



Rapid Review

Erleben nasaler versus subkutaner Medikamentenverabreichung im Setting Palliativ Care

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Bitte den Rapid Review wie folgt zitieren:

Fangmeyer, M., Neubauer, C., Klerings, I., Erleben nasaler versus subkutaner Medikamentenverabreichung im Setting Palliativ Care: Rapid Review. Evidenzbasiertes Informationszentrum für Pflegende; April 2024.

DOI: <https://doi.org/10.48341/mda9-ey57>

Verfügbar unter: https://ebninfo.at/nasale_vs_subkutane_Medikamentenverabreichung_Palliativ_Care

Anfrage

Wie erleben erwachsene Patient*innen in der terminalen/letzten Lebensphase die nasale Verabreichung von (analgetischen) Medikamenten im Vergleich zur subkutanen Applikation im Setting Palliativ Care?

Ergebnisse

Studien

Unsere systematische Literaturrecherche in vier Datenbanken ergab 1 157 Treffer. Nach Entfernung der Duplikate sowie Durchsicht der Überschriften und der Zusammenfassungen aller gefundenen Publikationen überprüften wir zwölf Volltexte auf ihre Eignung für die Beantwortung der Frage. Keine dieser Publikationen entsprach den zuvor definierten Auswahlkriterien.

Resultate

Aufgrund fehlender Studien kann nicht berichtet werden, wie erwachsene Patient*innen in der terminalen Lebensphase im Setting Palliativ Care die nasale im Vergleich zur subkutanen Verabreichung (analgetischer) Medikamente erleben.

Fazit

Mangels Studien kann keine Aussage über das Erleben von erwachsenen Patient*innen in der terminalen Lebensphase im Setting Palliativ Care bezüglich der nasalen versus subkutanen Gabe (analgetischer) Medikamente getroffen werden.

Einleitung

Die Verabreichung von Medikamenten bei terminal erkrankten Patient*innen in der Palliativpflege gestaltet sich häufig als herausfordernd, da die Einnahme oft mit Schwierigkeiten verbunden ist und parenterale Alternativen nicht immer verfügbar sind bzw. andere Möglichkeiten nicht zwingend weniger belastend sind (1). Zu den wesentlichsten Zielen in der terminalen Lebensphase zählt die Kontrolle von Symptomen wie z. B. körperlicher Schmerzen (1). Aktuelle Leitlinien befürworten die Opioidverabreichung bei mäßigen bis starken Schmerzen, sofern keine Kontraindikation vorliegt (2, 3). Analgetika wie Opioide können oral, rektal, intravenös, intramuskulär, subkutan, intra- oder periartikulär, intraspinal, pulmonal, transdermal oder transmukosal z. B. über die Nase verabreicht werden (4). Je nach Verabreichungsweg unterscheiden sich die zeitlichen Wirkungseintritte der Opioide und haben Vor- und Nachteile (5), wie z.B. Schmerz durch die subkutane Injektion. In einer kleinen Studie, in der die intranasale versus orale Verabreichung von Fentanyl untersucht wurde, berichteten zwei von zwölf Patient*innen über Juckreiz oder Beschwerden in der Nase nach der ersten Anwendung, die jedoch nach wiederholter Anwendung nicht mehr auftraten und es wurden keine systemischen Nebenwirkungen beobachtet (6). Eine weitere Studie aus Europa im Setting Palliativ Care untersuchte die hypothetischen Präferenzen von 320 Patient*innen hinsichtlich unterschiedlicher Applikationsarten analgetischer Medikamente (7). Dabei konnten sich die Betroffenen eine subkutane Verabreichung (60 Prozent) eher vorstellen als eine intranasale (42 Prozent). Die häufigsten Gründe für die Ablehnung intranasaler Medikamentenverabreichung waren: die grundsätzliche Ablehnung solcher Produkte, nasale Probleme sowie Bedenken hinsichtlich der Wirksamkeit und möglicher Nebenwirkungen. In einer Subgruppe dieser Studie mit 80 Teilnehmer*innen aus Deutschland wurde eine tatsächliche oder hypothetische intranasale Verabreichung überwiegend als unangenehm empfunden und daher abgelehnt (8). Demgegenüber stehen Studien die eine hohe Benutzerfreundlichkeit (69–97 Prozent) und Annehmlichkeit (70–98 Prozent) der Verabreichung von nasalem Fentanyl beschreiben (9).

