist,⁵¹ a resource used to support the selection of psychometrically robust PROMs, can play a role in assisting in the psychometric evaluation of PREMs.^{4,52}

Recent reviews examining the psychometric properties of existing PREMs concluded that the available tools still have uncertain validity, reliability, and responsiveness.^{5,18} In the absence of validity and reliability, there is a risk of imprecise, biased, or misleading results.^{5,41} Thus, understanding the psychometric properties of PREMs is integral to the appropriate selection of instruments for quality assessment of health care services. This is done in conjunction with other evaluative aspects, such as the clinical relevance of the instrument and the domains of patient-reported experience that it covers.^{5,48} Finally, instruments need to have high utility if they are to be used in actual practice, and besides the psychometric properties, they require cost-effectiveness, acceptability, and educational impact.⁴⁸ Thus, there is no ‘one-size-fits-all’ approach when selecting an instrument to measure patient experience - rather, various instruments are available, each with its own strengths and limitations.⁴⁸

The current review identified ten distinct questionnaires among the 15 included articles, with nine created for specific studies with insufficient information on psychometric properties or validation. Almost as many different questionnaires were identified as the number of articles included in this review, reflecting the heterogeneity of the instruments currently in use.

The Organisation for Economic Co-operation and Development (OECD) has played a leading role in measuring health system performance. Among OECD’s key recommendations there is an acknowledgement that “if each country continues to do its own thing on patient-reported

performance, opportunities to identify excellence, support poor performers, and drive improvements across the board will be missed.”⁵³ Likewise, if each pediatric surgery service pursues its own path for assessing PROs and PRE, developing questionnaires *ad hoc* for a specific study, and without adequate quality, significant opportunities will be missed in the field.⁹

The only validated tool found by this review was the PedsQL™ Healthcare Satisfaction Generic Module Parent Report.²³ The use of the PedsQL™ Module was expected since it has been extensively studied and validated in multiple countries,⁴¹ and is the most frequently used PROM in pediatric surgical studies.⁹ However, as its name suggests, this PedsQL™ Module is primarily a satisfaction survey, not a PREM.

In practice, this review highlights that more must be done in pediatric surgical studies involving PREMs to ensure that the collection of patient experience data can be translated locally into service improvements. This will require refining the survey process and building organisational cultures that are receptive to patient feedback.³

3.1.2 PREM Implementation Challenges

The implementation of PREMs in healthcare practice requires the careful consideration of multiple factors. First, quality of care is difficult to quantify and define. The widely accepted STEEEP acronym (Safety, Timeliness, Effectiveness, Efficiency, Equity, and Person-Centeredness) is most commonly used to describe the dimensions of quality of care.⁴⁸ However, what constitutes quality from the patient’s perspective may shift over time; therefore, there is a need to periodically re-explore elements of hospital care that are important to patients.⁴⁸ Secondly, there are barriers to the implementation of PREMs at system, service, and individual levels.⁴ Barriers at the system level include cultural resistance toward person-centred care, lack of PREMs for system-level performance measurement, and the absence of performance benchmarking frameworks. At the service level, the main challenges in the implementation of PREMs are high costs, lack of leadership, other organisational priorities, and lack of technology infrastructure. At the individual level, implementation can be burdensome to healthcare providers because of the volume of data they are asked to collect and the time required to analyse and interpret PREM feedback. Key barriers are staff scepticism regarding the data quality of PREMs, staff lack of training in social research methods, statistical complexity, the issue of aggregated or isolated data, contradictory results, and staff lack of power to implement PREMs, disseminate findings, and engage in quality

improvement.^{3,4,7}

Lastly, simply giving doctors the results of patients' feedback does not seem effective in instigating change.^{3,7,54} Integrating patients' feedback into educational programs with the results made available to the public has yielded more robust improvements in doctors' performance.⁵⁴

3.2 Experience versus satisfaction

This review highlights the blurred edges between the concepts of 'patient experience' and 'patient satisfaction'.⁴⁷ Surprisingly, we did not identify a single PREM used in pediatric surgery, with all instruments in the included studies being best classified as satisfaction measures.

A robust search strategy was used (see Appendix). This strategy was developed by a senior medical librarian, including eight different databases, grey literature, and reference lists of included studies, with no language restriction and wide variations in key concepts terms, from the inception of each database. Nevertheless, the present study yielded only 2633 initial results, with 51 included for full-text review and only 15 studies meeting the inclusion criterion of not being exclusively satisfaction studies. These numbers confirm the observation that patient experience reports in pediatric surgery are not common, and significantly lag behind studies regarding satisfaction.¹² Our results uncover the need for improved understanding and application of both satisfaction and experience concepts among researchers and pediatric surgical providers.

Despite being often used interchangeably, satisfaction and experience concepts are distinct.^{4,47,49} Satisfaction is an older concept evaluating whether a patient's expectations regarding a health encounter were met.^{4,43} This means that different people receiving the same care can give different satisfaction ratings because of their different expectations.⁴⁹ As noted, satisfaction is highly subjective, reflecting judgments of healthcare adequacy, rather than quality.⁴ Therefore, the validity and usefulness of satisfaction data is limited.^{12,48} Indeed, patient satisfaction measures have been found to discriminate poorly between practices and providers,⁴⁴ being driven by fulfilling patients' desires regardless of risks, costs, or effectiveness.⁴³ Evidence indicates that high patient satisfaction may in fact correlate with increased costs and morbidity.¹²

On the other side, PREMs do not ask patients how satisfied they are with their care; rather, they ask patients to report on specific aspects of their experiences.⁴⁹ For example, to assess patient experience, a question might ask whether patients received the proper medication at the right time instead of asking patients to rate their satisfaction with medicine administration.⁴⁸ The shift from general rating categories (excellent, very good, good, fair, and poor) and agreement-based response scales (strongly disagree, disagree, neither agree nor disagree, agree, strongly agree) to specific, targeted questions leads to a more accurate reflection of the patient's experience.

Furthermore, agreement-based scales are limited by respondents' tendency to agree with an item irrespective of what is being asked and to give identical or near identical responses to consecutive questions.⁴ PREMs typically employ frequency-based response scales (never, sometimes, often, always) and can ask patients to report on a particular consultation ("Did the doctor have time to answer your questions?"), a specific episode of care ("Did anyone advise you about your colostomy care at home?"), or over a specified period ("Did you receive information about support groups in the past six months?").⁵⁴

In summary, PREMs ask well-tested questions using a consistent methodology across a large sample of respondents, generating standardised and validated measures of patient experience that providers, patients, and other stakeholders can rely on.⁴⁹ PREMs can uncover specific information for improving a service, being more actionable and less likely to get overly positive responses.⁴⁷ PREMs also reveal variations between high- and low-performing clinical practices, which are better indicators of practice performance.⁴⁴ Specific patient experience questions indeed reflect a difference in care, rather than differences in expectation.⁴⁷

In the absence of any a true PREMs, we included manuscripts with questionnaires containing both experience and satisfaction items in our review. We recognise that the distinction between patient experience reports and patient satisfaction evaluation questions is not always as clear as suggested, with experience report items often containing an evaluative component.⁴⁷ Thus, we classified all the questionnaires found into three categories: mostly satisfaction tools including experience questions, mostly experience tools including satisfaction questions, and PREMs. Papers reporting only satisfaction data were excluded due to their limited accuracy and value. Of the ten questionnaires, six were primarily satisfaction tools with experience questions. Three included mostly experience questions combined with satisfaction questions, and one was a

combination of patient-reported outcomes and experience questions. These results emphasise that the experience component of the questionnaires developed in pediatric surgery lags behind the satisfaction component, indicative of a poor concept maturity regarding PREMs in the field.

3.3 Patient engagement

This review identified that only two instruments had patient and family involvement in their development. The remaining tools described their item generation process as based on informal literature reviews and input from clinical experts. Questionnaires prepared by clinical professionals answer questions that *they* consider essential and may collect information that is of scant relevance to patients.¹⁹ Additionally, the frequent lack of input from patient-reported measure experts in survey development¹⁹ also results in sparse meaningful data, resource wastage, and the ethical challenge of patient input remaining unable to result in any meaningful healthcare change.^{5-7,19} To address these issues, a more rigorous and inclusive approach is needed if PREMs are intended to inform decision-making and funding.⁵

Including patients in the research process and the development of assessment tools is a critical step toward patient engagement in the healthcare system.¹⁶ Patient engagement involves patients, families, and their representatives working in active partnership with healthcare providers at various levels of the healthcare system to improve health and healthcare.⁵⁵ Engagement is characterised by shared power and responsibility, with patients actively defining agendas and making decisions.⁵⁵

Evidence suggests that patient engagement can lead to better health outcomes, quality, safety, and healthcare costs. Patient engagement is crucial in creating a continually learning health system and in redesigning healthcare.⁵⁵ As current discussions about the healthcare system often highlight that costs are increasing while quality lags, understanding that patients are at the core of healthcare systems helps make patients be part of the solution.⁵⁵

Thus, ensuring that patients' voices are at the centre of data development processes is essential for assuring that selected measures are relevant to them, and deliver the greatest impact toward achieving people-centred healthcare systems.² Such participation should include primary roles in creating, testing, and validating instruments and identifying the most appropriate PREMs for practice, research, and policymaking. Co-development and co-design are in fact the new gold standard for PROMs and PREMs.²

3.4 Parental and child experience

A unique challenge in assessing patient experience in pediatric care is that it must be measured from the perspective of both the children and their parents.¹³ A number of studies have highlighted low agreement levels between parent and child perspectives regarding child's quality of life, highlighting the importance of obtaining child and parent perspectives whenever possible.⁴⁰ The same principle is true for child experience - yet, disappointingly, most of the studies we reviewed evaluated only the parents' perspective, with very few including children as key stakeholders. Indeed, children and young people (CYP) are frequently not asked about their

hospital experience, despite constituting 10–15% of hospital patients.¹⁰ In terms of the surveys, the ones developed about CYP were created by and completed by adults, with little or no input from CYP. Moreover, those that do exist for CYP to complete have been developed as annual surveys, emphasising secondary rather than tertiary care, and acute rather than chronic health conditions.

Wray et al. demonstrated that CYP have strong views regarding their hospital experience and are willing to share these views.¹⁰ In their PREM development study, CYP engagement was excellent, suggesting that their healthcare experience was vital to them, and they wanted their views to be acted on. Thus, whenever possible, self-reported measures are preferable when surveying CYP.¹

3.5 Risk of bias

This review analysed 15 studies, including one randomised controlled trial, four non-randomised trials, four cross-sectional studies, three cohort studies, and three case-control studies. Some studies lacked a clear design and were classified following Grimes' algorithm of study designs.⁴⁶ As noted, the included articles were highly heterogeneous in terms of design, domains evaluated, and conditions included.

To appraise the quality of the included studies, the Mixed Methods Appraisal Tool (MMAT)²⁴ was used. The MMAT is designed for systematic mixed study reviews and assesses the most common methodologies and designs. Based on the MMAT assessment, the studies reviewed were generally of good overall quality, with positive answers to nearly all MMAT items. The studies were guided by straightforward research questions and objectives, targeting the designated population and analysing the data appropriately. However, most studies relied on low-quality in-house

questionnaires, thus limiting the validity of their findings.

3.6 Future directions

The shift towards service users in leading positions in PROM and PREM development demands new ways of planning and executing clinical practice, quality improvement, research, and policymaking. It calls for a significant shift in how to design and evaluate research. Challenges such as alignment of measurement content and use, measure validity, reliability, and generalizability have to be addressed.²

Our results highlight the need for a more rigorous approach to PREMs and an improved understanding of satisfaction and experience concepts among researchers and pediatric surgical providers. Our findings also call for a shift from developing and using in-house satisfaction surveys to creating psychometrically sound experience instruments for the pediatric surgical population. Future research should consider improving the available tools or creating *de novo* PREMs to generate credible data for health service improvement. Standardised tools to measure experience in the pediatric surgical population may assist in further research and quality improvement efforts in the pediatric surgical setting. The selection of instruments should ideally be driven by all key stakeholders, including parents, children, and healthcare professionals.

Lastly, assessing patients' and families' experiences after major interventions remains an important target for the pediatric surgical community.

3.7 Conclusions

Patient experience sits at the heart of healthcare provision and is a core component of quality and service improvement.¹⁰ The findings of this study shed light on the lack of PREMs used in pediatric surgery, which may influence the funding and development of future PREMs. It is important to ensure proper validity testing and reliability scores while developing PREMs. Furthermore, well-developed PREMs are formulated in partnership with children and families, comprising items relevant and meaningful to them. Most importantly, self-completed, rather than only proxy measures, need to be included for CYP whenever feasible.

Collecting patient experience data is the initial but essential step to understanding challenges and opportunities in improving healthcare quality. PREMs can provide credible, first-hand findings for health service improvement; therefore, future efforts should develop and implement these tools in

pediatric surgical practice.

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Supplementary material

PRISMA Checklist

Section and Topic	Item #	Checklist item	Location where item is reported
TITLE			
Title	1	Identify the report as a systematic review.	pg. 1
ABSTRACT			
Abstract	2	See the PRISMA 2020 for Abstracts checklist.	pg. 2
INTRODUCTION			
Rationale	3	Describe the rationale for the review in the context of existing knowledge.	pg. 5
Objectives	4	Provide an explicit statement of the objective(s) or question(s) the review addresses.	pg. 6
METHODS			
Eligibility criteria	5	Specify the inclusion and exclusion criteria for the review and how studies were grouped for the syntheses.	pg. 8
Information sources	6	Specify all databases, registers, websites, organizations, reference lists and other sources searched or consulted to identify studies. Specify the date when each source was last searched or consulted.	pg. 7 & included in supplementary material
Search strategy	7	Present the full search strategies for all databases, registers and websites, including any filters and limits used.	Included in Supplementary material
Selection process	8	Specify the methods used to decide whether a study met the inclusion criteria of the review, including how many reviewers screened each record and each report retrieved, whether they worked independently, and if applicable, details of automation tools used in the process.	pg. 8
Data collection process	9	Specify the methods used to collect data from reports, including how many reviewers collected data from each report, whether they worked independently, any processes for obtaining or confirming data from study investigators, and if applicable, details of automation tools used in the process.	pg. 8
Data items	10a	List and define all outcomes for which data were sought. Specify whether all results that were compatible with each outcome domain in each study were sought (e.g. for all measures, time points, analyses), and if not, the methods used to decide which results to collect.	pg. 8
	10b	List and define all other variables for which data were sought (e.g. participant and intervention characteristics, funding sources). Describe any assumptions made about any missing or unclear information.	N/A
Study risk of bias assessment	11	Assess risk of bias in the included studies, including details of the tool(s) used, how each study and whether they worked independently, and if applicable, details of process.	pg. 9
Effect measures	12	Specify for each outcome the effect measure(s) (e.g. risk ratio, mean difference) used in the synthesis or presentation of results.	N/A
Synthesis methods	13a	Describe the processes used to decide which studies were eligible for each synthesis (e.g. tabulating the study intervention characteristics and comparing against the planned groups for each synthesis (item #5)).	N/A
	13b	Describe any methods required to prepare the data for presentation or synthesis, such as handling of missing summary statistics, or data conversions.	Pg. 8

