



eAppendix 1 Search strategy

Sources:

We identified essential databases with the help of a librarian. We agreed upon Embase, PubMed & Medline, and CINAHL. CINAHL is a database driven mainly by nurse research and nurses have conducted most of the qualitative research up to date. JBI being completely included in CINAHL, we will not search this database.

Search strategy:

The search strategy was designed by two authors in agreement with the university medical library's librarian who is specialized in search methods for systematic reviews. We searched each listed database considering an adapted list of search terms and the databases' own vocabulary and search builder specificities.

Keywords and search terms:

The two main concepts of the question asked were "anesthesiology" as a discipline and "qualitative research" as a type of study design. We conducted a rapid search of the literature to identify relevant articles and recognize attached keywords and search terms that we could use as our own.

While building our equations, we decided to first be exhaustive and then refine the concepts to find more relevant results. For each concept, and in each database, we included controlled and free vocabulary. We screened the thesaurus of PubMed and Medline, Embase and CINAHL to find keywords useful to our study. We looked at online lists of terms suggested to highlight the concept of qualitative research. We also tried to be exhaustive regarding the concept of anesthesia. The first results allowed us to find approximately 10,000 hits in each database (except CINAHL). As we conducted our preliminary searches, a lot of irrelevant results to our area of interest, such as studies on animals, qualitative research conducted in dentistry, and "questionnaires and surveys" methodologies, were identified. We excluded several concepts:

- 1) Chronic pain; we did not intend to study
- 2) Dental anesthesia; this is local and administered by dentists themselves.
- 3) Surveys and questionnaires; as discussed by the group, we cannot consider surveys and questionnaires as "qualitative research". Indeed, the objective and analysis of such designs is to quantify answers.

4) Animal studies.

Eligibility criteria:

Publications were eligible for inclusion if all four of the following criteria were met:

- The primary focus is perioperative anesthesiology (excluding chronic pain and critical care)
- The publication presents original qualitative data (including mixed method studies, excluding experts' opinions, surveys and questionnaires, reviews)
- The publication is written in English or French
- The study was published between January 2000 and September 2018

As our objective was to assess the current state of the qualitative research in anesthesiology, articles published before 2000 were not relevant. We limited our search to French and English written papers.

PubMed:

Specificities:

Mesh terms were found for each concept and were particularly limited regarding the concept of "qualitative research". We had to expand with exhaustive free vocabulary. The free vocabulary link to anesthesiology is limited to the title except for the word anesthesiology. Anesth(Eng. US) and Anaesth* (Eng.) can be used interchangeably, their searches results are the same, but not when used in the free vocabulary.

Equation:

((("2000/01/01"[Date - Publication] : "2018/12/31"[Date - Publication])) AND (french[Language] OR english[Language]) AND (("Anesthesiology"[Mesh] OR "Perioperative Nursing"[Mesh] OR (anesthesia[MeSH Terms]) OR "anesthetic practice"[Title] OR "anaesthetic practice"[Title] OR anesthesia[Title] OR anaesthesia[Title] OR anesthesiology[Title/Abstract] OR anaesthesiology[Title] OR (perianesthesia[Title]) OR perianaesthesia[Title] OR (((("anesthetists"[MeSH Terms]) OR "anesthesiologists"[MeSH Terms]) OR anesthesiologists[Title]) OR anesthetists[Title] OR anaesthetists[Title] OR anaesthesiologists[Title])) AND ("Qualitative Research"[Mesh] OR "Interviews as Topic"[Mesh] OR "Focus Groups"[Mesh] OR "Grounded Theory"[Mesh] OR "Tape Recording"[Mesh] OR "Anthropology, Cultural"[Mesh:NoExp] OR thematic analys*[tiab] OR content analys*[tiab] OR focus group*[tiab] OR ethnograph*[tiab] OR participant observati*[tiab] OR phenomenolog*[tiab] OR qualitative stud*[tiab] OR qualitative analys*[tiab] OR qualitative research*[tiab] OR qualitative method*[tiab] OR multimethodology[tiab] OR multimethodolog*[tiab] OR mixed method*[tiab] OR tape