Die zugrundeliegende Frage für diesen Rapid Review lautet: *Wie erleben erwachsene Patient*innen in der terminalen/letzten Lebensphase die nasale Verabreichung von (analgetischen) Medikamenten im Vergleich zur subkutanen Applikation im Setting Palliativ Care?*

Methoden

Um relevante Publikationen zu finden, führte eine Informationsspezialistin eine systematische Literaturrecherche in nachstehenden Datenbanken und Suchoberflächen durch:

- CINAHL EBSCO (Cumulative Index to Nursing and Allied Health Literature)
- Ovid MEDLINE®
- JBI EBP Database (Joanna Briggs Institute Evidence-based Practice)
- Cochrane Library: CDSR (Cochrane Database of Systematic Reviews) & CENTRAL (Cochrane Central Register of Controlled Trials)
- Embase (Elsevier)
- Scopus (Elsevier)

Als Suchbegriffe wurden – wo es möglich ist – sowohl Schlagwörter (z. B. Medical Subject Headings) als auch Freitext-Begriffe verwendet. Zudem wurden auch die Referenzlisten der möglichen relevanten Publikationen gesichtet. Der vorliegende Rapid Review berücksichtigt alle Studien zur gegenständlichen Frage, die durch die Literatursuche bis zum 9. April 2024 zu identifizieren waren. Die Ergebnisse der Recherche sind in Abbildung 1 grafisch dargestellt. Das detaillierte methodische Vorgehen ist im Methodenhandbuch auf unserer Website unter https://ebninfo.at/wp-content/uploads/IZP_Methoden_Manual.pdf beschrieben.

Ein- und Ausschlusskriterien

Tabelle 1: Ein- und Ausschlusskriterien

	Einschlusskriterium	Ausschlusskriterium
Setting	Palliative care (Krankenhaus)	<ul style="list-style-type: none"> • extramurales Setting • Intensivbettenstationen • Hospiz
Perspektive	Patient*innen ≥ 18 Jahre	<ul style="list-style-type: none"> • Patient*innen ≤ 17 Jahre • andere als Patient*innen
Interessierende Intervention	nasale Medikamentenverabreichung	andere Art der Medikamentenverabreichung z. B.: bukkal, intravenös, rektal, vaginal, oral oder transdermal
Vergleich	subkutane Medikamentenverabreichung	andere Art der Medikamentenverabreichung z. B.: bukkal, intravenös, rektal, vaginal, oral oder transdermal
Evaluation	Erfahrungen, Wahrnehmungen, Bedürfnisse, Vorlieben, Meinungen, Einstellungen, Wünsche, Gefühle, Komfort und Werte	<ul style="list-style-type: none"> • Wirksamkeit • Nebenwirkungen
Studiendesign	Qualitative Evidenzsynthesen, qualitative Studien, Mixed-Methods-Studien	systematische Übersichtsarbeiten, quantitative Studien, graue Literatur
Sprache	Deutsch und Englisch	andere Sprachen
Publikationszeitraum	keine Einschränkungen	---

Resultate

Studien

Eine umfassende systematische Literaturrecherche in sechs Datenbanken bzw. Suchoberflächen ergab 1 157 Treffer. Nach Entfernung aller Duplikate und Durchsicht von 740 Publikationen auf Abstract- und zwölf Publikationen auf Volltextbasis konnte keine Studien zur Beantwortung der Fragestellung eingeschlossen werden.

Erleben nasaler versus subkutaner Verabreichung von Medikamenten

Keine der gescreenten Studien entsprach den vordefinierten Auswahlkriterien. Die Ausgangsfrage – wie erwachsene Patient*innen in der terminalen/letzten Lebensphase die nasale Verabreichung von (analgetischen) Medikamenten im Vergleich zur subkutanen Applikation im Setting Palliativ Care erleben – lässt sich aufgrund fehlender Evidenz nicht beantworten. Über das Erleben bei der interessierenden Population kann daher keine Aussage getroffen werden.

Anhang

Abkürzungen

Tabelle 2: Abkürzungen

MeSH	Medical Subject Headings System
n	Stichprobe/ Anzahl

Suchstrategien

Ovid MEDLINE® ALL, 1946 to April 08, 2024

	#	Suchen	Ergebnisse
A. Palliative care	1	Palliative Care/ or "Hospice and Palliative Care Nursing"/ or Palliative Medicine/	65598
	2	terminal care/ or hospice care/	38776
	3	advance care planning/ or advance directives/	10370
	4	Palliat*.ti,ab,kf.	98970
	5	(terminal* adj3 (care or nursing or patient? or inpatient?)).ti,ab,kf.	12794
	6	("end of life" or "last days of life").ti,ab,kf.	33301
	7	short life expectancy.ti,ab,kf.	664
	8	hospice.ti,ab,kf.	15316
	9	advance care planning.ti,ab,kf.	5297
	10	advance directive?.ti,ab,kf.	4744
	11	or/1-10	169865
B. drug administration routes	12	Drug Administration Routes/	6007
	13	Administration, Intranasal/	16584
	14	Injections, Subcutaneous/	34329
	15	Nasal Sprays/	945
	16	(route? adj6 (administration or delivery)).ti,ab,kf.	31538
	17	((nasal* or intranasal* or transmucosal or Mucosal) adj6 (administ* or spray? or deliver* or route?)).ti,ab,kf.	24938
	18	(subcutan* adj6 (administ* or spray? or deliver* or route?)).ti,ab,kf.	26296
	19	((opioid? or morphine? or Fentanyl or Hydromorphone or codeine? or Oxycodone) adj6 (administration or spray? or delivery or route? or nasal* or intranasal* or transmucosal or Mucosal or subcutan*)).ti,ab,kf.	16681
	20	((pain or analg*) adj6 (medication? or drug?) adj6 (administration or spray? or delivery or route? or nasal* or intranasal* or transmucosal or Mucosal or subcutan*)).ti,ab,kf.	1951
	21	or/12-20	133040
	22	11 and 21	1375