Section and Topic	Item #	Checklist item	Location where item is reported
	13c	Describe any methods used to tabulate or visually display results of individual studies and syntheses.	Pg.8
	13d	Describe any methods used to synthesize results and provide a rationale for the choice(s). If meta-analysis was performed, describe the model(s), method(s) to identify the presence and extent of statistical heterogeneity, and software package(s) used.	Pg.8 and 9
	13e	Describe any methods used to explore possible causes of heterogeneity among study results (e.g. subgroup analysis, meta-regression).	N/A
	13f	Describe any sensitivity analyses conducted to assess robustness of the synthesized results.	N/A
Reporting bias assessment	14	Describe any methods used to assess risk of bias due to missing results in a synthesis (arising from reporting biases).	N/A
Certainty assessment	15	Describe any methods used to assess certainty (or confidence) in the body of evidence for an outcome.	N/A
RESULTS			
Study selection	16a	Describe the results of the search and selection process, from the number of records identified in the search to the number of studies included in the review, ideally using a flow diagram.	pg. 10
	16b	Cite studies that might appear to meet the inclusion criteria, but which were excluded, and explain why they were excluded.	Pg 10 and Fig 1 (pg 21)
Study characteristics	17	Cite each included study and present its characteristics.	Pg 10 & Table 1 (pg. 22)
Risk of bias in studies	18	Present assessments of risk of bias for each included study.	pg 12. & Table 3 (pg 28)
Results of individual studies	19	For all outcomes, present, for each study: (a) summary statistics for each group (where appropriate) and (b) an effect estimate and its precision (e.g. confidence/credible interval), ideally using structured tables or plots.	N/A
Results of syntheses	20a	For each synthesis, briefly summarise the characteristics and risk of bias among contributing studies.	Pg..9
	20b	Present results of all statistical syntheses conducted. If meta-analysis was done, present for each the summary estimate and its precision (e.g. confidence/credible interval) and measures of statistical heterogeneity. If comparing groups, describe the direction of the effect.	N/A
	20c	Present results of all investigations of possible causes of heterogeneity among study results.	N/A
	20d	Present results of all sensitivity analyses conducted to assess the robustness of the synthesized results.	N/A
Reporting biases	21	Present assessments of risk of bias due to missing results (arising from reporting biases) for each synthesis assessed.	N/A
Certainty of evidence	22	Present assessments of certainty (or confidence) in the body of evidence for each outcome assessed.	N/A
DISCUSSION			
Discussion	23a	Provide a general interpretation of the results in the context of other evidence.	pg 12
	23b	Discuss any limitations of the evidence included in the review.	pg 14

Section and Topic	Item #	Checklist item	Location where item is reported
	23c	Discuss any limitations of the review processes used.	pg 18
	23d	Discuss implications of the results for practice, policy, and future research.	pg 18
OTHER INFORMATION			
Registration and protocol	24a	Provide registration information for the review, including register name and registration number, or state that the review was not registered.	National Institute for Health research - PROSPERO (CRD42022324146)
	24b	Indicate where the review protocol can be accessed, or state that a protocol was not prepared.	Pg. 7
	24c	Describe and explain any amendments to information provided at registration or in the protocol.	N/A
Support	25	Describe sources of financial or non-financial support for the review, and the role of the funders or sponsors in the review.	pg. 1
Competing interests	26	Declare any competing interests of review authors.	pg. 1
Availability of data, code and other materials	27	Report which of the following are publicly available and where they can be found: template data collection forms; data extracted from included studies; data used for all analyses; analytic code; any other materials used in the review.	N/A

From: Page MJ, McKenzie JE, Bossuyt PM, Boutron I, Hoffmann TC, Mulrow CD, et al. The PRISMA 2020 statement: an updated guideline for reporting systematic reviews. *BMJ* 2021;372:n71. doi: 10.1136/bmj.n71

PRISMA-S Checklist

Section/topic	#	Checklist item	Location(s) Reported
INFORMATION SOURCES AND METHODS			
Database name	1	Name each individual database searched, stating the platform for each.	p. 7 & Included in Supplementary Material
Multi-database searching	2	If databases were searched simultaneously on a single platform, state the name of the platform, listing all of the databases searched.	p. 7 & Included in Supplementary Material
Study registries	3	List any study registries searched.	N/A
Online resources and browsing	4	Describe any online or print source purposefully searched or browsed (e.g., tables of contents, print conference proceedings, web sites), and how this was done.	Conference proceedings included primarily within Embase (Ovid) as well as other databases.
Citation searching	5	Indicate whether cited references or citing references were examined, and describe any methods used for locating cited/citing references (e.g., browsing reference lists, using a citation index, setting up email alerts for references citing included studies).	References of included articles were verified.

Contacts	6	Indicate whether additional studies or data were sought by contacting authors, experts, manufacturers, or others.	N/A
Other methods	7	Describe any additional information sources or search methods used.	N/A
SEARCH STRATEGIES			
Full search strategies	8	Include the search strategies for each database and information source, copied and pasted exactly as run.	Included in Supplementary Material
Limits and restrictions	9	Specify that no limits were used, or describe any limits or restrictions applied to a search (e.g., date or time period, language, study design) and provide justification for their use.	p. 7
Search filters	10	Indicate whether published search filters were used (as originally designed or modified), and if so, cite the filter(s) used.	MUHC Pediatric filter used
Prior work	11	Indicate when search strategies from other literature reviews were adapted or reused for a substantive part or all of the search, citing the previous review(s).	Adapted from Besner, A. S., Ferreira, J. L., Ow, N., Gaffar, R., Guadagno, E., Emil, S., & Poenaru, D. (2022). Patient-reported outcome measures in pediatric surgery - A systematic review. <i>Journal of pediatric surgery</i> , 57(5), 798–812. https://doi.org/10.1016/j.jpedsurg.2021.12.036
Updates	12	Report the methods used to update the search(es) (e.g., rerunning searches, email alerts).	N/A
Dates of searches	13	For each search strategy, provide the date when the last search occurred.	p. 7
PEER REVIEW			
Peer review	14	Describe any search peer review process.	Used PRESS (McGowan J, Sampson M, Salzweid DM, Cogo E, Foerster V, Lefebvre C. PRESS Peer Review of Electronic Search Strategies: 2015 Guideline Statement. <i>J Clin Epidemiol</i> . 2016 Jul;75:40-6. doi: 10.1016/j.jclinepi.2016.01.021.
MANAGING RECORDS			
Total Records	15	Document the total number of records identified from each database and other information sources.	Included in Supplementary Material
Deduplication	16	Describe the processes and any software used to deduplicate records from multiple database searches and other information sources.	Initial deduplication done via Endnote X9.3.3 using modified version of Bramer WM, Giustini D, de Jonge GB, Holland L, Bekhuis T. De-duplication of database search results for systematic

			reviews in EndNote. Journal of the Medical Library Association : JMLA. 2016;104(3):240-243. doi: 10.3163/1536-5050.104.3.014 (see McGill KS guide). Further deduplication manually performed in EndNote then in Rayyan online software.
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PRISMA-S: An Extension to the PRISMA Statement for Reporting Literature Searches in Systematic Reviews
Rethlefsen ML, Kirtley S, Waffenschmidt S, Ayala AP, Moher D, Page MJ, Koffel JB, PRISMA-S Group.
Last updated February 27, 2020.

APPENDIX

Full Search Strategy

Patient Experience or Patient Satisfaction? - A Systematic Review of Child- and Family-Reported Experience Measures in Pediatric Surgery

Databases Searched

Africa-Wide Information [EBSCO] (January 12, 2022)

#	Query	Results
S37	S32 OR S33 OR S34 OR S35	117
S36	TI((PREM or PREMs or PREOM?) and experienc*) OR AB=((PREM or PREMs or PREOM?) and experienc*)	2
S35	S31 AND AB=(((PREM or PREMs or PREOM?) or ((patient* or child* or adolescen* or parent* or mother* or father* or client? or family* or families or caregiver* or care-giver*) N2 (report* or value* or important*) N2 experienc*)) and (newborn* or new-born* or neonat* or neo-nat* or infan* or child* or adolesc* or paediatr* or pediater* or baby* or babies* or toddler* or kid or kids or boy* or girl* or juvenile* or teen* or youth* or pubescen* or preadolesc* or prepubesc* or preteen*))	44
S34	S31 AND AB=(((PREM or PREMs or PREOM?) or ((patient* or child* or adolescen* or parent* or mother* or father* or client? or family* or families or caregiver* or care-giver*) N2 (report* or value* or important*) N2 experienc*)) and (newborn* or new-born* or neonat* or neo-nat* or infan* or child* or adolesc* or paediatr* or pediater* or baby* or babies* or toddler* or kid or kids or boy* or girl* or juvenile* or teen* or youth* or pubescen* or preadolesc* or prepubesc* or preteen*))	0
S33	TI(((PREM or PREMs or PREOM?) or ((patient* or child* or adolescen* or parent* or mother* or father* or client? or family* or families or caregiver* or care-giver*) N2 (report* or value* or important*) N2 experienc*)) and (newborn* or new-born* or neonat* or neo-nat* or infan* or child* or adolesc* or paediatr* or pediater* or baby* or babies* or toddler* or kid or kids or boy* or girl* or juvenile* or teen* or youth* or pubescen* or preadolesc* or prepubesc* or preteen*))	13
S32	S9 AND S31	1
S31	S10 OR S11 OR S12 OR S13 OR S14 OR S15 OR S16 OR S17 OR S18 OR S19 OR S20 OR S21 OR S22 OR S23 OR S24 OR S25 OR S26 OR S27 OR S28 OR S29 OR S30	73,037
S30	TI((pectus or chest) N1 (funnel or sunken or excavatum or carinatum)) OR AB=((pectus or chest) N1 (funnel or sunken or excavatum or carinatum))	23
S29	TI(congenital* and hernia* and diaphragm*) OR AB=(congenital* and hernia* and diaphragm*)	78
S28	TI((congenital* or neonat* or neo-nat* or newborn* or new-born* or birth* or maternal* or fetal or fetus* or fetu or feto or foet* or prenatal* or pre-natal* or antenatal* or ante-natal* or trimester* or pregnan* or uter* or preterm* or pre-term* or premature* or pre-mature* or preemie*) N5 (posterolateral* or substernal*) N2 hernia*) OR AB=((congenital* or neonat* or neo-nat* or newborn* or new-born* or birth* or maternal* or fetal or fetus* or fetu or feto or foet* or prenatal* or pre-natal* or antenatal* or ante-natal* or trimester* or pregnan* or uter* or preterm* or pre-term* or premature* or pre-mature* or preemie*) N5 (posterolateral* or substernal*) N2 hernia*))	2
S27	TI((bochdalek* or morgagni*) N2 (hernia* or defect*)) OR AB=((bochdalek* or morgagni*) N2 (hernia* or defect*))	27

S26	TI(agene* N2 (hemidiaphragm* or diaphragm* or ((unilat* or hern*) N1 diaphragm*))) OR AB=(agene* N2 (hemidiaphragm* or diaphragm* or ((unilat* or hern*) N1 diaphragm*)))	3
S25	TI(hirschsprung* or ((megacolon or colon* or rectosigmoid or intestin*) N3 (congenital* or aganglion*))) OR AB=(hirschsprung* or ((megacolon or colon* or rectosigmoid or intestin*) N3 (congenital* or aganglion*)))	182
S24	TI((anal or anus or anorect* or rectal) N3 (artificial* or malformat* or mal-format* or anomal* or abnormal* or ectopic or stenosis or atres* or atroph* or imperforat* or imperforat* or praet* or pret* or fistula*)) OR AB=((anal or anus or anorect* or rectal) N3 (artificial* or malformat* or mal-format* or anomal* or abnormal* or ectopic or stenosis or atres* or atroph* or imperforat* or imperforat* or praet* or pret* or fistula*))	226
S23	TI((esophag* or oesophag* or endoesophag* or intraesophag* or tracheoesophag*) N3 (atres* or atretic* or atroph*)) OR AB=((esophag* or oesophag* or endoesophag* or intraesophag* or tracheoesophag*) N3 (atres* or atretic* or atroph*))	100
S22	TI((lung or lungs or pulmon* or wedge or trauma* or postrauma* or posttrauma* or neurotrauma* or fracture*) N3 (ablat* or excis* or laparoscop* or laparotom* or operativ* or surger* or surgical* or reconstruct* or repair* or resect* or intraoperative* or perioperative* or perisurg* or postoperative* or postsurg* or preoperative* or presurg*)) OR AB=((lung or lungs or pulmon* or wedge or trauma* or postrauma* or posttrauma* or neurotrauma* or fracture*) N3 (ablat* or excis* or laparoscop* or laparotom* or operativ* or surger* or surgical* or reconstruct* or repair* or resect* or intraoperative* or perioperative* or perisurg* or postoperative* or postsurg* or preoperative* or presurg*))	3,288
S21	TI(thoracoscop* or thoracotom* or pleurectom* or pleuroscop* or pleuracotom* or pleurotom* or (pleura* N3 (endoscop* or incision*))) OR AB=(thoracoscop* or thoracotom* or pleurectom* or pleuroscop* or pleuracotom* or pleurotom* or (pleura* N3 (endoscop* or incision*)))	429
S20	TI((liver or hepatic or lung or lungs or pulmon* or kidney) N3 (transplant* or graft*)) OR AB=((liver or hepatic or lung or lungs or pulmon* or kidney) N3 (transplant* or graft*))	1,797
S19	TI((hernia* or extraperitoneal or preperitoneal or peritoneal or TEP or TAPP or umbilic* or inguinal or omphalocele* or exomphalos) N3 (ablat* or excis* or laparoscop* or laparotom* or operativ* or surger* or surgical* or reconstruct* or repair* or resect* or intraoperative* or perioperative* or perisurg* or postoperative* or postsurg* or preoperative* or presurg*)) OR AB=((hernia* or extraperitoneal or preperitoneal or peritoneal or TEP or TAPP or umbilic* or inguinal or omphalocele* or exomphalos) N3 (ablat* or excis* or laparoscop* or laparotom* or operativ* or surger* or surgical* or reconstruct* or repair* or resect* or intraoperative* or perioperative* or perisurg* or postoperative* or postsurg* or preoperative* or presurg*))	357
S18	TI(fundoplicat* or ((nissen* or toupet or dor) N3 (operat* or procedur* or surger* or surgical*))) OR AB=(fundoplicat* or ((nissen* or toupet or dor) N3 (operat* or procedur* or surger* or surgical*)))	50
S17	TI((cancer or neoplas* or tumor* or tumour* or carcinom* or sarcoma*) N3 (ablat* or excis* or laparoscop* or laparotom* or operativ* or surger* or surgical* or reconstruct* or repair* or resect* or biopsy or biopsie* or intraoperative* or perioperative* or perisurg* or postsurg* or postoperative* or postsurg* or preoperative* or presurg*)) OR AB=((cancer or neoplas* or tumor* or tumour* or carcinom* or sarcoma*) N3 (ablat* or excis* or laparoscop* or laparotom* or operativ* or surger* or surgical* or reconstruct* or repair* or resect* or biopsy or biopsie* or intraoperative* or perioperative* or perisurg* or postsurg* or postoperative* or postsurg* or preoperative* or presurg*))	1,015
S16	TI(escharotom* or ((skin or derm*) N2 (graft* or transplant*))) OR AB=(escharotom* or ((skin or derm*) N2 (graft* or transplant*)))	133
S15	TI((abdomen or abdominal or intestin* or bowel* or gastrointestin*) N3 (ablat* or excis* or laparoscop* or laparotom* or operativ* or surger* or surgical* or reconstruct* or repair* or resect* or intraoperative* or perioperative* or perisurg* or postoperative* or	725

