

Bijlage Zoekverantwoording

Onderzoeksvraag 1: vocht- en voedingsinterventies

Onderzoeksvraag

Welke vocht- en voedingsinterventies zijn geschikt bij het symptomatisch behandelen van patiënten met misselijkheid en braken in de palliatieve fase?

P	Patiënten (≥ 18 jaar) in de palliatieve fase met misselijkheid en braken
I	Voeding, vocht, gember, cola, dranken met koolzuur, kauwgom, waterijs, fruit, pepermint, kruiden, tijdstip van maaltijd, grootte van de maaltijd, licht verteerbaar, temperatuur van de maaltijd (koud of warm), niet eten/vasten, eten en drinken bij misselijkheid/braken bij bestraling in buikgebied/maag, houding tijdens maaltijd (rechttop zitten), ontspanning tijdens maaltijd
C	Geen interventie, ten opzichte van elkaar
O	Misselijkheid/braken/symptoomverlichting, kwaliteit van leven, patiënttevredenheid, bijwerkingen

Onderzoeksvraag 2: ondersteunende zorg

Onderzoeksvraag

Welke ondersteunende zorg is geschikt bij het symptomatisch behandelen van misselijkheid en braken in de palliatieve fase?

P	Patiënten (≥ 18 jaar) in de palliatieve fase met misselijkheid en braken
I	Mondverzorging, acupunctuur, ontspanningsoefeningen, psychologische interventies en acupressuur
C	Geen interventie, ten opzichte van elkaar
O	Misselijkheid/braken/symptoomverlichting, kwaliteit van leven, patiënttevredenheid, bijwerkingen

Onderzoeksvraag 3: medicamenteuze behandeling

Onderzoeksvraag

Wat is de beste keuze voor medicatie (metocloperamide vs domperidon, haloperidol, dexamethason, levomepromazine vs. olanzapine, serotonine-antagonisten, erythromycine,

cyclizine, cannabis, gember) bij de behandeling van patiënten met misselijkheid en braken in de palliatieve fase?

P	Patiënten (≥ 18 jaar) in de palliatieve fase met misselijkheid en braken
I	Metocloperamide, domperidon, haloperidol, dexamethason, levomepromazine, olanzapine, serotonine-antagonisten, erythromycine, cyclizine, cannabis, gember
C	Geen interventie, ten opzichte van elkaar
O	Misselijkheid/braken/symptoomverlichting, kwaliteit van leven, patiënttevredenheid, bijwerkingen, voltooiën chemotherapie, totale overleving, progressievrije overleving

Onderzoeksvraag 4: combinatie van medicatie bij patiënten met misselijkheid en braken die met anti-emeticum worden behandeld

Onderzoeksvraag

Welke combinatie van medicatie is geschikt voor de behandeling van patiënten met misselijkheid en braken die met anti-emeticum worden behandeld in de palliatieve fase (inclusief thc/cannabis)?

P	Patiënten (≥ 18 jaar) in de palliatieve fase met misselijkheid en braken die met anti-emeticum worden behandeld en onvoldoende reageren
I	Toevoegen van een ander anti-emeticum
C	Vervanging van het anti-emeticum
O	Misselijkheid/braken/symptoomverlichting, kwaliteit van leven, patiënttevredenheid, bijwerkingen

Zoeken en selecteren van studies

Op 12 december 2024 is in de databases Medline (OVID), Embase en de Cochrane Library gezocht naar wetenschappelijke literatuur voor 4 uitgangsvragen in 1 overkoepelende zoekactie. Deze zoekactie leverde na ontdebellen en verwijderen van referenties in een andere taal dan Engels of Nederlands 3713 resultaten op. De volledige zoekactie is beschreven in bijlage 6.

Deze resultaten zijn systematisch geselecteerd op basis van de volgende criteria:

- Volwassen patiënten in de palliatieve fase met misselijkheid en braken
- Interventies zoals gedefinieerd in de PICO
- Studietype: systematische reviews, meta-analyses of RCT's
- Taal: Engels, Nederlands

In eerste instantie zijn de titel en abstract van de referenties beoordeeld. Hiervan werden 123 referenties geïnccludeerd voor beoordeling op basis van het volledige artikel. Aanvullend werd van 74 potentieel relevante artikelen uit de referentielijsten van deze 123 referenties het volledige artikel opgevraagd. Aan deze lijst werd tenslotte nog een systematische review vanuit de werkgroep toegevoegd [Kobayashi 2023].

Uiteindelijk bleef één RCT [Uster 2018] over voor deze uitgangsvraag. In bijlage 6 is een volledig overzicht opgenomen van de artikelen die niet werden opgenomen na beoordeling van de volledige tekst met redenen.

Zoekresultaten

In eerste instantie zijn de titel en abstract van de referenties beoordeeld. Hiervan werden 123 referenties geïnccludeerd voor beoordeling op basis van het volledige artikel. Aanvullend werd van 74 potentieel relevante artikelen uit de referentielijsten van deze 123 referenties het volledige artikel opgevraagd. Aan deze lijst werd tenslotte nog een systematische review vanuit de werkgroep toegevoegd [Kobayashi 2023].

Uiteindelijk bleef één RCT [Uster 2018] over voor deze uitgangsvraag. In bijlage 6 is een volledig overzicht opgenomen van de artikelen die niet werden opgenomen na beoordeling van de volledige tekst met redenen.

Zoekstrategie

Ovid MEDLINE(R) <1946 to December 11, 2024>

1. Palliative Care/ (66242)
2. "Hospice and Palliative Care Nursing"/ (2595)
3. exp Palliative Medicine/ (606)
4. exp Terminal Care/ (59064)
5. Terminally Ill/ (6886)
6. palliat*.mp. (108744)
7. ((terminal* or advance*) adj6 (care or caring or ill* or sick* or stage*)).mp. (139685)
8. (terminal-stage* or (terminal adj1 stage*) or dying or (close adj6 death)).mp. (42862)
9. (end adj3 life).mp. (31349)
10. hospice*.mp. (21079)
11. ((end-stage* or (end adj1 stage*)) adj6 (disease* or ill* or care or caring)).mp. (60689)
12. ((incurable or advanced) adj6 (ill* or disease*)).mp. (64437)
13. (reduced adj1 life adj2 expectanc*).mp. (1054)
14. or/1-13 (383360)
15. Nausea/ (18050)
16. vomiting/ (26006)
17. vomiting, anticipatory/ (234)
18. (nause* or vomit* or sick or retch* or emetic* or emesis).tw. (133885)
19. Antiemetics/ (10257)
20. anti*eme*.tw. (9593)

21. 15 or 16 or 17 or 18 or 19 or 20 (151954)
22. 14 and 21 (5307)
23. randomized controlled trial.pt. (627568)
24. controlled clinical trial.pt. (95633)
25. randomized.ab. (576208)
26. placebo.ab. (229886)
27. clinical trials as topic.sh. (203995)
28. randomly.ab. (372849)
29. trial.ti. (279045)
30. 23 or 24 or 25 or 26 or 27 or 28 or 29 (1459665)
31. exp animals/ not humans.sh. (5288100)
32. 30 not 31 (1330616)
33. meta-analysis.mp,pt. or review.pt. or search:.tw. (3465881)
34. 32 or 33 (4560828)
35. 22 and 34 (1692)

Ovid MEDLINE(R) Epub Ahead of Print <December 11, 2024>

Ovid MEDLINE(R) Daily Update <December 11, 2024>

1. Palliative Care/ (44)
2. "Hospice and Palliative Care Nursing"/ (1)
3. exp Palliative Medicine/ (0)
4. exp Terminal Care/ (40)
5. Terminally Ill/ (0)
6. palliat*.mp. (2003)
7. ((terminal* or advance*) adj6 (care or caring or ill* or sick* or stage*)).mp. (2296)
8. (terminal-stage* or (terminal adj1 stage*) or dying or (close adj6 death)).mp. (713)
9. (end adj3 life).mp. (1143)
10. hospice*.mp. (395)
11. ((end-stage* or (end adj1 stage*)) adj6 (disease* or ill* or care or caring)).mp. (880)
12. ((incurable or advanced) adj6 (ill* or disease*)).mp. (1021)
13. (reduced adj1 life adj2 expectanc*).mp. (36)
14. or/1-13 (6265)
15. Nausea/ (8)
16. vomiting/ (8)
17. vomiting, anticipatory/ (0)
18. (nause* or vomit* or sick or retch* or emetic* or emesis).tw. (1861)
19. Antiemetics/ (6)
20. anti*eme*.tw. (138)
21. 15 or 16 or 17 or 18 or 19 or 20 (1909)
22. 14 and 21 (59)
23. randomized controlled trial.pt. (919)
24. controlled clinical trial.pt. (9)
25. randomized.ab. (10096)

26. placebo.ab. (2579)
27. clinical trials as topic.sh. (54)
28. randomly.ab. (5117)
29. trial.ti. (5149)
30. 23 or 24 or 25 or 26 or 27 or 28 or 29 (17240)
31. exp animals/ not humans.sh. (4053)
32. 30 not 31 (17116)
33. meta-analysis.mp,pt. or review.pt. or search:.tw. (59610)
34. 32 or 33 (72523)
35. 22 and 34 (19)

Cochrane Library

- | | | |
|-----|---|-------|
| #1 | MeSH descriptor: [Palliative Care] explode all trees | 2661 |
| #2 | MeSH descriptor: [Terminal Care] explode all trees | 782 |
| #3 | MeSH descriptor: [Palliative Medicine] explode all trees | 4 |
| #4 | MeSH descriptor: [Hospice and Palliative Care Nursing] explode all trees | 98 |
| #5 | MeSH descriptor: [Terminally Ill] explode all trees | 123 |
| #6 | palliat*:ti,ab | 8719 |
| #7 | ((terminal* or advance*) NEAR/6 (care or caring or ill* or sick* or stage*)):ti,ab | 10797 |
| #8 | (terminal-stage* or (terminal NEAR/1 stage*) or dying or (close NEAR/6 death)):ti,ab | 1803 |
| #9 | (end NEAR/3 life):ti,ab | 2390 |
| #10 | hospice*:ti,ab | 1000 |
| #11 | ((end-stage* or (end NEAR/1 stage*)) NEAR/6 (disease* or ill* or care or caring)):ti,ab | 6624 |
| #12 | ((incurable or advanced) NEAR/6 (ill* or disease*)):ti,ab | 8593 |
| #13 | (reduced NEAR/1 life NEAR/2 expectanc*):ti,ab | 136 |
| #14 | {or #1-#13} | 34557 |
| #15 | MeSH descriptor: [Nausea] explode all trees | 7305 |
| #16 | MeSH descriptor: [Vomiting] explode all trees | 6962 |
| #17 | MeSH descriptor: [Vomiting, Anticipatory] explode all trees | 34 |
| #18 | (nause* or vomit* or sick or retch* or emetic* or emesis):ti,ab | 54451 |
| #19 | MeSH descriptor: [Antiemetics] explode all trees | 2820 |

#20 anti*eme*:ti,ab 6528

#21 {or #15-#20} 57448

#22 #14 and #21 1334

Embase

#1.	1.	'palliative therapy'/exp	154784
#2.	2.	'terminal care'/exp	92530
#3.	3.	'terminally ill patient'/exp	10016
#4.	4.	palliat*:ti,ab	159985
#5.	5.	(terminal* NEAR/6 (care OR caring OR ill*)):ti,ab	15407
#6.	6.	(end NEAR/3 life):ti,ab	51108
#7.	7.	hospice*:ti,ab	29732
#8.	8.	'terminal stage*':ti,ab	5050
#9.	9.	dying:ti,ab	56863
#10.	10.	(close NEAR/6 death):ti,ab	1765
#11.	11.	((incurable OR advanced) NEAR/6 (ill* OR disease*)):ti,ab	124597
#12.	12.	#1 OR #2 OR #3 OR #4 OR #5 OR #6 OR #7 OR #8 OR #9 OR #10 OR #11	463182
#13.	13.	'nausea and vomiting'/de OR 'anticipatory nausea and vomiting'/exp OR 'chemotherapy induced nausea and vomiting'/exp OR 'nausea'/de OR 'radiation induced nausea and vomiting'/exp OR 'vomiting'/de OR 'hyperemesis'/de OR 'opioid induced emesis'/exp	454612
#14.	14.	nause*:ti,ab OR vomit*:ti,ab OR sick:ti,ab OR retch*:ti,ab OR emetic*:ti,ab OR emesis:ti,ab	271217
#15.	15.	'antiemetic agent'/exp	229436
#16.	16.	anti*eme*:ti,ab	22893
#17.	17.	#13 OR #14 OR #15 OR #16	749320
#18.	18.	#12 AND #17	22068
#19.	19.	#12 AND #17 AND ([cochrane review]/lim OR [systematic review]/lim OR [meta analysis]/lim OR [randomized controlled trial]/lim) AND ([article]/lim OR [article in press]/lim OR [review]/lim) AND ([dutch]/lim OR [english]/lim) AND [embase]/lim	1624

Tabel 1. Resultaten van zoekactie van onderzoeksvraag 1

Database	Aantal
Medline	1692
PreMedline	19
Embase	1624
CDSR	67
CENTRAL	1267
Totaal aantal resultaten	4669
Aantal geëxcludeerd (dubbelen + taal)	956
Totaal aantal unieke resultaten	3713

Tabel 2. Overzicht van geëxcludeerde studies gebaseerd op beoordeling van de volledige tekst van onderzoeksvraag 1 tem 4

Referentie	Reden voor exclusie
Aapro MS, Froidevaux P, Roth A, Alberto P. Antiemetic efficacy of droperidol or metoclopramide combined with dexamethasone and diphenhydramine. <i>Oncology</i> 1991;48:116-20	Geen full-text
Ahles TA, Tope DM, Pinkson B, Walch S, Whedon M, Dain B et al (1999) Massage therapy for patients undergoing autologous bone marrow transplantation. <i>J Pain Symptom Manage</i> 18:157-163	Onduidelijk hoeveel patiënten nausea/braken hadden bij inclusie
Ahmedzai S, Carlyle DL, Calder IT, Moran F. Anti-emetic efficacy and toxicity of nabilone, a synthetic cannabinoid, in lung cancer chemotherapy. <i>British Journal of Cancer</i> 1983;48(5):657-63	Preventie van CINV
Aldrete J. Reduction of nausea and vomiting from epidural opioids by adding droperidol to the infusate in homebound patients. <i>Journal of Pain and Symptom Management</i> 1995;10(7):544-7	Geen palliatieve setting
Allan GM, Finley CR, Ton J, et al. Systematic review of systematic reviews for medical cannabinoids: Pain, nausea and vomiting, spasticity, and harms. <i>Can Fam Physician</i> 2018;64:e78-94	Frans

Asgari, M., et al. The effect of acupressure on the severity of nausea during hemodialysis. <i>Crescent journal of medical and biological sciences</i> , 2020. 7, 77-81.	Geen palliatieve setting
Biesbrouck, T., et al., Pharmacological treatment of pain, dyspnea, death rattle, fever, nausea, and vomiting in the last days of life in older over misselijkheid people: A systematic review. <i>Palliative Medicine</i> , 2024. 38(10): p. 1088-1104.	Betreft geen studies over misselijkheid
Billhult A, Bergbom I, Stener-Victorin E (2007) Massage relieves nausea in women with breast cancer who are undergoing chemotherapy. <i>J Altern Complement Med</i> 13(1):53-57	Preventie van CINV, geen palliatieve setting
Brown, S., et al., Acupressure wrist bands to relieve nausea and vomiting in hospice patients: do they work? <i>American Journal of Hospice & Palliative Medicine</i> , 1992. 9(4): p. 26-9.	Geen RCT
Candy, B., et al., Mu-opioid antagonists for opioid-induced bowel dysfunction in people with cancer and people receiving palliative care. <i>Cochrane Database of Systematic Reviews</i> , 2022. 2022(9).	Nausea gerapporteerd als nevenwerking van morfine
Cao J, Wang B, Wang Z et al (2018) Efficacy of mirtazapine in preventing delayed nausea and vomiting induced by highly emetogenic chemotherapy: an open-label, randomized, multicenter phase III trial. <i>J Clin Oncol</i> 36:1078-1078	Abstract
Cates, C., et al. Comparative Effectiveness Study of Massage Therapy to Improve Quality of Life in Hospitalized Patients Receiving Palliative Care (S549). <i>Journal of pain and symptom management</i> , 2022. 63, 933 DOI: 10.1016/j.jpainsymman.2022.02.172.	Abstract
Ceolin, C., et al., The potential of cannabinoids in managing cancer-related anorexia in older adults: a systematic review of the literature. <i>Journal of Nutrition, Health and Aging</i> , 2024. 28(8).	Gaat over anorexie, waarbij misselijkheid eerder als bijwerking van behandeling is besproken
Chang AE, Shiling DJ, Stillman RC. A prospective evaluation of delta-9-tetrahydrocannabinol as an antiemetic in patients receiving adriamycin and cytoxan chemotherapy. <i>Cancer</i> 1981;47(7):1746-51	Preventie van CINV
Chang AE, Shiling DJ, Stillman RC. Delta-9-tetrahydrocannabinol as an antiemetic in cancer patients receiving high-dose methotrexate. A prospective, randomized evaluation. <i>Annals of Internal Medicine</i> 1979;91(6):819-24	Preventie van CINV
Cheung, W.Y. and C. Zimmermann, Pharmacologic management of cancer-related pain, dyspnea, and nausea. <i>Seminars in Oncology</i> , 2011. 38(3): p. 450-9.	Narrative review

Clark, K., M.R. Agar, and D. Currow, Metoclopramide for chronic nausea in adult palliative care patients with advanced cancer. Cochrane Database of Systematic Reviews, 2013. 2013(11).	Withdrawn
Collis, E. and H. Mather, Nausea and vomiting in palliative care. BMJ, 2015. 351: p. h6249.	Narrative review
Crawford SM, Buckman R. Nabilone and metoclopramide in the treatment of nausea and vomiting due to cisplatin: a double blind study. Medical Oncology and Tumor Pharmacotherapy 1986;3(1):39-42	Preventie van CINV
Darvill, E., S. Dorman, and P. Perkins, Levomepromazine for nausea and vomiting in palliative care. Cochrane Database of Systematic Reviews, 2013(4): p. CD009420.	Updated
Deng, G., et al., Acupuncture for reduction of symptom burden in multiple myeloma patients undergoing autologous hematopoietic stem cell transplantation: a randomized sham-controlled trial. Supportive Care in Cancer, 2018. 26(2): p. 657-665.	Effect op braken niet apart gerapporteerd
Dorman, S. and P. Perkins, Droperidol for treatment of nausea and vomiting in palliative care patients. Cochrane Database of Systematic Reviews, 2008(1).	Updated
Dorman, S. and P. Perkins, Droperidol for treatment of nausea and vomiting in palliative care patients. Cochrane Database of Systematic Reviews, 2010(10): p. CD006938.	Updated
Ebrahimi, S., et al. Assessment of palliative effects of ginger on chemotherapy-induced nausea: delayed phase. Journal of isfahan medical school, 2013. 30, 2324-2332.	Arabisch
Einhorn LH, Nagy C, Furnas B, Williams SD. Nabilone: an effective antiemetic in patients receiving cancer chemotherapy. Journal of Clinical Pharmacology 1981;21(8-9 Suppl):64S-9S	Preventie van CINV
Esseboom, E.U., et al., Prophylaxis of delayed nausea and vomiting after cancer chemotherapy. Netherlands Journal of Medicine, 1995. 47(1): p. 12-7.	Preventie van CINV
Ezzo, J., et al., Acupuncture-point stimulation for chemotherapy-induced nausea or vomiting. Cochrane Database of Systematic Reviews, 2014. 2014(11).	Withdrawn
Ezzo, J.M., et al., Acupuncture-point stimulation for chemotherapy-induced nausea or vomiting. Cochrane Database of Systematic Reviews, 2006(2): p. CD002285.	Withdrawn

Fabi, A. and P. Malaguti, An update on palonosetron hydrochloride for the treatment of radio/chemotherapy-induced nausea and vomiting. <i>Expert Opinion on Pharmacotherapy</i> , 2013. 14(5): p. 629-41.	Narrative review
Fellowes, D., K. Barnes, and S. Wilkinson, Aromatherapy and massage for symptom relief in patients with cancer. <i>Cochrane Database of Systematic Reviews</i> , 2004(2): p. CD002287.	Withdrawn
Fellowes, D., K. Barnes, and S.S. Wilkinson, WITHDRAWN: Aromatherapy and massage for symptom relief in patients with cancer. <i>Cochrane Database of Systematic Reviews</i> , 2008(4): p. CD002287.	Withdrawn
Findlay M, Simes RJ, Cox K, Carmichael K, Chey T, McNeil E, et al. A randomised cross-over trial of antiemetic therapy for platinum-based chemotherapy. Improved control with an intensive multiagent regimen. <i>European Journal of Cancer</i> 1993;29A(3):309-15	Preventie van CINV
Fletcher DS, Coyne PJ, Dodson PW, Parker GG, Wan W, Smith TJ. A randomized trial of the effectiveness of topical "ABH Gel" (Ativan®, Benadryl®, Haldol®) vs. placebo in cancer patients with nausea. <i>Journal of Pain and Symptom Management</i> 2014;48(5):797-803	Geen relevante interventie
Fonte, C., S. Fatigoni, and F. Roila, A review of olanzapine as an antiemetic in chemotherapy-induced nausea and vomiting and in palliative care patients. <i>Critical Reviews in Oncology-Hematology</i> , 2015. 95(2): p. 214-21.	Geen systematische review
Frytak S, Moertel CG, O'Fallon JR. Delta-9-tetrahydrocannabinol as an antiemetic for patients receiving cancer chemotherapy. A comparison with prochlorperazine and a placebo. <i>Annals of Internal Medicine</i> 1979;91(6):825-30	Geen full-text
Garg, S., J. Yoo, and E. Winqvist, Nutritional support for head and neck cancer patients receiving radiotherapy: A systematic review. <i>Supportive Care in Cancer</i> , 2010. 18(6): p. 667-677.	Nausea gerapporteerd als nevenwerking
Good, P., et al., Oral medicinal cannabinoids to relieve symptom burden in the palliative care of patients with advanced cancer: A double-blind, placebo controlled, randomised clinical trial of efficacy and safety of cannabidiol (CBD). <i>BMC Palliative Care</i> , 2019. 18(1).	Protocol
Gralla RJ, Tyson LB, Bordin LA. Antiemetic therapy: a review of recent studies and a report of a random assignment trial comparing metoclopramide with delta-9-tetrahydrocannabinol. <i>Cancer Treatment Reports</i> 1984;68(1):163-72	Preventie van CINV
Grunberg SM, Gala KV, Lampenfeld M, Jamin D, Johnson K, Cariffe P, et al. Comparison of the antiemetic effect of highdose intravenous metoclopramide and high-dose intravenous haloperidol in a	Geen full-text

randomized double-blind crossover study. *Journal of Clinical Oncology* 1984;2(7):782-7

Gurgenci, T., et al., Medicinal Cannabis (MedCan 3): a randomised, multicentre, double-blind, placebo-controlled trial to assess THC/CBD (1:20) to relieve symptom burden in patients with cancer—a study protocol for a randomised controlled trial. *Trials*, 2024. 25(1). Protocol

Gurgenci, T., et al., Preliminary Results from a Phase IV Surveillance Study of Medical Cannabis Use in Australian Patients With Advanced Cancer Receiving Palliative Care. *Journal of Palliative Medicine*, 2024. 27(5): p. 663-666. Geen RCT