	23	exp Analgesics, Opioid/ad [Administration & Dosage]	34482
	24	exp Drug Administration Routes/	656317
	25	(administration or spray? or delivery or route? or nasal* or intranasal* or transmucosal or Mucosal or subcutan*).ti,ab,kf.	2167851
	26	23 and (24 or 25)	18686
	27	21 or 26	145269
A+B	28	11 and 27	1783
C. perspectives	29	((("semi-structured" or semistructured or unstructured or informal or "in-depth" or indepth or "face-to-face" or structured or guide*) adj3 (discussion* or questionnaire*)) or focus group* or qualitative or ethnograph* or fieldwork or "field work" or "key informant" or interview* or mixed method*).ti,ab,kf. or interviews as topic/ or focus groups/ or narration/ or qualitative research/	792766
	30	patient satisfaction/ or patient preference/	100699
	31	(experience? or perception? or satisf* or view? or perceive? or needs or choice? or preference? or preferred or opinion? or attitude? or desire? or feelings or comfort or value? or acceptability or acceptance).ti,kf.	1079193
	32	((patient? or inpatient?) adj3 (experience? or perception? or view* or satisf* or perceive? or needs or choice? or prefer* or opinion? or attitude? or desire? or feel* or comfort* or value? or accept*).ti,ab,kf.	467485
	33	(experience? or perception? or view? or satisf* or perceive? or needs or choice? or prefer* or opinion? or attitude? or desire? or feel* or comfort* or value?).ab. /freq=2	2130249
	34	or/29-33	3447745
A+B+C	35	28 and 34	467
humans	36	limit 35 to "humans only (removes records about animals)"	466
adults	37	exp age groups/ not exp adult/	2193572
	38	36 not 37	441
language	39	(english or german).lg.	33155309
Total w/o filters	40	38 and 39	409

JBI EBP Database (Ovid), Current to March 27, 2024

#	Suchen	Ergebnisse
1	Palliat*.af.	511
2	((terminal* adj3 (care or nursing or patient? or inpatient?)) or ("end of life" or "last days of life")).af.	279
3	1 or 2	584
4	((nasal* or intranasal* or transmucosal or Mucosal) adj6 (administ* or spray? or deliver* or route?)).af.	51
5	(subcutan* adj6 (administ* or spray? or deliver* or route?)).af.	66

6	((opioid? or morphine? or Fentanyl or Hydromorphone or codeine? or Oxycodone) adj6 (administration or spray? or delivery or route? or nasal* or intranasal* or transmucosal or Mucosal or subcutan*)).af.	75
7	or/4-6	177
8	3 and 7	27

CINAHL (Ebsco), 09.04.2024

#	Query	Limiters/Expanders	Results
S1	(MH "Palliative Medicine") OR (MH "Palliative Care") OR (MH "Palliative Care Nursing") OR (MH "Hospice Nursing") OR (MH "Hospice Care") OR (MH "Terminal Care") OR (MH "Terminally Ill Patients") OR (MH "Advance Care Planning") OR (MH "Advance Directives")	Search modes - Find all my search terms	78,681
S2	Palliat*	Search modes - Find all my search terms	61,905
S3	(terminal* N3 (care OR nursing OR patient# OR inpatient#))	Search modes - Find all my search terms	32,437
S4	"end of life" OR "last days of life"	Search modes - Find all my search terms	24,301
S5	"short life expectancy"	Search modes - Find all my search terms	167
S6	hospice	Search modes - Find all my search terms	22,712
S7	"advance care planning" OR "advance directive#"	Search modes - Find all my search terms	11,785
S8	S1 OR S2 OR S3 OR S4 OR S5 OR S6 OR S7	Search modes - Find	102,496