	postsurg* or preoperative* or presurg*) OR AB=((abdomen or abdominal or intestin* or bowel* or gastrointestin*) N3 (ablat* or excis* or laparoscop* or laparotom* or operativ* or surger* or surgical* or reconstruct* or repair* or resect* or intraoperative* or perioperative* or perisurg* or postoperative* or postsurg* or preoperative* or presurg*))	
S14	TI((tooth or teeth or dental or abcess) N2 (extract* or drain*)) OR AB=((tooth or teeth or dental or abcess) N2 (extract* or drain*))	155
S13	TI((perforation* or incision* or laceration*) N3 (repair* or drain* or closure*)) OR AB=((perforation* or incision* or laceration*) N3 (repair* or drain* or closure*))	51
S12	TI((ophthalmolog* or eye* or vision or ocular or retina* or retinopath*) N5 (operat* or procedur* or surger* or surgical*)) OR AB=((ophthalmolog* or eye* or vision or ocular or retina* or retinopath*) N5 (operat* or procedur* or surger* or surgical*))	292
S11	TI(adenoidectom* or laryngectom* or laryngoplast* or laryngoscop* or pharygectom* or tonsillectom* or tympanoplast* or tracheostom* or tracheotom* or orchidopex* or orchiopex* or orchiectom* or orchidectom* or herniorrhaph* or hernioplast* or hernioplast* or "herni*-plast*" or herniotom* or circumcis* or gastrostom or ileostom* or colostom* or enterostom* or portoenterostom or "roux-en-y" or kasai or pyloromyotom* or piloromyotom* or pyloromiotom* or piloromiotom* or diverticulectom* or diverticulotom* or cholecystectom* or cholangiopancreatograph* or cholangio-pancreatograph* or choledoduodenostom* or choledo-duodenostom or appendicectom* or appendectom* or splenectom* or pneumonectom* or amputation* or amputate* or craniotom* or craniostom* or hydrocelectom* or thoracostom* or fasciotom*) OR AB=(adenoidectom* or laryngectom* or laryngoplast* or laryngoscop* or pharygectom* or tonsillectom* or tympanoplast* or tracheostom* or tracheotom* or orchidopex* or orchiopex* or orchiectom* or orchidectom* or herniorrhaph* or hernioplast* or hernioplast* or "herni*-plast*" or herniotom* or circumcis* or gastrostom or ileostom* or colostom* or enterostom* or portoenterostom or "roux-en-y" or kasai or pyloromyotom* or piloromyotom* or pyloromiotom* or piloromiotom* or diverticulectom* or diverticulotom* or cholecystectom* or cholangiopancreatograph* or cholangio-pancreatograph* or choledoduodenostom* or choledo-duodenostom* or appendicectom* or appendectom* or splenectom* or pneumonectom* or amputation* or amputate* or craniotom* or craniostom* or hydrocelectom* or thoracostom* or fasciotom*)	5,029
S10	TI(surger* or surgic* or surgeon* or operati* or reoperat* or bypass* or by-pass* or resect* or re-sect* or transplant* or procedure* or debridement* or laparoscop* or laparotom* or postop*) OR AB=(surger* or surgic* or surgeon* or operati* or reoperat* or bypass* or by-pass* or resect* or re-sect* or transplant* or procedure* or debridement* or laparoscop* or laparotom* or postop*)	66,972
S9	S5 AND S8	27
S8	S6 OR S7	171,589
S7	SO(pediatr* or paediatr*)	27,735
S6	TI(newborn* or new-born* or neonat* or neo-nat* or infan* or child* or paediatr* or pediatr* or baby* or babies* or toddler* or kid or kids or boy* or girl* or adolesc* or juvenile* or teen* or youth* or pubescen* or preadolesc* or prepubesc* or preteen*) OR AB=(newborn* or new-born* or neonat* or neo-nat* or infan* or child* or paediatr* or pediatr* or baby* or babies* or toddler* or kid or kids or boy* or girl* or adolesc* or juvenile* or teen* or youth* or pubescen* or preadolesc* or prepubesc* or preteen*)	160,875
S5	S1 OR S2 OR S3 OR S4	100
S4	TI(PREM or PREMs or PREOM?) OR AB=(PREM or PREMs or PREOM?)	40
S3	TI((self or proxy*) N1 (report* or measur* or questionnair* or scor\$1 or scoring or assess* or survey* or interview*) N1 (experience* or satisf*)) OR AB=((self or proxy*) N1 (report* or measur* or questionnair* or scor\$1 or scoring or assess* or survey* or interview*) N1 (experience* or satisf*))	7
S2	TI((patient* or child* or parent* or mother* or father* or client? or family* or families or	12

	caregiver* or care-giver* or proxy*) N1 (report* or measur* or questionnair* or scor\$1 or scoring or assess* or survey* or interview*) N1 experience*) OR AB=((patient* or child* or parent* or mother* or father* or client? or family* or families or caregiver* or care-giver* or proxy*) N1 (report* or measur* or questionnair* or scor\$1 or scoring or assess* or survey* or interview*) N1 experience*)	
S1	TI((patient* or child* or parent* or mother* or father* or client? or family* or families or caregiver* or care-giver* or proxy*) N1 (perceived or perception* or important* or value*) N1 (experie* or satisf*)) OR AB=((patient* or child* or parent* or mother* or father* or client? or family* or families or caregiver* or care-giver* or proxy*) N1 (perceived or perception* or important* or value*) N1 (experie* or satisf*)))	43

CINAHL Plus [EBSCO] (January 12, 2022)

#	Query	Results
S36	S32 OR S33 OR S34 OR S35	109
S35	TI((PREM or PREMs or PREOM?) and experienc*) OR AB=((PREM or PREMs or PREOM?) and experienc*)	17
S34	S31 AND AB=(((PREM or PREMs or PREOM?) or ((patient* or child* or adolescen* or parent* or mother* or father* or client? or family* or families or caregiver* or care-giver*) N2 (report* or value* or important*) N2 experienc*)) and (newborn* or new-born* or neonat* or neo-nat* or infan* or child* or adolesc* or paediatr* or pediater* or baby* or babies* or toddler* or kid or kids or boy* or girl* or juvenile* or teen* or youth* or pubescen* or preadolesc* or prepubesc* or preteen*))	95
S33	TI(((PREM or PREMs or PREOM?) or ((patient* or child* or adolescen* or parent* or mother* or father* or client? or family* or families or caregiver* or care-giver*) N2 (report* or value* or important*) N2 experienc*)) and (newborn* or new-born* or neonat* or neo-nat* or infan* or child* or adolesc* or paediatr* or pediater* or baby* or babies* or toddler* or kid or kids or boy* or girl* or juvenile* or teen* or youth* or pubescen* or preadolesc* or prepubesc* or preteen*))	91
S32	S9 AND S31	4
S31	S10 OR S11 OR S12 OR S13 OR S14 OR S15 OR S16 OR S17 OR S18 OR S19 OR S20 OR S21 OR S22 OR S23 OR S24 OR S25 OR S26 OR S27 OR S28 OR S29 OR S30	348,993
S30	TI((pectus or chest) N1 (funnel or sunken or excavatum or carinatum)) OR AB=((pectus or chest) N1 (funnel or sunken or excavatum or carinatum))	322
S29	TI(congenital* and hernia* and diaphragm*) OR AB=(congenital* and hernia* and diaphragm*)	1,107
S28	TI((congenital* or neonat* or neo-nat* or newborn* or new-born* or birth* or maternal* or fetal or fetus* or fetu or feto or foet* or prenatal* or pre-natal* or antenatal* or ante-natal* or trimester* or pregnan* or uter* or preterm* or pre-term* or premature* or pre-mature* or preemie*) N5 (posterolateral* or substernal*) N2 hernia*) OR AB=((congenital* or neonat* or neo-nat* or newborn* or new-born* or birth* or maternal* or fetal or fetus* or fetu or feto or foet* or prenatal* or pre-natal* or antenatal* or ante-natal* or trimester* or pregnan* or uter* or preterm* or pre-term* or premature* or pre-mature* or preemie*) N5 (posterolateral* or substernal*) N2 hernia*)	3
S27	TI((bochdalek* or morgagni*) N2 (hernia* or defect*)) OR AB=((bochdalek* or morgagni*) N2 (hernia* or defect*))	196
S26	TI(agene* N2 (hemidiaphragm* or diaphragm* or ((unilat* or hern*) N1 diaphragm*)) OR AB=(agene* N2 (hemidiaphragm* or diaphragm* or ((unilat* or hern*) N1 diaphragm*))	9
S25	TI(hirschsprung* or ((megacolon or colon* or rectosigmoid or intestin*) N3 (congenital* or aganglion*)) OR AB=(hirschsprung* or ((megacolon or colon* or rectosigmoid or intestin*) N3 (congenital* or aganglion*))	678
S24	TI((anal or anus or anorect* or rectal) N3 (artificial* or malformat* or mal-format* or anomal* or abnormal* or ectopic or stenosis or atres* or atroph* or imperforat* or inperforat* or praet* or pret* or fistula*)) OR AB=((anal or anus or anorect* or rectal) N3 (artificial* or malformat* or mal-format* or anomal* or abnormal* or ectopic or stenosis or atres* or atroph* or imperforat* or inperforat* or praet* or pret* or fistula*))	730
S23	TI((esophag* or oesophag* or endoesophag* or intraesophag* or tracheoesophag*) N3 (atres* or atretic* or atroph*)) OR AB=((esophag* or oesophag* or endoesophag* or intraesophag* or tracheoesophag*) N3 (atres* or atretic* or atroph*))	570
S22	TI((lung or lungs or pulmon* or wedge or trauma* or postrauma* or posttrauma* or neurotrauma* or fracture*) N3 (ablat* or excis* or laparoscop* or laparotom* or operativ* or surger* or surgical* or reconstruct* or repair* or resect* or intraoperative* or perioperative* or perisurg* or postoperative* or postsurg* or preoperative* or presurg*)) OR AB=((lung or lungs or pulmon* or wedge or trauma* or postrauma* or posttrauma* or neurotrauma* or fracture*) N3 (ablat* or excis* or laparoscop* or laparotom* or operativ* or surger* or surgical* or reconstruct* or repair* or resect* or intraoperative* or	9,778

	perioperative* or perisurg* or postoperative* or postsurg* or preoperative* or presurg*))	
S21	TI((thoroscop* or thoracotom* or pleurectom* or pleuroscop* or pleuracotom* or pleurotom* or (pleura* N3 (endoscop* or incision*))) OR AB=(thoroscop* or thoracotom* or pleurectom* or pleuroscop* or pleuracotom* or pleurotom* or (pleura* N3 (endoscop* or incision*)))	2,663
S20	TI((liver or hepatic or lung or lungs or pulmon* or kidney) N3 (transplant* or graft*)) OR AB=((liver or hepatic or lung or lungs or pulmon* or kidney) N3 (transplant* or graft*))	11,683
S19	TI((hernia* or extraperitoneal or preperitoneal or peritoneal or TEP or TAPP or umbilic* or inguinal or omphalocele* or exomphalos) N3 (ablat* or excis* or laparoscop* or laparotom* or operativ* or surger* or surgical* or reconstruct* or repair* or resect* or intraoperative* or perioperative* or perisurg* or postoperative* or postsurg* or preoperative* or presurg*)) OR AB=((hernia* or extraperitoneal or preperitoneal or peritoneal or TEP or TAPP or umbilic* or inguinal or omphalocele* or exomphalos) N3 (ablat* or excis* or laparoscop* or laparotom* or operativ* or surger* or surgical* or reconstruct* or repair* or resect* or intraoperative* or perioperative* or perisurg* or postoperative* or postsurg* or preoperative* or presurg*))	4,543
S18	TI(fundoplicat* or ((nissen* or toupet or dor) N3 (operat* or procedur* or surger* or surgical*))) OR AB=(fundoplicat* or ((nissen* or toupet or dor) N3 (operat* or procedur* or surger* or surgical*)))	630
S17	TI((cancer or neoplas* or tumor* or tumour* or carcinom* or sarcoma*) N3 (ablat* or excis* or laparoscop* or laparotom* or operativ* or surger* or surgical* or reconstruct* or repair* or resect* or biopsy or biopsie* or intraoperative* or perioperative* or perisurg* or postoperative* or postsurg* or preoperative* or presurg*)) OR AB=((cancer or neoplas* or tumor* or tumour* or carcinom* or sarcoma*) N3 (ablat* or excis* or laparoscop* or laparotom* or operativ* or surger* or surgical* or reconstruct* or repair* or resect* or biopsy or biopsie* or intraoperative* or perioperative* or perisurg* or postoperative* or postsurg* or preoperative* or presurg*))	16,437
S16	TI(escharotom* or ((skin or derm*) N2 (graft* or transplant*))) OR AB=(escharotom* or ((skin or derm*) N2 (graft* or transplant*)))	1,136
S15	TI((abdomen or abdominal or intestin* or bowel* or gastrointestin*) N3 (ablat* or excis* or laparoscop* or laparotom* or operativ* or surger* or surgical* or reconstruct* or repair* or resect* or intraoperative* or perioperative* or perisurg* or postoperative* or postsurg* or preoperative* or presurg*)) OR AB=((abdomen or abdominal or intestin* or bowel* or gastrointestin*) N3 (ablat* or excis* or laparoscop* or laparotom* or operativ* or surger* or surgical* or reconstruct* or repair* or resect* or intraoperative* or perioperative* or perisurg* or postoperative* or postsurg* or preoperative* or presurg*))	5,637
S14	TI((tooth or teeth or dental or abcess) N2 (extract* or drain*)) OR AB=((tooth or teeth or dental or abcess) N2 (extract* or drain*))	766
S13	TI((perforation* or incision* or laceration*) N3 (repair* or drain* or closure*)) OR AB=((perforation* or incision* or laceration*) N3 (repair* or drain* or closure*))	983
S12	TI((ophthalmolog* or eye* or vision or ocular or retina* or retinopath*) N5 (operat* or procedur* or surger* or surgical*)) OR AB=((ophthalmolog* or eye* or vision or ocular or retina* or retinopath*) N5 (operat* or procedur* or surger* or surgical*))	1,396
S11	TI(adenoidectom* or laryngectom* or laryngoplast* or laryngoscop* or pharygectom* or tonsillectom* or tympanoplast* or tracheostom* or tracheotom* or orchidopex* or orchiopex* or orchiectom* or orchidectom* or herniorrhaph* or hernioplast* or hernioplast* or "herni*-plast*" or herniotom* or circumcis* or gastrostom or ileostom* or colostom* or enterostom* or portoenterostom* or "roux-en-y" or kasai or pyloromyotom* or piloromyotom* or pyloromiotom* or piloromiotom* or diverticulectom* or diverticulotom* or cholecystectom* or cholangiopancreatograph* or cholangio-pancreatograph* or choledoduodenostom* or choledo-duodenostom* or appendicectom* or appendectom* or splenectom* or pneumonectom* or amputation* or amputate* or craniotom* or craniostom* or hydrocelectom* or thoracostom* or fasciotom*) OR AB=(adenoidectom* or laryngectom* or laryngoplast* or laryngoscop* or pharygectom* or tonsillectom* or tympanoplast* or tracheostom* or tracheotom* or orchidopex* or orchiopex* or orchiectom* or orchidectom* or herniorrhaph* or hernioplast* or hernioplast* or "herni*-	24,774