Hagmann, C., et al., Evidence-based Palliative Care Approaches to Non-pain Physical Symptom Management in Cancer Patients. *Seminars in Oncology Nursing*, 2018. 34(3): p. 227-240. Narrative review

Hansra, D., et al. Miami NICE trial: nutritional support for patients incurring chemotherapy side effects. *Journal of clinical oncology*, 2017. 35. Abstract

Hardy JR, O'Shea A, White C, Gilshenan K, Welch L, Douglas C. The efficacy of haloperidol in the management of nausea and vomiting in patients with cancer. *Journal of Pain & Symptom Management* 2010;40(1):111-6 Geen RCT

Hardy, J., et al. A randomised, controlled, double blind study of oral methotrimeprazine versus oral haloperidol in patients with cancer and nausea not related to anticancer therapy. *Annals of oncology*, 2017. 28, x156 DOI: 10.1093/annonc/mdx676.004. Abstract

Hardy, J., et al., Phase IIb Randomized, Placebo-Controlled, Dose-Escalating, Double-Blind Study of Cannabidiol Oil for the Relief of Symptoms in Advanced Cancer (MedCanI-CBD). *Journal of Clinical Oncology*, 2023. 41(7): p. 1444-1452. <50% had nausea bij inclusie

Herman TS, Einhorn LH, Jones SE, Nagy C, Chester AB, Dean JC, et al. Superiority of nabilone over prochlorperazine as an antiemetic in patients receiving cancer chemotherapy. *New England Journal of Medicine* 1979;300:1295-7. Geen full-text

Herrstedt J, Hannibal J, Hallas J, Andersen E, Laursen LC, Hansen M. High-dose metoclopramide + lorazepam versus low-dose metoclopramide + lorazepam + dehydrobenzperidol in the treatment of cisplatin-induced nausea and vomiting. *Annals of Oncology* 1991;2:223-7. Preventie van CINV

Hesketh PJ, Grunberg SM, Gralla RJ, Warr D, Roila F, de Wit R et al (2003) The oral NK1 antagonist aprepitant for the prevention of chemotherapy induced nausea and vomiting: a multinational, Geen full-text

randomized, doubleblind, placebo-controlled trial in patients receiving high-dose cisplatin. <i>J Clin Oncol</i> 21(22):4112–4119	
Hesketh, P.J., et al., Combined data from two phase III trials of the NK1 antagonist aprepitant plus a 5HT3 antagonist and a corticosteroid for prevention of chemotherapy-induced nausea and vomiting: Effect of gender on treatment response. <i>Supportive Care in Cancer</i> , 2006. 14(4): p. 354–360.	Preventie van CINV
Huang, E. and J. Huang, Music Therapy: A Noninvasive Treatment to Reduce Anxiety and Pain of Colorectal Cancer Patients—A Systemic Literature Review. <i>Medicina</i> , 2023. 59(3): p. 01.	Uitkomst is niet nausea/braken
Hunter, J.J.; Maunder, R.G.; Sui, D.; Esplen, M.J.; Chaoul, A.; Fisch, M.J.; Bassett, R.L.; Harden-Harrison, M.M.; Lagrone, L.; Wong, L.; et al. A randomized trial of nurse-administered behavioral interventions to manage anticipatory nausea and vomiting in chemotherapy. <i>Cancer Med.</i> 2020, 9, 1733–1740	Preventie van CINV
Iturri, A., et al. Short-term effects of receptive music therapy on the prevalent symptoms in patients with advanced cancer. A randomized clinical trial. Preliminary results. <i>Medicina paliativa</i> , 2023. 30, 205-214 DOI: 10.20986/medpal.2024.1435/2023.	Geen full-text
Jacobs AJ, Deppe G, Cohen CJ. A comparison of the antiemetic effects of droperidol and prochlorperazine in chemotherapy with cisplatin. <i>Gynecologic Oncology</i> 1980;10:55-7	Preventie van CINV
Jansen, K., et al., Safety and Effectiveness of Palliative Drug Treatment in the Last Days of Life—A Systematic Literature Review. <i>Journal of Pain and Symptom Management</i> , 2018. 55(2): p. 508–521.e3.	Geen effect op nausea onderzocht, nausea wordt vooral genoemd als bijwerking van pijnbehandeling
Johnson JR, Burnell-Nugent M, Lossignol D, Ganae-Motan ED, Potts R, Fallon MT. Multicenter, double-blind, randomized, placebo-controlled, parallel-group study of the efficacy, safety, and tolerability of THC:CBD extract and THC extract in patients with intractable cancer-related pain. <i>J Pain Symptom Manage</i> 2010;39:167–179	Uitkomst is niet nausea/braken
Jones SE, Durant JR, Greco FA, Robertone A. A multiinstitutional phase III study of nabilone vs. placebo in chemotherapy-induced nausea and vomiting. <i>Cancer Treatment Reviews</i> 1982;9(Suppl B):45-8	Preventie van CINV
Kim, J.W., et al., The clinical effect of an electric massage chair on chemotherapy-induced nausea and vomiting in cancer patients: randomized phase II cross-over trial. <i>BMC Complementary Medicine and Therapies</i> , 2024. 24(1): p. 163.	Preventie van CINV

Kim, K.R., et al., A Randomized, Double-Blind Pilot Study of Dose Comparison of Ramosetron to Prevent Chemotherapy-Induced Nausea and Vomiting. <i>BioMed Research International</i> , 2015. 2015.	Preventie van CINV
Kleinman S, Weitzman SA, Cassem N, Andrews E. Double blind trial of delta-9-tetrahydrocannabinol (THC) versus placebo as an adjunct to prochlorperazine for chemotherapy-induced vomiting. <i>Current Therapeutic Research - Clinical and Experimental</i> 1983;33(61):1014-7	Geen palliatieve setting
Kluin-Neleman JC, Neleman FA, Meuwissen OJ, Maes RA. Delta 9-tetrahydrocannabinol (THC) as an antiemetic in patients treated with cancer chemotherapy; a double-blind crossover trial against placebo. <i>Veterinary & Human Toxicology</i> 1979;21(5):338-40	Geen full-text
Koetter, K. and P. Kranke, Prevention and treatment interventions for nausea and vomiting during initiation of chronic opioid therapy. <i>Cochrane Database of Systematic Reviews</i> , 2008(1).	Withdrawn
Kopecky, K., et al., Palliative interventions for patients with advanced gastric cancer: a systematic review. <i>Chinese Clinical Oncology</i> , 2022. 11(6).	Geen relevante interventies
Kunkler, I., et al. A randomised comparison of Ondansetron with customary anti-emetics in palliative upper abdominal irradiation. <i>Br-j-cancer</i> , 1994. 70, 35.	Geen full-text
Lacey, J., et al. A phase II double-blind, randomized clinical trial assessing the tolerability of two different ratios of cannabis in patients with glioblastoma multiforme (GBM). <i>Journal of clinical oncology</i> , 2020. 38, DOI: 10.1200/JCO.2020.38.15_suppl.2530.	Abstract
Lane M, Vogel CL, Ferguson J, Krasnow S, Saiers JL, Hamm J, et al. Dronabinol and prochlorperazine in combination for treatment of cancer chemotherapy-induced nausea and vomiting. <i>Journal of Pain and Symptom Management</i> 1991;6(6):352-9	Preventie van CINV
Lennox B, Reid M, McCaFrey D, Miaskowski C, Kaplan BH, Vogl SE. Randomized double-blind crossover trial of prochlorperazine (P) alone versus prochlorperazine plus droperidol (D) for emesis prophylaxis in patients (PTS) receiving intravenous bolus cis-platinum (DDP). <i>Proceedings of American Association of Cancer Research</i> 1985;26:189	Abstract
Levitt M. Nabilone vs. placebo in the treatment of chemotherapy-induced nausea and vomiting in cancer patients. <i>Cancer Treatment Reviews</i> . 1982;9(Suppl B):49-53	Preventie van CINV
Levy, N., et al., Symptom management in Chinese adults with end stage renal disease (ESRD). <i>Applied Nursing Research</i> , 2022. 64: p. 151549.	Geen RCT

Lewis GO, Bernath AM, Ellison NM, Gallagher JG, Porter PA, Rine KT. Double-blind crossover trial of droperidol, metoclopramide, and prochlorperazine as antiemetics in cisplatin therapy. <i>Clinical Pharmacy</i> 1984;3:618-21	Geen full-text
Lian, W.L., et al., Effectiveness of acupuncture for palliative care in cancer patients: A systematic review. <i>Chinese Journal of Integrative Medicine</i> , 2014. 20(2): p. 136-147.	Preventie van CINV
Lim JTW, Wong ET, Aung SKH. Is there a role for acupuncture in the symptom management of patients receiving palliative care for cancer? A pilot study of 20 patients comparing acupuncture with nurse-led supportive care. <i>Acupunct Med</i> 2011;29:173e179	Onduidelijk hoeveel patiënten nausea/braken hadden bij inclusie
Liperoti, R., et al., Balancing the risks and benefits of antipsychotic medications for symptom management in older patients with cancer. <i>Journal of Geriatric Oncology</i> , 2018. 9(6): p. 693-695.	Narrative review
Liu J, Tan L, Zhang H, Li H, Liu X, Yan Z, et al. QoL evaluation of olanzapine for chemotherapy-induced nausea and vomiting comparing with 5-HT3 receptor antagonist. <i>European Journal of Cancer Care</i> 2015;24(3):436-43	Preventie van CINV
Liu, W., et al., Acupuncture for Cancer-Related Anorexia: a Review of the Current Evidence. <i>Current Oncology Reports</i> , 2021. 23(7): p. 82.	Patiënten met verminderde eetlust
Loerzel, V., et al., Serious Gaming for Chemotherapy-Induced Nausea and Vomiting in Older Adults With Cancer: Protocol for a Randomized Clinical Trial. <i>JMIR Research Protocols</i> , 2024. 13: p. e64673.	Protocol
Lorenz, K.A., et al., Evidence for improving palliative care at the end of life: A systematic review. <i>Annals of Internal Medicine</i> , 2008. 148(2): p. 147-159.	Niet gericht op nausea/braken
Lu Y L, Liu W, Du Y J, Feng L, Wang Y D, Wang L. Antiemetic effect of low dose olanzapine in solid tumor chemotherapy. <i>Chinese Journal of Cancer Prevention and Treatment</i> 2013;20(7):544-54	Geen full-text
Lucraft, H.H. and M.K. Palmer, Randomised clinical trial of levonantradol and chlorpromazine in the prevention of radiotherapy-induced vomiting. <i>Clinical Radiology</i> , 1982. 33(6): p. 621-2.	Preventie van RINV
Maccio, A., et al., A randomized phase III clinical trial of a combined treatment for cachexia in patients with gynecological cancers: evaluating the impact on metabolic and inflammatory profiles and quality of life. <i>Gynecologic Oncology</i> , 2012. 124(3): p. 417-25.	Patiënten met verminderde eetlust
MacDonald, E. and K. Farrah, Canadian Agency for Drugs and Technologies in Health. <i>CADTH Rapid Response Reports</i> 2019, 2019. 10: p. 29.	Verouderde versie van

	farmacotherapeutisch kompas
Madeddu, C., et al. A randomized phase III clinical trial of a combined treatment with megestrol acetate+carnitine+celecoxib+antioxidants vs. Megestrol acetate alone for patients with cancer cachexia syndrome. Supportive care in cancer, 2012. 20, S57-s58 DOI: 10.1007/s00520-012-1479-7.	Abstract
Maeng, C.H., et al., Effect of Acupuncture on Delayed Emesis for the Patients Who Received High-Emetogenic Chemotherapy with Standard Antiemetic Prophylaxis (KHMC-HO-01): An Open-Label, Randomized Study. Evidence-based Complementary and Alternative Medicine, 2022. 2022.	Preventie van CINV
Mannix, K., Palliation of nausea and vomiting in malignancy. Clinical Medicine, 2006. 6(2): p. 144-7.	Narrative review
Mantovani, G., et al. Prevention of nausea and vomiting (N&V) in cancer patients receiving high-dose cisplatin. Assessment of the potential antiemetic activity of transdermal fentanyl (TTS-F) compared to standard antiemetic treatment in acute and delayed N&V: first clinical report. Anticancer research, 1999. 19, 3495-3502.	Geen full-text
Mantovani, G., et al., Comparison of oral 5-HT3-receptor antagonists and low-dose oral metoclopramide plus i.m. dexamethasone for the prevention of delayed emesis in head and neck cancer patients receiving high-dose cisplatin. Oncology Reports, 1998. 5(1): p. 273-80.	Geen full-text
Matsuoka, H., et al. Harms From Haloperidol for Symptom Management in Palliative Care—a Post Hoc Pooled Analysis of Three Randomized Controlled Studies and Two Consecutive Cohort Studies. Journal of pain and symptom management, 2019. 58, e6-e8 DOI: 10.1016/j.jpainsymman.2019.05.004.	Geen systematische search
McCabe HL, Maraveyas A. Subcutaneous levomepromazine rescue (SLR) for high grade delayed chemotherapy-induced emesis (DCIE). Anticancer Research 2003;23(6D):5209-12	Geen full-text
McVey, P., Nausea and vomiting in the patient with advanced cancer: an overview of pharmacological and non-pharmacological management. Collegian: Journal of the Royal College of Nursing, Australia, 2001. 8(2): p. 41-2.	Narrative review
Miftahussurur, M., et al., A Systematic Review of Complementary Therapies in Colorectal cancer patients: Summarizing the Current Global Options. Research Journal of Pharmacy and Technology, 2023. 16(3): p. 1540-1546.	Niet gericht op nausea/braken
Minegishi Y, Ohmatsu H, Miyamoto T, Niho S, Goto K, Kubota K, et al. Efficacy of droperidol in the prevention of cisplatin-induced delayed	Preventie van CINV

emesis: a double-blind, randomised parallel study. *European Journal of Cancer* 2004;40:1188-92

Mizukami N, Yamauchi M, Koike K, Watanabe A, Ichihara K, Masumori N, Preventie van CINV et al. Olanzapine for the prevention of chemotherapy-induced nausea and vomiting in patients receiving highly or moderately emetogenic chemotherapy: a randomized, double-blind, placebo-controlled study. *Journal of Pain and Symptom Management* 2014;47(3):542-50

Mochamat, et al., A systematic review on the role of vitamins, minerals, Geen review proteins, and other supplements for the treatment of cachexia in betreffende patienten cancer: a European Palliative Care Research Centre cachexia project. met misselijkheid *Journal of Cachexia, Sarcopenia and Muscle*, 2017. 8(1): p. 25-39.

Mukhopadhyay S, Kwatra G, Alice K, Badyal D. Role of olanzapine in Preventie van CINV chemotherapy-induced nausea and vomiting on platinum-based chemotherapy patients: a randomized controlled study. *Supportive Care in Cancer* 2017;25(1):145-54

Muller G, Konig H. Antiemetic efficacy of high-dose metoclopramide Geen full-text and high-dose droperidol in preventing cisplatin-induced nausea and emesis: a single-blind comparison. *Blut* 1989;59(3):280

Murat-Ringot, A., et al., The effect of foot reflexology on Preventie van CINV chemotherapy-induced nausea and vomiting in patients with digestive or lung cancer: Randomized controlled trial. *JMIR Cancer*, 2021. 7(4).

Mystakidou, K., et al. A comparative study of prophylactic antiemetic Geen RCT treatment in cancer patients receiving radiotherapy. *Journal of b u on*, 2010. 15, 29-35.

Mystakidou, K., et al., Comparison of the efficacy and safety of Tropisetron niet tropisetron, metoclopramide, and chlorpromazine in the treatment of beschikbaar in emesis associated with far advanced cancer. *Cancer*, 1998. 83(6): p. Nederland 1214-23.

Mystakidou, K., et al., Prophylactic tropisetron versus rescue tropisetron Behandeling en in fractionated radiotherapy to moderate or high emetogenic areas: a preventie van RINV, prospective randomized open label study in cancer patients. *Medical Tropisetron niet Oncology*, 2006. 23(2): p. 251-62. beschikbaar in Nederland

Navari R, Qin R, Ruddy J, Liu H, Powell S, Bajaj M, et al. Olanzapine for the Preventie van CINV prevention of chemotherapy-induced nausea and vomiting. *New England Journal of Medicine. NEJM*, 2016; Vol. 375:134-42

Navari, R.M., Comparison of intermittent versus continuous infusion Geen full-text metoclopramide in control of acute nausea induced by cisplatin chemotherapy. *Journal of Clinical Oncology*, 1989. 7(7): p. 943-6.

Navigante AH, Cerchietti LCA, Cabalar ME. Morphine plus midazolam versus oxygen therapy on severe dyspnea management in the last week of life in hypoxemic advanced cancer patients. [Spanish]. <i>Med Paliativa</i> 2003;10:14e19	Spaans
Neidhart JA, Gagen M, Young DM, Wilson HE. Specific antiemetics for specific cancer chemotherapeutic agents: haloperidol versus benzquinamide. <i>Cancer</i> 1981;47:1439-43	Preventie van CINV
Niiranen A, Mattson K. A cross-over comparison of nabilone and prochlorperazine for emesis induced by cancer chemotherapy. <i>American Journal of Clinical Oncology: Cancer Clinical Trials</i> 1985;8(4):336-40	Preventie van CINV
Nikbakhsh N, Sadeghi M, Ramzani E, Moudi S, Bijani A, Yousefi R, et al. Efficacy of olanzapine in symptom relief and quality of life in gastric cancer patients receiving chemotherapy. <i>Journal of Research in Medical Sciences</i> 2016;21:88	Preventie van CINV
Nipp, R.D., et al., Effect of a Symptom Monitoring Intervention for Patients Hospitalized with Advanced Cancer: A Randomized Clinical Trial. <i>JAMA Oncology</i> , 2022. 8(4): p. 571-578.	Niet gericht op nausea/braken
Orr LE, McKernan JF. Antiemetic effect of delta 9-tetrahydrocannabinol in chemotherapy-associated nausea and emesis as compared to placebo and compazine. <i>Journal of Clinical Pharmacology</i> 1981;21(8-9 Suppl):76S-80S	Preventie van CINV
Ostwal, S. and J. Deodhar Role of megestrol acetate versus dexamethasone for improvement in appetite in patients with cancer associated anorexia cachexia: a randomized controlled pilot trial. <i>Journal of pain and symptom management</i> , 2017. 53, 439-440 DOI: 10.1016/j.jpainsymman.2016.12.265.	Abstract
Ostwal, S., et al. Role of megestrol acetate versus dexamethasone for improvement in appetite in patients with cancer associated anorexia cachexia: a randomized controlled pilot trial. <i>Annals of oncology</i> , 2018. 29, viii616 DOI: 10.1093/annonc/mdy300.042.	Abstract
Owens NJ, Schauer AR, Nightingale CH, Golub GR, Martin RS, Williams HM, et al. Antiemetic efficacy of prochlorperazine, haloperidol, and droperidol in cisplatin-induced emesis. <i>Clinical Pharmacy</i> 1984;3:167-70	Geen full-text
Parvez, T., T.M. Alharbi, and F.D. Mein, Impact of group psychotherapy in chemotherapy induced vomiting for treatment of advanced breast and lungs cancer. <i>Jcpsp, Journal of the College of Physicians & Surgeons - Pakistan</i> , 2007. 17(2): p. 89-93.	Onduidelijk hoeveel patiënten nausea/braken hadden bij inclusie
Passik, S.D., et al., A pilot exploration of the antiemetic activity of olanzapine for the relief of nausea in patients with advanced cancer	Geen RCT

and pain. *Journal of Pain & Symptom Management*, 2002. 23(6): p. 526-32.

Patterson, M., et al., Inoperable malignant bowel obstruction: palliative interventions outcomes - mixed-methods systematic review. *BMJ supportive & palliative care*, 2024. 13(e3): p. e515-e527.

Niet gericht op
nausea/braken

Peprah, K. and S. McCormack, Canadian Agency for Drugs and Technologies in Health. *CADTH Rapid Response Reports* 2020, 2020. 07: p. 23.

Verouderde versie van
Canadese
farmacotherapeutisch
kompas

Perkins, P. and S. Dorman, Haloperidol for the treatment of nausea and vomiting in palliative care patients. *Cochrane Database of Systematic Reviews*, 2009(2): p. CD006271.

Perkins, P. and S.L. Vowler, Does acupuncture help reduce nausea and vomiting in palliative care patients? Pilot study. *Palliative Medicine*, 2008. 22(2): p. 193-4.

Letter

Poka R, Hernadi Z, Juhasz B, Lampe L. Comparison of four antiemetic regimens for the treatment of cisplatin-induced vomiting. *International Journal of Gynaecology and Obstetrics* 1993;42:19-24

Preventie van CINV

Poli-Bigelli S, Rodriguez-Pereira J, Guoguang-Ma J, Carides AD, Eldridge K, Evans JK et al (2003) Addition of the NK1 receptor antagonist aprepitant to standard antiemetic therapy improves control of chemotherapy induced nausea and vomiting: results from a randomized, double-blind, placebo controlled trial in Latin America. *Cancer* 97(12):3090-3098

Preventie van CINV

Pomeroy M, Fennelly JJ, Towers M. Prospective randomized double-blind trial of nabilone versus domperidone in the treatment of cytotoxic-induced emesis. *Cancer Chemother Pharmacol* 1986;17:285-288

Geen full-text

Post-White, J., et al., Therapeutic Massage and Healing Touch Improve Symptoms in Cancer. *Integrative Cancer Therapies*, 2003. 2(4): p. 332-344.

53% van de patiënten
had nausea <3 op 0-
10 schaal bij inclusie

Priestman, T.J., et al., Results of a randomized, double-blind comparative study of ondansetron and metoclopramide in the prevention of nausea and vomiting following high-dose upper abdominal irradiation. *Clinical Oncology (Royal College of Radiologists)*, 1990. 2(2): p. 71-5.

Preventie van RINV

Razmovski-Naumovski, V., et al., Efficacy of medicinal cannabis for appetite-related symptoms in people with cancer: A systematic review. *Palliative Medicine*, 2022. 36(6): p. 912-927.