		all my search terms	
S9	(MH "Drug Administration Routes") OR (MH "Administration, Intranasal") OR (MH "Injections, Subcutaneous+")	Search modes - Find all my search terms	9,718
S10	(route# N6 (administration OR delivery))	Search modes - Find all my search terms	5,865
S11	((nasal* OR intranasal* OR transmucosal OR Mucosal) N6 (administ* OR spray# OR deliver* OR route#))	Search modes - Find all my search terms	5,213
S12	(subcutan* N6 (administ* OR spray# OR deliver* OR route#))	Search modes - Find all my search terms	3,167
S13	((opioid# OR morphine# OR Fentanyl OR Hydromorphone OR codeine# OR Oxycodone) N6 (administration OR spray# OR delivery OR route# OR nasal* OR intranasal* OR transmucosal OR Mucosal OR subcutan*))	Search modes - Find all my search terms	13,862
S14	((pain OR analg*) N6 (medication# OR drug#) N6 (administration OR spray# OR delivery OR route# OR nasal* OR intranasal* OR transmucosal OR Mucosal OR subcutan*))	Search modes - Find all my search terms	793
S15	S9 OR S10 OR S11 OR S12 OR S13 OR S14	Search modes - Find all my search terms	31,134
S16	S8 AND S15	Search modes - Find all my search terms	1,354
S17	(MH "Interviews+")	Search modes - Find all my search terms	264,939
S18	(MH "Focus Groups")	Search modes - Find all my search terms	52,324

S19	(MH "Narratives+")	Search modes - Find all my search terms	21,408
S20	(MH "Qualitative Studies+")	Search modes - Find all my search terms	192,878
S21	TI (("semi-structured" OR semistructured OR unstructured OR informal OR "in-depth" OR indepth OR "face-to-face" OR structured OR guide*) N3 (interview* OR discussion* OR questionnaire*)) OR AB (("semi-structured" OR semistructured OR unstructured OR informal OR "in-depth" OR indepth OR "face-to-face" OR structured OR guide*) N3 (interview* OR discussion* OR questionnaire*))	Search modes - Find all my search terms	119,441
S22	TI (focus W0 group* OR qualitative OR ethnograph* OR fieldwork OR "field work" OR "key informant") OR AB (focus W0 group* OR qualitative OR ethnograph* OR fieldwork OR "field work" OR "key informant")	Search modes - Find all my search terms	215,504
S23	(MH "Patient Preference") OR (MH "Patient Satisfaction")	Search modes - Find all my search terms	65,680
S24	TI ((experience# OR perception# OR satisf* OR view# OR perceive# OR needs OR choice# OR preference# OR preferred OR opinion# OR attitude# OR desire# OR feelings OR comfort OR value# OR acceptability OR acceptance)) OR SU ((experience# OR perception# OR satisf* OR view# OR perceive# OR needs OR choice# OR preference# OR preferred OR opinion# OR attitude# OR desire# OR feelings OR comfort OR value# OR acceptability OR acceptance))	Search modes - Find all my search terms	1,121,732
S25	((patient# OR inpatient#) N3 (experience# OR perception# OR view* OR satisf* OR perceive# OR needs OR choice# OR prefer* OR opinion# OR attitude# OR desire# OR feel* OR comfort* OR value# OR accept*))	Search modes - Find all my search terms	285,856
S26	S17 OR S18 OR S19 OR S20 OR S21 OR S22 OR S23 OR S24 OR S25	Search modes - Find all my search terms	1,465,670
S27	S16 AND S26	Search modes - Find all my search terms	357
S28	(MH animals+ OR MH ("animal studies") OR TI ("animal model*")) NOT MH (human)	Search modes - Find	216,186

		all my search terms	
S29	S27 NOT S28	Search modes - Find all my search terms	356
S30	(MH "Named Groups by Age+") NOT (MH "Adult+")	Search modes - Find all my search terms	695,046
S31	S29 NOT S30	Limiters - Language: English, German	337

Embase.com (Elsevier), 09.04.2024

No.	Query	Results
#1	'palliative nursing'/exp OR 'palliative therapy'/de OR 'terminal care'/de OR 'advance care planning'/de OR 'hospice care'/de OR 'terminally ill patient'/exp	165459
#2	palliat*:ti,ab,kw	160288
#3	(terminal* NEAR/3 (care OR nursing OR patient\$ OR inpatient\$)):ti,ab,kw	17620
#4	'end of life':ti,ab,kw OR 'last days of life':ti,ab,kw	49500
#5	'short life expectancy':ti,ab,kw	1046
#6	hospice:ti,ab,kw	27986
#7	'advance care planning':ti,ab,kw	8724
#8	'advance directive\$:ti,ab,kw	6550
#9	#1 OR #2 OR #3 OR #4 OR #5 OR #6 OR #7 OR #8	265697
#10	'intranasal drug administration'/de OR 'mucosal drug administration'/de	15553
#11	'analgesic agent'/exp/dd_na	2347
#12	'nose spray'/exp	4729
#13	(route\$ NEAR/6 (administration OR delivery)):ti,ab,kw	43918
#14	((nasal* OR intranasal* OR transmucosal OR mucosal) NEAR/6 (administ* OR spray\$ OR deliver* OR route\$)):ti,ab,kw	33795
#15	(subcutan* NEAR/6 (administ* OR spray\$ OR deliver* OR route\$)):ti,ab,kw	37703
#16	((opioid\$ OR morphine\$ OR fentanyl OR hydromorphone OR codeine\$ OR oxycodone) NEAR/6 (administration OR spray\$ OR delivery OR route\$ OR nasal* OR intranasal* OR transmucosal OR mucosal OR subcutan*)):ti,ab,kw	22005
#17	((pain OR analg*) NEAR/6 (medication\$ OR drug\$) NEAR/6 (administration OR spray\$ OR delivery OR route\$ OR nasal* OR intranasal* OR transmucosal OR mucosal OR subcutan*)):ti,ab,kw	3017
#18	#10 OR #11 OR #12 OR #13 OR #14 OR #15 OR #16 OR #17	141520
#19	#9 AND #18	2086