	plast*" or herniotom* or circumcis* or gastrostom or ileostom* or colostom* or enterostom* or portoenterostom or "roux-en-y" or kasai or pyloromyotom* or piloromyotom* or pyloromiotom* or piloromiotom* or diverticulectom* or diverticulotom* or cholecystectom* or cholangiopancreatograph* or cholangio-pancreatograph* or choledoduodenostom* or choledo-duodenostom* or appendicectom* or appendectom* or splenectom* or pneumonectom* or amputation* or amputate* or craniotom* or craniostom* or hydrocelectom* or thoracostom* or fasciotom*)	
S10	TI(surger* or surgic* or surgeon* or operati* or reoperat* or bypass* or by-pass* or resect* or re-sect* or transplant* or procedure* or debridement* or laparoscop* or laparotom* or postop*) OR AB=(surger* or surgic* or surgeon* or operati* or reoperat* or bypass* or by-pass* or resect* or re-sect* or transplant* or procedure* or debridement* or laparoscop* or laparotom* or postop*)	314,862
S9	S5 AND S8	214
S8	S6 OR S7	716,754
S7	SO(pediatr* or paediatr*)	196,283
S6	TI(newborn* or new-born* or neonat* or neo-nat* or infan* or child* or paediatr* or pediater* or baby* or babies* or toddler* or kid or kids or boy* or girl* or adolesc* or juvenile* or teen* or youth* or pubescen* or preadolesc* or prepubesc* or preteen*) OR AB=(newborn* or new-born* or neonat* or neo-nat* or infan* or child* or paediatr* or pediater* or baby* or babies* or toddler* or kid or kids or boy* or girl* or adolesc* or juvenile* or teen* or youth* or pubescen* or preadolesc* or prepubesc* or preteen*)	639,283
S5	S1 OR S2 OR S3 OR S4	948
S4	TI(PREM or PREMs or PREOM?) OR AB=(PREM or PREMs or PREOM?)	43
S3	TI((self or proxy*) N1 (report* or measur* or questionnaire* or scor\$1 or scoring or assess* or survey* or interview*) N1 (experience* or satisf*)) OR AB=((self or proxy*) N1 (report* or measur* or questionnaire* or scor\$1 or scoring or assess* or survey* or interview*) N1 (experience* or satisf*))	142
S2	TI((patient* or child* or parent* or mother* or father* or client? or family* or families or caregiver* or care-giver* or proxy*) N1 (report* or measur* or questionnaire* or scor\$1 or scoring or assess* or survey* or interview*) N1 experience*) OR AB=((patient* or child* or parent* or mother* or father* or client? or family* or families or caregiver* or care-giver* or proxy*) N1 (report* or measur* or questionnaire* or scor\$1 or scoring or assess* or survey* or interview*) N1 experience*)	557
S1	TI((patient* or child* or parent* or mother* or father* or client? or family* or families or caregiver* or care-giver* or proxy*) N1 (perceived or perception* or important* or value*) N1 (experien* or satisf*)) OR AB=((patient* or child* or parent* or mother* or father* or client? or family* or families or caregiver* or care-giver* or proxy*) N1 (perceived or perception* or important* or value*) N1 (experien* or satisf*))	226

Cochrane [Wiley] (January 12, 2022)

ID	Search	Hits
#1	((patient* or child* or parent* or mother* or father* or client? or family* or families or caregiver* or care-giver* or proxy*) NEAR/1 (perceived or perception* or important* or value*) NEAR/1 (experien* or satisf*)):ti,ab,kw	91
#2	((patient* or child* or parent* or mother* or father* or client? or family* or families or caregiver* or care-giver* or proxy*) NEAR/1 (report* or measur* or questionnaire* or scor\$1 or scoring or assess* or survey* or interview*) NEAR/1 experience*):ti,ab,kw	241
#3	((self or proxy*) NEAR/1 (report* or measur* or questionnaire* or scor\$1 or scoring or assess* or survey* or interview*) NEAR/1 (experience* or satisf*)):ti,ab,kw	281
#4	(PREM or PREMs or PREOM?):ti,ab,kw	73
#5	#1 OR #2 OR #3 OR #4	667
#6	(newborn* or new-born* or neonat* or neo-nat* or infan* or child* or paediatr* or pediater* or baby* or babies* or toddler* or kid or kids or boy* or girl* or adolesc* or juvenile* or teen* or youth* or pubescen* or preadolesc* or prepubesc* or preteen*):ti,ab,kw	319142

#7	(pediatr* or paediatr*):so	34833
#8	#6 OR #7	322709
#9	#5 AND #8	177
#10	(surger* or surgic* or surgeon* or operati* or reoperat* or bypass* or by-pass* or resect* or re-sect* or transplant* or procedure* or debridement* or laparoscop* or laparotom* or postop*):ti,ab,kw	529412
#11	(adenoidectom* or laryngectom* or laryngoplast* or laryngoscop* or pharygectom* or tonsillectom* or tympanoplast* or tracheostom* or tracheotom* or orchidopex* or orchiopex* or orchiectom* or orchidectom* or herniorrhaph* or hernioplast* or hernioplast* or "herni*-plast*" or herniotom* or circumcis* or gastrostom or ileostom* or colostom* or enterostom* or portoenterostom or "roux-en-y" or kasai or pyloromyotom* or piloromyotom* or pyloromiotom* or piloromiotom* or diverticulectom* or diverticulotom* or cholecystectom* or cholangiopancreatograph* or cholangio-pancreatograph* or choledoduodenostom* or choledo-duodenostom* or appendicectom* or appendectom* or splenectom* or pneumonectom* or amputation* or amputate* or craniotom* or craniostom* or hydrocelectom* or thoracostom* or fasciotom*):ti,ab,kw	32236
#12	((ophthalmolog* or eye* or vision or ocular or retina* or retinopath*) NEAR/5 (operat* or procedur* or surger* or surgical*)):ti,ab,kw	8049
#13	((perforation* or incision* or laceration*) NEAR/3 (repair* or drain* or closure*)):ti,ab,kw	1567
#14	((tooth or teeth or dental or abcess) NEAR/2 (extract* or drain*)):ti,ab,kw	4048
#15	((abdomen or abdominal or intestin* or bowel* or gastrointestin*) NEAR/3 (ablat* or excis* or laparoscop* or laparotom* or operativ* or surger* or surgical* or reconstruct* or repair* or resect* or intraoperative* or perioperative* or perisurg* or postoperative* or postsurg* or preoperative* or presurg*)):ti,ab,kw	15305
#16	(escharotom* or ((skin or derm*) NEAR/2 (graft* or transplant*)):ti,ab,kw	1640
#17	((cancer or neoplas* or tumor* or tumour* or carcinom* or sarcoma*) NEAR/3 (ablat* or excis* or laparoscop* or laparotom* or operativ* or surger* or surgical* or reconstruct* or repair* or resect* or biopsy or biopsie* or intraoperative* or perioperative* or perisurg* or postoperative* or postsurg* or preoperative* or presurg*)):ti,ab,kw	39650
#18	(funduplicat* or ((nissen* or toupet or dor) NEAR/3 (operat* or procedur* or surger* or surgical*)):ti,ab,kw	782
#19	((hernia* or extraperitoneal or preperitoneal or peritoneal or TEP or TAPP or umbilic* or inguinal or omphalocele* or exomphalos) NEAR/3 (ablat* or excis* or laparoscop* or laparotom* or operativ* or surger* or surgical* or reconstruct* or repair* or resect* or intraoperative* or perioperative* or perisurg* or postoperative* or postsurg* or preoperative* or presurg*)):ti,ab,kw	5805
#20	((liver or hepatic or lung or lungs or pulmon* or kidney) NEAR/3 (transplant* or graft*)):ti,ab,kw	15000
#21	(thoracoscop* or thoracotom* or pleurectom* or pleuroscop* or pleuracotom* or pleurotom* or (pleura* NEAR/3 (endoscop* or incision*)):ti,ab,kw	3854
#22	((lung or lungs or pulmon* or wedge or trauma* or postrauma* or posttrauma* or neurotrauma* or fracture*) NEAR/3 (ablat* or excis* or laparoscop* or laparotom* or operativ* or surger* or surgical* or reconstruct* or repair* or resect* or intraoperative* or perioperative* or perisurg* or postoperative* or postsurg* or preoperative* or presurg*)):ti,ab,kw	15263
#23	((esophag* or oesophag* or endoesophag* or intraesophag* or tracheoesophag*) NEAR/3 (atres* or atretic* or atroph*)):ti,ab,kw	95
#24	((anal or anus or anorect* or rectal) NEAR/3 (artificial* or malformat* or mal-format* or anomal* or abnormal* or ectopic or stenosis or atres* or atroph* or imperforat* or inperforat* or praet* or pret* or fistula*)):ti,ab,kw	872
#25	(hirschsprung* or ((megacolon or colon* or rectosigmoid or intestin*) NEAR/3 (congenital* or aganglion*)):ti,ab,kw	132

#26	((congenital* or neonat* or neo-nat* or newborn* or new-born* or birth* or maternal* or fetal or fetus* or fetu or feto or foet* or prenatal* or pre-natal* or antenatal* or ante-natal* or trimester* or pregnan* or uter* or preterm* or pre-term* or premature* or pre-mature* or preemie*) NEAR/2 diaphragm* NEAR/2 (hernia* or defect*)):ti,ab,kw	204
#27	(congenital* and hernia* and diaphragm*):ti,ab,kw	213
#28	((pectus or chest) NEAR/1 (funnel or sunken or excavatum or carinatum)):ti,ab,kw	101
#29	#10 OR #11 OR #12 OR #13 OR #14 OR #15 OR #16 OR #17 OR #18 OR #19 OR #20 OR #21 OR #22 OR #23 OR #24 OR #25 OR #26 OR #27 OR #28	541286
#30	#9 AND #29	49
#31	((((PREM or PREMs or PREOM?) or ((patient* or child* or adolescen* or parent* or mother* or father* or client? or family* or families or caregiver* or care-giver*) NEAR/2 (report* or value* or important*) NEAR/2 experienc*)) and (newborn* or new-born* or neonat* or neo-nat* or infan* or child* or adolesc* or paediatr* or pediatr* or baby* or babies* or toddler* or kid or kids or boy* or girl* or juvenile* or teen* or youth* or pubescen* or preadolesc* or prepubesc* or preteen*)):ti,kw	12
#32	((((PREM or PREMs or PREOM?) or ((patient* or child* or adolescen* or parent* or mother* or father* or client? or family* or families or caregiver* or care-giver*) NEAR/2 (report* or value* or important*) NEAR/2 experienc*)) and (newborn* or new-born* or neonat* or neo-nat* or infan* or child* or adolesc* or paediatr* or pediatr* or baby* or babies* or toddler* or kid or kids or boy* or girl* or juvenile* or teen* or youth* or pubescen* or preadolesc* or prepubesc* or preteen*)):ab	103
#33	#32 AND #29	31
#34	8 and ((PREM or PREMs or PREOM?) and experienc*):ti,ab,kw	12
#35	#30 OR #31 OR #33 OR #34	82

Embase [Ovid] (January 12, 2022)

Embase Classic+Embase 1947 to 2022 January 11

1	patient satisfaction/	152511
2	satisfaction/	70861
3	patient preference/	22259
4	or/1-3	238984
5	outcome assessment/	626786
6	treatment outcome/	905987
7	"quality of life"/	536649
8	daily life activity/	101362
9	convalescence/	58098
10	exp postoperative care/	105131
11	postoperative complication/	388371
12	postoperative pain/	77255
13	or/5-12	2470102
14	health care survey/	20869
15	self report/	135627
16	or/14-15	155785
17	4 and 13 and 16 and experienc*.tw,kf.	545
18	patient-reported outcome/ and (experience* or satisf*).tw,kf.	10395
19	((patient* or child* or parent* or mother* or father* or client? or family* or families or caregiver* or care-giver* or proxy*) adj1 (perceived or perception* or important* or	393

	value*) adj1 (experient* or satisf*).tw,kf.	
20	((patient* or child* or parent* or mother* or father* or client? or family* or families or caregiver* or care-giver* or proxy*) adj1 (report* or measur* or questionnaire* or scor\$1 or scoring or assess* or survey* or interview*) adj1 experience*).tw,kf.	2191
21	((self or proxy*) adj1 (report* or measur* or questionnaire* or scor\$1 or scoring or assess* or survey* or interview*) adj1 (experience* or satisf*).tw,kf.	1221
22	(PREM or PREMs or PREOM?).tw,kf.	720
23	or/17-22	14763
24	exp pediatrics/ or exp child/ or exp *adolescent/	3313115
25	newborn intensive care/ or neonatal intensive care unit/	42027
26	(newborn* or new-born* or neonat* or neo-nat* or infan* or child* or paediatr* or pediatr* or baby* or babies* or toddler* or kid or kids or boy* or girl* or adolesc* or juvenile* or teen* or youth* or pubescen* or preadolesc* or prepubesc* or preteen*).tw,kf.	3604821
27	(pediatr* or paediatr*).jx.	801283
28	or/24-27	4659611
29	23 and 28	2039
30	exp surgery/	5736308
31	exp surgeon/	181794
32	(surger* or surgic* or surgeon* or procedure* or operation? or laparoscop* or postop*).tw,kf.	4760979
33	or/30-32	7650579
34	29 and 33	482
35	exp newborn disease/	1850450
36	exp digestive system disease/	3709357
37	exp urogenital tract disease/	2831986
38	exp hernia/	137271
39	exp musculoskeletal system malformation/ or exp musculoskeletal disease/	2698281
40	exp neoplasm/	5343605
41	exp respiratory tract malformation/	36169
42	exp torsion/ or torticollis/	23904
43	exp ear nose throat disease/	570156
44	exp eye disease/	1114336
45	exp osteomyelitis/	50409
46	brachial plexus neuropathy/	2431
47	exp brain disease/	2383435
48	exp infectious arthritis/	25082
49	(cochlear or adenoid* or otorhinol* or pharyngeal* or laryngeal* or laryngo* or ear or ear or nose or otitis or tonsil* or epistaxis or rhinorrhea* or rhinitis or otolog* or rhinootol* or head or neck or croup* or supraglott* or glottis or glottis or subglott* or trachea* or snoring or snore* or apnea or apnoea or sleep obstruct* or mastoiditis* or sinusitis or trichiasis or cataract* or hydrocephal* or cerebral palsy or muscular dystroph* or syndactyly* or radial club or amniotic band* or septic arthritis or osteomyelitis or flexor tenosynovitis or clubfoot or clubfeet or club-foot* or club-feet* or craniofacial* or cranio-	2253425

