

Online Resource 2

Search strategy

Article title	'Patient-reported outcome measures used for assessing breast sensation after mastectomy: Not fit for purpose'
Journal name	<i>The Patient—Patient-Centered Outcomes Research</i>
Author names	Hansje P. Smeele; Rachel C. H. Dijkstra; Merel L. Kimman; René R. W. J. van der Hulst; Stefania M. H. Tuinder
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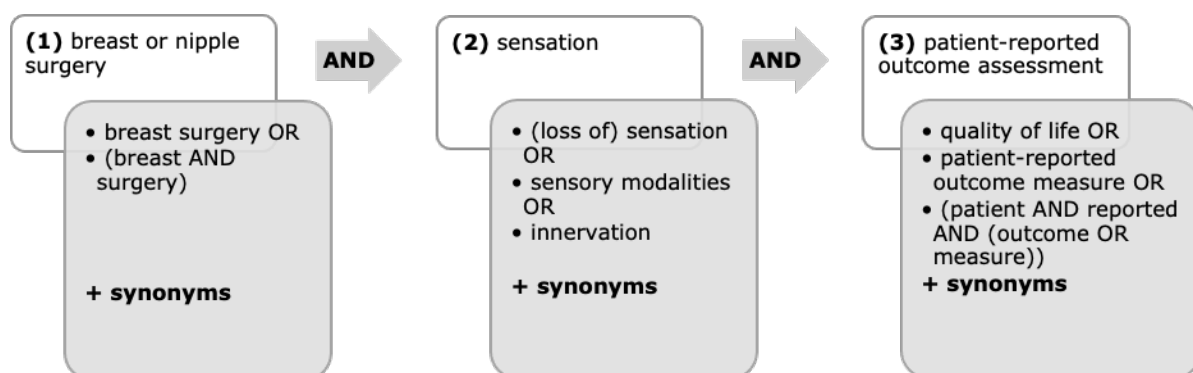


Figure 1. Three main components of the search strategy

Medline (PubMed)

Search conducted 30/04/2020 – 3583 articles retrieved

("breast/surgery"[Mesh] OR "mammary glands, human/surgery"[Mesh] OR "breast neoplasms/surgery"[Mesh] OR "carcinoma, ductal, breast/surgery"[Mesh] OR "carcinoma, lobular/surgery"[Mesh] OR "breast carcinoma in situ/surgery"[Mesh] OR "paget's disease, mammary/surgery"[Mesh] OR "phyllodes tumor/surgery"[Mesh] OR "mastectomy"[Mesh] OR mastectom*[tiab] OR postmastectom*[tiab] OR mamnectom*[tiab] OR lumpectom*[tiab] OR BCS[tiab] OR "nipples/surgery"[Mesh] OR "mammaplasty"[Mesh] OR "breast implants"[Mesh] OR mammaplast*[tiab] OR mammoplast*[tiab] OR mastopex*[tiab] OR (("breast"[Mesh] OR breast[tiab] OR breasts[tiab]) AND ("surgical procedures, operative"[Mesh:NoExp] OR "reconstructive surgical procedures"[Mesh:NoExp] OR "surgical flaps"[Mesh] OR "transplantation, autologous"[Mesh] OR "microsurgery"[Mesh:NoExp] OR "tissue expansion"[Mesh:NoExp] OR "adenocarcinoma/surgery"[Mesh] OR "fibroadenoma/surgery"[Mesh] OR microsurg*[tiab] OR ((nerve[tiab] OR nerves[tiab]) AND (coapt*[tiab] OR