Focus op eetlust

Regelson W, Butler J, Schultz J. Delta-9-tetrahydrocannabinol as an effective antidepressant and appetite-stimulating agent in advanced cancer patients. <i>Pharmacol Marijuana</i> 1976;12:763–776	Geen full-text
Roberts WS, Wisniewski BJ, Cavanagh D, Marsden DE. Droperidol as an antiemetic in cis-platinum-induced nausea and vomiting. <i>Oncology</i> 1985;42:42–3	Geen full-text
Roldan, C.J., et al., Randomized Controlled Double-blind Trial Comparing Haloperidol Combined With Conventional Therapy to Conventional Therapy Alone in Patients With Symptomatic Gastroparesis. <i>Academic Emergency Medicine</i> , 2017. 24(11): p. 1307–1314.	Geen palliatieve setting, <30% had nausea bij inclusie
Sabet, P., et al., Effect of Spirituality-Based Palliative Care on Pain, Nausea, Vomiting, and the Quality of Life in Women with Colon Cancer: A Clinical Trial in Southern Iran. <i>Journal of Religion & Health</i> , 2023. 62(3): p. 1985–1997.	Geen palliatieve setting, preventie van CINV
Saeidzadeh, S., et al., Web and mobile-based symptom management interventions for physical symptoms of people with advanced cancer: A systematic review and meta-analysis. <i>Palliative Medicine</i> , 2021. 35(6): p. 1020–1038.	Geen interventie uit PICO
Sagae S, Ishioka S, Fukunaka N, Terasawa K, Kobayashi K, Sugmara M, et al. Combination therapy with granisetron, methylprednisolone and droperidol as an antiemetic prophylaxis in CDDP-induced delayed emesis for gynaecologic cancer. <i>Oncology</i> 2003;64:46–53	Preventie van CINV
Saldanha, S., et al. Efficacy of olanzapine combination in prevention of nausea & vomiting in highly emetogenic chemotherapy. <i>Annals of oncology</i> , 2019. 30, v722 DOI: 10.1093/annonc/mdz265.012.	Abstract
Saller R, Hellenbricht D. High doses of metoclopramide or droperidol in the prevention of cisplatin-induced emesis. <i>European Journal of Cancer and Clinical Oncology</i> 1986;22(10):1199–203	Preventie van CINV
Salvo, N., et al., Prophylaxis of radiation-induced nausea and vomiting using 5-hydroxytryptamine-3 serotonin receptor antagonists: a systematic review of randomized trials. <i>International Journal of Radiation Oncology, Biology, Physics</i> , 2012. 82(1): p. 408–17.	Preventie van CINV
Sarbaz, M., et al., Effect of mobile health interventions for side effects management in patients undergoing chemotherapy: A systematic review. <i>Health Policy and Technology</i> , 2022. 11(4).	Geen interventie uit PICO
Saudemont, G., et al., The use of olanzapine as an antiemetic in palliative medicine: a systematic review of the literature. <i>BMC Palliative Care</i> , 2020. 19(1): p. 56.	Geen RCTs geïnccludeerd

Sengupta, P., et al. A comparative study of doxylamine succinate with pyridoxine hydrochloride and ondansetron in treating uremia-induced nausea and vomiting in chronic renal failure patients. Asian journal of pharmaceutical and clinical research, 2023. 16, 69-74 DOI: 10.22159/ajpcr.2023.v16i11.49658.	Geen palliatieve setting
Sgouros J, Neville-Webb H, Bunton S, Lind M, Maraveyas A. Levomepromazine versus dexamethasone with metoclopramide in the prevention of cisplatin induced delayed emesis. Preliminary results of a randomised study. British Journal of Cancer 2003;88:S68	Abstract
Shumway N, Terrazzino S, Jones C. A randomized pilot study comparing olanzapine (Zyprexa) to aprepitant (Emend) for treatment of chemotherapy induced nausea and vomiting. Journal of Pain Management 2015;8(3):233-41.	Preventie van CINV
Silvey L, Carpenter JT, Wheeler RH, Lee J, Conolley C. A randomized comparison of haloperidol plus dexamethasone versus prochlorperazine plus dexamethasone in preventing nausea and vomiting in patients receiving chemotherapy for breast cancer. Journal of Clinical Oncology 1988;6(9):1397-400	Geen full-text
Smallwood, N.E., et al., Opioids for the palliation of symptoms in people with serious respiratory illness: a systematic review and meta-analysis. European Respiratory Review, 2024. 33(174).	Nausea gerapporteerd als nevenwerking van morfine
Smith T, Ritter JK, Coyne PJ, Parker GL, Dodson P, Fletcher DS. Testing the cutaneous absorption of lorazepam, diphenhydramine and haloperidol gel (ABH gel) used for cancer-related nausea. Journal of Clinical Oncology 2011;29(15 Suppl):1	Abstract
Steele N, Gralla RJ, Braun Jr DW, Young CW. Double-blind comparison of the antiemetic effects of nabilone and prochlorperazine on chemotherapy-induced emesis. Cancer Treatment Reports 1980;64(2-3):219-24	Preventie van CINV
Strasser F, Luftner D, Possinger K, et al. Comparison of orally administered cannabis extract and delta-9-tetrahydrocannabinol in treating patients with cancer-related anorexia-cachexia syndrome: a multicenter, phase III, randomized, double-blind, placebo-controlled clinical trial from the Cannab. J Clin Oncol 2006;24:3394-3400	Focus op eetlust
Sukpiriyagul, A., et al. Oral Tetrahydrocannabinol (THC): cannabinoid (CBD) Cannabis Extract Adjuvant for Reducing Chemotherapy-Induced Nausea and Vomiting (CINV): a Randomized, Double-Blinded, Placebo-Controlled, Crossover Trial. International journal of women's health, 2023. 15, 1345-1352 DOI: 10.2147/IJWH.S401938.	Preventie van CINV

Sun, L., et al., Effects of auricular acupuncture on appetite in patients with advanced cancer: a pilot randomized controlled trial. <i>Annals of Palliative Medicine</i> , 2020. 9(4): p. 1804-1811.	Patiënten met verminderde eetlust
Sykes, A.J., A.E. Kiltie, and A.L. Stewart, Ondansetron versus a chlorpromazine and dexamethasone combination for the prevention of nausea and vomiting: a prospective, randomised study to assess efficacy, cost effectiveness and quality of life following single-fraction radiotherapy. <i>Supportive Care in Cancer</i> , 1997. 5(6): p. 500-3.	Preventie van RINV
Tanriverdi, O., T. Karaoglu, and F.N. Aydemir, Can music and medicine be effective on anxiety, depression and chemotherapy-related nausea and vomiting? (PEGASUS study). <i>Indian Journal of Cancer</i> , 2023. 60(2): p. 282-291.	Preventie van CINV
Turcott JG, del Rocío Guillen Nunez M, Flores-Estrada D, et al. The effect of nabilone on appetite, nutritional status, and quality of life in lung cancer patients: a randomized, double-blind clinical trial. <i>Support Care Cancer</i> 2018;26:3029-3038	Onduidelijk hoeveel patiënten nausea/braken hadden bij inclusie
Twycross RG. Choice of strong analgesic in terminal cancer: diamorphine or morphine? <i>Pain</i> 1977;3:93e104.	Patiënten met pijn behandeld met morfine
Ungerleider JT, Andrysiak T, Fairbanks L, Goodnight J, Sarna G, Jamison K. Cannabis and cancer chemotherapy: a comparison of oral delta-9-THC and prochlorperazine. <i>Cancer</i> 1982;50(4):636-45	Preventie van CINV
Uribe, M., et al., Successful administration of metoclopramide for the treatment of nausea in patients with advanced liver disease. A double-blind controlled trial. <i>Gastroenterology</i> , 1985. 88(3): p. 757-62.	Dosering metoclopramide niet meer courant
Wada JK, Bogdon DL, Gunnell JC. Double-blind, randomized, crossover trial of nabilone vs. placebo in cancer chemotherapy. <i>Cancer Treatment Reviews</i> 1982;9(Suppl B):39-44	Preventie van CINV
Wang X, Wang L, Wang H, Zhang H. Effectiveness of olanzapine combined with ondansetron in the prevention of chemotherapy-induced nausea and vomiting of non-small cell lung cancer. <i>Cell Biochemistry and Biophysics</i> 2015;72:471-3	Preventie van CINV
Wernli, U., et al., Subcutaneous Drugs and Off-label Use in Hospice and Palliative Care: A Scoping Review. <i>Journal of Pain and Symptom Management</i> , 2022. 64(5): p. e250-e259.	Niet gericht op nausea/braken
Wilcock A, Manderson C, Weller R, et al. Does aromatherapy massage benefit patients with cancer attending a specialist palliative care day centre? <i>Palliat Med</i> 2004;18: 287e290	Geen focus op nausea/braken
Wong, H. and A. Tejani Neurokinin-1 receptor antagonists for prevention of chemotherapy-related nausea and vomiting in adults. <i>Cochrane Protocol</i>	

Database of Systematic Reviews, 2016. DOI:
10.1002/14651858.CD006844.pub3.

Xu, B., et al., Efficacy and safety of herbal formulas with the function of gut microbiota regulation for gastric and colorectal cancer: A systematic review and meta-analysis. *Frontiers in Cellular & Infection Microbiology*, 2022. 12: p. 875225.

Yennurajalingam S, Frisbee-Hume S, Palmer JL, Delgado-Guay MO, Bull J, Phan AT, et al. Reduction of cancer-related fatigue with dexamethasone: a double-blind, randomized, placebo-controlled trial in patients with advanced cancer. *Journal of Clinical Oncology* 2013;31(25):3076-82

Yeom CH, Jung GC, Song KJ. Changes of terminal cancer patients' health-related quality of life after high dose vitamin C administration. *J Korean Med Sci* 2007;22:7-11

Zaporowska-Stachowiak, I., et al., Midazolam: Safety of use in palliative care: A systematic critical review. *Biomedicine and Pharmacotherapy*, 2019. 114.

Zhao J, Li X, Jinghua G, Li Y, Li J, Shi Y, et al. Clinical observation of olanzapine for prevention of high and moderate emetic risk chemotherapy - induced nausea and vomiting. *Modern Oncology*. *Modern Oncology*, 2014; Vol. 22, issue 8:1941-3.

Vraag 1: Welke vocht- en voedingsinterventies zijn geschikt bij het symptomatisch behandelen van patiënten met misselijkheid en braken in de palliatieve fase?

Primaire studies

Study ID	Methods	Patient characteristics	Intervention	Results	Critical appraisal of study quality
Uster A 2018	<ul style="list-style-type: none"> Design: RCT Funding: (1) grant provided by the Krebsliga Schweiz (Swiss Cancer Foundation, Switzerland), Number: KFS-2833-08-2011; (2) Werner und Hedy Berger-Janser Stiftung; Col: none Setting: single cancer centre, Switzerland Sample size: N=58 Duration: 6 months follow-up; recruitment 3/2012-10/2014 	<ul style="list-style-type: none"> Eligibility criteria: cancer patients with metastatic or locally advanced tumors of the gastrointestinal or the lung tracts; ECOG PS \leq2, life expectancy > 6 months Exclusion criteria: (i) enteral tube feeding or parenteral nutrition, (ii) brain metastases or symptomatic bone metastases, (iii) ileus within the last month A priori patient characteristics: <ul style="list-style-type: none"> Mean age: 63.0y M/F: 40/18 Cancer type: colorectal 28%, NSCLC 28%, pancreas 26% 	<p>3-month nutrition and physical exercise program (N=29):</p> <ul style="list-style-type: none"> At least 3 nutritional counselling sessions Use of nutritional goals and criteria Group training sessions 2x60 min/week supervised by experienced physiotherapist: warm-up, strength and balance training exercises <p>vs.</p> <p>Usual care (N=29)</p>	<p>CRITICAL OUTCOMES</p> <ul style="list-style-type: none"> Nausea / vomiting: EORTC QLQ-C30 – symptom scale, change from baseline <ul style="list-style-type: none"> At 3 months (N=43): 4.2 vs. 9.7 At 6 months (N=38): 3.6 vs. 17.1, $p < 0.01$ Quality of life: EORTC QLQ-C30 – Global health status, change from baseline <ul style="list-style-type: none"> At 3 months (N=43): 4.5 vs. 2.7 At 6 months (N=38): 5.7 vs. 2.7, $p = 0.72$ Patient satisfaction: not reported Adverse events: not reported 	<p>Level of evidence: high risk of bias</p> <ul style="list-style-type: none"> Randomly generated treatment allocations in sequentially numbered, sealed, opaque envelopes (block sizes of eight) Treatment allocation was blinded from the primary investigator until completion of baseline assessment No blinding of patients was used in group assignment. In addition, the provider of the physical exercise intervention and the dietician could not, by definition, be blinded Blinding was used for data collection purposes only: a blinded physiotherapist assessed data on physical performance

Study ID	Methods	Patient characteristics	Intervention	Results	Critical appraisal of study quality
					<ul style="list-style-type: none"> Not all randomized patients were included in analysis

Abbreviations: CoI: conflict of interest; ECOG PS: Eastern Cooperative Oncology Group performance status; EORTC QLQ-C30: European Organization for Research and Treatment of Cancer Quality of Life Questionnaire version 3.0; NSCLC: non-small-cell lung cancer; RCT: randomised controlled trial.

References

Uster, A., et al., Effects of nutrition and physical exercise intervention in palliative cancer patients: A randomized controlled trial. *Clinical Nutrition*, 2018. 37(4): p. 1202-1209.

GRADE-tabel

Author(s): Usher

Question: A nutrition and exercise program compared to usual care for cancer patients with metastatic or locally advanced tumors of the gastrointestinal or the lung tracts

Setting:

Bibliography:

Certainty assessment							No of patients		Effect		Certainty	Importance
No of studies	Study design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	a nutrition and exercise program	usual care	Relative (95% CI)	Absolute (95% CI)		

EORTC QLQ-C30 – nausea and vomiting symptom scale, change from baseline at 3 months

1	randomised trials	serious ^a	not serious	serious ^b	serious ^c	none	25	18	-	SMD 0.35 lower (0.96 lower to 0.26 higher)	⊕○○○ Very low ^{a,b,c}	CRUCIAAL
---	-------------------	----------------------	-------------	----------------------	----------------------	------	----	----	---	---	-----------------------------------	----------

EORTC QLQ-C30 – nausea and vomiting symptom scale, change from baseline at 6 months

Certainty assessment							No of patients		Effect		Certainty	Importance
No of studies	Study design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	a nutrition and exercise program	usual care	Relative (95% CI)	Absolute (95% CI)		
1	randomised trials	serious ^a	not serious	serious ^b	serious ^c	none	21	17	-	SMD 0.85 lower (1.52 lower to 0.18 lower)	⊕○○○ Very low ^{a,b,c}	CRUCIAAL

EORTC QLQ-C30 – global health status, change from baseline at 3 months

Certainty assessment							No of patients		Effect		Certainty	Importance
No of studies	Study design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	a nutrition and exercise program	usual care	Relative (95% CI)	Absolute (95% CI)		
1	randomised trials	serious ^a	not serious	serious ^b	serious ^d	none	25	18	-	SMD 0.1 higher (0.5 lower to 0.71 higher)	⊕○○○ Very low ^{a,b,d}	CRUCIAAL

EORTC QLQ-C30 – global health status, change from baseline at 6 months

1	randomised trials	serious ^a	not serious	serious ^b	serious ^d	none	21	17	-	SMD 0.17 higher (0.47 lower to 0.81 higher)	⊕○○○ Very low ^{a,b,d}	CRUCIAAL
---	-------------------	----------------------	-------------	----------------------	----------------------	------	----	----	---	--	-----------------------------------	----------

Certainty assessment							No of patients		Effect		Certainty	Importance
No of studies	Study design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	a nutrition and exercise program	usual care	Relative (95% CI)	Absolute (95% CI)		

Patient satisfaction - not reported

-	-	-	-	-	-	-	-	-	-	-	-	CRUCIAAL
---	---	---	---	---	---	---	---	---	---	---	---	----------

Adverse events - not reported

-	-	-	-	-	-	-	-	-	-	-	-	CRUCIAAL
---	---	---	---	---	---	---	---	---	---	---	---	----------

CI: confidence interval; **SMD:** standardised mean difference

1.1.1.1 Explanations

- a. Uster 2018: no blinding, no ITT analysis
- b. No nausea at inclusion
- c. CI around SMD includes -0.5
- d. CI around SMD includes 0.5

Onderzoeksvraag 2: ondersteunende zorg

Vraag 2: welke ondersteunende zorg is geschikt bij het symptomatisch behandelen van misselijkheid en braken in de palliatieve fase?

Systematische reviews

Study ID	Methods	Patient characteristics	Intervention	Results	Critical appraisal of study quality
Ernst 2009	<ul style="list-style-type: none"> Design: systematic review Funding: not reported; Col: not reported Search date: Nov 2008 Databases: Medline, Embase, Cinahl, British Nursing Index, AMED, Cochrane Library Study designs: RCTs N included studies: N=14 RCTs 	<ul style="list-style-type: none"> Eligibility criteria: RCTs that evaluated the effectiveness of classical massage in a supportive palliative cancer care setting Exclusion: reflexology, hand massage, shiatsu, acupressure, lymph drainage or other forms of non-classical massage 	Massage therapy	-	<ul style="list-style-type: none"> Unclear if selection and data extraction was done by independent researchers No language restrictions Quality appraisal with Jadad instrument No relevant included RCTs
Kobayashi 2023	<ul style="list-style-type: none"> Design: systematic review Funding: JSPS KAKENHI (grant number 21H03236); Col: none Search date: July 2023 Databases: PubMed, Cinahl, CENTRAL, Ichushi-Web of the Japan Medical Abstract Society databases 	<ul style="list-style-type: none"> Eligibility criteria: (i) patients with cancer over 18 years of age, (ii) intervention or observational studies that focused on relieving nausea and vomiting, (iii) nursing support, and (iv) quantitative data showing outcomes Exclusion: papers clearly showing that nausea and vomiting were caused by cancer treatment, papers 	Nursing support interventions	-	<ul style="list-style-type: none"> Duplicate study selection and data extraction Restricted to Japanese and English language No quality appraisal of included studies No relevant included RCTs

Study ID	Methods	Patient characteristics	Intervention	Results	Critical appraisal of study quality
	<ul style="list-style-type: none"> • Study designs: intervention or observational studies • N included studies: N=6 RCTs 	in which over 20% of the participants did not have cancer, papers with secondary analyses			
Pan 2000	<ul style="list-style-type: none"> • Design: systematic review • Funding: in part by the Commonwealth Fund; Col: see article • Search date: Sep 1998 • Databases: PubMed, CINAHL, CancerLit, AIDSLINE, Social Work Abstracts, PsycLit • Study designs: clinical reports or reviews • N included studies: N=11 RCTs 	<ul style="list-style-type: none"> • Eligibility criteria: original clinical reports or reviews that evaluated the use of a CAM modality to treat pain, dyspnea, and nausea and vomiting in adult patients with incurable conditions who were near the end of life • Exclusion: patients with chronic conditions that were not fatal or not characteristic of most dying patients (degenerative joint diseases and arthritides, burns, chronic pain syndromes, post-operative pain, spinal cord, or other neurological injuries); were laboratory studies, case reports, anecdotes, surveys, or commentaries; or focused primarily on biological mechanisms, risk factors, predictors, prognosis, or central nervous system stimulation techniques 	CAM modalities	-	<ul style="list-style-type: none"> • Duplicate study selection and data extraction • No language restriction • No quality appraisal of included studies • Relevant RCTs: no RCTs about nausea and vomiting

Study ID	Methods	Patient characteristics	Intervention	Results	Critical appraisal of study quality
Shin 2016	<ul style="list-style-type: none"> Design: systematic review + meta-analysis Funding: (1) KAMS Research Center, Korean Academy of Medical Sciences (KAMS), Korea, South; (2) The South Asian Cochrane Network and Centre, Christian Medical College, Vellore, India; Col: none Search date: Aug 2015 Databases: Cochrane Central Register of Controlled Trials, Medline, Embase, Cinahl, PsycINFO, PubMed Cancer Subset, SADCCT, WHO ICTRP Study designs: RCTs N included studies: N=19 RCTs 	<ul style="list-style-type: none"> Eligibility criteria: RCTs evaluating massage with or without aromatherapy in adults and children diagnosed with cancer Exclusion: touch therapies such as therapeutic touch, acupuncture, and reflexology; inhalations and humidification methods 	Massage with or without aromatherapy	-	<ul style="list-style-type: none"> Duplicate study selection, data extraction and quality appraisal No language restrictions No relevant included RCTs
Thomas 2005	<ul style="list-style-type: none"> Design: systematic review Funding: Health Canada (#6795-15-2002/4780004); Col: unclear Search date: unclear Databases: ERIC, Embase, Medline, 	<ul style="list-style-type: none"> Eligibility criteria: persons who are terminally ill, near death, or dying 	Non-medical and non-surgical therapies	-	<ul style="list-style-type: none"> Unclear if selection and data extraction was done by independent researchers Unclear if language restrictions were used No RCTs relevant to PICO

Study ID	Methods	Patient characteristics	Intervention	Results	Critical appraisal of study quality
	<p>Cinahl, AMED, PsycInfo, HealthStar, Sociological Abstracts, Cochrane Library</p> <ul style="list-style-type: none"> • Study designs: RCTs and SR • N included studies: N=15 RCTs 				
Towler 2013	<ul style="list-style-type: none"> • Design: systematic review of reviews • Funding: scholarship from the Cancer Experiences Collaborative, which was funded by the National Cancer Research Institute; Col: none • Search date: 2000-2011 • Databases: Medline, Embase, AMED, Cinahl, Web of Science • Study designs: SR • N included studies: N=17 SR 	<ul style="list-style-type: none"> • Eligibility criteria: reviews of the use of acupuncture for cancer supportive and palliative care • Exclusion: papers on acupuncture, children and animals 	Acupuncture	-	<ul style="list-style-type: none"> • Unclear if selection and data extraction was done by independent researchers • Limited to English studies • No relevant SR: all referenced RCTs are about CINV
Wu 2015	<ul style="list-style-type: none"> • Design: systematic review of reviews • Funding: Hospital Authority of Hong Kong (Reference number: 8110016609); Col: none 	<ul style="list-style-type: none"> • Eligibility criteria: SR that summarised clinical evidence on the effectiveness of acupuncture and related therapies for palliative care of cancer 	Acupuncture and related therapies	-	<ul style="list-style-type: none"> • Duplicate study selection, data extraction and quality appraisal • Unclear if language restrictions were applied • No relevant SR: all referenced RCTs are

Study ID	Methods	Patient characteristics	Intervention	Results	Critical appraisal of study quality
	<ul style="list-style-type: none"> • Search date: July 2014 • Databases: Medline, Embase, Cochrane Database of Systematic Reviews, DARE, Chinese Biomedical Databases, Wan Fang Digital Journals and Taiwan Periodical Literature Databases • Study designs: SR • N included studies: N=23 SR 				<p>about CINV and/or in Chinese</p>
Zeng 2018	<ul style="list-style-type: none"> • Design: systematic review • Funding: none; Col: none • Search date: Jan 1999 – May 2016 • Databases: PubMed, CINAHL, PsycINFO, Embase • Study designs: controlled trials • N included studies: N=17 RCTs 	<ul style="list-style-type: none"> • Eligibility criteria: studies that assessed the efficacy of a CAM therapy in a palliative or hospice setting • Exclusion: meeting abstracts and quasi-experimental studies 	CAM modalities	-	<ul style="list-style-type: none"> • Duplicate study selection, data extraction and quality appraisal • Restriction to English literature • Jadad scale was used for quality appraisal • No relevant included RCTs