recording*[tiab] OR audio recording*[tiab] OR group discussion[tiab] OR "thematic analysis"[tiab] OR "content analysis"[tiab] OR grounded theory[tiab] OR tape recording*[tiab] OR audiotape*[tiab] OR ((semi-structured[tiab] OR semistructured[tiab] OR unstructured[tiab] OR informal[tiab] OR in-depth[tiab] OR indepth[tiab] OR face-to-face[tiab] OR guide*[tiab]) AND (interview*[tiab])) OR "key informant"[TIAB]) NOT (animals[mh] NOT humans[mh]) NOT dog*[tiab] NOT ("Dentistry"[Mesh] OR "Anesthesia, Dental"[Mesh] OR "Hypnosis, Dental"[Mesh] OR "dental anesthesia"[tiab] OR "dental care"[tiab] OR "oral care"[tiab] OR dentistry[tiab] OR "dental anesthesiology"[tiab] OR "dental anaesthesiology"[tiab] OR "dental anesthesia"[tiab] OR "dental anaesthesia"[tiab] OR "oral anesthesia"[tiab] OR "oral anaesthesia" [tiab] OR "tooth anaesthesia"[tiab] OR "tooth anesthesia"[tiab] OR endodontic*[tiab]) NOT ("Chronic Pain"[Mesh] OR "Chronic Pain"[tiab]) NOT "surveys and questionnaires"[Mesh] NOT "survey"[tiab] NOT "questionnaire"[tiab])

11.10.2018, 520 results

Vocabulary (controlled, free):

The Table below summarizes keywords and search terms in the two main concepts:

Keywords	MeSH terms	Free vocabulary
<u>Anesthesiology</u>	<u>Anesthesiology</u> , <u>"Perioperative Nursing"</u> , <u>Anesthesia</u> , <u>Anesthesiologists</u> , <u>Anesthetists</u>	<u>Anesthesiology</u> , <u>Anaesthesiology</u> , <u>Anesthesia</u> , <u>Anaesthesia</u> , <u>"Anesthetic practice"</u> , <u>Anesthesiologist</u> , <u>Anaesthesiologist</u> , <u>Anesthetist</u> , <u>Anaesthetist</u> ,
<u>Qualitative research</u>	<u>"Qualitative research"</u> , <u>"Interviews as topic"</u> , <u>"Focus Group"</u> , <u>"Grounded Theory"</u> , <u>"Tape recording"</u> , <u>"Anthropology, Cultural"</u> ,	<u>"Thematic analysis"</u> , <u>"Content analysis"</u> , <u>"Focus groups"</u> , <u>Ethnograph*</u> , <u>"Participant observation"</u> , <u>Phenomenology</u> , <u>"Qualitative studies"</u> , <u>"Qualitative research"</u> , <u>"Qualitative method"</u> , <u>Multimethodology</u> , <u>mixed-methods</u> , <u>"Tape or Audio – recording"</u> , <u>"Semi-structured or in-depth or informal or unstructured or guided - interview"</u> , <u>"Group discussion"</u> , <u>"Thematic or Content analysis"</u> , <u>"Key informant"</u>

Embase:

Specificities:

Emtree is the thesaurus of embase. The free vocabulary link to anesthesiology is limited to the title except for the word anesthesiology. Video-recording, tape-recording and audio-recording resulted in most irrelevant search results.

Equation:

('anesthesiology'/de OR 'anesthesia'/de OR 'anesthesia nursing'/exp OR 'anesthesiology':ab,ti OR 'anaesthesiology':ab,ti OR 'anesthesia':ti OR 'anaesthesia':ti OR 'perianesthesia':ti OR 'perianaesthesia':ti OR narcosis:ti OR neuroanaesthesia:ti OR neuroanesthesia:ti OR anesthesiologist:ti OR anaesthesiologist:ti OR anesthetist:ti OR anaesthetists:ti OR 'anesthesiologist'/de OR 'nurse anesthetist'/de) AND ('qualitative research'/de OR 'interview'/de OR 'group discussion'/exp OR 'focus group'/exp OR 'videorecording'/exp OR 'tape recording'/exp OR 'ethnography'/exp OR 'field work'/exp OR 'grounded theory'/exp OR 'thematic analysis'/exp OR 'participant observation'/de OR 'phenomenology'/exp OR 'mixed methods study'/exp OR 'grounded theory'/de OR 'thematic analysis'/de OR 'content analysis'/de OR 'interview':ab,ti OR 'ethnography':ab,ti OR 'thematic analysis':ab,ti OR 'content analysis':ab,ti OR 'focus group':ab,ti OR 'ethnography':ab,ti OR 'participant observation':ab,ti OR 'phenomenology':ab,ti OR 'qualitative study':ab,ti OR 'qualitative analysis':ab,ti OR 'qualitative research':ab,ti OR 'qualitative method':ab,ti OR multimethodology:ab,ti OR 'mixed method':ab,ti OR 'grounded theory':ab,ti OR 'key informant':ab,ti OR (((('semi-structured' OR 'semi structured' OR unstructured OR informal OR 'in depth' OR indepth OR 'face to face' OR guided) NEAR/1 interview):ab,ti)) AND [embase]/lim NOT [medline]/lim NOT ([animals]/lim NOT [humans]/lim) NOT ('dentistry'/exp OR 'dental anesthesia'/exp OR 'dental care':ab,ti OR 'oral care':ab,ti OR 'dentistry':ab,ti OR 'dental anesthesiology':ab,ti OR 'dental anaesthesiology':ab,ti OR 'dental anesthesia':ab,ti OR 'dental anaesthesia':ab,ti OR 'oral anesthesia':ab,ti OR 'oral anaesthesia':ab,ti OR 'tooth anaesthesia':ab,ti OR 'tooth anesthesia':ab,ti OR endodontic*:ab,ti) NOT ('chronic pain'/de OR 'chronic pain':ab,ti) NOT 'questionnaire'/de NOT 'health survey' NOT 'questionnaire':ab,ti NOT 'survey':ab,ti AND ([english]/lim OR [french]/lim) AND [2000-2018]/py

11.10.2018: 1370 results

Vocabulary (controlled, free)

The Table below summarizes keywords and search terms in the two main concepts:

Keywords	Emtree terms	Free vocabulary
<u>Anesthesiology</u>	<u>Anesthesiology</u> , <u>“Anesthesia Nursing”</u> , <u>Anesthesia</u> , <u>Anesthesiologists</u> , <u>Nurse anesthetists</u>	<u>Anesthesiology</u> , <u>Anaesthesiology</u> , <u>Anesthesia</u> , <u>Anaesthesia</u> , <u>Neuroanesthesia</u> , <u>Neuroanaesthesia</u> , <u>Perianesthesia</u> , <u>Perianaesthesia</u> , <u>Anesthesiologist</u> , <u>Anaesthesiologist</u> , <u>Anesthetist</u> , <u>Anaesthetist</u>
<u>Qualitative research</u>	<u>“Qualitative research”</u> , <u>“Interview”</u> , <u>“Focus Group”</u> , <u>“Grounded Theory”</u> , <u>“Tape recording”</u> , <u>“Videorecording”</u> , <u>“Group discussion”</u> , <u>“Phenomenology”</u> , <u>“Thematic analysis”</u> , <u>“Content analysis”</u> , <u>“ethnography”</u> , <u>“Field work”</u> , <u>“Participant observation”</u> , <u>“mixed method study”</u>	<u>“Thematic analysis”</u> , <u>“Content analysis”</u> , <u>“Focus group”</u> , <u>Ethnography</u> , <u>“Participant observation”</u> , <u>Phenomenology</u> , <u>“Qualitative study”</u> , <u>“Qualitative research”</u> , <u>“Qualitative method”</u> , <u>“Qualitative analysis”</u> , <u>Multimethodology</u> , <u>“mixed-methods”</u> , <u>“Grounded theory”</u> , <u>“Key informant”</u> , <u>“Semi-structured or in-depth or informal or unstructured or guided - interview”</u> , <u>“Group discussion”</u> , <u>“Thematic or Content analysis”</u> , <u>“Key informant”</u>