anastom*[tiab] OR reconnect*[tiab])) OR neurotiz*[tiab] OR neurotis*[tiab] OR
surger*[tiab] OR surgic*[tiab] OR postsurg*[tiab] OR operation*[tiab] OR
operative[tiab] OR operable[tiab] OR postoperati*[tiab] OR oncoplast*[tiab] OR
reconstruct*[tiab] OR flap*[tiab] OR resect*[tiab] OR excis*[tiab] OR
quadrantectom*[tiab] OR segmentectom*[tiab] OR conserv*[tiab] OR sparing[tiab] OR
amputat*[tiab] OR ablati*[tiab] OR "surgery, plastic"[Mesh] OR plastic[tiab] OR
"esthetics"[Mesh:NoExp] OR esthetic*[tiab] OR aesthetic*[tiab] OR cosme*[tiab] OR
lipofill*[tiab] OR "hypertrophy/surgery"[Mesh] OR reduct*[tiab] OR implant*[tiab] OR
prothe*[tiab] OR capsulectom*[tiab] OR expan*[tiab] OR augment*[tiab] OR
enlarg*[tiab])) AND ("sensation"[Mesh:NoExp] OR "sensory thresholds"[Mesh:NoExp]
OR "sensation disorders"[Mesh:NoExp] OR "touch"[Mesh] "touch
perception"[Mesh:NoExp] OR "pressure"[Mesh:NoExp] OR "hypesthesia"[Mesh] OR
"thermosensing"[Mesh] "hot temperature"[Mesh:NoExp] OR "cold
temperature"[Mesh:NoExp] OR "breast/innervation"[Mesh] OR "mammary glands,
human/innervation"[Mesh] OR (sensor*[tiab] OR sensat*[tiab] OR sensib*[tiab] OR
sensitiv*[tiab] OR feeling[tiab] OR mechanosens*[tiab] OR thermosens*[tiab] OR
erogenous*[tiab] OR hyposens*[tiab] OR hypesthes*[tiab] OR hypoesthes*[tiab] OR
numb[tiab] OR numbness[tiab] OR dullness[tiab] OR asens*[tiab] OR insens*[tiab] OR
oversens*[tiab] OR touch[tiab] OR tactile[tiab] OR pressure[tiab])) AND ("quality of
life"[Mesh] OR "patient satisfaction"[Mesh:NoExp] OR "quality-adjusted life years"[Mesh]
OR "sexual health"[Mesh] OR "patient outcome assessment"[Mesh:NoExp] OR "patient
reported outcome measures"[Mesh] OR "self report"[Mesh] OR "surveys and
questionnaires"[Mesh:NoExp] OR "body image/psychology"[Mesh] OR (QoL[tiab] OR
QL[tiab] OR quality of life[tiab] OR life quality[tiab] OR HRQoL[tiab] OR HRQL[tiab] OR
well being[tiab] OR wellbeing[tiab] OR ((PRO[tiab]) AND (instrument*[tiab] OR
measure*[tiab])) OR PROM[tiab] OR PROMs[tiab] OR patient outcome*[tiab] OR
psychosexual*[tiab] OR ((patient[tiab] OR patients[tiab]) AND (satisf*[tiab] OR
dissatisf*[tiab])) OR ((patient[tiab] OR patients[tiab] OR self[tiab] OR subjectiv*[tiab])
AND (report*[tiab] OR rated[tiab] OR rating*[tiab] OR based[tiab] OR assess*[tiab] OR
centered[tiab] OR centred[tiab] OR generated[tiab] OR completed[tiab] OR
administered[tiab] OR important[tiab] OR relevant[tiab]) AND (outcome*[tiab] OR
instrument*[tiab] OR measure*[tiab] OR questionnaire*[tiab] OR survey*[tiab] OR
apprais*[tiab] OR profile*[tiab] OR scale*[tiab] OR score*[tiab] OR status[tiab] OR
tool*[tiab] OR metric*[tiab] OR endpoint*[tiab] OR evaluation*[tiab] OR
effectiveness[tiab] OR health data[tiab])))

Embase

Search conducted 30/04/2020 – 2509 articles retrieved

(exp breast surgery/ OR exp breast/su OR exp breast disease/su OR exp breast implant/
OR (exp surgery/ OR autotransplantation/ OR tissue expansion/ AND (exp breast/ OR
(breast OR breasts).ab,kw,ti.)) OR (mastectom* OR postmastectom* OR mammectom*
OR mammoplast* OR mammoplast* OR mastopex* OR lumpectom* OR BCS OR ((breast
OR breasts) ADJ3 (surger* OR surgic* OR postsurg* OR operation OR operative OR
operable OR postoperat* OR microsurg* OR esthetic* OR aesthetic* OR cosme* OR
plastic* OR oncoplast* OR reconstruct* OR flap* OR lipofill* OR reduct* OR implant* OR
prothe* OR capsulectom* OR expan* OR augment* OR enlarg* OR segmentectom* OR
resection* OR excision* OR quadrantectom* OR conserv* OR sparing OR amputat* OR
ablati* OR neurotiz* OR neurotis* OR ((nerve OR nerves) ADJ3 (coapt* OR anastom* OR
reconnect*))))).ab,kw,ti.) AND (exp sensation/ OR exp touch/ OR exp sensory
dysfunction/ OR exp temperature sense/ OR pressure sense/ OR nerve function/ OR
vibration/ OR perceptive threshold/ OR exp dysesthesia/ OR exp innervation/ OR
((sensory OR sensation OR sensib* OR sensitiv* OR feeling OR mechanosens* OR
thermosens* OR erogenous* OR hypesthes* OR hypoesthes* OR numb OR numbness OR
dullness OR asens* OR insens* OR oversens* OR touch OR tactile OR
pressure)).ab,kw,ti.) AND (exp "quality of life"/ OR exp satisfaction/ OR exp
questionnaire/ OR exp wellbeing/ OR sexual health/ OR patient-reported outcome/ OR
outcomes reseach/ OR treatment outcome/su OR self report/ OR health care survey/ OR
health survey/ OR body image/ OR outcome assessment/ OR (QoL OR QL OR quality of
life OR life quality OR HRQoL OR HRQL OR well being OR wellbeing OR ((PRO) ADJ3
(instrument* OR measure*)) OR PROM OR PROMs OR patient outcome* OR psychosexual
OR ((patient OR patients) ADJ3 (satisf* OR dissatisf*)) OR ((patient OR patients OR self
OR subjectiv*) ADJ3 (((report* OR rated OR rating OR based OR assess* OR centered
OR centred OR generated OR completed OR administered OR important OR relevant)
ADJ3 (outcome* OR instrument* OR measure* OR questionnaire* OR survey* OR
apprais* OR profile* OR scale* OR score* OR status OR tool* OR metric* OR endpoint*
OR evaluation* OR effectiveness OR health data))))).ab,kw,ti.)