Primaire studies

Study ID	Methods	Patient characteristics	Intervention	Results	Critical appraisal of study quality
Brøndum 2022	<ul style="list-style-type: none"> • Design: RCT • Funding: none; Col: none • Setting: 3 hospices, Denmark • Sample size: N=136 • Duration: Jan 2015 – Oct 2019 	<ul style="list-style-type: none"> • Eligibility criteria: terminally ill patients referred to one of the three hospices who experienced nausea or vomiting either at the time of admission or during their stay • Exclusion criteria: patients were excluded from the study if they had massive oedema in arms or legs, could not respond appropriately, or could not cooperate cognitively • <i>A priori</i> patient characteristics: <ul style="list-style-type: none"> ◦ Age: <50y 3%, 50–60y 12%, 60–70y 38%, 70–80y 34%, >80y 13% ◦ M/F: 37/75 	<p>Acupuncture daily for 3 days (N=68)</p> <p>vs.</p> <p>Usual care (N=68)</p>	<p>CRITICAL OUTCOMES</p> <ul style="list-style-type: none"> • Nausea / vomiting: <ul style="list-style-type: none"> ◦ Reduction of nausea score: 75% vs. 55%, p=0.028 ◦ No nausea after intervention: 52% vs. 30% ◦ No vomiting after intervention: 69% vs. 66%, p=0.725 • Quality of life: not reported • Patient satisfaction: not reported • Adverse events: not reported 	<p>Level of evidence: high risk of bias</p> <ul style="list-style-type: none"> • Allocation to the intervention or control group was performed by the nurse caring for the patient, randomly picking a sealed white envelope from a basket with completely identical envelopes • No blinding • No ITT analysis
Look 2021	<ul style="list-style-type: none"> • Design: RCT • Funding: none; Col: none • Setting: single university centre, Malaysia • Sample size: N=40 • Duration: 9/2018–12/2018 	<ul style="list-style-type: none"> • Eligibility criteria: adult palliative care patients aged 18 years and above and at least one symptom scoring $\geq 5/10$ based on the ESAS • Exclusion criteria: patients who were confused based on the Confusion Assessment Method or non-communicative • <i>A priori</i> patient characteristics: <ul style="list-style-type: none"> ◦ Mean age: 66.8 vs. 69.2y 	<p>Mindful breathing during 20' (N=20)</p> <p>vs.</p> <p>Standard care (N=20)</p>	<p>CRITICAL OUTCOMES</p> <ul style="list-style-type: none"> • Nausea / vomiting: <ul style="list-style-type: none"> ◦ Mean symptom reduction (ESAS) at end of intervention: mean rank 18.8 vs. 22.3, U=165.0, Z=-1.245, p=0.355 • Quality of life: not reported • Patient satisfaction: not reported • Adverse events: not reported 	<p>Level of evidence: high risk of bias</p> <ul style="list-style-type: none"> • Computer-generated random number list with separation of allocations into single sheets that were opened only on patient recruitment to allow allocation concealment • Open-label • ITT analysis

Study ID	Methods	Patient characteristics	Intervention	Results	Critical appraisal of study quality
		<ul style="list-style-type: none"> ○ M/F: 20/20 ○ Cancer type: gastrointestinal/hepatobiliary 40%, gynaecological 13%, breast 10%, urological 10%, lung 5% ○ Non-malignant disease: 15% 			
Perkins 2022	<ul style="list-style-type: none"> • Design: RCT • Funding: Sue Ryder Leckhampton Court Hospice Research Department; Col: none • Setting: 2 specialist palliative care units, UK • Sample size: N=57 • Duration: recruitment June 2010 – Jan 2018 	<ul style="list-style-type: none"> • Eligibility criteria: diagnosis of advanced cancer with an estimated prognosis of less than 1 year but more than 3 days, nausea as at least moderate on a one/mild/moderate/severe scale OR had at least one vomit per day for the last 3 days, underlying cause for their nausea thought to be irreversible OR the patient has made an autonomous choice not to proceed with treatment for any potentially reversible cause, stable dose of corticosteroids if taking • Exclusion criteria: arm lymphoedema; weakness, fatigue or confusion sufficient that patient is unable to take part; previous history of acupuncture/acupressure for nausea or vomiting, or history of use of acupressure by a close 	<p>Active acupressure wristbands (N=28)</p> <p>vs.</p> <p>Placebo wristbands (N=27)</p>	<p>CRITICAL OUTCOMES</p> <ul style="list-style-type: none"> • Nausea / vomiting: <ul style="list-style-type: none"> ○ Difference in average number of vomits: -0.7 vs. -0.8, p=0.9288 ○ Total number of as needed doses of antiemetics: 65 vs. 50, p=0.1317 ○ Escalation of antiemetics: 14/84 vs. 13/75 study days, p=0.957 ○ Nausea VAS: median 22.5 vs. 21, p=0.5736 ○ Time (hours) nauseated over last 24h: p=0.769 <ul style="list-style-type: none"> ▪ <1/4: 42/84 vs. 31/75 study days ▪ 1/4-1/2: 15/84 vs. 17/75 ▪ 1/2-3/4: 11/84 vs. 10/75 ▪ 3/4-1: 8/84 vs. 9/75 • Quality of life: not reported • Patient satisfaction: not reported • Adverse events: N=15 vs. 13, p=0.299 	<p>Level of evidence: low risk of bias</p> <ul style="list-style-type: none"> • Pairs of active or placebo acupressure wristbands had previously been placed in sequential numbered envelopes according to a sequence derived from randomization.com • The bands were placed on participants' wrists at the correct P6 points by a member of the research team not involved with clinical decision making for the patient • Patient was assessed by a clinician (blinded to the type of acupressure bands in place) • 2/57 patients excluded from analysis • Some analyses are done on the level of study days instead of patients

Study ID	Methods	Patient characteristics	Intervention	Results	Critical appraisal of study quality
		relative; history of parkinsonism or parkinsonism on examination (as metoclopramide included in treatment escalation schedule for patients with suspected gastric stasis); sharing a room with another patient taking part in the study; unable to read or comprehend the questionnaires or Visual Analogue Scale (VAS) <ul style="list-style-type: none"> • <i>A priori</i> patient characteristics: <ul style="list-style-type: none"> ○ Median age: 65.5y vs. 67.0y ○ M/F: 7/48 ○ Cancer type: upper GI N=10, lower GI N=7, pancreas / gall bladder N=10, lung N=10, ovary N=8 			

Abbreviations: 95%CI: 95% confidence interval; CAM: complementary and alternative medicine; CINV: chemotherapy-induced nausea and vomiting; Col: conflict of interest; ECOG PS: Eastern Cooperative Oncology Group performance status; EORTC QLQ-C30: European Organization for Research and Treatment of Cancer Quality of Life Questionnaire version 3.0; ESAS: Edmonton Symptom Assessment System; ITT: intention-to-treat; NSCLC: non-small-cell lung cancer; OR: odds ratio; QOL: quality of life; RCT: randomised controlled trial; SR: systematic review; VAS: visual analogue scale; WHOQOL-BREF: World Health Organization quality of life questionnaire.

References

- Arving C, Sjöden PO, Bergh J, Hellbom M, Johansson B, Glimelius B, Brandberg Y: Individual psychosocial support for breast cancer patients: a randomized study of nurse versus psychologist interventions and standard care. *Cancer Nurs.* 2007, 30:E10-9.
- Billhult A, Bergbom I, Stener-Victorin E (2007) Massage relieves nausea in women with breast cancer who are undergoing chemotherapy. *J Altern Complement Med* 13(1):53-57.
- Brondum, L., B. Markfoged, and J. Finderup, Acupuncture as a tool to reduce nausea in terminally ill patients. *Scandinavian Journal of Caring Sciences*, 2022. 36(4): p. 1046-1053.
- Ernst, E., Massage therapy for cancer palliation and supportive care: a systematic review of randomised clinical trials. *Supportive Care in Cancer*, 2009. 17(4): p. 333-7.
- Hunter, J.J.; Maunder, R.G.; Sui, D.; Esplen, M.J.; Chaoul, A.; Fisch, M.J.; Bassett, R.L.; Harden-Harrison, M.M.; Lagrone, L.; Wong, L.; et al. A randomized trial of nurse-administered behavioral interventions to manage anticipatory nausea and vomiting in chemotherapy. *Cancer Med.* 2020, 9, 1733-1740.
- Kobayashi M et al. Nursing Support for Nausea and Vomiting in Patients With Cancer: A Scoping Review. *Cureus* 15(11): e48212. doi:10.7759/cureus.48212.
- Lim JTW, Wong ET, Aung SKH. Is there a role for acupuncture in the symptom management of patients receiving palliative care for cancer? A pilot study of 20 patients comparing acupuncture with nurse-led supportive care. *Acupunct Med* 2011;29:173e179.
- Look, M.L., et al., Symptom reduction in palliative care from single session mindful breathing: A randomised controlled trial. *BMJ Supportive and Palliative Care*, 2021. 11(4): p. 433-439.
- Pan, C.X., et al., Complementary and alternative medicine in the management of pain, dyspnea, and nausea and vomiting near the end of life. A systematic review. *Journal of Pain & Symptom Management*, 2000. 20(5): p. 374-87.

- Perkins, P., et al., Does acupressure help reduce nausea and vomiting in palliative care patients? A double blind randomised controlled trial. *BMJ supportive & palliative care*, 2022. 12(1): p. 58–63.
- Sabet, P., et al., Effect of Spirituality-Based Palliative Care on Pain, Nausea, Vomiting, and the Quality of Life in Women with Colon Cancer: A Clinical Trial in Southern Iran. *Journal of Religion & Health*, 2023. 62(3): p. 1985–1997.
- Shin, E.S., et al., Massage with or without aromatherapy for symptom relief in people with cancer. *Cochrane Database of Systematic Reviews*, 2016. 2016(6).
- Thomas, R. and D. Wilson, Randomized controlled trials of non-medical and non-surgical therapies for palliative care: A literature review. *Alternative Medicine Review*, 2005. 10(3): p. 204–215.
- Towler, P., A. Molassiotis, and S.G. Brearley, What is the evidence for the use of acupuncture as an intervention for symptom management in cancer supportive and palliative care: an integrative overview of reviews. *Supportive Care in Cancer*, 2013. 21(10): p. 2913–23.
- Uster, A., et al., Effects of nutrition and physical exercise intervention in palliative cancer patients: A randomized controlled trial. *Clinical Nutrition*, 2018. 37(4): p. 1202–1209.
- Wu, X., et al., Effectiveness of acupuncture and related therapies for palliative care of cancer: overview of systematic reviews. *Scientific Reports*, 2015. 5: p. 16776.
- Zeng, Y.S., et al., Complementary and Alternative Medicine in Hospice and Palliative Care: A Systematic Review. *Journal of Pain & Symptom Management*, 2018. 56(5): p. 781–794.e4.

GRADE-tabellen

Auteur(s):

Vraagstelling: Acupressure wristbands versus placebo wristbands voor patients with terminal cancer and nausea

Setting:

Literatuur:

Certainty assessment							Aantal patiënten		Effect		Certainty	Importantie
Aantal studies	Studieopzet	Risk of bias	Inconsistentie	Indirect bewijs	Onnauwkeurigheid	Andere factoren	acupressu re wristband s	placebo wristban ds	Relati ef (95% CI)	Absolu ut (95% CI)		

Median difference in average number of vomits

1	gerandomiseerde trials	niet ernstig	niet ernstig	niet ernstig	zeer ernstig ^a	niet gevonden	Median (IQR): -0.7 (-1.7 - 0) vs. -0.8 (-1.5 - -0.3) P=0.9288		⊕⊕○○ Laag ^a	CRUCIAAL
---	------------------------	--------------	--------------	--------------	---------------------------	---------------	---	--	---------------------------	----------

Total number of as needed doses of antiemetics

1	gerandomiseerde trials	niet ernstig	niet ernstig	niet ernstig	zeer ernstig ^b	niet gevonden	65 vs. 50, p=0.1317		⊕⊕○○ Laag ^b	CRUCIAAL
---	------------------------	--------------	--------------	--------------	---------------------------	---------------	---------------------	--	---------------------------	----------

Escalation of antiemetics (/ study days)

Certainty assessment							Aantal patiënten		Effect		Certainty	Importantie
Aantal studies	Studieopzet	Risk of bias	Inconsistentie	Indirect bewijs	Onnauwkeurigheid	Andere factoren	acupressu re wristbands	placebo wristbands	Relatief (95% CI)	Absoluut (95% CI)		
1	gerandomiseerde trials	ernstig ^c	niet ernstig	niet ernstig	zeer ernstig ^d	niet gevonden	14/84 (16.7%)	13/75 (17.3%)	RR 0.96 (0.48 tot 1.91)	7 minder per 1.000 (from 90 minder tot 158 meer)	⊕○○○ ○ Zeer laag ^{c,d}	CRUCIAAL

Median nausea VAS

1	gerandomiseerde trials	niet ernstig	niet ernstig	niet ernstig	zeer ernstig ^e	niet gevonden	Median (IQR): 22.5 (6.5-58) vs. 21 (7-43) P=0.5736		⊕⊕○○ Laag ^e	CRUCIAAL
---	------------------------	--------------	--------------	--------------	---------------------------	---------------	---	--	---------------------------	----------

Time (hours) nauseated over last 24h (/ study day: < 1/4 hours)

Certainty assessment							Aantal patiënten		Effect		Certainty	Importantie
Aantal studies	Studieopzet	Risk of bias	Inconsistentie	Indirect bewijs	Onnauwkeurigheid	Andere factoren	acupressu re wristbands	placebo wristbands	Relatief (95% CI)	Absoluut (95% CI)		
1	gerandomiseerde trials	ernstig ^c	niet ernstig	niet ernstig	ernstig ^f	niet gevonden	42/84 (50.0%)	31/75 (41.3%)	RR 1.21 (0.86 tot 1.71)	87 meer per 1.000 (from 58 minder tot 293 meer)	⊕⊕○○ Laag ^{c,f}	CRUCIAAL

Quality of life - niet gerapporteerd

-	-	-	-	-	-	-	-	-	-	-	-	CRUCIAAL
---	---	---	---	---	---	---	---	---	---	---	---	----------

Patient satisfaction - niet gerapporteerd

-	-	-	-	-	-	-	-	-	-	-	-	CRUCIAAL
---	---	---	---	---	---	---	---	---	---	---	---	----------

Certainty assessment							Aantal patiënten		Effect		Certainty	Importantie
Aantal studies	Studieopzet	Risk of bias	Inconsistentie	Indirect bewijs	Onnauwkeurigheid	Andere factoren	acupressu re wristbands	placebo wristbands	Relatief (95% CI)	Absoluut (95% CI)		

Adverse events (/ study days)

1	gerandomiseerde trials	ernstig ^c	niet ernstig	niet ernstig	zeer ernstig ^d	niet gevonden	15/84 (17.9%)	13/75 (17.3%)	RR 1.03 (0.52 tot 2.02)	5 meer per 1.000 (from 83 minder tot 177 meer)	⊕○○ ○ Zeer laag ^{c,d}	CRUCIAAL
---	------------------------	----------------------	--------------	--------------	---------------------------	---------------	------------------	------------------	---	--	---	----------

CI: Confidence interval; **MD:** Mean difference; **RR:** Risk ratio

1.1.1.2 Explanations

- Calculated OIS = 2493 (assuming MD of 0.1 and SD of 1.26) --> not reached
- No information about CI, small sample size
- Perkins 2022: outcome reported at the level of study days instead of patients
- CI around RR includes 0.75 and 1.25
- Calculated OIS = 10155 (assuming MD of 1.5 and SD of 38.15) --> not reached

f. CI around RR includes 1.25

Auteur(s):

Vraagstelling: Acupuncture versus usual care voor terminally ill patients with nausea or vomiting

Setting:

Literatuur:

Certainty assessment							Aantal patiënten		Effect		Certain ty	Important ie
Aanta l studie s	Studieopzet	Risk of bias	Inconsisten tie	Indire ct bewijs	Onnauwkeurigh eid	Andere factore n	acupunctu re	usual care	Relati ef (95% CI)	Absolu ut (95% CI)		

Proportion of patients with reduction in nausea score

1	gerandomiseer de trials	ernsti g ^a	niet ernstig	niet ernstig	ernstig ^b	niet gevond en	39/52 (75.0%)	33/60 (55.0 %)	RR 1.36 (1.03 tot 1.80)	198 meer per 1.000 (from 17 meer tot 440 meer)	⊕⊕○○ Laag ^{a,b}	CRUCIAAL
---	-------------------------	-----------------------	--------------	--------------	----------------------	----------------	---------------	----------------	--------------------------------	---	--------------------------	----------

Certainty assessment							Aantal patiënten		Effect		Certain ty	Important ie
Aanta l studie s	Studieopzet	Risk of bias	Inconsisten tie	Indire ct bewijs	Onnauwkeurigh eid	Andere factore n	acupunctu re	usual care	Relati ef (95% CI)	Absolu ut (95% CI)		

Proportion of patients without nausea after intervention

1	gerandomiseer de trials	ernsti g ^a	niet ernstig	niet ernstig	ernstig ^b	niet gevond en	27/52 (51.9%)	18/60 (30.0 %)	RR 1.73 (1.09 tot 2.76)	219 meer per 1.000 (from 27 meer tot 528 meer)	⊕⊕○○ Laag ^{a,b}	CRUCIAAL
---	----------------------------	--------------------------	--------------	-----------------	----------------------	----------------------	------------------	----------------------	---	--	-----------------------------	----------

Proportion of patients without vomiting after intervention

Certainty assessment							Aantal patiënten		Effect		Certainty	Importantie
Aantal studies	Studieopzet	Risk of bias	Inconsistentie	Indirect bewijs	Onnauwkeurigheid	Andere factoren	acupuncture	usual care	Relatief (95% CI)	Absoluut (95% CI)		
1	gerandomiseerde trials	ernstig ^a	niet ernstig	niet ernstig	ernstig ^b	niet gevonden	33/52 (63.5%)	38/60 (63.3%)	RR 1.00 (0.76 tot 1.33)	0 minder per 1.000 (from 152 minder tot 209 meer)	⊕⊕○○ Laag ^{a,b}	CRUCIAAL

Quality of life - niet gerapporteerd

-	-	-	-	-	-	-	-	-	-	-	-	CRUCIAAL
---	---	---	---	---	---	---	---	---	---	---	---	----------

Patient satisfaction - niet gerapporteerd

-	-	-	-	-	-	-	-	-	-	-	-	CRUCIAAL
---	---	---	---	---	---	---	---	---	---	---	---	----------

Certainty assessment							Aantal patiënten		Effect		Certain ty	Important ie
Aanta l studie s	Studieopzet	Risk of bias	Inconsisten tie	Indire ct bewijs	Onnauwkeurigh eid	Andere factore n	acupunctu re	usual care	Relati ef (95% CI)	Absolu ut (95% CI)		

Adverse events - niet gerapporteerd

-	-	-	-	-	-	-	-	-	-	-	-	CRUCIAAL
---	---	---	---	---	---	---	---	---	---	---	---	----------

CI: Confidence interval; **RR:** Risk ratio

1.1.1.3 Explanations

- a. Brondum 2022: unclear allocation concealment, no blinding, 24/136 patients not included in analysis
- b. CI around RR includes 1.25

Auteur(s):

Vraagstelling: Mindful breathing versus standard care voor palliative care patients with symptoms

Setting:

Literatuur:

Certainty assessment							Aantal patiënten		Effect		Certainty	Importantie
Aantal studies	Studieopzet	Risk of bias	Inconsistentie	Indirect bewijs	Onnauwkeurigheid	Andere factoren	mindful breathing	standaard care	Relatief (95% CI)	Absoluut (95% CI)		

Mean symptom reduction at end of intervention

1	gerandomiseerde trials	ernstig ^a	niet ernstig	niet ernstig	zeer ernstig ^b	niet gevonden	Mean rank 18.8 vs. 22.3, U=165.0, Z=-1.245, p=0.355			⊕○○ ○ Zeer laag ^{a,b}	CRUCIAAL
---	------------------------	----------------------	--------------	--------------	---------------------------	---------------	---	--	--	--------------------------------------	----------

Quality of life - niet gerapporteerd

-	-	-	-	-	-	-	-	-	-	-	-	CRUCIAAL
---	---	---	---	---	---	---	---	---	---	---	---	----------

Patient satisfaction - niet gerapporteerd

-	-	-	-	-	-	-	-	-	-	-	-	CRUCIAAL
---	---	---	---	---	---	---	---	---	---	---	---	----------

Adverse events - niet gerapporteerd

Certainty assessment							Aantal patiënten		Effect		Certainty	Importantie
Aantal studies	Studieopzet	Risk of bias	Inconsistentie	Indirect bewijs	Onnauwkeurigheid	Andere factoren	mindful breathing	standaard care	Relatief (95% CI)	Absoluut (95% CI)		
-	-	-	-	-	-	-	-	-	-	-	-	CRUCIAAL

CI: Confidence interval

1.1.1.4 Explanations

a. Look 2021: no blinding

b. Insufficient data to calculate precision, small sample size

Onderzoeksvraag 3: medicamenteuze behandeling

Vraag 3: Wat is de beste keuze voor medicatie (metocloperamide vs domperidon, haloperidol, dexamethason, levomepromazine vs. olanzapine, serotonine-antagonisten, erythromycine, cyclizine, cannabis , gember) bij de behandeling van patiënten met misselijkheid en braken in de palliatieve fase?