CINAHL:

Specificities:

As physicians, we are not used to search strategies designed for this database. We looked for help at the library of the nurse school in Geneva, and the librarian helped us design the equations and transfer data into our softwares. CINAHL is not made to do research with very complicated equations. The controlled vocabulary (CINAHL headings) is very exhaustive regarding qualitative research and the articles are well indexed. We included more controlled than free vocabulary in this database. The database makes a clear distinction between anaesth* (eng.) and anesth*(eng, US), so that it is mandatory to use both orthography.

Equation:

((MH "Anesthesiology") OR (MH "Anesthesiology Service") OR (MM "Anesthesia") OR (MM "Anesthesia and Analgesia") OR (MM "Anesthesia Induction") OR (MM "Anesthesia Nursing") OR (MM "Anesthesia Recovery") OR (MM "Anesthesiologists") OR (MM "Anesthesiology") OR (MM "Anesthesiology Service") OR (TI Anesthesiology) OR (TI Anesthesiologist) OR (TI Anesthesia) OR (TI Anaesthesia) OR (TI Anesthesiology) OR (TI Anaesthesiology) OR (AB Anaesthesiology) OR (AB anesthesiology)) AND ((MH "Qualitative Studies") OR (MM "Semi-Structured Interview") OR (MM "Qualitative Validity") OR (MM "Qualitative Studies") OR (MM "Transferability") OR (MM "Reflexivity (Research)") OR (MM "Phenomenology") OR (MM "Multimethod Studies") OR (MM "Videorecording") OR (MM "Audiorecording") OR (MM "Thematic Analysis") OR (MM "Grounded Theory") OR (MM "Focus Groups") OR (MM "Participant Observation") OR (MM "Nonparticipant Observation") OR (TI Qualitative study) OR (TI qualitative validity) OR (AB Qualitative study) OR (AB Grounded theory) OR (AB Semi-structured interview) OR (AB Focus group)) NOT ((MM "Chronic Pain") OR (MM "Chronic Pain (NANDA)") OR (MM "Chronic Pain (Saba CCC)")) NOT ((MM "Surveys") OR (MM "Survey Research") OR (MM "Structured Questionnaires") OR (MM "Open-Ended Questionnaires") OR (MM "Questionnaires") OR (TI Survey) OR (TI questionnaire))

241 results, 25.09.2018.

Vocabulary (controlled, free)

The Table below summarizes keywords and search terms in the two main concepts:

Keywords	CINAHL (sub)headings	Free vocabulary
<u>Anesthesiology</u>	<u>Anesthesiology</u> , <u>"Anesthesiology service"</u> , <u>Anesthesia, Anesthesia and</u> <u>Analgesia, Anesthesiologist</u> , <u>"Anesthesia nursing"</u> , <u>"Anesthesia induction"</u>	<u>Anesthesiology</u> , <u>Anaesthesiology</u> , <u>Anesthesia, Anaesthesia</u> , <u>Anesthesiologist</u> , <u>Anaesthesiologist</u>
<u>Qualitative research</u>	<u>"Qualitative studies"</u> , <u>"Semi-</u> <u>structured interview"</u> , <u>"Qualitative validity"</u> , <u>Reflexivity</u> , <u>Phenomenology</u> , <u>Audiorecording</u> , <u>videorecording</u> , <u>"Grounded</u> <u>Theory"</u> , <u>"Participant</u> <u>observation"</u> , <u>"Non-</u> <u>participant observation"</u> , <u>"Focus group"</u> , <u>"Transferability"</u> , <u>"Multimethod Studies"</u> , <u>"Thematic Analysis"</u> ,	<u>Qualitative studies</u> , <u>Qualitative Validity</u> , <u>Focus</u> <u>groups</u> , <u>Grounded Theory</u> , <u>Semi-structured Interview</u> .