Web of Science

Search conducted 30/04/2020 – 913 articles retrieved

TS=(((mastectom* OR postmastectom* OR mammectom* OR mammoplast* OR
mammoplast* OR mastopex* OR lumpectom* OR BCS OR ((breast OR breasts) NEAR/3
(surger* OR surgic* OR postsurg* OR post-surg* OR operation OR operative OR operable
OR postoperat* OR post-operat* OR microsurg* OR esthetic* OR aesthetic* OR cosme*

OR plastic* OR oncoplast* OR reconstruct* OR flap* OR lipofill* OR reduct* OR implant* OR prosth* OR capsulectom* OR expan* OR augment* OR enlarg* OR segmentectom* OR resection* OR excision* OR quadrantectom* OR conserv* OR sparing OR amputat* OR ablati* OR neurotiz* OR neurotis* OR ((nerve OR nerves) NEAR/3 (coapt* OR anastom* OR reconnect*)))) AND (sensory OR sensation OR sensib* OR sensitiv* OR feeling OR mechanosens* OR thermosens* OR erogenous* OR hypesthes* OR hypoesthes* OR numb OR numbness OR dullness OR asens* OR insens* OR oversens* OR touch OR tactile OR pressure) AND ("life quality" OR "life-quality" OR "quality of life" OR "quality-of-life" OR QoL OR QL OR HRQoL OR HRQL OR "well being" OR "well-being" OR wellbeing OR ((PRO) NEAR/3 (instrument* OR measure*)) OR PROM OR PROMs OR "patient outcome*" OR psychosexual OR ((patient OR patients) NEAR/3 (satisf* OR dissatisf*)) OR ((patient OR patients OR self OR subjectiv*) NEAR/3 (((report* OR rated OR rating OR based OR assess* OR centered OR centred OR generated OR completed OR administered OR important OR relevant) NEAR/3 (outcome* OR instrument* OR measure* OR questionnaire* OR survey* OR apprais* OR profile* OR scale* OR score* OR status OR tool* OR metric* OR endpoint* OR evaluation* OR effectiveness* OR "health data"))))))))

CINAHL (searched in "all text")

Search conducted 30/04/2020 – 1313 articles retrieved

(MH "breast/Su+" OR MH "breast diseases/Su+" OR MH "carcinoma, lobular/Su+" OR MH "breast reconstruction+" OR MH "breast implants+" OR MH "mastectomy+" OR (AB (breast OR breasts) AND (MH "surgical flaps+" OR MH "tissue expansion+" OR MH "microsurgery"))) OR AB (mastectom* OR postmastectom* OR mammectom* OR mammaplast* OR mammoplast* OR mastopex* OR lumpectom* OR BCS) OR ((breast OR breasts) N3 (surger* OR surgic* OR postsurg* OR operation* OR operative OR operable OR postoperati* OR microsurg* OR esthetic* OR aesthetic* OR cosme* OR plastic OR oncoplast* OR reconstruct* OR flap* OR lipofill* OR reduct* OR implant* OR prosth* OR capsulectom* OR expan* OR augment* OR enlarg* OR segmentectom* OR excis* OR resect* OR quadrantectom* OR conserv* OR sparing OR amputat* OR ablati* OR neurotiz* OR neurotis* OR ((nerve OR nerves) N3 (coapt* OR anastom* OR reconnect*)))) AND (MH "sensation+" OR MH "somatosensory disorders+" OR MH "skin/Ir+" OR MH "breast/Ir+" OR MH "pressure" OR MH "temperature+" OR MH "vibration+" OR AB (((sensory OR sensation OR sensib* OR sensitiv* OR feeling OR mechanosens* OR thermosens* OR erogenous OR hyposens* OR hypesthes* OR hypoesthes* OR numb OR numbness OR dullness OR asens* OR insens* OR oversensitiv* OR touch OR tactile OR pressure) N3 (skin OR cutaneous OR breast OR