	facial* or frontoethmoidal meningoenceph* or hemorrhage* or hematoma* or spina bifida* or resuscitation* or schistosomias* or trachoma* or mediastinitis or buruli ulcer* or choledochal cyst* or cyst* echinococcosis or ilopsoas or epileps* or burr hole* or burn or burns or burned or scald* or burnt or thermal injur*).tw,kf.	
50	(hypospadi* or epispadi* or cloaca* or cryptorchidism* or prolapse or phymosis or paraphymosis or hydrometrocolpos or (bladder adj2 exstroph*) or (undescen* adj2 test?s) or (buried adj1 penis) or (urinary adj2 (retention or lithiasis))).tw,kf.	98603
51	(hirschsprung* or ((megacolon or colon* or rectosigmoid or intestin*) adj4 (congenital or aganglion*)) or ((anal or anus or anorect* or rectal) adj3 (artificial* or malformation or anomal* or abnormal* or ectopic or stenosis or atres* or atroph* or imperforat* or inperforat* or praet* or pret*))).tw,kf.	18795
52	((pierre-robin or apert*) adj2 (syndrome* or disease* or sequenc*).tw,kf.	3231
53	(cleft adj2 (lip* or palate*).tw,kf.	30225
54	(coarctation or (septal adj2 defect*) or (tetralogy adj2 fallot)).tw,kf.	63069
55	(brachial plexus adj2 (palsy or neuropath*).tw,kf.	1942
56	((arthriti* or rheumat*) adj2 infect*).tw,kf.	4764
57	or/35-56	15052794
58	exp *surgery/	2748451
59	su.fs.	2316364
60	(surger* or surgical* or operati* or reoperat* or bypass* or by-pass* or resect* or re-sect* or transplant* or procedure or procedures or debridement* or laparoscop* or laparotom*).tw,kf.	5806830
61	or/58-60	7357018
62	57 and 61	4403881
63	29 and 62	334
64	(adenoidectom* or adenotonsil* or laryngectom* or laryngoplast* or laryngoscop* or pharygectom* or tonsillectom* or tympanoplast* or tracheostom* or tracheotom* or orchidopex* or orchiopex* or orchiectom* or orchidectom* or herniorrhaph* or hernioplast* or hernioplast* or herni*-plast* or herniotom* or circumcis* or gastrostom* or ileostom* or colostom* or enterostom* or portoenterostom* or roux-en-y or kasai or pyloromyotom* or piloromyotom* or pyloromiotom* or piloromiotom* or diverticulectom* or diverticulotom* or cholecystectom* or cholangiopancreatograph* or cholangio-pancreatograph* or choledoduodenostom* or choledo-duodenostom* or appendicectom* or appendectom* or splenectom* or pneumonectom* or amputation* or amputate* or craniotom* or craniostom* or hydrocelectom* or thoracostom* or fasciotom*).tw,kf.	410133
65	((ophthalmolog* or eye* or vision or ocular or retina* or retinopath* or cataract*) adj2 (operat* or procedur* or surger* or surgical*).tw,kf.	48350
66	((perforation* or incision* or laceration*) adj2 (repair* or drain* or closure*).tw,kf.	10273
67	((tooth or teeth or dental or abscess* or abcess*) adj2 (extract* or drain* or excision*).tw,kf.	22662
68	((abdomen or abdominal or intestin* or bowel* or gastrointestin*) adj2 (ablat* or excis* or laparoscop* or laparotom* or operativ* or surger* or surgical* or reconstruct* or repair* or resect* or intraoperative* or perioperative* or perisurg* or postoperative* or postsurg* or preoperative* or presurg*).tw,kf.	82426
69	(escharotom* or ((skin or derm*) adj2 (graft* or transplant*))).tw,kf.	34331
70	((cancer or neoplas* or tumor* or tumour* or carcinom*) adj2 (ablat* or excis* or laparoscop* or laparotom* or operativ* or surger* or surgical* or reconstruct* or repair* or	201668

	resect* or biopsy or biopsie* or intraoperative* or perioperative* or perisurg* or postoperative* or postsurg* or preoperative* or presurg*))).tw,kf.	
71	((fundoplicat* or ((nissen* or toupet or dor) adj3 (operat* or procedur* or surger* or surgical*))).tw,kf.	10567
72	((hernia* or extraperitoneal or preperitoneal or peritoneal or TEP or TAPP or umbilic* or inguinal or omphalocele* or exomphalos) adj2 (ablat* or excis* or laparoscop* or laparotom* or operativ* or surger* or surgical* or reconstruct* or repair* or resect* or intraoperative* or perioperative* or perisurg* or postoperative* or postsurg* or preoperative* or presurg*))).tw,kf.	34249
73	((liver or hepatic or lung or lungs or pulmon* or kidney) adj2 (transplant* or graft*))).tw,kf.	239613
74	((thoracoscop* or thoracotom* or pleurectom* or pleuroscop* or pleuracotom* or pleurotom* or (pleura* adj3 (endoscop* or incision*))).tw,kf.	58859
75	((lung or lungs or pulmon* or wedge or trauma* or postrauma* or neurotrauma* or fracture*) adj2 (ablat* or excis* or laparoscop* or laparotom* or operativ* or surger* or surgical* or reconstruct* or repair* or resect* or intraoperative* or perioperative* or perisurg* or postoperative* or postsurg* or preoperative* or presurg*))).tw,kf.	109974
76	or/62-75	4804918
77	29 and 76	358
78	esophagus atresia/	6904
79	((esophag* or oesophag* or endoesophag* or intraesophag* or tracheoesophag*) adj3 (atres* or atretic* or atroph*))).tw,kf.	6589
80	anus atresia/	4573
81	((anal or anus or anorect* or rectal) adj3 (artificial* or malformat* or mal-format* or anomal* or abnormal* or ectopic or stenosis or atres* or atroph* or imperforat* or inperforat* or praet* or pret* or fistula*))).tw,kf.	15549
82	colorectal surgery/	16008
83	rectum disease/ or exp *rectum disease/	207770
84	Hirschsprung disease/	8514
85	((hirschsprung* or ((megacolon or colon* or rectosigmoid or intestin*) adj3 (congenital* or aganglion*))).tw,kf.	9113
86	congenital diaphragm hernia/	6632
87	((agene* adj2 (hemidiaphragm* or diaphragm* or ((unilat* or hern*) adj1 diaphragm*))).tw,kf.	123
88	((bochdalek* or morgagni*) adj2 (hernia* or defect*))).tw,kf.	1700
89	((congenital* or neonat* or neo-nat* or newborn* or new-born* or birth* or maternal* or fetal or fetus* or fetu or feto or foet* or prenatal* or pre-natal* or antenatal* or ante-natal* or trimester* or pregnan* or uter* or preterm* or pre-term* or premature* or pre-mature* or preemie*) adj5 (posterolateral* or substernal*) adj2 hernia*).tw,kf.	108
90	((congenital* and hernia* and diaphragm*).tw,kf.	8174
91	musculoskeletal system malformation/	1055
92	funnel chest/	4678
93	pigeon thorax/	1395
94	((pectus or chest) adj1 (funnel or sunken or excavatum or carinatum))).tw,kf.	4259
95	or/78-94	264923
96	29 and 95	17

97	34 or 63 or 77 or 96	513
98	((PREM or PREMs or PREOM? or ((patient* or child* or adolescen* or parent* or mother* or father* or client? or family* or families or caregiver* or care-giver*) adj2 (report* or value* or important*) adj2 experienc*)) and (newborn* or new-born* or neonat* or neo-nat* or infan* or child* or adolesc* or paediatr* or pediater* or baby* or babies* or toddler* or kid or kids or boy* or girl* or juvenile* or teen* or youth* or pubescen* or preadolesc* or prepubesc* or preteen*))).ti,kf.	140
99	(33 or 62 or 76 or 95) and ((PREM or PREMs or PREOM? or ((patient* or child* or adolescen* or parent* or mother* or father* or client? or family* or families or caregiver* or care-giver*) adj2 (report* or value* or important*) adj2 experienc*)) and (newborn* or new-born* or neonat* or neo-nat* or infan* or child* or adolesc* or paediatr* or pediater* or baby* or babies* or toddler* or kid or kids or boy* or girl* or juvenile* or teen* or youth* or pubescen* or preadolesc* or prepubesc* or preteen*))).ab.	299
100	28 and ((PREM or PREMs or PREOM?) and experienc*).tw,kf.	88
101	or/97-100	933
102	remove duplicates from 101	928
103	"26589185" or "21082872" or "15203586" or "15229421" or "28569451" or "27679985" or "20607265" or "33218361" or "26286444" or "32008976" or "30925497" or "25665957" or "25446659" or "28041938" or "26133038" or "29373200" or "26809202" or "19000349" or "28417237" or "29664849" or "32896358" or "8492846" or "28746153" or "27026663" or "10750507" or "18468859" or "32204619" or "34859745" or "17190280" or "31880384" or "14815830" or "34667013" or "31210404" or "32065382" or "8627751" or "29455243" or "27020461" or "21323034" or "24500449" or "30685424" or "23407261" or "26861129" or "25249677" or "15909005" or "10919141" or "16485101" or "9785431" or "31328422" or "25639827" or "12379186" or "24802348" or "29071540" or "16868513" or "10557683" or "32128380" or "28477858" or "12489091" or "30924121" or "30516623" or "29566397" or "30125915" or "33291158" or "30967356" or "29432338" or "16014223" or "32845302" or "25888658" or "14578753" or "28024223" or "2004237" or "31732002" or "26494618" or "10142780" or "33869733" or "33111174" or "31351706" or "18641491" or "32213778" or "32311627" or "34988035" or "23432865" or "5041073" or "17225623" or "27637376" or "31261259" or "30587304" or "11307218" or "26907509" or "28416023" or "24939085" or "21934284" or "28538570" or "31236635" or "7827819" or "17036818" or "30321323" or "9021536" or "30900033" or "22861149" or "23496959" or "32935239" or "16307937" or "33622957" or "18384639" or "31237085" or "11584844" or "3650869" or "17070473" or "31837593" or "32116083" or "26460499" or "14639447" or "24848818" or "8852205" or "26612631" or "29644385" or "31098884" or "32735588" or "27693732" or "31448250" or "30642456" or "25014326" or "22929346" or "19705536" or "9483617" or "31222392" or "9470684" or "30569754" or "10428999" or "25159223" or "29124379" or "27894229" or "20027091" or "33845659" or "20450468" or "31345179" or "32811792" or "27825057" or "25458165" or "33588763" or "11008748" or "32368935" or "31217323" or "24279218" or "18320375" or "21160456" or "13680324" or "24761801" or "7677469" or "21883812" or "33036555" or "21286732" or "25216809" or "25062342" or "30612775" or "27045086" or "30062942" or "19839895" or "25439116" or "33587092" or "26545589" or "12694776" or "27119949" or "30381868" or "34217284" or "30991007" or "29135288" or "31651806" or "25840772" or "28892648" or "31784366" or "31418168" or "34591694" or "17639417" or "9934251" or "22257764" or "31567609" or "25074240" or "19703797" or "24526131" or "31397301" or "30461514" or "26806254" or "15023106" or "21819764" or "15686286" or "21997884" or "28537368" or "28060231" or "26101986" or "25884634" or "30138741" or "27363331" or "34644275" or "29160828" or "11772185" or "19945274" or "33504331" or "30792597" or "3051967" or "33729839" or "11404748" or "29305286" or "21599983" or "27637366" or "18845479" or "19833669" or "31386001" or "29261090" or "16048623" or "31499262" or "27574954" or "29362452" or "30340585" or "26895134" or "24953272" or "26578194" or "21370403" or "23179437" or "34432687" or "32779939" or "24034424" or "30157737" or "22951055" or "32678380" or "22145965" or "12913747" or "30414786" or "33127553" or "31562988" or "22146057" or "26522897" or "18718678" or "30694205" or "32607452" or "29740810" or "31067586" or "27424505" or "26828271" or "27515487" or "31202371" or "31370705" or "23707012" or "28167013" or "34841395" or "21960423" or "21995738" or "29724642" or "15598289" or "29579019" or "31307222" or "32109574" or "19445378" or "23187927" or "20489400" or "25526491" or "27482025" or "29687049" or "20393374" or "32253479" or "33248216" or "16531188" or "24005872" or "28836662" or "17875566" or "12010531" or "22445161" or "29332636" or "32775016" or "11386431" or "9291558" or "31262451" or "19837634" or "32878556" or "19584764" or "32349082" or "32682512" or "33847693" or "24651973" or "19597875" or "21797085" or "28445085" or "29299766" or "23283408" or "25783301" or "28267122" or "20153054" or "28925493" or "28695052" or "10392885" or "10198550" or "33882059" or "21798599" or "13892674" or "16998330" or "24302700" or "22252570" or "24313304" or "26019304" or "9830920" or "10807301" or "25234345" or "28711398" or "27341362" or "31434509" or "29165436" or "24376073" or "32979068" or "28055110" or "20224460" or "29869201" or "25266769" or "27384383" or "15923411" or "31276015" or "24237004" or "31969181" or "30718558" or "26412642" or "28587663" or "29088690" or "24650725" or "30362235" or "29378680" or "31801471" or "29165605" or "34171889" or "8764814" or "16403945" or "30396554" or "32721547" or "29191660" or "12832893" or "15167244" or "11496168" or "24202085" or "27531733" or "23721162" or "24825163" or "11327892" or "30107798" or "24595400" or "23312714" or "25690190" or "10870726" or "24698554" or "27484970" or "20032529" or "33152577" or "28719555" or "27215148" or "1399662" or "24319280" or "32341242" or "32880725" or "30656861" or 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"29891272" or "26168298" or "29863126" or "31756273" or "32307015" or "27127014" or "29695316" or "15347897" or "31427229" or "24474165" or "28052910" or "32309208" or "32399656" or "17217637" or "12431167" or "23829829" or "31000393" or "26055889" or "30204682" or "16305619" or "1570530" or "27487183" or "8199898" or "17594850" or "29485211" or "23972566" or "17510866" or "29797513" or "19710087" or "33436115" or "32188514" or "27789250" or "11013773" or "16494809" or "32228424" or "25623663" or "22187691" or "27957788" or "28700587" or "34524103" or "10793923" or "31766988" or "28077134" or "27666129" or "20223338" or "29417573" or "31629582" or "26201942" or "5982908" or "21192302" or "31501453" or "29395274" or "27919916" or "29119714" or "34723667" or "26407560" or "25772528" or "12399710" or "31607633" or "16880298" or "30080256" or "26746621" or "12856892" or "29579082" or "10363548" or "16430645" or "32558011" or "34094016" or "25079613" or "17592177" or "18090935" or 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or "28984510" or "33934464" or "31232942" or "16600787" or "30537958" or "34399731" or "29144853" or "18181318" or "21114205" or "4020982" or "3091550" or "34856647" or "10191581" or "15668830" or "19446660" or "1804704" or "25923212" or "29135751" or "18519312" or "30221977" or "7714983" or "30972465" or "25525820" or "7808662" or "33438749" or "32216838" or "1820409" or "30913447" or "30586342" or "30561504" or "32673266" or "30153937" or "19198890" or "17228645" or "17693364" or "10979027" or "31789778" or "8252289" or "27266751" or "32332541" or "32747388" or "33144236" or "12784008" or "24061845" or "12454582" or "25737521" or "29807793" or "26424725" or "29532454" or "30221871" or "34626054" or "33020096" or "22779492" or "31000393" or "30260911" or "29726692" or "29108784" or "29224770" or "31290789" or "29806056" or "12369033" or "31511918" or "14621916" or "33929284" or "31444186" or "15084618" or "28628521" or "10022170" or "16498011" or "10739084" or "32808684" or "8863233" or "19694229" or "31864586" or "27845479" or "22262380" or "28374943" or "31769672" or "18419982" or "23965911" or "25539306" or "21683229" or "17032990" or "27137901" or "26654181" or "33358555" or "28857503" or "14437009" or "31377825" or "26244270" or "19058694" or "15514917" or "19481046" or "33273274" or "12221754" or "34185015" or "23402550" or "14752354" or "31102446" or "25290824" or "1857721" or "33275625" or "25965092" or "31900150" or "19906334" or "20228757" or "22549793" or "26123551" or "7994433" or "27624559" or "7832018" or "17502809" or "32360268" or "26280378" or "18269385" or "33939220" or "18499169" or "10649154" or "30078549" or "31888904" or "34590948" or "8717789" or "11218263" or "24247313" or "25885012" or "32667271" or "31033847" or "31521557" or "25501834" or "33591084" or "16244683" or "28298802" or "32184312" or "27010998" or "29878815" or "25589231" or "18314235" or "33589141" or "18712709" or "31911522" or "29073914" or "24953082" or "29847149" or "31990822" or "11377893" or "27511830" or "30091490" or "32732877" or "15106027" or "27146028" or "7817637" or "24785269" or "26501987" or "29179907" or "31307495" or "14684962" or "20420256" or "33609398" or "25797818" or "29456053" or "26017600" or "26893523" or "30316301" or "8695592" or "28817182" or "24585511" or "11532688" or "8957118" or "28943009" or "31307212" or "34020343" or "17675615" or "35862771" or "26447007" or "28298194" or "17675660" or "26701281" or "8412997" or "25733230" or "30667569" or "30885185" or "30919820" or "33321343" or	393