#20	'qualitative research'/exp OR 'interview'/exp OR 'patient preference'/de OR 'patient attitude'/de OR 'patient satisfaction'/de	713110
#21	((('semi structured' OR semistructured OR unstructured OR informal OR 'in depth' OR indepth OR 'face to face' OR structured OR guide*) NEAR/3 (discussion* OR questionnaire*)):ti,ab,kw) OR 'focus group*':ti,ab,kw OR qualitative:ti,ab,kw OR ethnograph*:ti,ab,kw OR fieldwork:ti,ab,kw OR 'field work':ti,ab,kw OR 'key informant':ti,ab,kw OR interview*:ti,ab,kw OR 'mixed method*':ti,ab,kw	959921
#22	experience\$:ti,kw OR perception\$:ti,kw OR satisf\$:ti,kw OR view\$:ti,kw OR perceive\$:ti,kw OR needs:ti,kw OR choice\$:ti,kw OR preference\$:ti,kw OR preferred:ti,kw OR opinion\$:ti,kw OR attitude\$:ti,kw OR desire\$:ti,kw OR feelings:ti,kw OR comfort:ti,kw OR value\$:ti,kw OR acceptability:ti,kw OR acceptance:ti,kw	1399343
#23	((patient\$ OR inpatient\$) NEAR/3 (experience\$ OR perception\$ OR view* OR satisf* OR perceive\$ OR needs OR choice\$ OR prefer* OR opinion\$ OR attitude\$ OR desire\$ OR feel* OR comfort* OR value\$ OR accept*)):ti,ab,kw	735550
#24	#20 OR #21 OR #22 OR #23	2915781
#25	#19 AND #24	490
#26	('animal'/exp OR 'animal model'/exp OR 'animal experiment'/de) NOT 'human'/exp	6307292
#27	#25 NOT #26	484
#28	'groups by age'/exp NOT 'adult'/exp	3287910
#29	#27 NOT #28	460
#30	#29 AND ([english]/lim OR [german]/lim)	434
#31	#30 NOT 'conference abstract'/it	277

Scopus (Elsevier), 09.04.2024

No.	Query	Results
1	TITLE-ABS-KEY (palliat* OR (terminal* W/3 (care OR nursing OR patient* OR inpatient*)) OR "end of life" OR "last days of life" OR "short life expectancy" OR hospice OR "advance care planning" OR "advance directive*")	257,055 results
2	TITLE-ABS-KEY ((route* W/6 (administration OR delivery)) OR ((nasal* OR intranasal* OR transmucosal OR mucosal OR subcutan*) W/6 (administ* OR spray* OR deliver* OR route*)) OR ((opioid* OR morphine* OR fentanyl OR hydromorphone OR codeine* OR oxycodone) W/6 (administration OR spray* OR delivery OR route* OR nasal* OR intranasal* OR transmucosal OR mucosal OR subcutan*)) OR ((pain OR analg*) W/6 (medication* OR drug*) W/6 (administration OR spray* OR delivery OR route* OR nasal* OR intranasal* OR transmucosal OR mucosal OR subcutan*)))	234,614 results
3	(TITLE-ABS-KEY ((route* W/6 (administration OR delivery)) OR ((nasal* OR intranasal* OR transmucosal OR mucosal OR subcutan*) W/6 (administ* OR spray* OR deliver* OR route*)) OR ((opioid* OR morphine* OR fentanyl OR hydromorphone OR codeine* OR oxycodone) W/6 (administration OR spray* OR delivery OR route* OR nasal* OR intranasal* OR transmucosal OR mucosal OR	2,435 results