Systematische reviews

Study ID	Methods	Patient characteristics	Intervention	Results	Critical appraisal of study quality
Cox 2015	<ul style="list-style-type: none"> Design: systematic review Funding: none; Col: none Search date: Feb 2015 Databases: Medline, CENTRAL, Embase, trial registries Study designs: RCTs N included studies: N=0 RCTs 	<ul style="list-style-type: none"> Eligibility criteria: adults (aged 18 years and over) receiving palliative care suffering from nausea or vomiting, or both Exclusion: nausea or vomiting thought to be secondary to pregnancy or surgery; studies of levomepromazine for the control of nausea or vomiting associated with chemotherapy were excluded unless all the participants (or a specified subgroup, analysed separately) were receiving palliative care 	Levomepromazine	-	<ul style="list-style-type: none"> Duplicate selection No language restriction
Davis 2010	<ul style="list-style-type: none"> Design: systematic review 	<ul style="list-style-type: none"> Eligibility criteria: adults with active cancer, treatment for nausea 	Antiemetics	<ul style="list-style-type: none"> See below for results of included studies 	<ul style="list-style-type: none"> Limited to English language

Study ID	Methods	Patient characteristics	Intervention	Results	Critical appraisal of study quality
	<ul style="list-style-type: none"> • Funding: not reported; Col: not reported • Search date: 2008 • Databases: PubMed, OVID Medline, CENTRAL, ProQuest • Study designs: RCTs, prospective trials, cohort studies, case series, single-case reports • N included studies: N=14 RCTs 	<p>and vomiting clinically determined to be related to the cancer or as a complication from the cancer</p>			<ul style="list-style-type: none"> • Unclear if review process was done by independent reviewers • Quality appraisal using Jadad scale • Relevant included studies: Bruera 2000, Corli 1995
Dietz 2013	<ul style="list-style-type: none"> • Design: systematic review • Funding: unclear; Col: none • Search date: Apr 2012 • Databases: Medline, Embase, The Cochrane Library, PsychInfo, Ovid Nursing • Study designs: RCTs, prospective trials, cohort studies, case series, case 	<ul style="list-style-type: none"> • Eligibility criteria: adults treated in the palliative care setting; pharmacological treatment of symptoms at the end of life with levomepromazine 	Levomepromazine	-	<ul style="list-style-type: none"> • Limited to English language • Duplicate selection • Unclear if data extraction was done by independent reviewers

Study ID	Methods	Patient characteristics	Intervention	Results	Critical appraisal of study quality
	<p>reports, systematic reviews</p> <ul style="list-style-type: none"> • N included studies: N=0 RCTs 				
Doppen 2022	<ul style="list-style-type: none"> • Design: systematic review • Funding: none; Col: none • Search date: Sep 2021 • Databases: PubMed, Embase, The Cochrane Library, clinicaltrials.gov • Study designs: all • N included studies: N=20 RCTs 	<ul style="list-style-type: none"> • Eligibility criteria: primary research in children and/or adults prescribed medicinal cannabis product (plant-derived or synthetically manufactured), in any formulation or dose, for symptoms due to a terminal disease • Exclusion: study population was not clearly specified as being “palliative”, “advanced”, “end-stage” or “incurable”; the medicinal cannabis was not prescribed 	Medicinal cannabis	<ul style="list-style-type: none"> • See below for results of Brisbois 2011 	<ul style="list-style-type: none"> • Study selection, data extraction and quality appraisal done by independent reviewers • Restricted to English language • Relevant included RCTs: Brisbois 2021
Douglas 2009	<ul style="list-style-type: none"> • Design: systematic review • Funding: unclear; Col: unclear • Search date: May 2006 • Databases: Medline, Embase, Cinahl 	<ul style="list-style-type: none"> • Eligibility criteria: patients dying with chronic kidney disease • Exclusion: articles which did not relate to the management of symptoms in adult renal populations and those which described 	Symptom management	-	<ul style="list-style-type: none"> • Unclear if review process was done by independent researchers • Unclear language restriction

Study ID	Methods	Patient characteristics	Intervention	Results	Critical appraisal of study quality
	<ul style="list-style-type: none"> • Study designs: all • N included studies: N=0 RCTs 	management of symptoms yet thought to be less relevant in the last days of life			
Economos 2020	<ul style="list-style-type: none"> • Design: systematic review • Funding: King's College London; Col: none • Search date: Jan 2019 • Databases: Medline, Scopus, Web of Science, Central and EMBASE, trial registers • Study designs: all • N included studies: N=3 RCTs 	<ul style="list-style-type: none"> • Eligibility criteria: patients diagnosed with cancer, excluding cancer survivors, with one or more of the following symptoms: depression, anxiety, sleep disorders, nausea, anorexia, weight loss, breathlessness, pain, constipation, fatigue and drowsiness 	Mirtazapine	-	<ul style="list-style-type: none"> • Unclear if study selection was done by independent researchers • Data extraction and quality appraisal done by independent researchers • Restricted to English and French literature • Relevant included RCTs: Cao 2018 (but published as an abstract)
Glare 2004	<ul style="list-style-type: none"> • Design: systematic review • Funding: Strategic Research Development grant from NHMRC; Col: unclear • Search date: June 2003 • Databases: US Clinical Guidelines Repository, 	<ul style="list-style-type: none"> • Eligibility criteria: patients with cancer in an advanced stage and with nausea • Exclusion: study objective was aimed at evaluating (a) antiemetics for the control of nausea and vomiting caused by emetogenic chemotherapy, or (b) 	Antiemetics	<ul style="list-style-type: none"> • See below for results of included studies 	<ul style="list-style-type: none"> • Unclear if study selection was done by independent researchers • Data extraction done by one researcher • Restricted to English literature • Quality appraisal with MERGE instrument • Relevant included studies: Bruera 2000

Study ID	Methods	Patient characteristics	Intervention	Results	Critical appraisal of study quality
	<p>Cochrane Library, Medline, Embase</p> <ul style="list-style-type: none"> • Study designs: systematic reviews, RCT, phase I/II clinical trials, well-designed cohort/case-control studies and case series • N included studies: N=7 RCTs 	<p>agents for the treatment of bowel obstruction other than the standard antiemetics (such as surgery, tubes, or drugs intended to control secretions such as hyoscine or octreotide)</p>			
Miller 2014	<ul style="list-style-type: none"> • Design: systematic review • Funding: unclear; Col: none • Search date: Oct 2012 • Databases: Medline, Cinahl • Study designs: any experimental design • N included studies: N=6 RCTs 	<ul style="list-style-type: none"> • Eligibility criteria: anorexia in adult palliative care for malignant or nonmalignant, life-limiting conditions 	Corticosteroids	<ul style="list-style-type: none"> • See below for results of included studies 	<ul style="list-style-type: none"> • Study selection and quality appraisal done by independent reviewers • Unclear if data extraction was done by independent researchers • Evidence grading with SIGN system • Restricted to English literature • Relevant included studies: Popiela 1989
Mucke 2018	<ul style="list-style-type: none"> • Design: systematic review + meta-analysis • Funding: Commonwealth 	<ul style="list-style-type: none"> • Eligibility criteria: participants of any age, diagnosed with any advanced or end-stage medical disease (e.g. 	Cannabinoids	<ul style="list-style-type: none"> • See below for results of Brisbois 2011 	<ul style="list-style-type: none"> • Review process by independent reviewers • Language restriction unclear

Study ID	Methods	Patient characteristics	Intervention	Results	Critical appraisal of study quality
	<p>Department of Health, the NSW Government Centre for Medicinal Cannabis Research and Innovation, the Victorian Department of Health and Human Services and the Queensland Department of Health; NHMRC research fellowship #1041472; the Australian Government under the Substance Misuse Prevention and Service Improvements Grant Fund"; Col: none</p> <ul style="list-style-type: none"> • Search date: Mar 2017 • Databases: CENTRAL, Medline, PsycINFO, PubMed, and Scopus 	<p>cancer, dementia, HIV/Acquired Immune Deficiency Syndrome (AIDS), heart disease, lung disease, and liver disease)</p> <ul style="list-style-type: none"> • Exclusion: non-randomized studies, short abstracts, case reports, and studies without focus on palliative care aspects; studies on neuropathic pain in patients with HIV 			<ul style="list-style-type: none"> • Complete GRADE process used • Relevant included RCTs: Brisbois 2021

Study ID	Methods	Patient characteristics	Intervention	Results	Critical appraisal of study quality
	<ul style="list-style-type: none"> • Study designs: RCTs • N included studies: N=9 RCTs 				
Murray–Brown 2015	<ul style="list-style-type: none"> • Design: systematic review • Funding: unclear; Col: none • Search date: Nov 2014 • Databases: Medline, CENTRAL, Embase, Cinahl, AMED, trial registries • Study designs: RCTs • N included studies: N=1 RCTs 	<ul style="list-style-type: none"> • Eligibility criteria: adults receiving palliative care or suffering from an incurable progressive medical condition, and suffering from nausea or vomiting, or both • Exclusion: nausea or vomiting, or both, thought to be secondary to pregnancy or surgery 	Haloperidol	-	<ul style="list-style-type: none"> • Duplicate selection • No language restriction • No relevant RCTs
Sande 2019	<ul style="list-style-type: none"> • Design: systematic review • Funding: none; Col: none • Search date: Nov 2017 • Databases: Medline, Embase • Study designs: RCTs • N included studies: N=15 RCTs 	<ul style="list-style-type: none"> • Eligibility criteria: patients with cancer; at least 18 years of age; on opioids (weak or strong opioid) as defined by WHO’s Analgesic Ladder for cancer pain relief; nausea and/or vomiting assessed as a primary or secondary outcome • Exclusion: nausea and vomiting related to chemotherapy, 	Management of opioid-induced nausea and vomiting	<ul style="list-style-type: none"> • See below for results of included studies 	<ul style="list-style-type: none"> • Restricted to English literature • Unclear if study selection was done by independent reviewers • Data extraction and quality appraisal done by independent reviewers • GRADE process used • No relevant RCTs

Study ID	Methods	Patient characteristics	Intervention	Results	Critical appraisal of study quality
		radiotherapy, malignant bowel obstruction, or postoperative settings			
Solmi 2023	<ul style="list-style-type: none"> • Design: systematic review • Funding: none; Col: extensive list in article • Search date: Feb 2022 • Databases: PubMed, PsychInfo, Embase, Cochrane Library • Study designs: meta-analyses • N included studies: N=0 RCTs 	<ul style="list-style-type: none"> • Eligibility criteria: meta-analyses of observational studies (ie, case-control and cohort studies) and randomised controlled trials that reported on any outcome associated with cannabis and cannabinoids use in humans • Exclusion: systematic reviews without a meta-analysis, meta-analyses of risk factors for cannabinoids use, meta-analyses of cross-sectional studies only, pooled analyses of studies identified without a systematic search, and individual studies 	Cannabis	-	<ul style="list-style-type: none"> • Duplicate study selection and data extraction • No language restriction • Quality appraisal using Amstar instrument • No relevant included studies
Storror 2014	<ul style="list-style-type: none"> • Design: systematic review • Funding: Cochrane Collaboration; Col: none 	<ul style="list-style-type: none"> • Eligibility criteria: adults receiving palliative care or suffering from an incurable progressive medical condition, and 	Droperidol	-	<ul style="list-style-type: none"> • Duplicate selection • No language restriction

Study ID	Methods	Patient characteristics	Intervention	Results	Critical appraisal of study quality
	<ul style="list-style-type: none"> • Search date: Nov 2013 • Databases: Medline, Embase, CENTRAL, AMED, Cinahl, trial registers • Study designs: RCTs • N included studies: N=0 RCTs 	<p>suffering from nausea or vomiting, or both</p> <ul style="list-style-type: none"> • Exclusion: nausea or vomiting, or both, thought to be secondary to pregnancy or surgery; antiemetic(s) used for the prophylaxis of nausea or vomiting associated with chemotherapy 			
Sutherland 2018	<ul style="list-style-type: none"> • Design: systematic review • Funding: Health Education Thames Valley; Col: none • Search date: Sep 2017 • Databases: CENTRAL, Medline, Embase • Study designs: RCTs • N included studies: N=14 RCTs 	<ul style="list-style-type: none"> • Eligibility criteria: patients with cancer (of any type or stage), who had nausea and vomiting treated with olanzapine, or where olanzapine was used to prevent nausea and vomiting • Exclusion: studies in which olanzapine was used for the treatment or prevention of nausea and vomiting in non-cancer patients 	Olanzapine	<ul style="list-style-type: none"> • See below for results of Navari 2010 	<ul style="list-style-type: none"> • Review process by independent reviewers • No language restriction • Relevant included studies: Navari 2010
Tramer 1999	<ul style="list-style-type: none"> • Design: systematic review • Funding: PROSPER research grant from the Swiss National Science 	<ul style="list-style-type: none"> • Eligibility criteria: prophylactic efficacy of antiemetic interventions compared with placebo or no treatment in patients with acute, 	Prophylactic antiemetics during patient-controlled analgesia therapy	-	<ul style="list-style-type: none"> • Unclear if study selection was done by independent reviewers • Data extraction and quality appraisal

Study ID	Methods	Patient characteristics	Intervention	Results	Critical appraisal of study quality
	<p>Foundation (Grant No 3233–051939.97); Col: unclear</p> <ul style="list-style-type: none"> • Search date: Apr 1998 • Databases: Medline, Embase, Cochrane Library • Study designs: RCTs • N included studies: N=14 RCTs 	<p>postoperative pain treated with a PCA device containing an opioid</p> <ul style="list-style-type: none"> • Exclusion: abstracts, letters, and review articles; interventions to treat established postoperative nausea and vomiting 			<p>done by independent reviewers</p> <ul style="list-style-type: none"> • No language restriction • Quality appraisal using Jadad scale • No relevant included studies
Vayne-Bossert 2017	<ul style="list-style-type: none"> • Design: systematic review • Funding: Mater Research - The University of Queensland, School of Pharmacy and Menzies Health Institute Queensland, GriFith University, The Mater Palliative Care Research Fund and St Vincent's Hospital Brisbane, Australia; Col: none 	<ul style="list-style-type: none"> • Eligibility criteria: participants with cancer suffering from nausea, vomiting or both not related to chemotherapy, radiotherapy, or surgery, aged 18 years and above 	Corticosteroids	<ul style="list-style-type: none"> • See below for results of included studies 	<ul style="list-style-type: none"> • Review process by independent reviewers • No language restriction • No relevant RCTs

Study ID	Methods	Patient characteristics	Intervention	Results	Critical appraisal of study quality
	<ul style="list-style-type: none"> • Search date: Aug 2016 • Databases: CENTRAL, Medline, Embase, Cinahl, EBSCO, Web of Science, LILACS, Conference Proceedings Citation Index, trial registries • Study designs: RCTs • N included studies: N=3 RCTs 				

Primaire studies

Study ID	Methods	Patient characteristics	Intervention	Results	Critical appraisal of study quality
Brisbois 2011	<ul style="list-style-type: none"> • Design: RCT • Funding: Canadian Institutes of Health Research (CIHR) (MOP 85060, MOP 86497) and the Alberta Cancer Board (ACB) (0051-71790124); Alberta Heritage 	<ul style="list-style-type: none"> • Eligibility criteria: adult patients with advanced cancer (defined as locally recurrent, locally advanced, or metastatic) of any site except brain who had a score at least 2 (out of 16) on a scored Taste and Smell Survey; 	Delta-9-Tetrahydrocannabinol (2.5 mg/day to a max of 20 mg/day) (N=24) vs. Placebo (N=22)	CRITICAL OUTCOMES <ul style="list-style-type: none"> • Nausea / vomiting: 11-point Edmonton Symptom Assessment System <ul style="list-style-type: none"> ◦ "Nausea scores were unaffected by THC treatment (p=0.532)" • Quality of life: Functional Assessment of Anorexia/Cachexia 	Level of evidence: high risk of bias <ul style="list-style-type: none"> • Randomisation by third party pharmacist according to a third-party computer-generated

Study ID	Methods	Patient characteristics	Intervention	Results	Critical appraisal of study quality
	<p>Foundation for Medical Research, Natural Sciences and Engineering Research Council of Canada, CIHR, and ACB; Col: Solvay Pharma Inc. (Markham, ON, Canada) provided the drug, placebo, and third party monitor</p> <ul style="list-style-type: none"> • Setting: 2 centres, Canada • Sample size: N=46 • Duration: 30-day follow-up; recruitment 2006-2008 	<p>decreased food intake for at least 2 weeks (reported by subject or physician) and a physician-assessed life expectancy of >2 months</p> <ul style="list-style-type: none"> • Exclusion criteria: enteral or parenteral nutrition; allergies or sensitivity to THC and/or sesame seed oil; history of substance abuse (determined by review of patients' medical records, alcohol abuse was often also assessed by CAGE questionnaire) or psychotic episodes (e.g. diagnosis of schizophrenia or psychosis); mechanical obstruction of alimentary tract, mouth, or nose; radiation therapy to the head/neck; primary brain tumor; nausea score >5 on 11-point scale (0 = no nausea, 10 = worst possible nausea); medical 		<p>Therapy (FAACT) questionnaire, global score (SE), at 18 days</p> <ul style="list-style-type: none"> ◦ 98.5 (6.1) vs. 101.8 (6.1), p=0.704 • Patient satisfaction: not reported • Adverse events: <ul style="list-style-type: none"> ◦ No differences were reported during the trial or within the 30-day follow-up period between THC and placebo groups for the number of adverse events or serious adverse events (p=0.622 and p=0.244, respectively) • Completion of chemotherapy: not reported • Overall survival: not reported • Progression-free survival: not reported 	<p>randomization scheme</p> <ul style="list-style-type: none"> • Double-blinded, but unclear if assessors were blinded • 21/46 randomised patients included in analysis

Study ID	Methods	Patient characteristics	Intervention	Results	Critical appraisal of study quality
		<p>conditions affecting chemosensory function (i.e. infection of the mouth or nasal cavity, active sinusitis, hay fever), history of tachyarrhythmias, angina pectoris, or uncontrolled hypertension; liver impairment determined by Child-Pugh score ≥ 10; use of marijuana within 30 days before start of trial; treatments with the specific intention of increasing appetite or anabolism</p> <ul style="list-style-type: none"> • <i>A priori</i> patient characteristics: <ul style="list-style-type: none"> ○ Mean age: 67.0 vs. 65.5y ○ M/F: 12/9 ○ Cancer type: lung N=10, genitourinary N=5, gastrointestinal N=4 ○ Nausea score at inclusion (11-point scale): 1.5 vs. 0.9 			
Bruera 2000	<ul style="list-style-type: none"> • Design: cross-over RCT 	<ul style="list-style-type: none"> • Eligibility criteria: adult patients over 18 years of 	Controlled-release	CRITICAL OUTCOMES	Level of evidence: high risk of bias

Study ID	Methods	Patient characteristics	Intervention	Results	Critical appraisal of study quality
	<ul style="list-style-type: none"> • Funding: unclear; Col: unclear • Setting: single cancer centre, US • Sample size: N=26 • Duration: 9 days 	<p>age with a history of more than 1 month of cancer-associated dyspepsia, characterized by nausea (minimum score of 2 in a 0–4 categorical scale) and at least a score of 1 on anorexia, early satiety, bloating, or vomiting/retching; presence of mental and physical competence to provide informed consent, ability to complete a daily patient diary, and absence of any other prokinetic, antiemetic, or antiemetic therapy before entrance to the study</p> <ul style="list-style-type: none"> • Exclusion criteria: history of allergy or significant toxicity to metoclopramide or dimenhydrinate, mechanical bowel obstruction, ileostomy/colostomy, obvious thrush, severe 	<p>metoclopramide 40 mg every 12 hours for 4 days (N=26)</p> <p>vs.</p> <p>Matching placebo (N=26)</p>	<ul style="list-style-type: none"> • Nausea / vomiting: VAS <ul style="list-style-type: none"> ○ Nausea intensity: 12 vs. 17, p=0.0426 ○ Vomiting intensity: 9 vs. 14 • Quality of life: not reported • Patient satisfaction: not reported • Adverse events: <ul style="list-style-type: none"> ○ The frequency and severity of elicited adverse events did not differ between treatments ○ Only 3 patients during the CRM phase and 5 patients during the placebo phase reported unelicited side effects ○ In no case was it necessary to discontinue CRM because of toxicity • Completion of chemotherapy: not reported • Overall survival: not reported • Progression-free survival: not reported 	<ul style="list-style-type: none"> • Patients were randomized to each phase by a computer-generated code that was kept sealed in the pharmacy • Double-blinded, but unclear if assessors were blinded • Reduction of dose to 20 mg was possible • Rescue antiemetic doses of dimenhydrinate 50 mg every 3–4 hours as needed • 6/26 patients excluded from analysis

Study ID	Methods	Patient characteristics	Intervention	Results	Critical appraisal of study quality
		<p>constipation, brain metastases, or patients scheduled to receive chemotherapy or radiation therapy to the abdomen or other areas likely to provoke gastrointestinal symptoms</p> <ul style="list-style-type: none"> • <i>A priori</i> patient characteristics: <ul style="list-style-type: none"> ○ Mean age: 62y ○ M/F: 9/17 ○ Cancer type: breast N=8, gastrointestinal N=4, lung N=4, genitourinary N=4 			
Corli 1995	<ul style="list-style-type: none"> • Design: cross-over RCT • Funding: not reported; Col: not reported • Setting: palliative care unit, Italy • Sample size: N=30 • Duration: unclear 	<ul style="list-style-type: none"> • Eligibility criteria: patients with advanced cancer who were no longer undergoing treatment with chemotherapy and were receiving only palliative care; at least 48h of continued and highly intense nausea or vomiting or both • Exclusion criteria: patients who were still receiving palliative 	<p>Levosulpiride 3x25 mg/day IM for 7 days (N=30)</p> <p>vs.</p> <p>Metoclopramide 3x10 mg/day IM for 7 days (N=30)</p>	<p>CRITICAL OUTCOMES</p> <ul style="list-style-type: none"> • Nausea / vomiting: <ul style="list-style-type: none"> ○ Disappearance of nausea: 84.6% vs. 42.3%, p=0.0034 ○ Number of hours with nausea: 1.08 vs. 2.01 h/day, p=0.002 ○ Nausea intensity (Overall Nausea Index, mean per day): 0.757 vs. 1.418, p=0.0004 ○ Emesis control: 81.5% vs. 51.8%, p=0.041 ○ Average number of vomiting episodes per day: 0.385 vs. 0.698, p=0.002 	<p>Level of evidence: unclear risk of bias</p> <ul style="list-style-type: none"> • Method of randomisation and allocation concealment not reported • Double-blinded, but unclear if assessors were blinded • 29/30 patients included in analysis, although the data suggest otherwise

Study ID	Methods	Patient characteristics	Intervention	Results	Critical appraisal of study quality
		radiotherapy; bowel obstruction • <i>A priori</i> patient characteristics: ○ Cancer type: lung N=4, gastrointestinal N=7, hepatobiliary N=6, genitourinary N=8, breast N=3		<ul style="list-style-type: none"> • Quality of life: not reported • Patient satisfaction: not reported • Adverse events: not reported • Completion of chemotherapy: not reported • Overall survival: not reported • Progression-free survival: not reported 	
Hardy 2018	<ul style="list-style-type: none"> • Design: RCT • Funding: Palliative Care Clinical Studies Collaborative and funded by the National Health and Medical Research Council of Australia; Col: several interests reported in the article • Setting: 11 centres, Australia • Sample size: N=181 • Duration: outcomes measured at 72h; recruitment Oct 2010 – Apr 2014 	<ul style="list-style-type: none"> • Eligibility criteria: participants > 18 years, had a diagnosis of cancer and nausea with an average score of ≥ 3 on an 11 point (0-10) NRS, not currently receiving antiemetics or had received inappropriate antiemetics • Exclusion criteria: had a short term iatrogenic or reversible cause of nausea for which there was high level evidence that a specific antiemetic or intervention was indicated (e.g., raised intracranial pressure or acute chemo-radiotherapy induced nausea), were likely to 	Antiemetic therapy based on etiology-based clinical practice guidelines (N=95) vs. Haloperidol 1.0 mg/24h (to maximum 3.0 mg/24h) (N=86)	CRITICAL OUTCOMES <ul style="list-style-type: none"> • Nausea / vomiting: <ul style="list-style-type: none"> ○ Response at 72h: 49% vs. 53%, p=0.59 ○ Proportion of patients using rescue medication: <ul style="list-style-type: none"> ▪ At 24h: 33% vs. 42%, p=0.25 ▪ At 48h: 22% vs. 43%, p=0.003 ▪ At 72h: 27% vs. 35%, p=0.31 ○ Percentage of participants reporting ≥ 1 episode of vomiting/day at 72h: 17% vs. 17% • Quality of life: not reported • Patient satisfaction: not reported • Adverse events: number of adverse events graded worse at 72 h than at baseline <ul style="list-style-type: none"> ○ Drowsiness: 11 vs. 14 ○ Fatigue: 12 vs. 8 ○ Anticholinergic effects: 8 vs. 12 ○ Gastrointestinal upset: 10 vs. 10 	Level of evidence: high risk of bias <ul style="list-style-type: none"> • Randomization schedules were computer-generated for each site at an independent central registry; schedules for each site were allocated in a 1:1 ratio in randomly allocated blocks of two or four; schedules held by the central registry were sent to each site in opaque sealed envelopes numbered in sequence; on notification of an eligible patient, the research coordinator at each site opened

Study ID	Methods	Patient characteristics	Intervention	Results	Critical appraisal of study quality
		<p>undergo any procedure with the potential to affect nausea in the two days prior, or during the study period, had a definite contraindication to any of the study medications, a change in glucocorticoid dose within 48 h, or poor performance status (that would have rendered the participant unable to complete study requirements)</p> <ul style="list-style-type: none"> • <i>A priori</i> patient characteristics: <ul style="list-style-type: none"> ○ Mean age: 68.1 vs. 69.3 ○ M/F: 34/61 vs. 23/63 ○ Cancer type: breast N=23, lung N=21, colorectal N=21, gynaecologic N=26 		<ul style="list-style-type: none"> • Completion of chemotherapy: not reported • Overall survival: not reported • Progression-free survival: not reported 	<p>the next numbered envelope, allocated the patient to the guideline treatment or single therapy arm, and notified research staff and treating clinicians of the treatment group allocation</p> <ul style="list-style-type: none"> • No blinding • Rescue medication: metoclopramide 10 mg • Response was defined as at least a 2-point reduction in average nausea score and a score < 3 for average nausea over the preceding 24 h, measured at 72 h on an 11-point numerical rating scale (NRS)
Hardy 2019	<ul style="list-style-type: none"> • Design: RCT • Funding: grant from the Australian Government's National Health and Medical Research Council 	<ul style="list-style-type: none"> • Eligibility criteria: known to a palliative care team, were >18 years, had a diagnosis of cancer and nausea with an average score over the past 24 hours of ≥ 3 	<p>Haloperidol 1.5–3 mg/day (N=59)</p> <p>vs.</p> <p>Methotrimeprazine 6.25–12.5 mg/day (N=57)</p>	<p>CRITICAL OUTCOMES</p> <ul style="list-style-type: none"> • Nausea / vomiting: NRS <ul style="list-style-type: none"> ○ Response to treatment at 72h: 44/59 (75%) vs. 36/57 (63%), p=0.18 ○ Complete response: 33/59 (56%) vs. 29/57 (51%), p=0.59 	<p>Level of evidence: unclear risk of bias</p> <ul style="list-style-type: none"> • Randomisation schedules were computer generated for each site at an