	"33321266" or "32172693" or "31993888" or "32468997" or "19666390" or "30174011" or "26092166" or "30041266" or "26474942" or "31996642" or "23411725" or "26276092" or "24411659" or "32658386" or "25455025" or "33761706" or "23472372" or "9373077" or "25623517" or "19423033" or "32376752" or "33652139" or "32651805" or "17462084" or "23169073" or "31281929" or "28089292" or "32442292" or "32299662" or "33832306" or "21680076" or "32283983" or "29330019" or "14997920" or "22252178" or "25082002" or "34329689" or "21930513" or "9187713" or "9170222" or "30815931" or "23685005" or "19952647" or "20214746" or "17457173" or "30074844" or "28153861" or "15521938" or "25029980" or "26596417" or "26883504" or "27114076" or "30481475" or "12015654" or "30995331" or "22616080" or "25518171" or "300720372" or "25397366" or "29032948" or "19929689" or "17425009" or "30399075" or "22766222" or "33744043" or "29627395" or "600599" or "31016083" or "21075656" or "26116309" or "29100661" or "31123795" or "28126646" or "34034788" or "26537977" or "32191749" or "29221617" or "22171705" or "14564090" or "27906082" or "16982313" or "28033343" or "31239100" or "31344586" or "15808427" or "26264653" or "28922321" or "28745068" or "31071731" or "8314275" or "30893170" or "29433993" or "33073019" or "31931240" or "30362974" or "32536321" or "25311592" or "19674798" or "30893237" or "30415822" or "30581060" or "21629095" or "31977430" or "24998035" or "11075698" or "3193353" or "29406343" or "18520275" or "24344708" or "29100774" or "10472104" or "24577640" or "32037234" or "27072024" or "29929110" or "15336767" or "26042725" or "29030932" or "9577996" or "20299178" or "28046044" or "15108880" or "10839885" or "18586587" or "28903950" or "32159765" or "34029267" or "27265024" or "28990467" or "16259627" or "34989449" or "28340017" or "19739927" or "33191243" or "31895236" or "24724715" or "32956254" or "33907079" or "24423419" or "30100548" or "24880925" or "26135168" or "20356815" or "34320576" or "24096361" or "16732176" or "26740165" or "1301480" or "9247396" or "31670610" or "1617619" or "29363885" or "31722755" or "32032087" or "34292310" or "30295594" or "24952003" or "17959049" or "29514373" or "27995004" or "32805123" or "31017927" or "33749731".ui. [Remove Medline UI]	
104	102 not 103	928

Global Health [Ovid] (January 12, 2022)

Global Health 1973 to 2022 Week 01, Database Field Guide Global Health Archive 1910 to 1972

1	((patient* or child* or parent* or mother* or father* or client? or family* or families or caregiver* or care-giver* or proxy*) adj1 (perceived or perception* or important* or value*) adj1 (experient* or satisf*)).ti,ab,id.	30
2	((patient* or child* or parent* or mother* or father* or client? or family* or families or caregiver* or care-giver* or proxy*) adj1 (report* or measur* or questionnaire* or scor\$1 or scoring or assess* or survey* or interview*) adj1 experience*).ti,ab,id.	110
3	((self or proxy*) adj1 (report* or measur* or questionnaire* or scor\$1 or scoring or assess* or survey* or interview*) adj1 (experience* or satisf*)).ti,ab,id.	154
4	(PREM or PREMs or PREOM?).ti,ab,id.	84
5	or/1-4	371
6	pediatrics/ or exp children/ or exp infants/ or exp adolescents/	506718
7	(newborn* or new-born* or neonat* or neo-nat* or infan* or child* or paediatr* or pediater* or baby* or babies* or toddler* or kid or kids or boy* or girl* or adolesc* or juvenile* or teen* or youth* or pubescen* or preadolesc* or prepubesc* or preteen*).ti,ab,id.	638248
8	or/6-7	655552
9	5 and 8	78
10	(surger* or surgic* or surgeon* or operati* or reoperat* or bypass* or by-pass* or resect* or re-sect* or transplant* or procedure* or debridement* or laparoscop* or laparotom* or postop*).ti,ab,id.	342338
11	(adenoidectom* or laryngectom* or laryngoplast* or laryngoscop* or pharygectom* or tonsillectom* or tympanoplast* or tracheostom* or tracheotom* or orchidopex* or orchiopex* or orchiection* or orchidectom* or herniorrhaph* or hernioplast* or hernioplast* or herni*-plast* or herniotom* or circumcis* or gastrostom or ileostom* or colostom* or enterostom* or portoenterostom or roux-en-y or kasai or pyloromyotom* or piloromyotom* or pyloromiotom* or piloromiotom* or diverticulectom* or diverticulotom* or cholecystectom* or cholangiopancreatograph* or cholangio-pancreatograph* or choledoduodenostom* or choledo-duodenostom* or appendicectom* or appendectom* or splenectom* or pneumonectom* or amputation* or amputate* or craniotom* or craniostom* or hydrocelectom* or thoracostom* or fasciotom*).ti,ab,id.	20149
12	((ophthalmolog* or eye* or vision or ocular or retina* or retinopath*) adj5 (operat* or procedur* or surger* or surgical*).ti,ab,id.	1732
13	((perforation* or incision* or laceration*) adj3 (repair* or drain* or closure*).ti,ab,id.	877
14	((tooth or teeth or dental or abcess) adj2 (extract* or drain*).ti,ab,id.	1111
15	((abdomen or abdominal or intestin* or bowel* or gastrointestin*) adj3 (ablat* or excis* or laparoscop* or laparotom* or operativ* or surger* or surgical* or reconstruct* or repair* or resect* or intraoperative* or perioperative* or perisurg* or postoperative* or postsurg* or preoperative* or presurg*).ti,ab,id.	5947

16	(escharotom* or ((skin or derm*) adj2 (graft* or transplant*))).ti,ab,id.	935
17	((cancer or neoplas* or tumor* or tumour* or carcinom* or sarcoma*) adj3 (ablat* or excis* or laparoscop* or laparotom* or operativ* or surger* or surgical* or reconstruct* or repair* or resect* or biopsy or biopsie* or intraoperative* or perioperative* or perisurg* or postoperative* or postsurg* or preoperative* or presurg*))).ti,ab,id.	6532
18	(fundoplicat* or ((nissen* or toupet or dor) adj3 (operat* or procedur* or surger* or surgical*))).ti,ab,id.	137
19	((hernia* or extraperitoneal or preperitoneal or peritoneal or TEP or TAPP or umbilic* or inguinal or omphalocele* or exomphalos) adj3 (ablat* or excis* or laparoscop* or laparotom* or operativ* or surger* or surgical* or reconstruct* or repair* or resect* or intraoperative* or perioperative* or perisurg* or postoperative* or postsurg* or preoperative* or presurg*))).ti,ab,id.	981
20	((liver or hepatic or lung or lungs or pulmon* or kidney) adj3 (transplant* or graft*))).ti,ab,id.	12864
21	(thoracoscop* or thoracotom* or pleurectom* or pleuroscop* or pleuracotom* or pleurotom* or (pleura* adj3 (endoscop* or incision*))).ti,ab,id.	1329
22	((lung or lungs or pulmon* or wedge or trauma* or postrauma* or posttrauma* or neurotrauma* or fracture*) adj3 (ablat* or excis* or laparoscop* or laparotom* or operativ* or surger* or surgical* or reconstruct* or repair* or resect* or intraoperative* or perioperative* or perisurg* or postoperative* or postsurg* or preoperative* or presurg*))).ti,ab,id.	4813
23	((esophag* or oesophag* or endoesophag* or intraesophag* or tracheoesophag*) adj3 (atres* or atretic* or atroph*))).ti,ab,id.	187
24	((anal or anus or anorect* or rectal) adj3 (artificial* or malformat* or mal-format* or anomal* or abnormal* or ectopic or stenosis or atres* or atroph* or imperforat* or inperforat* or praet* or pret* or fistula*))).ti,ab,id.	702
25	(hirschsprung* or ((megacolon or colon* or rectosigmoid or intestin*) adj3 (congenital* or aganglion*))).ti,ab,id.	373
26	(agene* adj2 (hemidiaphragm* or diaphragm* or ((unilat* or hern*) adj1 diaphragm*))).ti,ab,id.	0
27	((bochdalek* or morgagni*) adj2 (hernia* or defect*))).ti,ab,id.	18
28	((congenital* or neonat* or neo-nat* or newborn* or new-born* or birth* or maternal* or fetal or fetus* or fetu or feto or foet* or prenatal* or pre-natal* or antenatal* or ante-natal* or trimester* or pregnan* or uter* or preterm* or pre-term* or premature* or pre-mature* or preemie*) adj5 (posterolateral* or substernal*) adj2 hernia*))).ti,ab,id.	0
29	((congenital* or neonat* or neo-nat* or newborn* or new-born* or birth* or maternal* or fetal or fetus* or fetu or feto or foet* or prenatal* or pre-natal* or antenatal* or ante-natal* or trimester* or pregnan* or uter* or preterm* or pre-term* or premature* or pre-mature* or preemie*) adj2 diaphragm* adj2 (hernia* or defect*))).ti,ab,id.	146
30	(congenital* and hernia* and diaphragm*).ti,ab,id.	196
31	((pectus or chest) adj1 (funnel or sunken or excavatum or carinatum)).ti,ab,id.	51
32	or/10-31	356804
33	9 and 32	6
34	((PREM or PREMs or PREOM? or ((patient* or child* or adolescen* or parent* or mother* or father* or client? or family* or families or caregiver* or care-giver*) adj2 (report* or value* or important*) adj2 experienc*)) and (newborn* or new-born* or neonat* or neo-nat* or infan* or child* or adolesc* or paediatr* or pediater* or baby* or babies* or toddler* or kid or kids or boy* or girl* or juvenile* or teen* or youth* or pubescen* or preadolesc* or	5

	or prepubesc* or preteen*).ti,id.	
35	32 and ((PREM or PREMs or PREOM? or ((patient* or child* or adolescen* or parent* or mother* or father* or client? or family* or families or caregiver* or care-giver*) adj2 (report* or value* or important*) adj2 experienc*)) and (newborn* or new-born* or neonat* or neo-nat* or infan* or child* or adolesc* or paediatr* or pediater* or baby* or babies* or toddler* or kid or kids or boy* or girl* or juvenile* or teen* or youth* or pubescen* or preadolesc* or prepubesc* or preteen*).ab.	7
36	8 and ((PREM or PREMs or PREOM?) and experienc*).ti,ab,id.	2
37	or/33-36	17
38	remove duplicates from 37	17

[Global Index Medicus \[WHO\] \(January 12, 2022\)](#)

1	(tw:(patient* or child* or parent* or mother* or father* or family* or families or caregiver* or care-giver*)) AND (tw:(reported*)) AND (tw:(experienc*)) AND (tw:(surger* or surgic* or operation? or postop*))	2.519
2	tw:((tw:(patient* OR child* OR parent* OR mother* OR father* OR family* OR families OR caregiver* OR care-giver*)) AND (tw:(reported*)) AND (tw:(experienc*)) AND (tw:(surger* OR surgic* OR operation? OR postop*))) AND (mj:("Child"))	150

[Medline \[Ovid\] \(January 12, 2022\)](#)

Ovid MEDLINE(R) and Epub Ahead of Print, In-Process & Other Non-Indexed Citations and Daily <1946 to January 11, 2022>

1	Patient satisfaction/	86961
2	Personal satisfaction/	21806
3	Patient Preference/	10047
4	or/1-3	117355
5	"outcome assessment (health care)"/	79086
6	treatment outcome/	1078877
7	"quality of life"/	230986
8	"Activities of Daily Living"/	69221
9	Recovery of Function/	57557
10	Postoperative Care/	60563
11	Postoperative Complications/	386934
12	Postoperative Pain/	43998
13	exp Postoperative Period/	60247
14	or/5-13	1823305
15	"Surveys and Questionnaires"/	523465
16	exp health status indicators/	332622
17	patient health questionnaire/	758
18	Self Report/	39367
19	or/15-18	847880
20	4 and 14 and 19 and experienc*.tw,kf.	2761
21	patient reported outcome measures/ and (experience* or satisf*).tw,kf.	3212
22	patient outcome assessment/ and (experience* or satisf*).tw,kf.	1280