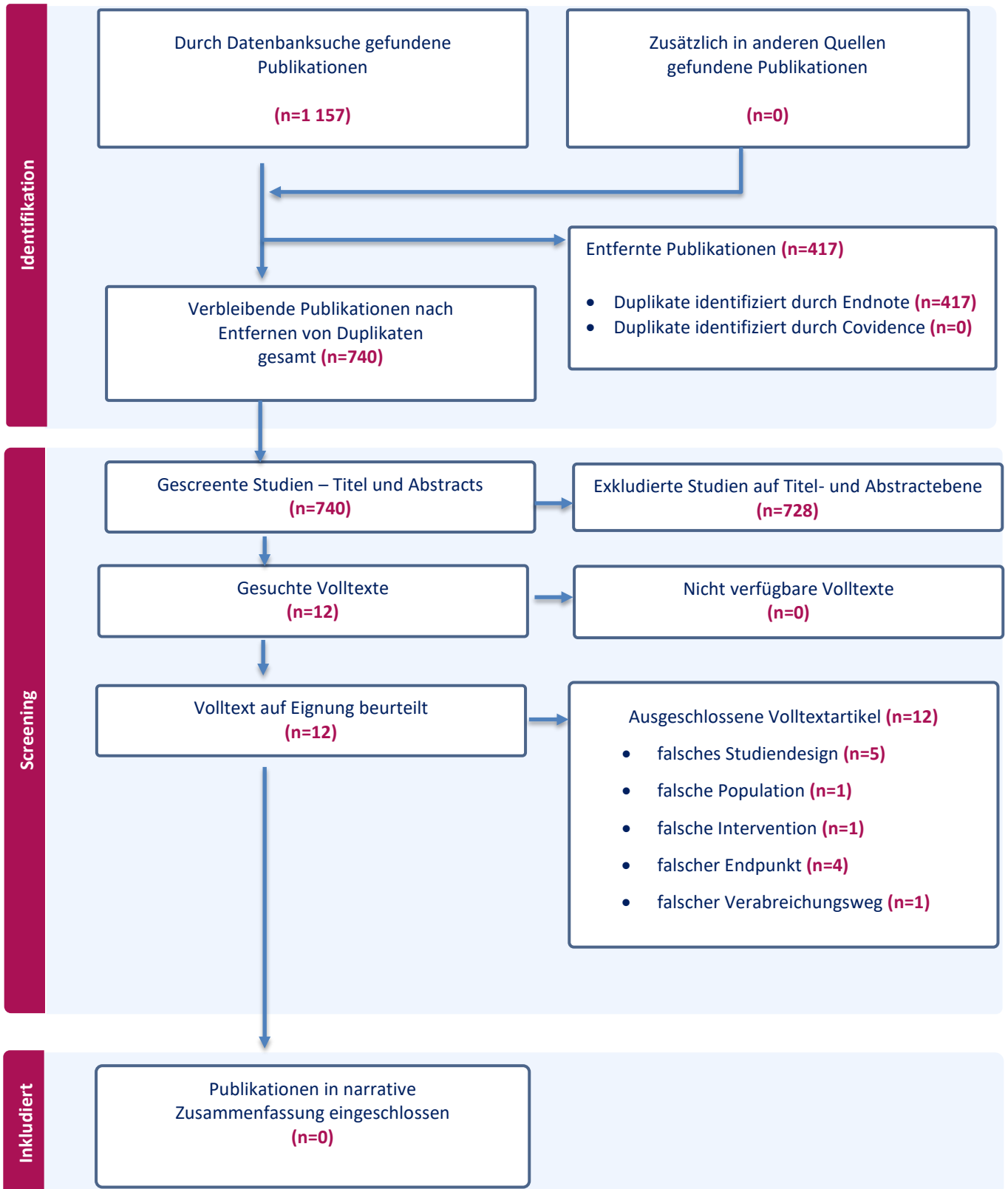
	subcutan*)) OR ((pain OR analg*) W/6 (medication* OR drug*) W/6 (administration OR spray* OR delivery OR route* OR nasal* OR intranasal* OR transmucosal OR mucosal OR subcutan*))) AND (TITLE-ABS-KEY (palliat* OR (terminal* W/3 (care OR nursing OR patient* OR inpatient*)) OR "end of life" OR "last days of life" OR "short life expectancy" OR hospice OR "advance care planning" OR "advance directive*"))	
4	TITLE-ABS-KEY (qualitative* OR ethno* OR ethnog* OR ethnonurs* OR emic OR etic OR leininger OR noblit OR "field note*" OR "field record*" OR fieldnote* OR "field stud*" OR "participant observ*" OR "participant observation*" OR hermeneutic* OR phenomenolog* OR "lived experience*" OR heidegger* OR husserl* OR "merleau-pont*" OR colaizzi OR giorgi OR ricoeur OR spiegelberg OR "van kaam" OR "van manen" OR "grounded theory" OR "constant compar*" OR "theoretical sampl*" OR (glaser AND strauss) OR "content analy*" OR "thematic analy*" OR narrative* OR "unstructured categor*" OR "structured categor*" OR "unstructured interview*" OR "semi-structured interview*" OR "maximum variation*" OR snowball OR audio* OR tape* OR video* OR metasyntes* OR "metasyntes*" OR metasummar* OR "meta-summar*" OR metastud* OR "meta-stud*" OR "meta-ethnograph*" OR metaethnog* OR "meta-narrative*" OR metanarrat* OR " meta-interpretation*" OR metainterpret* OR "qualitative meta-analy*" OR "qualitative metaanaly*" OR "qualitative metanaly*" OR "purposive sampl*" OR "action research" OR "focus group*" OR photovoice OR "photo voice" OR "mixed method*") OR TITLE (experience* OR perception* OR satisf* OR view* OR perceive* OR needs OR choice* OR preference* OR preferred OR opinion* OR attitude* OR desire* OR feelings OR comfort OR value* OR acceptability OR acceptance) OR TITLE-ABS-KEY ((patient* OR inpatient*) W/3 (experience* OR perception* OR view* OR satisf* OR perceive* OR needs OR choice* OR prefer* OR opinion* OR attitude* OR desire* OR feel* OR comfort* OR value* OR accept*))	6,290,047 results
5	(TITLE-ABS-KEY (qualitative* OR ethno* OR ethnog* OR ethnonurs* OR emic OR etic OR leininger OR noblit OR "field note*" OR "field record*" OR fieldnote* OR "field stud*" OR "participant observ*" OR "participant observation*" OR hermeneutic* OR phenomenolog* OR "lived experience*" OR heidegger* OR husserl* OR "merleau-pont*" OR colaizzi OR giorgi OR ricoeur OR spiegelberg OR "van kaam" OR "van manen" OR "grounded theory" OR "constant compar*" OR "theoretical sampl*" OR (glaser AND strauss) OR "content analy*" OR "thematic analy*" OR narrative* OR "unstructured categor*" OR "structured categor*" OR "unstructured interview*" OR "semi-structured interview*" OR "maximum variation*" OR snowball OR audio* OR tape* OR video* OR metasyntes* OR "metasyntes*" OR metasummar* OR "meta-summar*" OR metastud* OR "meta-stud*" OR "meta-ethnograph*" OR metaethnog* OR "meta-narrative*" OR metanarrat* OR " meta-interpretation*" OR metainterpret* OR "qualitative meta-analy*" OR "qualitative metaanaly*" OR "qualitative metanaly*" OR "purposive sampl*" OR "action research" OR "focus group*" OR photovoice OR "photo voice" OR "mixed	526 results