breasts OR mamma OR mammae OR nipple* OR NAC OR mamilla*)))) AND (MH "quality of life+" OR MH "life table method+" OR MH "psychological well-being+" OR MH "outcomes research" OR MH "outcome assessment" OR MH "patient-reported outcomes" OR MH "patient satisfaction+" OR MH "treatment outcomes" OR MH "questionnaires+" OR MH "scales" OR MH "surveys" OR MH "survey research" OR MH "sexual health" OR AB (life quality OR quality of life OR QoL OR "QL" OR HRQOL OR HRQL OR well being OR wellbeing OR ((PRO) N3 (instrument* OR measure*)) OR PROM OR PROMs OR patient outcome* OR psychosexual OR ((patient OR patients) N3 (satisf* OR dissatisf*)) OR ((patient OR patients OR self OR subjectiv*) N3 (((reported OR rated OR rating OR based OR assess* OR centered OR centred OR generated OR completed OR administered OR important OR relevant) N3 (outcome* OR instrument* OR measure* OR questionnaire* OR survey* OR apprais* OR profile* OR scale* OR score OR status OR tool* OR metric* OR endpoint* OR evaluation* OR effectiveness OR health data))))))

Cochrane Library (searched in "all text")

Search conducted 30/04/2020 – 51 articles retrieved

(mh "breast [surgery]" OR mh "breast diseases [surgery]" OR mh "mastectomy" OR mh "mammoplasty" OR mh "breast implants" OR ((breast OR breasts)ti,ab,kw AND (mh "prophylactic surgical procedures" OR mh "organ sparing treatments" OR mh "*surgical flaps" OR mh "microsurgery" OR mh "tissue expansion")) OR (mastectom* OR postmastectom* OR mamnectom* OR mammoplast* OR mammoplast* OR mastopex* OR lumpectom* OR BCS) OR ((breast OR breasts) NEAR/3 (surger* OR surgic* OR postsurg* OR operation* OR operative OR operable OR postoperati* OR microsurg* OR esthetic* OR aesthetic* OR cosme* OR plastic OR oncoplast* OR reconstruct* OR flap* OR lipofill* OR reduct* OR implant* OR prosth* OR capsulectom* OR expan* OR augment* OR enlarg* OR segmentectom* OR excis* OR resect* OR quadrantectom* OR conserv* OR sparing OR amputat* OR ablati* OR neurotiz* OR neurotis* OR ((nerve OR nerves) NEAR/3 (coapt* OR anastom* OR reconnect*))))ti,ab,kw) AND (mh "sensation" OR mh "touch perception" OR mh "sensory thresholds" OR mh "pressure" OR mh "vibration" OR mh "hot temperature" OR mh "cold temperature" OR ((sensory OR sensation OR sensib* OR sensitiv* OR feeling OR mechanosens* OR thermosens* OR erogenous OR hyposens* OR hypesthes* OR hypoesthes* OR numb OR numbness OR dullness OR asens* OR insens* OR oversensitiv* OR touch OR tactile OR pressure)ti,ab,kw)) AND (mh "patient reported outcome measures" OR mh "quality of life" OR mh "*patient outcome assessment" OR mh "patient satisfaction" OR mh "treatment outcome" OR ("life quality" OR "quality of life" OR QoL OR QL OR HRQOL OR HRQL OR ((PRO) NEAR/3 (instrument* OR measure*)) OR PROM OR PROMs OR "well

being" OR wellbeing OR patient outcome* OR psychosexual OR ((patient OR patients) NEAR (satisf* OR dissatisf*)) OR ((patient OR patients OR self OR subjectiv*) NEAR/3 (((reported OR rated OR rating OR based OR assess* OR centered OR centred OR generated OR completed OR administered OR important OR relevant) NEAR/3 (outcome* OR instrument* OR measure* OR questionnaire* OR survey OR apprais* OR profile* OR scale* OR score* OR status OR tool* OR metric* OR endpoint* OR evaluation* OR effectiveness* OR health data))))))ti,ab,kw)

Google Scholar

Search conducted 30/04/2020 – 17.500 articles retrieved (only the first 200 were screened for eligibility)

"breast surgery"| "breast reconstruction"| "breast reduction"| "breast-conserving surgery"| mastectomy| mammoplasty| "breast-conserving surgery"| "breast augmentation" sensation| sensory| sensitivity| sensibility| numb| numbness| touch
"quality of life"| "patient-reported outcomes"| "patient satisfaction"| questionnaire