Study ID	Methods	Patient characteristics	Intervention	Results	Critical appraisal of study quality
	<p>(NHMRC)-614247; Col: none</p> <ul style="list-style-type: none"> • Setting: 11 centres, Australia • Sample size: N=121 • Duration: recruitment Mar 2015 – Feb 2017 	<p>on an 11 point (0–10) numerical rating scale</p> <ul style="list-style-type: none"> • Exclusion criteria: nausea related to the treatment of cancer (ie, surgery, chemotherapy) within 5 days of anticancer therapy, had nausea for which a specific antiemetic was indicated and randomisation to study medications alone would not be appropriate (such as dexamethasone for acutely raised intracranial pressure and 5HT3 antagonists for chemotherapy-induced or radiotherapy-induced N/V), were to undergo a procedure or intervention with the potential to affect nausea during the 3-day study period (such as radiotherapy to a site likely to cause nausea), had received methotrimeprazine or haloperidol at study 		<ul style="list-style-type: none"> ○ After treatment completion (72 hours), patients in both arms were significantly less distressed by nausea, compared with baseline, with estimated mean scores of 2.0 (95%CI 1.2–2.8) and 2.2 (95%CI 1.4–3.0) ○ Episodes of vomiting in past 24h: <ul style="list-style-type: none"> ▪ At 24h: 11/56 vs. 7/57, p=0.28 ▪ At 48h: 8/53 vs. 4/51, p=0.24 ▪ At 72h: 7/52 vs. 7/49, p=0.91 ○ Rescue doses: <ul style="list-style-type: none"> ▪ At 24h: 26/57 vs. 28/57 ▪ At 48h: 18/55 vs. 22/53 ▪ At 72h: 16/52 vs. 20/49 • Quality of life: not reported • Patient satisfaction: not reported • Adverse events: <ul style="list-style-type: none"> ○ Proportion of patients with at least 1 event (any grade): 29/52 vs. 31/49 ○ More participants in the methotrimeprazine arm reported drowsiness worse at 72 hours than at baseline (20% vs 12%), but this difference was not significant • Completion of chemotherapy: not reported • Overall survival: not reported • Progression-free survival: not reported 	<p>independent central registry</p> <ul style="list-style-type: none"> • There was no stratification • Schedules for each site were allocated in a 1:1 ratio in randomly allocated blocks of 2 and 4 and sent to each site pharmacy • All capsules were opaque and looked identical to preserve the blinding irrespective of the contents • Treatment allocation was not disclosed to study staff, treating clinicians or investigators until data cleaning was complete • 5/121 patients excluded from analysis • Response was defined as at least a two-point reduction in average nausea score from baseline over the preceding 24

Study ID	Methods	Patient characteristics	Intervention	Results	Critical appraisal of study quality
		<p>doses within the previous 48 hours, a change in glucocorticoid dose within 48 hours, or poor performance status</p> <ul style="list-style-type: none"> • <i>A priori</i> patient characteristics: <ul style="list-style-type: none"> ○ Mean age: 66.2 vs. 67.9y ○ M/F: 25/34 vs. 17/40 ○ Cancer type: lung N=19, breast N=18, gynaecologic N=18, prostate N=10 			<p>hours, measured at 72 hours on an 11-point NRS; complete response was defined as at least a two-point reduction in average nausea score from baseline over the preceding 24 hours with a final score <3/10</p>
Navari 2010	<ul style="list-style-type: none"> • Design: RCT • Funding: Walther Cancer Foundation and the Reich Family Endowment for the care of the whole patient; Col: not reported • Setting: single cancer centre, US • Sample size: N=80 • Duration: recruitment Mar 2005 – Dec 2007 	<ul style="list-style-type: none"> • Eligibility criteria: patients at least 18 years of age with histologically or cytologically confirmed advanced gastrointestinal or lung cancer, stages III–IV, with anorexia, cancer-related loss of appetite, and cancer-related loss of preillness stable weight (greater than or equal to 5%); no major surgery, chemotherapy, or radiotherapy in the previous 4 weeks; no active dysphagia or 	<p>Oral megestrol acetate 800 mg/day (N=40)</p> <p>vs.</p> <p>Oral megestrol acetate 800 mg/day plus oral olanzapine 5 mg/day (N=40)</p>	<p>CRITICAL OUTCOMES</p> <ul style="list-style-type: none"> • Nausea / vomiting: <ul style="list-style-type: none"> ○ N patients with nausea improvement (MDASI): <ul style="list-style-type: none"> ▪ At 4w: 5 vs. 21 ▪ At 8w: 3 vs. 23 ○ Nausea NDASI score: <ul style="list-style-type: none"> ▪ At 4w: 5.7 vs. 2.1, p<0.01 ▪ At 8w: 6.3 vs. 1.8, p<0.01 • Quality of life: <ul style="list-style-type: none"> ○ N patients with quality of life improvement (MDASI): <ul style="list-style-type: none"> ▪ At 4w: 7 vs. 29 ▪ At 8w: 5 vs. 23 • Patient satisfaction: not reported • Adverse events: 	<p>Level of evidence: high risk of bias</p> <ul style="list-style-type: none"> • Method of randomization and allocation concealment unclear • No blinding • Patients were removed from the study if they did not take the study medication for a 48-h period or developed an adverse toxicity attributed to the study agents

Study ID	Methods	Patient characteristics	Intervention	Results	Critical appraisal of study quality
		gastrointestinal tract obstruction; no history of thrombophlebitis and no systemic corticosteroids in the previous 4 weeks; serum creatinine less than or equal to 2.0 mg/dl; serum bilirubin less than or equal to 2.0 mg/dl; serum glutamic oxaloacetic transaminase or serum glutamic pyruvic transaminase less than or equal to three times upper limits of normal; absolute neutrophil count greater than or equal to 1,500 mm ³ ; patients of childbearing potential (male and female) must consent to use adequate contraception throughout protocol therapy; females of childbearing potential must have a negative urine pregnancy test; no severe cognitive compromise; no known		<ul style="list-style-type: none"> ○ There were no grade III or IV toxicities attributable to the study drugs in any of the patients receiving MA or MA plus OLN ○ There were no episodes of deep vein thromboses ○ Only two patients had evidence of mild sedation, possibly related to the OLN ● Completion of chemotherapy: not reported ● Overall survival: not reported ● Progression-free survival: not reported 	<ul style="list-style-type: none"> ● 4/80 patients not included in analysis

Study ID	Methods	Patient characteristics	Intervention	Results	Critical appraisal of study quality
		<p>history of central nervous system disease (e.g., brain metastases, seizure disorder); no treatment with another antipsychotic agent such as risperidone, quetiapine, clozapine, phenothiazine, or butyrophenone for 30 days prior to or during protocol therapy; chronic phenothiazine administration as an antipsychotic agent was not allowed, but patients may receive prochlorperazine and other phenothiazines as antiemetic therapy; no concurrent use of ethylol; no concurrent abdominal radiotherapy; no concurrent use of quinolone antibiotic therapy; no chronic alcoholism (as determined by the investigator); no known hypersensitivity to OLN; no known cardiac</p>			

Study ID	Methods	Patient characteristics	Intervention	Results	Critical appraisal of study quality
		<p>arrhythmia, uncontrolled congestive heart failure or acute myocardial infarction within the previous 6 months; and no history of uncontrolled diabetes mellitus</p> <ul style="list-style-type: none"> • <i>A priori</i> patient characteristics: <ul style="list-style-type: none"> ○ Median age: 63y ○ M/F: 43/37 ○ Cancer type: colon stage III N=20, colon stage IV N=15, lung stage III N=21, lung stage IV N=24 			
Popiela 1989	<ul style="list-style-type: none"> • Design: RCT • Funding: not reported; Col: not reported • Setting: international multicentre study (N=13) • Sample size: N=173 • Duration: 8 weeks follow-up 	<ul style="list-style-type: none"> • Eligibility criteria: female patients with advanced, terminal cancer, and with pain, debility, nausea, cachexia, etc.; no further anticancer therapy anticipated; minimum expected survival time of at least 2 months from study enrollment; willing to consent to participate according to local custom 	<p>Methylprednisolone sodium succinate 125 mg/day IV for 56 days (N=85)</p> <p>vs.</p> <p>Matching placebo (N=88)</p>	<p>CRITICAL OUTCOMES</p> <ul style="list-style-type: none"> • Nausea / vomiting: LASA scores, only presented in graphs <ul style="list-style-type: none"> ○ Vomiting and nausea showed consistent, often statistically significant, improvement across time in the MPSS-treated patients when compared with the placebo group ○ The frequency of antinauseant administration did not differ within the two treatment groups at any point during the study 	<p>Level of evidence: unclear risk of bias</p> <ul style="list-style-type: none"> • Computer-generated randomization scheme • Double-blinded: blinded packages with vials of study medication; unclear if assessors were blinded • Many outcomes only presented in graphs

Study ID	Methods	Patient characteristics	Intervention	Results	Critical appraisal of study quality
		<ul style="list-style-type: none"> • Exclusion criteria: concurrent corticosteroid therapy or corticosteroid therapy of greater than 2 weeks duration within 1 month of study enrollment; anticancer therapy within 2 weeks of study enrollment; pregnancy; active peptic ulcer or evidence of gastrointestinal bleeding; systemic fungal infection; active TB; uncontrolled diabetes mellitus; acute febrile illness; psychosis; abnormal mental status which could interfere with completion of subjective evaluations; neoplastic disease other than solid tumors • A priori patient characteristics: <ul style="list-style-type: none"> ○ Mean age: 64.9 vs. 65.8y 		<ul style="list-style-type: none"> • Quality of life: only presented in graph <ul style="list-style-type: none"> ○ Combined LASA scores for the steroid patients were significantly better than those of the placebo patients at all follow-up weeks except weeks 1 and 6 • Patient satisfaction: not reported • Adverse events: <ul style="list-style-type: none"> ○ Reported infectious complications were comparable between treatment groups (11.8% MPSS; 14.8% placebo) ○ A combined total of 145 medical events were reported by 54 (63.5%) MPSS patients and 47 (53.4%) placebo patients; these events were classified as cardiovascular, gastrointestinal, shock/respiratory failure, infection/inflammation, metabolic, unrelated to investigational therapy, or other ○ There were significantly more gastrointestinal (9/85, 10.6% MPSS; 2/88, 2.2% placebo, $p < 0.05$) and cardiovascular (7/85, 8.2% MPSS; 1/88, 1.1% placebo, $p < 0.05$) side-effects reported in the steroid group ○ Although significantly more of the adverse events were felt to be 	

Study ID	Methods	Patient characteristics	Intervention	Results	Critical appraisal of study quality
				<p>either related or probably related to investigational therapy (21% MPSS; 1% placebo, $p < 0.05$), there were no differences between treatments with regard to the severity of the event, as assessed by the investigator, or its ultimate outcome</p> <ul style="list-style-type: none"> • Completion of chemotherapy: not reported • Overall survival: only presented in graph <ul style="list-style-type: none"> ○ No significant differences between treatment groups with regard to overall mortality during the 8-week study follow-up period ○ No significant differences between treatments with regard to time to death • Progression-free survival: not reported 	

Abbreviations: 95%CI: 95% confidence interval; Col: conflict of interest; CRM: controlled-release metoclopramide; FAACT: Functional Assessment of Anorexia/Cachexia Therapy; IM: intramuscular; LASA: Linear Analogue Scale Assessment; MA: megestrol acetate; MDASI: M.D. Anderson Symptom Inventory; MPSS: methylprednisolone sodium succinate; NRS: numeric rating scale; OLN: olanzapine; PCA: patient-controlled analgesia; RCT: randomised controlled trial; SE: standard error; THC: tetrahydrocannabinol.

References

- Brisbois, T.D., et al., Delta-9-tetrahydrocannabinol may palliate altered chemosensory perception in cancer patients: results of a randomized, double-blind, placebo-controlled pilot trial. *Annals of Oncology*, 2011. 22(9): p. 2086-2093.
- Bruera E, Belzile M, Neumann C, et al. A double-blind, crossover study of controlled-release metoclopramide and placebo for the chronic nausea and dyspepsia of advanced cancer. *J Pain Symptom Manage* 2000;19(6):427-435.
- Cao J, Wang B, Wang Z et al (2018) Efficacy of mirtazapine in preventing delayed nausea and vomiting induced by highly emetogenic chemotherapy: an open-label, randomized, multicenter phase III trial. *J Clin Oncol* 36:1078-1078.
- Corli, O., A. Cozzolino, and L. Battaiotto, Effectiveness of levosulpiride versus metoclopramide for nausea and vomiting in advanced cancer patients: A double-blind, randomized, crossover study. *Journal of Pain and Symptom Management*, 1995. 10(7): p. 521-526.
- Cox, L., E. Darvill, and S. Dorman, Levomepromazine for nausea and vomiting in palliative care. *Cochrane Database of Systematic Reviews*, 2015(11): p. CD009420.
- Davis M, Hallerberg G. A systematic review of the treatment of nausea and/or vomiting in cancer unrelated to chemotherapy or radiation. *Journal of Pain and Symptom Management* 2010;39(4):756-67.
- Dietz, I., et al., Evidence for the use of Levomepromazine for symptom control in the palliative care setting: A systematic review. *BMC Palliative Care*, 2013. 12(1).
- Doppen, M., et al., Cannabis in Palliative Care: A Systematic Review of Current Evidence. *Journal of Pain & Symptom Management*, 2022. 64(5): p. e260-e284.
- Douglas, C., et al., Symptom management for the adult patient dying with advanced chronic kidney disease: a review of the literature and development of evidence-based guidelines by a United Kingdom Expert Consensus Group. *Palliative Medicine*, 2009. 23(2): p. 103-110.

Economos, G., et al., What is the evidence for mirtazapine in treating cancer-related symptomatology? A systematic review. *Supportive Care in Cancer*, 2020. 28(4): p. 1597-1606.

Glare, P., et al., Systematic review of the efficacy of antiemetics in the treatment of nausea in patients with far-advanced cancer. *Supportive Care in Cancer*, 2004. 12(6): p. 432-40.

Hardy, J., et al., A randomized open-label study of guideline-driven antiemetic therapy versus single agent antiemetic therapy in patients with advanced cancer and nausea not related to anticancer treatment. *BMC Cancer*, 2018. 18(1): p. 510.

Hardy, J.R., et al., Methotrimeprazine versus haloperidol in palliative care patients with cancer-related nausea: a randomised, double-blind controlled trial. *BMJ Open*, 2019. 9(9): p. e029942.

Miller, S., et al., Use of corticosteroids for anorexia in palliative medicine: A systematic review. *Journal of Palliative Medicine*, 2014. 17(4): p. 482-485.

Mucke, M., et al., Systematic review and meta-analysis of cannabinoids in palliative medicine. *Journal of Cachexia, Sarcopenia and Muscle*, 2018. 9(2): p. 220-234.

Murray-Brown, F. and S. Dorman, Haloperidol for the treatment of nausea and vomiting in palliative care patients. *Cochrane Database of Systematic Reviews*, 2015(11): p. CD006271.

Navari, R.M. and M.C. Brenner, Treatment of cancer-related anorexia with olanzapine and megestrol acetate: a randomized trial. *Supportive Care in Cancer*, 2010. 18(8): p. 951-6.

Popiela T, Lucchi R, Giongo F: Methylprednisolone as palliative therapy for female terminal cancer patients. *Eur J Cancer Clin Oncol* 1989;25:1823-1829.

Sande, T.A., B.J.A. Laird, and M.T. Fallon, The Management of Opioid-Induced Nausea and Vomiting in Patients with Cancer: A Systematic Review. *Journal of Palliative Medicine*, 2019. 22(1): p. 90-97.

Solmi, M., et al., Balancing risks and benefits of cannabis use: umbrella review of meta-analyses of randomised controlled trials and observational studies. *BMJ*, 2023. 382: p. e072348.

Storror, J., et al., Droperidol for treatment of nausea and vomiting in palliative care patients. Cochrane Database of Systematic Reviews, 2014(11): p. CD006938.

Sutherland, A., et al., Olanzapine for the prevention and treatment of cancer-related nausea and vomiting in adults. Cochrane Database of Systematic Reviews, 2018. 9: p. CD012555.

Tramer MR, Walder B. Efficacy and adverse effects of prophylactic antiemetics during patient-controlled analgesia therapy: a quantitative systematic review. *Anesthesia and Analgesia* 1999;88:1354-61.

Vayne-Bossert, P., et al., Corticosteroids for adult patients with advanced cancer who have nausea and vomiting (not related to chemotherapy, radiotherapy, or surgery). Cochrane Database of Systematic Reviews, 2017. 7: p. CD01200

GRADE-profielen

Auteur(s): Bruera E, Belzile M, Neumann C, et al. A double-blind, crossover study of controlled-release metoclopramide and placebo for the chronic nausea and dyspepsia of advanced cancer. *J Pain Symptom Manage* 2000;19(6):427-435.

Vraagstelling: CR metoclopramide versus placebo for adult patients with cancer-associated dyspepsia

Setting:

Literatuur:

Certainty assessment							Aantal patiënten		Effect		Certainty	Importantie
Aantal studies	Studieopzet	Risk of bias	Inconsistentie	Indirect bewijs	Onnauwkeurigheid	Andere factoren	CR metoclopramide	placebo	Relatief (95% CI)	Absoluut (95% CI)		

Nausea VAS score

1	gerandomiseerde trials	ernstig ^a	niet ernstig	niet ernstig	ernstig ^b	niet gevonden	20	20	-	SMD 0.44 lager (1.07 lager tot 0.18 hoger)	⊕⊕○○ Laag ^{a,b}	CRUCIAAL
---	------------------------	----------------------	--------------	--------------	----------------------	---------------	----	----	---	---	-----------------------------	----------

Vomiting VAS score

Certainty assessment							Aantal patiënten		Effect		Certainty	Importantie
Aantal studies	Studieopzet	Risk of bias	Inconsistentie	Indirect bewijs	Onnauwkeurigheid	Andere factoren	CR metoclopramide	placebo	Relatief (95% CI)	Absoluut (95% CI)		
1	gerandomiseerde trials	ernstig ^a	niet ernstig	niet ernstig	ernstig ^b	niet gevonden	20	20	-	SMD 0.44 lager (1.07 lager tot 0.19 hoger)	⊕⊕○○ Laag ^{a,b}	CRUCIAAL

Frequency of administration (doses/day) of rescue medication

1	gerandomiseerde trials	ernstig ^a	niet ernstig	niet ernstig	zeer ernstig ^c	niet gevonden	20	20	-	SMD 0 (0.62 lager tot 0.62 hoger)	⊕○○○ ○ Zeer laag ^{a,c}	BELANGRIJK
---	------------------------	----------------------	--------------	--------------	---------------------------	---------------	----	----	---	--	---------------------------------------	------------

Quality of life - niet gerapporteerd

Certainty assessment							Aantal patiënten		Effect		Certainty	Importantie
Aantal studies	Studieopzet	Risk of bias	Inconsistentie	Indirect bewijs	Onnauwkeurigheid	Andere factoren	CR metoclopramide	placebo	Relatief (95% CI)	Absoluut (95% CI)		
-	-	-	-	-	-	-	-	-	-	-	-	CRUCIAAL

Patient satisfaction - niet gerapporteerd

-	-	-	-	-	-	-	-	-	-	-	-	CRUCIAAL
---	---	---	---	---	---	---	---	---	---	---	---	----------

Proportion of patients with unelicited side effects

1	gerandomiseerde trials	ernstig ^a	niet ernstig	niet ernstig	zeer ernstig ^d	niet gevonden	3/20 (15.0%)	5/20 (25.0%)	RR 0.60 (0.17 tot 2.18)	100 minder per 1.000 (from 208 minder tot 295 meer)	⊕○○○ ○ Zeer laag ^{a,d}	BELANGRIJK
---	------------------------	----------------------	--------------	--------------	---------------------------	---------------	--------------	--------------	-----------------------------------	---	---------------------------------------	------------

Certainty assessment							Aantal patiënten		Effect		Certainty	Importantie
Aantal studies	Studieopzet	Risk of bias	Inconsistentie	Indirect bewijs	Onnauwkeurigheid	Andere factoren	CR metoclopramide	placebo	Relatief (95% CI)	Absoluut (95% CI)		

Completion of chemotherapy – niet gerapporteerd

-	-	-	-	-	-	-	-	-	-	-	-	BELANGRIJK
---	---	---	---	---	---	---	---	---	---	---	---	------------

Overall survival – niet gerapporteerd

-	-	-	-	-	-	-	-	-	-	-	-	BELANGRIJK
---	---	---	---	---	---	---	---	---	---	---	---	------------

Progression-free survival – niet gerapporteerd

-	-	-	-	-	-	-	-	-	-	-	-	BELANGRIJK
---	---	---	---	---	---	---	---	---	---	---	---	------------

CI: Confidence interval; **RR:** Risk ratio; **SMD:** Standardised mean difference

1.1.1.5 Explanations

a. Bruera 2000: unclear blinding of assessors, no ITT analysis

b. CI around SMD includes -0.5

c. CI around SMD includes -0.5 and 0.5

d. CI around RR includes 0.75 and 1.25

Auteur(s): Hardy, J., et al., A randomized open-label study of guideline-driven antiemetic therapy versus single agent antiemetic therapy in patients with advanced cancer and nausea not related to anticancer treatment. BMC Cancer, 2018. 18(1): p. 510.