	<p>method*") OR TITLE (experience* OR perception* OR satisf* OR view* OR perceive* OR needs OR choice* OR preference* OR preferred OR opinion* OR attitude* OR desire* OR feelings OR comfort OR value* OR acceptability OR acceptance) OR TITLE-ABS-KEY ((patient* OR inpatient*) W/3 (experience* OR perception* OR view* OR satisf* OR perceive* OR needs OR choice* OR prefer* OR opinion* OR attitude* OR desire* OR feel* OR comfort* OR value* OR accept*))) AND ((TITLE-ABS-KEY ((route* W/6 (administration OR delivery)) OR ((nasal* OR intranasal* OR transmucosal OR mucosal OR subcutan*) W/6 (administ* OR spray* OR deliver* OR route*)) OR ((opioid* OR morphine* OR fentanyl OR hydromorphone OR codeine* OR oxycodone) W/6 (administration OR spray* OR delivery OR route* OR nasal* OR intranasal* OR transmucosal OR mucosal OR subcutan*)) OR ((pain OR analg*) W/6 (medication* OR drug*) W/6 (administration OR spray* OR delivery OR route* OR nasal* OR intranasal* OR transmucosal OR mucosal OR subcutan*)))) AND (TITLE-ABS-KEY (palliat* OR (terminal* W/3 (care OR nursing OR patient* OR inpatient*)) OR "end of life" OR "last days of life" OR "short life expectancy" OR hospice OR "advance care planning" OR "advance directive*")))</p>	
6	<p>(TITLE-ABS-KEY (qualitative* OR ethnol* OR ethnog* OR ethnonurs* OR emic OR etic OR leininger OR noblit OR "field note*" OR "field record*" OR fieldnote* OR "field stud*" OR "participant observ*" OR "participant observation*" OR hermeneutic* OR phenomenolog* OR "lived experience*" OR heidegger* OR husserl* OR "merleau-pont*" OR colaizzi OR giorgi OR ricoeur OR spiegelberg OR "van kaam" OR "van manen" OR "grounded theory" OR "constant compar*" OR "theoretical sampl*" OR (glaser AND strauss) OR "content analy*" OR "thematic analy*" OR narrative* OR "unstructured categor*" OR "structured categor*" OR "unstructured interview*" OR "semi-structured interview*" OR "maximum variation*" OR snowball OR audio* OR tape* OR video* OR metasyntes* OR "meta-syntes*" OR metasummar* OR "meta-summar*" OR metastud* OR "meta-stud*" OR "meta-ethnograph*" OR metaethnog* OR "meta-narrative*" OR metanarrat* OR " meta-interpretation*" OR metainterpret* OR "qualitative meta-analy*" OR "qualitative metaanaly*" OR "purposive sampl*" OR "action research" OR "focus group*" OR photovoice OR "photo voice" OR "mixed method*") OR TITLE (experience* OR perception* OR satisf* OR view* OR perceive* OR needs OR choice* OR preference* OR preferred OR opinion* OR attitude* OR desire* OR feelings OR comfort OR value* OR acceptability OR acceptance) OR TITLE-ABS-KEY ((patient* OR inpatient*) W/3 (experience* OR perception* OR view* OR satisf* OR perceive* OR needs OR choice* OR prefer* OR opinion* OR attitude* OR desire* OR feel* OR comfort* OR value* OR accept*))) AND ((TITLE-ABS-KEY ((route* W/6 (administration OR delivery)) OR ((nasal* OR intranasal* OR transmucosal OR mucosal OR subcutan*) W/6 (administ* OR spray* OR deliver* OR route*)) OR ((opioid* OR morphine* OR fentanyl OR hydromorphone OR codeine* OR oxycodone) W/6 (administration OR spray* OR delivery OR route* OR nasal* OR intranasal* OR transmucosal OR mucosal OR subcutan*)) OR ((pain OR analg*) W/6 (medication* OR drug*) W/6</p>	479 results