23	((patient* or child* or parent* or mother* or father* or client? or family* or families or caregiver* or care-giver* or proxy*) adj1 (perceived or perception* or important* or value*) adj1 (experien* or satisf*)).tw,kf.	277
24	((patient* or child* or parent* or mother* or father* or client? or family* or families or caregiver* or care-giver* or proxy*) adj1 (report* or measur* or questionnaire* or scor\$1 or scoring or assess* or survey* or interview*) adj1 experience*).tw,kf.	1402
25	((self or proxy*) adj1 (report* or measur* or questionnaire* or scor\$1 or scoring or assess* or survey* or interview*) adj1 (experience* or satisf*)).tw,kf.	967
26	(PREM or PREMs or PREOM?).tw,kf.	380
27	or/20-26 [PREMs]	9703
28	pediatrics/ or exp adolescent/ or exp child/ or exp infant/ or adolescent medicine/	3809421
29	Intensive Care Units, Neonatal/	16708
30	(newborn* or new-born* or neonat* or neo-nat* or infan* or child* or adolesc* or paediatr* or pediater* or baby* or babies* or toddler* or kid or kids or boy* or girl* or juvenile* or teen* or youth* or pubescen* or preadolesc* or prepubesc* or preteen*).tw,kf.	2690898
31	(pediatr* or paediatr*).jw.	606807
32	or/28-31	4673449
33	27 and 32 [PREMs Peds]	2301
34	exp Specialties, Surgical/	210619
35	exp Surgical Procedures, Operative/	3368744
36	exp Surgeons/	12958
37	su.fs.	2128919
38	(surger* or surgic* or surgeon* or procedure* or operation? or laparoscop* or postop*).tw,kf.	3401571
39	or/34-38	5694317
40	33 and 39 [PREMs Peds Gen Surg]	789
41	exp "Congenital, Hereditary, and Neonatal Diseases and Abnormalities"/	1302247
42	exp Digestive system diseases/	1846913
43	exp Urologic Diseases/ or exp Male urogenital diseases/ or exp Female urogenital diseases/ or exp Prolapse/	1561514
44	exp Hernia/	80157
45	exp Musculoskeletal Abnormalities/ or exp Musculoskeletal Diseases/	1150204
46	exp Neoplasms/	3603170
47	exp Respiratory System Abnormalities/	11838
48	exp Torsion Abnormality/ or Torticollis/	13483
49	exp Otorhinolaryngologic Diseases/	391660
50	exp Eye Diseases/	603263
51	exp Osteomyelitis/	23794
52	exp Brachial Plexus Neuropathies/	4030
53	exp Hemorrhage/	347131
54	exp Brain Diseases/	1314839

55	exp Arthritis, Infectious/	15197
56	(cochlear or adenoid* or otorhinol* or pharyngeal* or laryngeal* or laryngo* or ear or ear or nose or otitis or tonsil* or epistaxis or rhinorrhea* or rhinitis or otolog* or rhinootol* or head or neck or croup* or supraglott* or glottis or subglott* or trachea* or snoring or snore* or apnea or apnoea or sleep obstruct* or mastoiditis* or sinusitis or trichiasis or cataract* or hydrocephal* or cerebral palsy or muscular dystroph* or syndactyly* or radial club or amniotic band* or septic arthritis or osteomyelitis or flexor tenosynovitis or clubfoot or clubfeet or club-foot* or club-feet* or craniofacial* or cranio-facial* or frontoethmoidal meningoenceph* or hemorrhage* or hematoma* or spina bifida* or resuscitation* or schistosomias* or trachoma* or mediastinitis or buruli ulcer* or choledochal cyst* or cyst* echinococcosis or ilopsoas or epileps* or burr hole* or burn or burns or burned or scald* or burnt or thermal injur*).tw,kf.	1608045
57	(hypospadias* or epispadi* or cloaca* or cryptorchidism* or prolapse or phimosis or paraphimosis or hydrometrocolpos or (bladder adj2 exstroph*) or (undescen* adj2 test?s) or (buried adj1 penis) or (urinary adj2 (retention or lithiasis))).tw,kf.	64231
58	(hirschsprung* or ((megacolon or colon* or rectosigmoid or intestin*) adj4 (congenital or aganglion*)) or ((anal or anus or anorect* or rectal) adj3 (artificial* or malformation or anomal* or abnormal* or ectopic or stenosis or atres* or atroph* or imperforat* or inperforat* or praet* or pret*))).tw,kf.	13921
59	((pierre-robin or apert*) adj2 (syndrome* or disease* or sequenc*)).tw,kf.	2386
60	(cleft adj2 (lip* or palate*)).tw,kf.	24035
61	(coarctation or (septal adj2 defect*) or (tetralogy adj2 fallot)).tw,kf.	43835
62	(brachial plexus adj2 (palsy or neuropath*)).tw,kf.	1545
63	((arthriti* or rheumat*) adj2 infect*).tw,kf.	2823
64	or/41-63	9734136
65	exp Specialties, Surgical/	210619
66	exp Surgical Procedures, Operative/	3368744
67	su.fs.	2128919
68	(surger* or surgical* or operati* or reoperat* or bypass* or by-pass* or resect* or re-sect* or transplant* or procedure or procedures or debridement* or laparoscop* or laparotom*).tw,kf.	4118254
69	or/65-68	6094627
70	64 and 69	3018215
71	33 and 70 [PREMs Peds Surg condition]	433
72	(adenoidectom* or laryngectom* or laryngoplast* or laryngoscop* or pharygectom* or tonsillectom* or tympanoplast* or tracheostom* or tracheotom* or orchidopex* or orchiopex* or orchiectom* or orchidectom* or herniorrhaph* or hernioplast* or hernioplast* or herni*-plast* or herniotom* or circumcis* or gastrostom or ileostom* or colostom* or enterostom* or portoenterostom or roux-en-y or kasai or pyloromyotom* or piloromyotom* or pyloromiotom* or piloromiotom* or diverticulectom* or diverticulotom* or cholecystectom* or cholangiopancreatograph* or cholangio-pancreatograph* or choledoduodenostom* or choledo-duodenostom* or appendicectom* or appendectom* or splenectom* or pneumonectom* or amputation* or amputate* or craniotom* or craniostom* or hydrocelectom* or thoracostom* or fasciotom*).tw,kf.	270772
73	((ophthalmolog* or eye* or vision or ocular or retina* or retinopath*) adj5 (operat* or procedur* or surger* or surgical*)).tw,kf.	38201
74	((perforation* or incision* or laceration*) adj3 (repair* or drain* or closure*)).tw,kf.	9748

75	((tooth or teeth or dental or abcess) adj2 (extract* or drain*)).tw,kf.	15964
76	((abdomen or abdominal or intestin* or bowel* or gastrointestinal*) adj3 (ablat* or excis* or laparoscop* or laparotom* or operativ* or surger* or surgical* or reconstruct* or repair* or resect* or intraoperative* or perioperative* or perisurg* or postoperative* or postsurg* or preoperative* or presurg*)).tw,kf.	75458
77	(escharotom* or ((skin or derm*) adj2 (graft* or transplant*))).tw,kf.	26565
78	((cancer or neoplas* or tumor* or tumour* or carcinom* or sarcoma*) adj3 (ablat* or excis* or laparoscop* or laparotom* or operativ* or surger* or surgical* or reconstruct* or repair* or resect* or biopsy or biopsie* or intraoperative* or perioperative* or perisurg* or postoperative* or postsurg* or preoperative* or presurg*)).tw,kf.	221519
79	(fundoplicat* or ((nissen* or toupet or dor) adj3 (operat* or procedur* or surger* or surgical*))).tw,kf.	6757
80	((hernia* or extraperitoneal or preperitoneal or peritoneal or TEP or TAPP or umbilic* or inguinal or omphalocele* or exomphalos) adj3 (ablat* or excis* or laparoscop* or laparotom* or operativ* or surger* or surgical* or reconstruct* or repair* or resect* or intraoperative* or perioperative* or perisurg* or postoperative* or postsurg* or preoperative* or presurg*)).tw,kf.	30794
81	((liver or hepatic or lung or lungs or pulmon* or kidney) adj3 (transplant* or graft*)).tw,kf.	145359
82	(thoracoscop* or thoracotom* or pleurectom* or pleuroscop* or pleuracotom* or pleurotom* or (pleura* adj3 (endoscop* or incision*))).tw,kf.	39485
83	((lung or lungs or pulmon* or wedge or trauma* or postrauma* or posttrauma* or neurotrauma* or fracture*) adj3 (ablat* or excis* or laparoscop* or laparotom* or operativ* or surger* or surgical* or reconstruct* or repair* or resect* or intraoperative* or perioperative* or perisurg* or postoperative* or postsurg* or preoperative* or presurg*)).tw,kf.	109118
84	or/72-83	905370
85	33 and 84 [PREMs Peds Surg spec]	131
86	Esophageal Atresia/	3813
87	((esophag* or oesophag* or endoesophag* or intraesophag* or tracheoesophag*) adj3 (atres* or atretic* or atroph*)).tw,kf.	4812
88	anus, imperforate/	2562
89	((anal or anus or anorect* or rectal) adj3 (artificial* or malformat* or mal-format* or anomal* or abnormal* or ectopic or stenosis or atres* or atroph* or imperforat* or inperforat* or praet* or pret* or fistula*)).tw,kf.	10643
90	Colorectal Surgery/	3967
91	Rectal Diseases/ or exp *Rectal Diseases/	162889
92	hirschsprung disease/	4740
93	(hirschsprung* or ((megacolon or colon* or rectosigmoid or intestin*) adj3 (congenital* or aganglion*))).tw,kf.	6993
94	Hernias, Diaphragmatic, Congenital/	5170
95	(agene* adj2 (hemidiaphragm* or diaphragm* or ((unilat* or hern*) adj1 diaphragm*))).tw,kf.	86
96	((bochdalek* or morgagni*) adj2 (hernia* or defect*)).tw,kf.	1295
97	((congenital* or neonat* or neo-nat* or newborn* or new-born* or birth* or maternal* or fetal or fetus* or fetu or feto or foet* or prenatal* or pre-natal* or antenatal* or ante-natal* or trimester* or pregnan* or uter* or preterm* or pre-term* or premature* or pre-	78

	mature* or preemie*) adj5 (posterolateral* or substernal*) adj2 hernia*).tw,kf.	
98	((congenital* or neonat* or neo-nat* or newborn* or new-born* or birth* or maternal* or fetal* or fetus* or fetu or feto or foet* or prenatal* or pre-natal* or antenatal* or ante-natal* or trimester* or pregnan* or uter* or preterm* or pre-term* or premature* or pre-mature* or preemie*) adj2 diaphragm* adj2 (hernia* or defect*).tw,kf.	5533
99	(congenital* and hernia* and diaphragm*).tw,kf.	6075
100	musculoskeletal abnormalities/	1576
101	funnel chest/	2567
102	pectus carinatum/	133
103	((pectus or chest) adj1 (funnel or sunken or excavatum or carinatum)).tw,kf.	3224
104	or/86-103 [Specific surg cond]	197322
105	33 and 104 [PREMS Peds Specific Surg]	32
106	40 or 71 or 85 or 105 [All PREMs Peds Surg]	813
107	((PREM or PREMs or PREOM? or ((patient* or child* or adolescen* or parent* or mother* or father* or client? or family* or families or caregiver* or care-giver*) adj2 (report* or value* or important*) adj2 experienc*)) and (newborn* or new-born* or neonat* or neo-nat* or infan* or child* or adolesc* or paediatr* or pediatr* or baby* or babies* or toddler* or kid or kids or boy* or girl* or juvenile* or teen* or youth* or pubescen* or preadolesc* or prepubesc* or preteen*).ti,kf.	98
108	(39 or 70 or 84 or 104) and ((PREM or PREMs or PREOM? or ((patient* or child* or adolescen* or parent* or mother* or father* or client? or family* or families or caregiver* or care-giver*) adj2 (report* or value* or important*) adj2 experienc*)) and (newborn* or new-born* or neonat* or neo-nat* or infan* or child* or adolesc* or paediatr* or pediatr* or baby* or babies* or toddler* or kid or kids or boy* or girl* or juvenile* or teen* or youth* or pubescen* or preadolesc* or prepubesc* or preteen*).ab.	178
109	32 and ((PREM or PREMs or PREOM?) and experienc*).tw,kf.	36
110	or/106-109	1065
111	remove duplicates from 110	1064
112	("31218671" or "28339923" or "10267258").ui.	3
113	112 not 111	3

Web of Science [Clarivate Analytics] (January 12, 2022)

Indexes=SCI-EXPANDED, SSCI, A&HCI, CPCI-S, CPCI-SSH Timespan=All years

1	TI=((patient* or child* or parent* or mother* or father* or client? or family* or families or caregiver* or care-giver* or proxy*) NEAR/1 (perceived or perception* or important* or value*) NEAR/1 (experienc* or satisf*)) OR AB=((patient* or child* or parent* or mother* or father* or client? or family* or families or caregiver* or care-giver* or proxy*) NEAR/1 (perceived or perception* or important* or value*) NEAR/1 (experienc* or satisf*))	1,813
2	TI=((patient* or child* or parent* or mother* or father* or client? or family* or families or caregiver* or care-giver* or proxy*) NEAR/1 (report* or measur* or questionnaire* or scor\$1 or scoring or assess* or survey* or interview*) NEAR/1 experience*) OR AB=((patient* or child* or parent* or mother* or father* or client? or family* or families or caregiver* or care-giver* or proxy*) NEAR/1 (report* or measur* or questionnaire* or scor\$1 or scoring or assess* or survey* or interview*) NEAR/1 experience*)	5,101
3	TI=((self or proxy*) NEAR/1 (report* or measur* or questionnaire* or scor\$1 or scoring or assess* or survey* or interview*) NEAR/1 (experience* or satisf*)) OR AB=((self or proxy*) NEAR/1 (report* or measur* or questionnaire* or scor\$1 or scoring or assess* or survey* or interview*) NEAR/1 (experience* or satisf*))	2,992