Vraagstelling: Guideline-driven antiemetic therapy versus haloperidol voor adult patients with cancer and nausea

Setting:

Literatuur:

Certainty assessment							Aantal patiënten		Effect			
Aantal studies	Studieopzet	Risk of bias	Inconsistentie	Indirect bewijss	Onnauwkeurigheid	Andere factoren	guideline-driven antiemetic therapy	haloperidol	Relatief (95% CI)	Absoluut (95% CI)	Certainty	Importantie

Proportion of patients with nausea response at 72h

Certainty assessment							Aantal patiënten		Effect				
Aantal studies	Studieopzet	Risk of bias	Inconsistentie	Indirect bewijs	Onnauwkeurigheid	Andere factoren	guideline-driven antiemetic therapy	haloperidol	Relatief (95% CI)	Absoluut (95% CI)	Certainty	Importantie	
1	gerandomiseerde trials	ernstig ^a	niet ernstig	niet ernstig	ernstig ^b	niet gevonden	47/95 (49.5%)	46/86 (53.5%)	RR 0.92 (0.70 tot 1.23)	43 minder per 1.000 (from 160 minder tot 123 meer)	⊕⊕○ ○ Laag ^{a,b}	CRUCIAAL	

Proportion of patients using rescue medication at 24h

Certainty assessment							Aantal patiënten		Effect				
Aantal studies	Studieopzet	Risk of bias	Inconsistentie	Indirect bewijs	Onnauwkeurigheid	Andere factoren	guideline-driven antiemetic therapy	haloperidol	Relatief (95% CI)	Absoluut (95% CI)	Certainty	Importantie	
1	gerandomiseerde trials	ernstig ^c	niet ernstig	niet ernstig	ernstig ^b	niet gevonden	30/92 (32.6%)	34/82 (41.5%)	RR 0.79 (0.53 tot 1.16)	87 minder per 1.000 (from 195 minder tot 66 meer)	⊕⊕○ ○ Laag ^{b,c}	CRUCIAAL	

Proportion of patients using rescue medication at 48h

Certainty assessment							Aantal patiënten		Effect				
Aantal studies	Studieopzet	Risk of bias	Inconsistentie	Indirect bewijs	Onnauwkeurigheid	Andere factoren	guideline-driven antiemetic therapy	haloperidol	Relatief (95% CI)	Absoluut (95% CI)	Certainty	Importantie	
1	gerandomiseerde trials	ernstig ^c	niet ernstig	niet ernstig	ernstig ^b	niet gevonden	18/83 (21.7%)	32/75 (42.7%)	RR 0.51 (0.31 tot 0.83)	209 minder per 1.000 (from 294 minder tot 73 minder)	⊕⊕○ ○ Laag ^{b,c}	CRUCIAAL	

Proportion of patients using rescue medication at 72h

Certainty assessment							Aantal patiënten		Effect		Certainty	Importantie
Aantal studies	Studieopzet	Risk of bias	Inconsistentie	Indirect bewijs	Onnauwkeurigheid	Andere factoren	guideline-driven antiemetic therapy	haloperidol	Relatief (95% CI)	Absoluut (95% CI)		
1	gerandomiseerde trials	ernstig ^c	niet ernstig	niet ernstig	zeer ernstig ^d	niet gevonden	20/74 (27.0%)	26/75 (34.7%)	RR 0.78 (0.48 tot 1.27)	76 minder per 1.000 (from 180 minder tot 94 meer)	⊕○○○ ○ Zeer laag ^{c,d}	CRUCIAL

Certainty assessment							Aantal patiënten		Effect			
Aantal studies	Studieopzet	Risk of bias	Inconsistentie	Indirect bewijs	Onnauwkeurigheid	Andere factoren	guideline-driven antiemetic therapy	haloperidol	Relatief (95% CI)	Absoluut (95% CI)	Certainty	Importantie

Percentage of participants reporting ≥ 1 episode of vomiting/day at 72h

Certainty assessment							Aantal patiënten		Effect		Certainty	Importantie
Aantal studies	Studieopzet	Risk of bias	Inconsistentie	Indirect bewijs	Onnauwkeurigheid	Andere factoren	guideline-driven antiemetic therapy	haloperidol	Relatief (95% CI)	Absoluut (95% CI)		
1	gerandomiseerde trials	ernstig ^c	niet ernstig	niet ernstig	zeer ernstig ^d	niet gevonden	13/74 (17.6%)	13/75 (17.3%)	RR 1.01 (0.50 tot 2.04)	2 meer per 1.000 (from 87 minder tot 180 meer)	⊕○○○ ○ Zeer laag ^{c,d}	CRUCIAL

Quality of life - niet gerapporteerd

Certainty assessment							Aantal patiënten		Effect			
Aantal studies	Studieopzet	Risk of bias	Inconsistentie	Indirect bewijs	Onnauwkeurigheid	Andere factoren	guideline-driven antiemetic therapy	haloperidol	Relatief (95% CI)	Absoluut (95% CI)	Certainty	Importantie
-	-	-	-	-	-	-	-	-	-	-	-	CRUCIAL

Patient satisfaction
- niet gerapporteerd

-	-	-	-	-	-	-	-	-	-	-	-	CRUCIAL
---	---	---	---	---	---	---	---	---	---	---	---	---------

Adverse events

1	gerandomiseerde trials	ernstig ^c	niet ernstig	niet ernstig	zeer ernstig ^e	niet gevonden	Number of adverse events graded worse at 72 h than at baseline: - Drowsiness: 11 vs. 14 - Fatigue: 12 vs. 8 - Anticholinergic effects: 8 vs. 12 - Gastrointestinal upset: 10 vs. 10				⊕○○ ○ Zeer laag ^{c,e}	BELANGRIJK
---	------------------------	----------------------	--------------	--------------	---------------------------	---------------	---	--	--	--	--------------------------------------	------------

Completion of

Certainty assessment							Aantal patiënten		Effect		Certainty	Importantie
Aantal studies	Studieopzet	Risk of bias	Inconsistentie	Indirect bewijs	Onnauwkeurigheid	Andere factoren	guideline-driven antiemetic therapy	haloperidol	Relatief (95% CI)	Absoluut (95% CI)		

chemotherapy - niet gerapporteerd

-	-	-	-	-	-	-	-	-	-	-	-	BELANGRIJK
---	---	---	---	---	---	---	---	---	---	---	---	------------

Overall survival - niet gerapporteerd

-	-	-	-	-	-	-	-	-	-	-	-	BELANGRIJK
---	---	---	---	---	---	---	---	---	---	---	---	------------

Certainty assessment							Aantal patiënten		Effect		Certainty	Importantie
Aantal studies	Studieopzet	Risk of bias	Inconsistentie	Indirect bewijs	Onnauwkeurigheid	Andere factoren	guideline-driven antiemetic therapy	haloperidol	Relatief (95% CI)	Absoluut (95% CI)		

Progression-free survival - niet gerapporteerd

-	-	-	-	-	-	-	-	-	-	-	-	BELANGRIJK
---	---	---	---	---	---	---	---	---	---	---	---	------------

CI: Confidence interval; **RR:** Risk ratio

1.1.1.6 Explanations

- a. Hardy 2018: no blinding
- b. CI around RR includes 0.75
- c. Hardy 2018: no blinding, no ITT analysis
- d. CI around RR includes 0.75 and 1.25
- e. No denominators reported

Auteur(s): Hardy, J.R., et al., Methotrimeprazine versus haloperidol in palliative care patients with cancer-related nausea: a randomised, double-blind controlled trial. *BMJ Open*, 2019. 9(9): p. e029942.

Vraagstelling: Haloperidol versus methotrimeprazine voor palliative cancer patients with nausea

Setting:

Literatuur:

Certainty assessment							Aantal patiënten		Effect		Certain ty	Importan tie
Aant al studi es	Studieopzet	Risk of bias	Inconsiste ntie	Indire ct bewij s	Onnauwkeurig heid	Andere factore n	haloperi dol	methotrimepra zine	Relati ef (95% CI)	Absolu ut (95% CI)		

Nausea (NRS): response to treatment at 72h

1	gerandomise erde trials	niet ernsti g	niet ernstig	niet ernsti g	ernstig ^a	niet gevond en	44/59 (74.6%)	36/57 (63.2%)	RR 1.18 (0.92 tot 1.51)	114 meer per 1.000 (from 51 minder tot 322 meer)	⊕⊕⊕○ Redelijk ^a	CRUCIAAL
---	-------------------------	---------------	--------------	---------------	----------------------	----------------	---------------	---------------	-----------------------------------	--	-------------------------------	----------

Certainty assessment							Aantal patiënten		Effect		Certainty	Importantie
Aantal studies	Studieopzet	Risk of bias	Inconsistentie	Indirect bewijs	Onnauwkeurigheid	Andere factoren	haloperidol	methotrimeprazine	Relatief (95% CI)	Absoluut (95% CI)		

Nausea (NRS): complete response

1	gerandomiseerde trials	niet ernstig	niet ernstig	niet ernstig	ernstig ^a	niet gevonden	33/59 (55.9%)	29/57 (50.9%)	RR 1.10 (0.78 tot 1.55)	51 meer per 1.000 (from 112 minder tot 280 meer)	⊕⊕⊕○ Redelijk ^a	CRUCIAAL
---	------------------------	--------------	--------------	--------------	----------------------	---------------	---------------	---------------	-----------------------------------	--	-------------------------------	----------

Distress caused by nausea at 24h

Certainty assessment							Aantal patiënten		Effect		Certainty	Importantie
Aantal studies	Studieopzet	Risk of bias	Inconsistentie	Indirect bewijs	Onnauwkeurigheid	Andere factoren	haloperidol	methotrimeprazine	Relatief (95% CI)	Absoluut (95% CI)		
1	gerandomiseerde trials	ernstig ^b	niet ernstig	niet ernstig	ernstig ^c	niet gevonden	55	54	-	SMD 0.14 lager (0.52 lager tot 0.24 hoger)	⊕⊕○○ Laag ^{b,c}	CRUCIAAL

Distress caused by nausea at 48h

1	gerandomiseerde trials	ernstig ^b	niet ernstig	niet ernstig	niet ernstig	niet gevonden	53	51	-	SMD 0 (0.38 lager tot 0.38 hoger)	⊕⊕⊕○ Redelijk ^b	CRUCIAAL
---	------------------------	----------------------	--------------	--------------	--------------	---------------	----	----	---	--	-------------------------------	----------

Distress caused by nausea at 72h

Certainty assessment							Aantal patiënten		Effect		Certainty	Importantie
Aantal studies	Studieopzet	Risk of bias	Inconsistentie	Indirect bewijs	Onnauwkeurigheid	Andere factoren	haloperidol	methotrimeprazine	Relatief (95% CI)	Absoloot (95% CI)		
1	gerandomiseerde trials	ernstig ^b	niet ernstig	niet ernstig	niet ernstig	niet gevonden	50	47	-	SMD 0.07 lager (0.47 lager tot 0.33 hoger)	⊕⊕⊕○ Redelijk ^b	CRUCIAAL

Episodes of vomiting in past 24h: at 24h

Certainty assessment							Aantal patiënten		Effect		Certainty	Importantie
Aantal studies	Studieopzet	Risk of bias	Inconsistentie	Indirect bewijs	Onnauwkeurigheid	Andere factoren	haloperidol	methotrimeprazine	Relatief (95% CI)	Absoloot (95% CI)		
1	gerandomiseerde trials	niet ernstig	niet ernstig	niet ernstig	zeer ernstig ^d	niet gevonden	11/56 (19.6%)	7/57 (12.3%)	RR 1.60 (0.67 tot 3.83)	74 meer per 1.000 (from 41 minder tot 348 meer)	⊕⊕○○ Laag ^d	CRUCIAAL

Episodes of vomiting in past 24h: at 48h

Certainty assessment							Aantal patiënten		Effect		Certainty	Importantie
Aantal studies	Studieopzet	Risk of bias	Inconsistentie	Indirect bewijs	Onnauwkeurigheid	Andere factoren	haloperidol	methotrimeprazine	Relatief (95% CI)	Absoloot (95% CI)		
1	gerandomiseerde trials	ernstig ^b	niet ernstig	niet ernstig	zeer ernstig ^d	niet gevonden	8/53 (15.1%)	4/51 (7.8%)	RR 1.92 (0.62 tot 6.00)	72 meer per 1.000 (from 30 minder tot 392 meer)	⊕○○○ ○ Zeer laag ^{b,d}	CRUCIAAL

Episodes of vomiting in past 24h: at 72h

Certainty assessment							Aantal patiënten		Effect		Certainty	Importantie
Aantal studies	Studieopzet	Risk of bias	Inconsistentie	Indirect bewijs	Onnauwkeurigheid	Andere factoren	haloperidol	methotrimeprazine	Relatief (95% CI)	Absoluut (95% CI)		
1	gerandomiseerde trials	ernstig ^b	niet ernstig	niet ernstig	zeer ernstig ^d	niet gevonden	7/52 (13.5%)	7/49 (14.3%)	RR 0.94 (0.36 tot 2.49)	9 minder per 1.000 (from 91 minder tot 213 meer)	⊕○○○ ○ Zeer laag ^{b,d}	CRUCIAAL

Proportion of patients using rescue antiemetics at 24h

Certainty assessment							Aantal patiënten		Effect		Certain ty	Importan tie
Aant al studi es	Studieopzet	Risk of bias	Inconsiste ntie	Indire ct bewij s	Onnauwkeurig heid	Andere factore n	haloperi dol	methotrimepra zine	Relati ef (95% CI)	Absolu ut (95% CI)		
1	gerandomise erde trials	niet ernsti g	niet ernstig	niet ernsti g	zeer ernstig ^d	niet gevond en	26/57 (45.6%)	28/57 (49.1%)	RR 0.93 (0.63 tot 1.37)	34 minde r per 1.000 (from 182 minder tot 182 meer)	⊕⊕○○ Laag ^d	CRUCIAAL

Proportion of patients using rescue antiemetics at 48h

Certainty assessment							Aantal patiënten		Effect		Certainty	Importantie
Aantal studies	Studieopzet	Risk of bias	Inconsistentie	Indirect bewijs	Onnauwkeurigheid	Andere factoren	haloperidol	methotrimeprazine	Relatief (95% CI)	Absoluut (95% CI)		
1	gerandomiseerde trials	ernstig ^b	niet ernstig	niet ernstig	zeer ernstig ^d	niet gevonden	18/55 (32.7%)	22/53 (41.5%)	RR 0.79 (0.48 tot 1.29)	87 minder per 1.000 (from 216 minder tot 120 meer)	⊕○○○ ○ Zeer laag ^{b,d}	CRUCIAAL

Proportion of patients using rescue antiemetics at 72h

Certainty assessment							Aantal patiënten		Effect		Certainty	Importantie
Aantal studies	Studieopzet	Risk of bias	Inconsistentie	Indirect bewij s	Onnauwkeurigheid	Andere factoren	haloperidol	methotrimeprazine	Relatief (95% CI)	Absoloot (95% CI)		
1	gerandomiseerde trials	ernstig ^b	niet ernstig	niet ernstig	zeer ernstig ^d	niet gevonden	16/52 (30.8%)	20/49 (40.8%)	RR 0.75 (0.44 tot 1.28)	102 minder per 1.000 (from 229 minder tot 114 meer)	⊕○○○ ○ Zeer laag ^{b,d}	CRUCIAAL

Quality of life - niet gerapporteerd

-	-	-	-	-	-	-	-	-	-	-	-	CRUCIAAL
---	---	---	---	---	---	---	---	---	---	---	---	----------

Patient satisfaction - niet gerapporteerd

-	-	-	-	-	-	-	-	-	-	-	-	CRUCIAAL
---	---	---	---	---	---	---	---	---	---	---	---	----------

Certainty assessment							Aantal patiënten		Effect		Certain ty	Importan tie
Aant al studi es	Studieopzet	Risk of bias	Inconsiste ntie	Indire ct bewijs	Onnauwkeurig heid	Andere factore n	haloperi dol	methotrimopra zine	Relati ef (95% CI)	Absolu ut (95% CI)		

Proportion of patients with at least 1 event (any grade)

1	gerandomise erde trials	ernsti g ^b	niet ernstig	niet ernsti g	ernstig ^e	niet gevond en	29/52 (55.8%)	31/49 (63.3%)	RR 0.88 (0.64 tot 1.22)	76 minder per 1.000 (from 228 minder tot 139 meer)	⊕⊕○○ Laag ^{b,e}	BELANGRI JK
---	-------------------------	-----------------------	--------------	---------------	----------------------	----------------	---------------	---------------	-----------------------------------	--	-----------------------------	-------------

Completion of chemotherapy - niet gerapporteerd

-	-	-	-	-	-	-	-	-	-	-	-	BELANGRI JK
---	---	---	---	---	---	---	---	---	---	---	---	-------------

Overall survival - niet gerapporteerd

Certainty assessment							Aantal patiënten		Effect		Certain ty	Importan tie
Aant al studi es	Studieopzet	Risk of bias	Inconsiste ntie	Indire ct bewijs	Onnauwkeurig heid	Andere factore n	haloperi dol	methotrimepra zine	Relati ef (95% CI)	Absolu ut (95% CI)		
-	-	-	-	-	-	-	-	-	-	-	-	BELANGRI JK

Progression-free survival - niet gerapporteerd

-	-	-	-	-	-	-	-	-	-	-	-	BELANGRI JK
---	---	---	---	---	---	---	---	---	---	---	---	-------------

CI: Confidence interval; **RR:** Risk ratio; **SMD:** Standardised mean difference

1.1.1.7 Explanations

- a. CI around RR includes 1.25
- b. Hardy 2019: no ITT analysis
- c. CI around SMD includes -0.5
- d. CI around RR includes 0.75 and 1.25
- e. CI around RR includes 0.75

Auteur(s): Corli, O., A. Cozzolino, and L. Battaiotto, Effectiveness of levosulpiride versus metoclopramide for nausea and vomiting in advanced cancer patients: A double-blind, randomized, crossover study. *Journal of Pain and Symptom Management*, 1995. 10(7): p. 521-526.

Vraagstelling: Levosulpiride versus metoclopramide IM voor patients with advanced cancer and highly intense nausea and/or vomiting

Setting:

Literatuur:

Certainty assessment							Aantal patiënten		Effect		Certainty	Importantie
Aantal studies	Studieopzet	Risk of bias	Inconsistentie	Indirect bewijs	Onnauwkeurigheid	Andere factoren	Levosulpiride	metoclopramide IM	Relatief (95% CI)	Absoluut (95% CI)		

Disappearance of nausea

1	gerandomiseerde trials	ernstig ^a	niet ernstig	niet ernstig	ernstig ^b	niet gevonden	22/26 (84.6%)	11/26 (42.3%)	RR 2.00 (1.24 tot 3.23)	423 meer per 1.000 (from 102 meer tot 943 meer)	⊕⊕○○ Laag ^{a,b}	CRUCIAAL
---	------------------------	----------------------	--------------	--------------	----------------------	---------------	---------------	---------------	-----------------------------------	---	-----------------------------	----------

Certainty assessment							Aantal patiënten		Effect		Certain ty	Importan tie
Aant al studi es	Studieopzet	Risk of bias	Inconsiste ntie	Indire ct bewijs	Onnauwkeurig heid	Andere factore n	Levosulpir ide	metoclopra mide IM	Relati ef (95% CI)	Absolu ut (95% CI)		

Number of hours with nausea (mean/day)

1	gerandomiseerde trials	ernsti g ^a	niet ernstig	niet ernstig	zeer ernstig ^c	niet gevonden	1.08 vs. 2.01 h/day, p=0.002		⊕○○ ○ Zeer laag ^{a,c}	CRUCIAAL
---	------------------------	-----------------------	--------------	--------------	---------------------------	---------------	------------------------------	--	--------------------------------------	----------

Nausea intensity (mean per day)

1	gerandomiseerde trials	ernsti g ^a	niet ernstig	niet ernstig	zeer ernstig ^c	niet gevonden	0.757 vs. 1.418, p=0.0004		⊕○○ ○ Zeer laag ^{a,c}	CRUCIAAL
---	------------------------	-----------------------	--------------	--------------	---------------------------	---------------	---------------------------	--	--------------------------------------	----------

Emesis control

Certainty assessment							Aantal patiënten		Effect		Certainty	Importantie
Aantal studies	Studieopzet	Risk of bias	Inconsistentie	Indirect bewijs	Onnauwkeurigheid	Andere factoren	Levosulpiride	metoclopramide IM	Relatief (95% CI)	Absoluut (95% CI)		
1	gerandomiseerde trials	ernstig ^a	niet ernstig	niet ernstig	ernstig ^b	niet gevonden	22/27 (81.5%)	14/27 (51.9%)	RR 1.57 (1.05 tot 2.36)	296 meer per 1.000 (from 26 meer tot 705 meer)	⊕⊕○○ Laag ^{a,b}	CRUCIAAL

Average number of vomiting episodes per day

1	gerandomiseerde trials	ernstig ^a	niet ernstig	niet ernstig	zeer ernstig ^c	niet gevonden	0.385 vs. 0.698, p=0.002		⊕○○ ○ Zeer laag ^{a,c}	CRUCIAAL
---	------------------------	----------------------	--------------	--------------	---------------------------	---------------	--------------------------	--	--------------------------------------	----------

Quality of life - niet gerapporteerd

Certainty assessment							Aantal patiënten		Effect		Certainty	Importantie
Aantal studies	Studieopzet	Risk of bias	Inconsistentie	Indirect bewijs	Onnauwkeurigheid	Andere factoren	Levosulpiride	metoclopramide IM	Relatief (95% CI)	Absoluut (95% CI)		
-	-	-	-	-	-	-	-	-	-	-	-	CRUCIAAL

Patient satisfaction - niet gerapporteerd

-	-	-	-	-	-	-	-	-	-	-	-	CRUCIAAL
---	---	---	---	---	---	---	---	---	---	---	---	----------

Adverse events - niet gerapporteerd

-	-	-	-	-	-	-	-	-	-	-	-	BELANGRIJK
---	---	---	---	---	---	---	---	---	---	---	---	------------

Completion of chemotherapy - niet gerapporteerd

-	-	-	-	-	-	-	-	-	-	-	-	BELANGRIJK
---	---	---	---	---	---	---	---	---	---	---	---	------------

Overall survival - niet gerapporteerd

Certainty assessment							Aantal patiënten		Effect		Certain ty	Importan tie
Aant al studi es	Studieopzet	Risk of bias	Inconsiste ntie	Indire ct bewijs	Onnauwkeurig heid	Andere factore n	Levosulpir ide	metoclopra mide IM	Relati ef (95% CI)	Absolu ut (95% CI)		
-	-	-	-	-	-	-	-	-	-	-	-	BELANGRI JK

Progression-free survival - niet gerapporteerd

-	-	-	-	-	-	-	-	-	-	-	-	BELANGRI JK
---	---	---	---	---	---	---	---	---	---	---	---	-------------

CI: Confidence interval; **MD:** Mean difference; **RR:** Risk ratio

1.1.1.8 Explanations

- Corli 1995: unclear method of randomisation and allocation concealment, unclear blinding of assessors, unclear ITT analysis (probably not)
- CI around RR includes 1.25
- Insufficient information to calculate precision, small sample size

Auteur(s): Popiela T, Lucchi R, Giongo F: Methylprednisolone as palliative therapy for female terminal cancer patients. Eur J Cancer Clin Oncol 1989;25:1823–1829.