	(administration OR spray* OR delivery OR route* OR nasal* OR intranasal* OR transmucosal OR mucosal OR subcutan*))) AND (TITLE-ABS-KEY (palliat* OR (terminal* W/3 (care OR nursing OR patient* OR inpatient*)) OR "end of life" OR "last days of life" OR "short life expectancy" OR hospice OR "advance care planning" OR "advance directive*"))) AND (LIMIT-TO (LANGUAGE , "English") OR LIMIT-TO (LANGUAGE , "German"))	
7	INDEX (medline)	31,037,802 results
8	((TITLE-ABS-KEY (qualitative* OR ethno* OR ethnog* OR ethnonurs* OR emic OR etic OR leininger OR noblit OR "field note*" OR "field record*" OR fieldnote* OR "field stud*" OR "participant observ*" OR "participant observation*" OR hermeneutic* OR phenomenolog* OR "lived experience*" OR heidegger* OR husserl* OR "merleau-pont*" OR colaizzi OR giorgi OR ricoeur OR spiegelberg OR "van kaam" OR "van manen" OR "grounded theory" OR "constant compar*" OR "theoretical sampl*" OR (glaser AND strauss) OR "content analy*" OR "thematic analy*" OR narrative* OR "unstructured categor*" OR "structured categor*" OR "unstructured interview*" OR "semi-structured interview*" OR "maximum variation*" OR snowball OR audio* OR tape* OR video* OR metasyntes* OR "meta-syntes*" OR metasummar* OR "meta-summar*" OR metastud* OR "meta-stud*" OR "meta-ethnograph*" OR metaethnog* OR "meta-narrative*" OR metanarrat* OR " meta-interpretation*" OR metainterpret* OR "qualitative meta-analy*" OR "qualitative metaanaly*" OR "qualitative metanaly*" OR "purposive sampl*" OR "action research" OR "focus group*" OR photovoice OR "photo voice" OR "mixed method*") OR TITLE (experience* OR perception* OR satisf* OR view* OR perceive* OR needs OR choice* OR preference* OR preferred OR opinion* OR attitude* OR desire* OR feelings OR comfort OR value* OR acceptability OR acceptance) OR TITLE-ABS-KEY ((patient* OR inpatient*) W/3 (experience* OR perception* OR view* OR satisf* OR perceive* OR needs OR choice* OR prefer* OR opinion* OR attitude* OR desire* OR feel* OR comfort* OR value* OR accept*))) AND ((TITLE-ABS-KEY ((route* W/6 (administration OR delivery)) OR ((nasal* OR intranasal* OR transmucosal OR mucosal OR subcutan*) W/6 (administ* OR spray* OR deliver* OR route*)) OR ((opioid* OR morphine* OR fentanyl OR hydromorphone OR codeine* OR oxycodone) W/6 (administration OR spray* OR delivery OR route* OR nasal* OR intranasal* OR transmucosal OR mucosal OR subcutan*)) OR ((pain OR analg*) W/6 (medication* OR drug*) W/6 (administration OR spray* OR delivery OR route* OR nasal* OR intranasal* OR transmucosal OR mucosal OR subcutan*)))) AND (TITLE-ABS-KEY (palliat* OR (terminal* W/3 (care OR nursing OR patient* OR inpatient*)) OR "end of life" OR "last days of life" OR "short life expectancy" OR hospice OR "advance care planning" OR "advance directive*")))) AND NOT (INDEX (medline)) AND (LIMIT-TO (LANGUAGE , "English") OR LIMIT-TO (LANGUAGE , "German"))	107 results

PRISMA-Flussdiagramm

Abbildung 1: PRISMA-Flussdiagramm modifiziert (10)



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