4	TI=(PREM or PREMs or PREOM?) OR AB=(PREM or PREMs or PREOM?)	1,319
5	#4 OR #3 OR #2 OR #1	10,915
6	TI=(newborn* or new-born* or neonat* or neo-nat* or infan* or child* or paediatr* or pediater* or baby* or babies* or toddler* or kid or kids or boy* or girl* or adolesc* or juvenile* or teen* or youth* or pubescen* or preadolesc* or prepubesc* or preteen*) OR AB=(newborn* or new-born* or neonat* or neo-nat* or infan* or child* or paediatr* or pediater* or baby* or babies* or toddler* or kid or kids or boy* or girl* or adolesc* or juvenile* or teen* or youth* or pubescen* or preadolesc* or prepubesc* or preteen*)	3,289,286
7	SO=(pediatr* or paediatr*)	315,912
8	#7 OR #6	3,403,153
9	#8 AND #5	2,946
10	TI=(surger* or surgic* or surgeon* or operati* or reoperat* or bypass* or by-pass* or resect* or re-sect* or transplant* or procedure* or debridement* or laparoscop* or laparotom* or postop*) OR AB=(surger* or surgic* or surgeon* or operati* or reoperat* or bypass* or by-pass* or resect* or re-sect* or transplant* or procedure* or debridement* or laparoscop* or laparotom* or postop*)	6,309,212
11	TI=(adenoidectom* or laryngectom* or laryngoplast* or laryngoscop* or pharygectom* or tonsillectom* or tympanoplast* or tracheostom* or tracheotom* or orchidopex* or orchiopex* or orchiectom* or orchidectom* or herniorrhaph* or hernioplast* or hernioplast* or "herni*-plast*" or herniotom* or circumcis* or gastrostom or ileostom* or colostom* or enterostom* or portoenterostom or "roux-en-y" or kasai or pyloromyotom* or piloromyotom* or pyloromiotom* or piloromiotom* or diverticulectom* or diverticulotom* or cholecystectom* or cholangiopancreatograph* or cholangio-pancreatograph* or choledoduodenostom* or choledo-duodenostom* or appendicectom* or appendectom* or splenectom* or pneumonectom* or amputation* or amputate* or craniotom* or craniostom* or hydrocelectom* or thoracostom* or fasciotom*) OR AB=(adenoidectom* or laryngectom* or laryngoplast* or laryngoscop* or pharygectom* or tonsillectom* or tympanoplast* or tracheostom* or tracheotom* or orchidopex* or orchiopex* or orchiectom* or orchidectom* or herniorrhaph* or hernioplast* or hernioplast* or "herni*-plast*" or herniotom* or circumcis* or gastrostom or ileostom* or colostom* or enterostom* or portoenterostom or "roux-en-y" or kasai or pyloromyotom* or piloromyotom* or pyloromiotom* or piloromiotom* or diverticulectom* or diverticulotom* or cholecystectom* or cholangiopancreatograph* or cholangio-pancreatograph* or choledoduodenostom* or choledo-duodenostom* or appendicectom* or appendectom* or splenectom* or pneumonectom* or amputation* or amputate* or craniotom* or craniostom* or hydrocelectom* or thoracostom* or fasciotom*)	221,579
12	TI=((ophthalmolog* or eye* or vision or ocular or retina* or retinopath*) NEAR/5 (operat* or procedur* or surger* or surgical*)) OR AB=((ophthalmolog* or eye* or vision or ocular or retina* or retinopath*) NEAR/5 (operat* or procedur* or surger* or surgical*))	38,479
13	TI=((perforation* or incision* or laceration*) NEAR/3 (repair* or drain* or closure*)) OR AB=((perforation* or incision* or laceration*) NEAR/3 (repair* or drain* or closure*))	10,191
14	TI=((tooth or teeth or dental or abcess) NEAR/2 (extract* or drain*)) OR AB=((tooth or teeth or dental or abcess) NEAR/2 (extract* or drain*))	13,904
15	TI=((abdomen or abdominal or intestin* or bowel* or gastrointestin*) NEAR/3 (ablat* or excis* or laparoscop* or laparotom* or operativ* or surger* or surgical* or reconstruct* or repair* or resect* or intraoperative* or perioperative* or perisurg* or postoperative* or postsurg* or preoperative* or presurg*)) OR AB=((abdomen or abdominal or intestin* or bowel* or gastrointestin*) NEAR/3 (ablat* or excis* or laparoscop* or laparotom* or operativ* or surger* or surgical* or reconstruct* or repair* or resect* or intraoperative* or perioperative* or perisurg* or postoperative* or postsurg* or preoperative* or presurg*))	75,977
16	TI=(escharotom* or ((skin or derm*) NEAR/2 (graft* or transplant*))) OR AB=(escharotom* or ((skin or derm*) NEAR/2 (graft* or transplant*)))	19,353

17	TI=((cancer or neoplas* or tumor* or tumour* or carcinom* or sarcoma*) NEAR/3 (ablat* or excis* or laparoscop* or laparotom* or operativ* or surger* or surgical* or reconstruct* or repair* or resect* or biopsy or biopsie* or intraoperative* or perioperative* or perisurg* or postoperative* or postsurg* or preoperative* or presurg*)) OR AB=((cancer or neoplas* or tumor* or tumour* or carcinom* or sarcoma*) NEAR/3 (ablat* or excis* or laparoscop* or laparotom* or operativ* or surger* or surgical* or reconstruct* or repair* or resect* or biopsy or biopsie* or intraoperative* or perioperative* or perisurg* or postoperative* or postsurg* or preoperative* or presurg*))	266,151
18	TI=(funduplicat* or ((nissen* or toupet or dor) NEAR/3 (operat* or procedur* or surger* or surgical*))) OR AB=(funduplicat* or ((nissen* or toupet or dor) NEAR/3 (operat* or procedur* or surger* or surgical*)))	6,739
19	TI=((hernia* or extraperitoneal or preperitoneal or peritoneal or TEP or TAPP or umbilic* or inguinal or omphalocele* or exomphalos) NEAR/3 (ablat* or excis* or laparoscop* or laparotom* or operativ* or surger* or surgical* or reconstruct* or repair* or resect* or intraoperative* or perioperative* or perisurg* or postoperative* or postsurg* or preoperative* or presurg*)) OR AB=((hernia* or extraperitoneal or preperitoneal or peritoneal or TEP or TAPP or umbilic* or inguinal or omphalocele* or exomphalos) NEAR/3 (ablat* or excis* or laparoscop* or laparotom* or operativ* or surger* or surgical* or reconstruct* or repair* or resect* or intraoperative* or perioperative* or perisurg* or postoperative* or postsurg* or preoperative* or presurg*))	32,629
20	TI=((liver or hepatic or lung or lungs or pulmon* or kidney) NEAR/3 (transplant* or graft*)) OR AB=((liver or hepatic or lung or lungs or pulmon* or kidney) NEAR/3 (transplant* or graft*))	196,519
21	TI=(thoracoscop* or thoracotom* or pleurectom* or pleuroscop* or pleuracotom* or pleurotom* or (pleura* NEAR/3 (endoscop* or incision*))) OR AB=(thoracoscop* or thoracotom* or pleurectom* or pleuroscop* or pleuracotom* or pleurotom* or (pleura* NEAR/3 (endoscop* or incision*)))	31,172
22	TI=((lung or lungs or pulmon* or wedge or trauma* or postrauma* or posttrauma* or neurotrauma* or fracture*) NEAR/3 (ablat* or excis* or laparoscop* or laparotom* or operativ* or surger* or surgical* or reconstruct* or repair* or resect* or intraoperative* or perioperative* or perisurg* or postoperative* or postsurg* or preoperative* or presurg*)) OR AB=((lung or lungs or pulmon* or wedge or trauma* or postrauma* or posttrauma* or neurotrauma* or fracture*) NEAR/3 (ablat* or excis* or laparoscop* or laparotom* or operativ* or surger* or surgical* or reconstruct* or repair* or resect* or intraoperative* or perioperative* or perisurg* or postoperative* or postsurg* or preoperative* or presurg*))	107,824
23	TI=((esophag* or oesophag* or endoesophag* or intraesophag* or tracheoesophag*) NEAR/3 (atres* or atretic* or atroph*)) OR AB=((esophag* or oesophag* or endoesophag* or intraesophag* or tracheoesophag*) NEAR/3 (atres* or atretic* or atroph*))	3,957
24	TI=((anal or anus or anorect* or rectal) NEAR/3 (artificial* or malformat* or mal-format* or anomal* or abnormal* or ectopic or stenosis or atres* or atroph* or imperforat* or imperforat* or praet* or pret* or fistula*)) OR AB=((anal or anus or anorect* or rectal) NEAR/3 (artificial* or malformat* or mal-format* or anomal* or abnormal* or ectopic or stenosis or atres* or atroph* or imperforat* or imperforat* or praet* or pret* or fistula*))	9,163
25	TI=(hirschsprung* or ((megacolon or colon* or rectosigmoid or intestin*) NEAR/3 (congenital* or aganglion*))) OR AB=(hirschsprung* or ((megacolon or colon* or rectosigmoid or intestin*) NEAR/3 (congenital* or aganglion*)))	6,462
26	TI=(agene* NEAR/2 (hemidiaphragm* or diaphragm* or ((unilat* or hern*) NEAR/1 diaphragm*))) OR AB=(agene* NEAR/2 (hemidiaphragm* or diaphragm* or ((unilat* or hern*) NEAR/1 diaphragm*)))	119
27	TI=((bochdalek* or morgagni*) NEAR/2 (hernia* or defect*)) OR AB=((bochdalek* or morgagni*) NEAR/2 (hernia* or defect*))	1,043

28	TI=((congenital* or neonat* or neo-nat* or newborn* or new-born* or birth* or maternal* or fetal or fetus* or fetu or feto or foet* or prenatal* or pre-natal* or antenatal* or ante-natal* or trimester* or pregnan* or uter* or preterm* or pre-term* or premature* or pre-mature* or preemie*) NEAR/5 (posterolateral* or substernal*) NEAR/2 hernia*) OR AB=((congenital* or neonat* or neo-nat* or newborn* or new-born* or birth* or maternal* or fetal or fetus* or fetu or feto or foet* or prenatal* or pre-natal* or antenatal* or ante-natal* or trimester* or pregnan* or uter* or preterm* or pre-term* or premature* or pre-mature* or preemie*) NEAR/5 (posterolateral* or substernal*) NEAR/2 hernia*)	64
29	TI=(congenital* and hernia* and diaphragm*) OR AB=(congenital* and hernia* and diaphragm*)	5,683
30	TI=((pectus or chest) NEAR/1 (funnel or sunken or excavatum or carinatum)) OR AB=((pectus or chest) NEAR/1 (funnel or sunken or excavatum or carinatum))	2,558
31	#10 OR #11 OR #12 OR #13 OR #14 OR #15 OR #16 OR #17 OR #18 OR #19 OR #20 OR #21 OR #22 OR #23 OR #24 OR #25 OR #26 OR #27 OR #28 OR #29 OR #30	6,508,796
32	#31 AND #9	305
33	TI=((((PREM or PREMs or PREOM?) or ((patient* or child* or adolescen* or parent* or mother* or father* or client? or family* or families or caregiver* or care-giver*) NEAR/2 (report* or value* or important*) NEAR/2 experienc*)) and (newborn* or new-born* or neonat* or neo-nat* or infan* or child* or adolesc* or paediatr* or pediatr* or baby* or babies* or toddler* or kid or kids or boy* or girl* or juvenile* or teen* or youth* or pubescen* or preadolesc* or prepubesc* or preteen*))	189
34	AB=((((PREM or PREMs or PREOM?) or ((patient* or child* or adolescen* or parent* or mother* or father* or client? or family* or families or caregiver* or care-giver*) NEAR/2 (report* or value* or important*) NEAR/2 experienc*)) and (newborn* or new-born* or neonat* or neo-nat* or infan* or child* or adolesc* or paediatr* or pediatr* or baby* or babies* or toddler* or kid or kids or boy* or girl* or juvenile* or teen* or youth* or pubescen* or preadolesc* or prepubesc* or preteen*))	2,299
35	#34 AND #31	292
36	TI=((PREM or PREMs or PREOM?) and experienc*) OR AB=((PREM or PREMs or PREOM?) and experienc*)	175
37	#36 AND #8	24
38	#37 OR #35 OR #32	480

	PMID="26589185" or "21082872" or "15203586" or "15229421" or "28569451" or "27679985" or "20607265" or "33218361" or "26286444" or "32008976" or "30925497" or "25665957" or "25446659" or "28041938" or "26133038" or "29373200" or "26809202" or "19000349" or "28417237" or "29664849" or "32896358" or "8492846" or "28746153" or "27026683" or "9750507" or "18468689" or "32204619" or "34859745" or "11902020" or "31890384" or "14815830" or "34667013" or "31210404" or "32065382" or "8827761" or "28455243" or "27204461" or "21323034" or "24500449" or "30685424" or "23407261" or "26861129" or "28249677" or "15909005" or "10919141" or "16485101" or "9785431" or "31328422" or "25639827" or "12379186" or "24802348" or "29071540" or "16866513" or "10557683" or "32128380" or "28477858" or "12469091" or "21415648" or "30924121" or "30516623" or "29566397" or "30125915" or "33291158" or "30967356" or "29432338" or "16014223" or "32845302" or "25888658" or "14578753" or "28024223" or "2004237" or "31732002" or "26494618" or "10142780" or "33869733" or "33111174" or "31351706" or "18641491" or "32213778" or "32311627" or "34988035" or "23432865" or "5041073" or "17225623" or "27637376" or "31261259" or "30587304" or "11307218" or "26907509" or "26460499" or "29439085" or "21934284" or "28538570" or "31236635" or "7827819" or "17036618" or "30321323" or "9021536" or "30900303" or "22861149" or "34969599" or "29352339" or "16307937" or "33622957" or "18384639" or "31237085" or "11584844" or "3650869" or "17070473" or "31837593" or "32116083" or "26460499" or "14639447" or "24848818" or "8852205" or "26612631" or "29644385" or "31098884" or "32735588" or "27693732" or "31448253" or "30642456" or "25014326" or "22929346" or "19705536" or "9483617" or "31222392" or "9470684" or "30569754" or "10428999" or "25159223" or "29124379" or "27894229" or "20027091" or "33845659" or "20450468" or "31345179" or "32811792" or "27825057" or "25458165" or "33588763" or "11008748" or "33868935" or "31217323" or "24279218" or "18320375" or "21160456" or "13680324" or "24761801" or "7677469" or "21883812" or "33036555" or "21286732" or "25216809" or "25062342" or "30612775" or "27045086" or "30062942" or "19839895" or "25439116" or "33587092" or "26545589" or "12694776" or "27119949" or "30381868" or "34217284" or "30991007" or "29135288" or "31651806" or "25840772" or "28892648" or "31784366" or "31418168" or "34591694" or "17639417" or "9934251" or "22257764" or "31567609" or "25074240" or "19703797" or "24526131" or "31397301" or "30461514" or "26806254" or "15023106" or "21819764" or "15686286" or "21997884" or "28537368" or "28060231" or "26101986" or "25884634" or "30138741" or "27363331" or "34644275" or "29160828" or "11772185" or "19945274" or "33504331" or "30732957" or "3051967" or "33729839" or "11404748" or "29305286" or "21599983" or "27637366" or "18845479" or "19833669" or "33186001" or "29261090" or "16048623" or "31499262" or "27574954" or "29362452" or "30340585" or "26895143" or "24953272" or "26578194" or "21370403" or "23179437" or "34432687" or "32779939" or "24034424" or "30157737" or "22951055" or "23678380" or "22145965" or "12913744" or "30414786" or "33127553" or "31562988" or "21246057" or "26522897" or "18718678" or "30694205" or "32607452" or "29740810" or "31067586" or "27424505" or "26928271" or "27515487" or "31202371" or "33172075" or "23770712" or "28167013" or "34841395" or "21960423" or "21995738" or "29724642" or "15598289" or "29579019" or "31307222" or "32109574" or "19445378" or "23179277" or "20489400" or "25526491" or "27482025" or "29687049" or "20393374" or "32253479" or "33248216" or "16531188" or "24005872" or "28836662" or "17875566" or "12010531" or "22445167" or "29332636" or "32775016" or "11386431" or "9291558" or "31262451" or "19837634" or "32878556" or "19584764" or "32349082" or "32628512" or "33847693" or "24651973" or "19597875" or "21797085" or "28445085" or "29299766" or "23283408" or "25783301" or "28267122" or "20153054" or "28695502" or "10392885" or "10198550" or "33882059" or "21798599" or "13892674" or "16998530" or "24302700" or "22252570" or "28431304" or "28019304" or "9830920" or "10807301" or "25234345" or "28711388" or "27341362" or "31434509" or "29165436" or "24376073" or "32979068" or "28055110" or "20224460" or "29868620" or "25266769" or "27384383" or "159234" or "32178015" or "24237004" or "31969181" or "30718558" or "26412642" or "28587663" or "24650725" or "30362235" or "29787680" or "31801477" or "29165605" or "34171889" or "8764814" or "18403945" or "30396554" or "3271547" or "29191660" or "12832883" or "15167244" or "11496168" or "24202085" or "27531733" or "23721162" or "24825153" or "17327892" or "30107796" or "24595040" or "23312714" or "25990190" or "10870726" or "24699554" or "27484970" or "20032529" or "33152577" or "28719555" or "3215148" or "1399662" or "24319280" or "32341242" or "32880725" or "30658681" or "30403975" or "22895003" or 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