Vraagstelling: Methylprednisolone versus placebo voor women with advanced terminal cancer

Setting:

Literatuur:

Certainty assessment							Aantal patiënten		Effect		Certainty	Importantie
Aantal studies	Studieopzet	Risk of bias	Inconsistentie	Indirect bewijs	Onnauwkeurigheid	Andere factoren	methylprednisolone	placebo	Relatief (95% CI)	Absoluut (95% CI)		

Nausea / vomiting: LASA scores

1	gerandomiseerde trials	ernstig ^a	niet ernstig	niet ernstig	zeer ernstig ^b	niet gevonden	Vomiting and nausea showed consistent, often statistically significant, improvement across time in the MPSS-treated patients when compared with the placebo group	⊕○○○ Zeer laag ^{a,b}	CRUCIAAL
---	------------------------	----------------------	--------------	--------------	---------------------------	---------------	---	----------------------------------	----------

Antinauseant drugs

1	gerandomiseerde trials	ernstig ^a	niet ernstig	niet ernstig	zeer ernstig ^b	niet gevonden	The frequency of antinauseant administration did not differ within the two treatment groups at any point during the study	⊕○○○ Zeer laag ^{a,b}	CRUCIAAL
---	------------------------	----------------------	--------------	--------------	---------------------------	---------------	---	----------------------------------	----------

Quality of life: LASA score

Certainty assessment							Aantal patiënten		Effect		Certainty	Importantie
Aantal studies	Studieopzet	Risk of bias	Inconsistentie	Indirect bewijis	Onnauwkeurigheid	Andere factoren	methylprednisolone	placebo	Relatief (95% CI)	Absoluut (95% CI)		
1	gerandomiseerde trials	ernstig ^a	niet ernstig	niet ernstig	zeer ernstig ^b	niet gevonden	Combined LASA scores for the steroid patients were significantly better than those of the placebo patients at all follow-up weeks except weeks 1 and 6				⊕○○○ Zeer laag ^{a,b}	CRUCIAAL

Patient satisfaction - niet gerapporteerd

-	-	-	-	-	-	-	-	-	-	-	-	CRUCIAAL
---	---	---	---	---	---	---	---	---	---	---	---	----------

Proportion of patients with at least one adverse event

Certainty assessment							Aantal patiënten		Effect		Certainty	Importantie
Aantal studies	Studieopzet	Risk of bias	Inconsistentie	Indirect bewijis	Onnauwkeurigheid	Andere factoren	methylprednisolone	placebo	Relatief (95% CI)	Absoluut (95% CI)		
1	gerandomiseerde trials	ernstig ^a	niet ernstig	niet ernstig	ernstig ^c	niet gevonden	54/85 (63.5%)	47/88 (53.4%)	RR 1.19 (0.92 tot 1.53)	101 meer per 1.000 (from 43 minder tot 283 meer)	⊕⊕○○ Laag ^{a,c}	BELANGRIJK

Infectious complications

Certainty assessment							Aantal patiënten		Effect		Certainty	Importantie
Aantal studies	Studieopzet	Risk of bias	Inconsistentie	Indirect bewijs	Onnauwkeurigheid	Andere factoren	methylprednisolone	placebo	Relatief (95% CI)	Absoluut (95% CI)		
1	gerandomiseerde trials	ernstig ^a	niet ernstig	niet ernstig	zeer ernstig ^d	niet gevonden	10/85 (11.8%)	13/88 (14.8%)	RR 0.80 (0.37 tot 1.72)	30 minder per 1.000 (from 93 minder tot 106 meer)	⊕○○○ Zeer laag ^{a,d}	BELANGRIJK

Gastrointestinal complications

Certainty assessment							Aantal patiënten		Effect		Certainty	Importantie
Aantal studies	Studieopzet	Risk of bias	Inconsistentie	Indirect bewijis	Onnauwkeurigheid	Andere factoren	methylprednisolone	placebo	Relatief (95% CI)	Absoluut (95% CI)		
1	gerandomiseerde trials	ernstig ^a	niet ernstig	niet ernstig	ernstig ^c	niet gevonden	9/85 (10.6%)	2/88 (2.3%)	RR 4.66 (1.04 tot 20.94)	83 meer per 1.000 (from 1 meer tot 453 meer)	⊕⊕○○ Laag ^{a,c}	BELANGRIJK

Cardiovascular complications

1	gerandomiseerde trials	ernstig ^a	niet ernstig	niet ernstig	ernstig ^c	niet gevonden	7/85 (8.2%)	1/88 (1.1%)	RR 7.25 (0.91 tot 57.66)	71 meer per 1.000 (from 1 minder tot 644 meer)	⊕⊕○○ Laag ^{a,c}	BELANGRIJK
---	------------------------	----------------------	--------------	--------------	----------------------	---------------	-------------	-------------	------------------------------------	--	-----------------------------	------------

Certainty assessment							Aantal patiënten		Effect		Certainty	Importantie
Aantal studies	Studieopzet	Risk of bias	Inconsistentie	Indirect bewijs	Onnauwkeurigheid	Andere factoren	methylprednisolone	placebo	Relatief (95% CI)	Absoluut (95% CI)		

Completion of chemotherapy - niet gerapporteerd

-	-	-	-	-	-	-	-	-	-	-	-	BELANGRIJK
---	---	---	---	---	---	---	---	---	---	---	---	------------

Overall survival

1	gerandomiseerde trials	ernstig ^a	niet ernstig	niet ernstig	zeer ernstig ^b	niet gevonden	No significant differences between treatment groups with regard to overall mortality or time to death during the 8-week study follow-up period			⊕○○○ Zeer laag ^{a,b}	BELANGRIJK
---	------------------------	----------------------	--------------	--------------	---------------------------	---------------	--	--	--	----------------------------------	------------

Progression-free survival - niet gerapporteerd

-	-	-	-	-	-	-	-	-	-	-	-	BELANGRIJK
---	---	---	---	---	---	---	---	---	---	---	---	------------

CI: Confidence interval; **RR:** Risk ratio

1.1.1.9 Explanations

a. Popiela 1989: unclear if outcome assessors were blinded, selective outcome reporting

b. No quantitative data reported, impossible to calculate precision

c. CI around RR includes 1.25

d. CI around RR includes 0.75 and 1.25

Auteur(s): Navari, R.M. and M.C. Brenner, Treatment of cancer-related anorexia with olanzapine and megestrol acetate: a randomized trial. Supportive Care in Cancer, 2010. 18(8): p. 951-6.

Vraagstelling: Oral megestrol acetate versus oral megestrol acetate plus olanzapine voor cancer-related anorexia

Setting:

Literatuur:

Certainty assessment							Aantal patiënten		Effect		Certain ty	Importan tie
Aanta l studi es	Studieopzet	Risk of bias	Inconsisten tie	Indire ct bewijs	Onnauwkeurigh eid	Andere factore n	oral megestr ol acetate	oral megestr ol acetate plus olanzapi ne	Relatief (95% CI)	Absolu ut (95% CI)		

Proportion of patients with nausea improvement (MDASI) at 4w

Certainty assessment							Aantal patiënten		Effect		Certainty	Importantie
Aantal studies	Studieopzet	Risk of bias	Inconsistentie	Indirect bewijs	Onnauwkeurigheid	Andere factoren	oral megestrol acetate	oral megestrol acetate plus olanzapine	Relatief (95% CI)	Absoluut (95% CI)		
1	gerandomiseerde trials	ernstig ^a	niet ernstig	niet ernstig	niet ernstig	niet gevonden	5/37 (13.5%)	21/39 (53.8%)	RR 0.25 (0.11 tot 0.60)	404 minder per 1.000 (from 479 minder tot 215 minder)	⊕⊕⊕○ Redelijk ^a	CRUCIAAL

Proportion of patients with nausea improvement (MDASI) at 8w

Certainty assessment							Aantal patiënten		Effect		Certainty	Importantie
Aantal studies	Studieopzet	Risk of bias	Inconsistentie	Indirect bewijs	Onnauwkeurigheid	Andere factoren	oral megestrol acetate	oral megestrol acetate plus olanzapine	Relatief (95% CI)	Absoluut (95% CI)		
1	gerandomiseerde trials	ernstig ^a	niet ernstig	niet ernstig	niet ernstig	niet gevonden	3/37 (8.1%)	23/39 (59.0%)	RR 0.14 (0.05 tot 0.42)	507 minder per 1.000 (from 560 minder tot 342 minder)	⊕⊕⊕○ Redelijk ^a	CRUCIAAL

Nausea MDASI score at 4w

Certainty assessment							Aantal patiënten		Effect		Certainty	Importantie
Aantal studies	Studieopzet	Risk of bias	Inconsistentie	Indirect bewijs	Onnauwkeurigheid	Andere factoren	oral megestrol acetate	oral megestrol acetate plus olanzapine	Relatief (95% CI)	Absoluut (95% CI)		
1	gerandomiseerde trials	ernstig ^a	niet ernstig	niet ernstig	niet ernstig	niet gevonden	37	39	-	SMD 2.35 hoger (1.76 hoger tot 2.94 hoger)	⊕⊕⊕○ Redelijk ^a	CRUCIAAL

Nausea MDASI score at 8w

Certainty assessment							Aantal patiënten		Effect		Certainty	Importantie
Aantal studies	Studieopzet	Risk of bias	Inconsistentie	Indirect bewijs	Onnauwkeurigheid	Andere factoren	oral megestrol acetate	oral megestrol acetate plus olanzapine	Relatief (95% CI)	Absoluut (95% CI)		
1	gerandomiseerde trials	ernstig ^a	niet ernstig	niet ernstig	niet ernstig	niet gevonden	37	39	-	SMD 1.83 hoger (1.29 hoger tot 2.37 hoger)	⊕⊕⊕○ Redelijk ^a	CRUCIAAL

Proportion of patients with quality of life improvement (MDASI) at 4w

Certainty assessment							Aantal patiënten		Effect		Certainty	Importantie
Aantal studies	Studieopzet	Risk of bias	Inconsistentie	Indirect bewijs	Onnauwkeurigheid	Andere factoren	oral megestrol acetate	oral megestrol acetate plus olanzapine	Relatief (95% CI)	Absoluut (95% CI)		
1	gerandomiseerde trials	ernstig ^a	niet ernstig	niet ernstig	niet ernstig	niet gevonden	7/37 (18.9%)	29/39 (74.4%)	RR 0.25 (0.13 tot 0.51)	558 minder per 1.000 (from 647 minder tot 364 minder)	⊕⊕⊕○ Redelijk ^a	CRUCIAAL

Proportion of patients with quality of life improvement (MDASI) at 8w

Certainty assessment							Aantal patiënten		Effect		Certainty	Importantie
Aantal studies	Studieopzet	Risk of bias	Inconsistentie	Indirect bewijs	Onnauwkeurigheid	Andere factoren	oral megestrol acetate	oral megestrol acetate plus olanzapine	Relatief (95% CI)	Absoluut (95% CI)		
1	gerandomiseerde trials	ernstig ^a	niet ernstig	niet ernstig	niet ernstig	niet gevonden	5/37 (13.5%)	23/39 (59.0%)	RR 0.23 (0.10 tot 0.54)	454 minder per 1.000 (from 531 minder tot 271 minder)	⊕⊕⊕○ Redelijk ^a	CRUCIAAL

Patient satisfaction - niet gerapporteerd

-	-	-	-	-	-	-	-	-	-	-	-	CRUCIAAL
---	---	---	---	---	---	---	---	---	---	---	---	----------

Grade III or IV toxicities attributable to study drug

Certainty assessment							Aantal patiënten		Effect		Certainty	Importantie
Aantal studies	Studieopzet	Risk of bias	Inconsistentie	Indirect bewijs	Onnauwkeurigheid	Andere factoren	oral megestrol acetate	oral megestrol acetate plus olanzapine	Relatief (95% CI)	Absoluut (95% CI)		
1	gerandomiseerde trials	ernstig ^a	niet ernstig	niet ernstig	niet ernstig	niet gevonden	0/37 (0.0%)	0/39 (0.0%)	Niet te berekenen		⊕⊕⊕○ Redelijk ^a	BELANGRIJK

Completion of chemotherapy - niet gerapporteerd

-	-	-	-	-	-	-	-	-	-	-	-	BELANGRIJK
---	---	---	---	---	---	---	---	---	---	---	---	------------

Overall survival - niet gerapporteerd

-	-	-	-	-	-	-	-	-	-	-	-	BELANGRIJK
---	---	---	---	---	---	---	---	---	---	---	---	------------

Progression-free survival - niet gerapporteerd

Certainty assessment							Aantal patiënten		Effect		Certainty	Importantie
Aantal studies	Studieopzet	Risk of bias	Inconsistentie	Indirect bewijs	Onnauwkeurigheid	Andere factoren	oral megestrol acetate	oral megestrol acetate plus olanzapine	Relatief (95% CI)	Absoluut (95% CI)		
-	-	-	-	-	-	-	-	-	-	-	-	BELANGRIJK

CI: Confidence interval; **RR:** Risk ratio; **SMD:** Standardised mean difference

1.1.1.10 Explanations

a. Navari 2010: unclear method of randomisation and allocation concealment, no blinding

Auteur(s): Brisbois, T.D., et al., Delta-9-tetrahydrocannabinol may palliate altered chemosensory perception in cancer patients: results of a randomized, double-blind, placebo-controlled pilot trial. *Annals of Oncology*, 2011. 22(9): p. 2086-2093.

Vraagstelling: THC versus placebo voor adult advanced cancer patients with poor appetite

Setting:

Literatuur:

Certainty assessment							Aantal patiënten		Effect		Certainty	Importantie
Aantal studies	Studieopzet	Risk of bias	Inconsistentie	Indirect bewijs	Onnauwkeurigheid	Andere factoren	THC	placebo	Relatief (95% CI)	Absoluut (95% CI)		

Nausea score (ESAS)

1	gerandomiseerde trials	ernstig ^a	niet ernstig	niet ernstig	zeer ernstig ^b	niet gevonden	Nausea scores were unaffected by THC treatment (p=0.532)		⊕○○○ Zeer laag ^{a,b}	CRUCIAAL
---	------------------------	----------------------	--------------	--------------	---------------------------	---------------	--	--	----------------------------------	----------

Quality of life (FAACT): global, at 18 days

1	gerandomiseerde trials	ernstig ^a	niet ernstig	niet ernstig	ernstig ^c	niet gevonden	11	192899	-	SMD 0.33 lager (0.92 lager tot 0.26 hoger)	⊕⊕○○ Laag ^{a,c}	CRUCIAAL
---	------------------------	----------------------	--------------	--------------	----------------------	---------------	----	--------	---	---	-----------------------------	----------

Patient satisfaction - niet gerapporteerd

Certainty assessment							Aantal patiënten		Effect		Certainty	Importantie
Aantal studies	Studieopzet	Risk of bias	Inconsistentie	Indirect bewijs	Onnauwkeurigheid	Andere factoren	THC	placebo	Relatief (95% CI)	Absoluut (95% CI)		
-	-	-	-	-	-	-	-	-	-	-	-	CRUCIAAL

Adverse events: nausea / vomiting

1	gerandomiseerde trials	ernstig ^a	niet ernstig	niet ernstig	zeer ernstig ^d	niet gevonden	5/11 (45.5%)	2/10 (20.0%)	RR 2.27 (0.56 tot 9.20)	254 meer per 1.000 (from 88 minder tot 1.000 meer)	⊕○○○ Zeer laag ^{a,d}	BELANGRIJK
---	------------------------	----------------------	--------------	--------------	---------------------------	---------------	--------------	--------------	-----------------------------------	--	----------------------------------	------------

Adverse events: hives / rash

Certainty assessment							Aantal patiënten		Effect		Certainty	Importantie
Aantal studies	Studieopzet	Risk of bias	Inconsistentie	Indirect bewijs	Onnauwkeurigheid	Andere factoren	THC	placebo	Relatief (95% CI)	Absoluut (95% CI)		
1	gerandomiseerde trials	ernstig ^a	niet ernstig	niet ernstig	zeer ernstig ^d	niet gevonden	3/11 (27.3%)	3/10 (30.0%)	RR 0.91 (0.24 tot 3.51)	27 minder per 1.000 (from 228 minder tot 753 meer)	⊕○○○ Zeer laag ^{a,d}	BELANGRIJK

Adverse events: bowel obstruction/constipation

Certainty assessment							Aantal patiënten		Effect		Certainty	Importantie
Aantal studies	Studieopzet	Risk of bias	Inconsistentie	Indirect bewijs	Onnauwkeurigheid	Andere factoren	THC	placebo	Relatief (95% CI)	Absoluut (95% CI)		
1	gerandomiseerde trials	ernstig ^a	niet ernstig	niet ernstig	zeer ernstig ^d	niet gevonden	0/11 (0.0%)	3/10 (30.0%)	RR 0.13 (0.01 tot 2.26)	261 minder per 1.000 (from 297 minder tot 378 meer)	⊕○○○ Zeer laag ^{a,d}	BELANGRIJK

Completion of chemotherapy - niet gerapporteerd

-	-	-	-	-	-	-	-	-	-	-	-	BELANGRIJK
---	---	---	---	---	---	---	---	---	---	---	---	------------

Overall survival - niet gerapporteerd

Certainty assessment							Aantal patiënten		Effect		Certainty	Importantie
Aantal studies	Studieopzet	Risk of bias	Inconsistentie	Indirect bewijs	Onnauwkeurigheid	Andere factoren	THC	placebo	Relatief (95% CI)	Absoluut (95% CI)		
-	-	-	-	-	-	-	-	-	-	-	-	BELANGRIJK

Progression-free survival - niet gerapporteerd

-	-	-	-	-	-	-	-	-	-	-	-	BELANGRIJK
---	---	---	---	---	---	---	---	---	---	---	---	------------

CI: Confidence interval; **MD:** Mean difference; **RR:** Risk ratio; **SMD:** Standardised mean difference

1.1.1.11 Explanations

- a. Brisbois 2011: unclear blinding of assessors, no ITT analysis
- b. Only p-value reported, small sample size
- c. CI around SMD includes -0.5
- d. CI around RR includes 0.75 and 1.25

Onderzoeksvraag 4: Combinatie van medicatie bij de behandeling van patiënten met misselijkheid en braken die met anti-emetikum worden behandeld in de palliatieve fase

Vraag 4: Welke combinatie van medicatie is geschikt voor de behandeling van patiënten met misselijkheid en braken die met anti-emetikum worden behandeld in de palliatieve fase (inclusief thc/cannabis)?

Systematische reviews

Study ID	Methods	Patient characteristics	Intervention	Results	Critical appraisal of study quality
Cox 2015	<ul style="list-style-type: none"> Design: systematic review Funding: none; Col: none Search date: Feb 2015 Databases: Medline, CENTRAL, Embase, trial registries Study designs: RCTs N included studies: N=0 RCTs 	<ul style="list-style-type: none"> Eligibility criteria: adults (aged 18 years and over) receiving palliative care suffering from nausea or vomiting, or both Exclusion: nausea or vomiting thought to be secondary to pregnancy or surgery; studies of levomepromazine for the control of nausea or vomiting associated with chemotherapy were excluded unless all the participants (or a specified subgroup, analysed separately) were receiving palliative care 	Levomepromazine	-	<ul style="list-style-type: none"> Duplicate selection No language restriction
Davis 2010	<ul style="list-style-type: none"> Design: systematic review Funding: not reported; Col: not reported Search date: 2008 Databases: PubMed, OVID Medline, CENTRAL, ProQuest 	<ul style="list-style-type: none"> Eligibility criteria: adults with active cancer, treatment for nausea and vomiting clinically determined to be related to the cancer or as a complication from the cancer 	Antiemetics	<ul style="list-style-type: none"> See below for results of included studies 	<ul style="list-style-type: none"> Limited to English language Unclear if review process was done by independent reviewers Quality appraisal using Jadad scale Relevant included studies: Bruera 2004

Study ID	Methods	Patient characteristics	Intervention	Results	Critical appraisal of study quality
	<ul style="list-style-type: none"> • Study designs: RCTs, prospective trials, cohort studies, case series, single-case reports • N included studies: N=14 RCTs 				
Dietz 2013	<ul style="list-style-type: none"> • Design: systematic review • Funding: unclear; Col: none • Search date: Apr 2012 • Databases: Medline, Embase, The Cochrane Library, PsychInfo, Ovid Nursing • Study designs: RCTs, prospective trials, cohort studies, case series, case reports, systematic reviews • N included studies: N=0 RCTs 	<ul style="list-style-type: none"> • Eligibility criteria: adults treated in the palliative care setting; pharmacological treatment of symptoms at the end of life with levomepromazine 	Levomepromazine	-	<ul style="list-style-type: none"> • Limited to English language • Duplicate selection • Unclear if data extraction was done by independent reviewers
Doppen 2022	<ul style="list-style-type: none"> • Design: systematic review • Funding: none; Col: none • Search date: Sep 2021 • Databases: PubMed, Embase, The Cochrane Library, clinicaltrials.gov • Study designs: all • N included studies: N=20 RCTs 	<ul style="list-style-type: none"> • Eligibility criteria: primary research in children and/or adults prescribed medicinal cannabis product (plant-derived or synthetically manufactured), in any formulation or dose, for symptoms due to a terminal disease • Exclusion: study population was not clearly specified as 	Medicinal cannabis	-	<ul style="list-style-type: none"> • Study selection, data extraction and quality appraisal done by independent reviewers • Restricted to English language • Relevant included RCTs: Stambaugh 1984

Study ID	Methods	Patient characteristics	Intervention	Results	Critical appraisal of study quality
		being “palliative”, “advanced”, “end-stage” or “incurable”; the medicinal cannabis was not prescribed			
Douglas 2009	<ul style="list-style-type: none"> • Design: systematic review • Funding: unclear; Col: unclear • Search date: May 2006 • Databases: Medline, Embase, Cinahl • Study designs: all • N included studies: N=0 RCTs 	<ul style="list-style-type: none"> • Eligibility criteria: patients dying with chronic kidney disease • Exclusion: articles which did not relate to the management of symptoms in adult renal populations and those which described management of symptoms yet thought to be less relevant in the last days of life 	Symptom management	-	<ul style="list-style-type: none"> • Unclear if review process was done by independent researchers • Unclear language restriction
Economos 2020	<ul style="list-style-type: none"> • Design: systematic review • Funding: King’s College London; Col: none • Search date: Jan 2019 • Databases: Medline, Scopus, Web of Science, Central and EMBASE, trial registers • Study designs: all • N included studies: N=3 RCTs 	<ul style="list-style-type: none"> • Eligibility criteria: patients diagnosed with cancer, excluding cancer survivors, with one or more of the following symptoms: depression, anxiety, sleep disorders, nausea, anorexia, weight loss, breathlessness, pain, constipation, fatigue and drowsiness 	Mirtazapine	-	<ul style="list-style-type: none"> • Unclear if study selection was done by independent researchers • Data extraction and quality appraisal done by independent researchers • Restricted to English and French literature • No relevant included RCTs
Glare 2004	<ul style="list-style-type: none"> • Design: systematic review • Funding: Strategic Research Development grant 	<ul style="list-style-type: none"> • Eligibility criteria: patients with cancer in an advanced stage and with nausea 	Antiemetics	-	<ul style="list-style-type: none"> • Unclear if study selection was done by independent researchers

Study ID	Methods	Patient characteristics	Intervention	Results	Critical appraisal of study quality
	<ul style="list-style-type: none"> from NHMRC; Col: unclear Search date: June 2003 Databases: US Clinical Guidelines Repository, Cochrane Library, Medline, Embase Study designs: systematic reviews, RCT, phase I/II clinical trials, well-designed cohort/case-control studies and case series N included studies: N=7 RCTs 	<ul style="list-style-type: none"> Exclusion: study objective was aimed at evaluating (a) antiemetics for the control of nausea and vomiting caused by emetogenic chemotherapy, or (b) agents for the treatment of bowel obstruction other than the standard antiemetics (such as surgery, tubes, or drugs intended to control secretions such as hyoscine or octreotide) 			<ul style="list-style-type: none"> Data extraction done by one researcher Restricted to English literature Quality appraisal with MERGE instrument No relevant included studies
Miller 2014	<ul style="list-style-type: none"> Design: systematic review Funding: unclear; Col: none Search date: Oct 2012 Databases: Medline, Cinahl Study designs: any experimental design N included studies: N=6 RCTs 	<ul style="list-style-type: none"> Eligibility criteria: anorexia in adult palliative care for malignant or nonmalignant, life-limiting conditions 	Corticosteroids	<ul style="list-style-type: none"> See below for results of included studies 	<ul style="list-style-type: none"> Study selection and quality appraisal done by independent reviewers Unclear if data extraction was done by independent researchers Evidence grading with SIGN system Restricted to English literature Relevant included studies: Bruera 2004
Mucke 2018	<ul style="list-style-type: none"> Design: systematic review + meta-analysis 	<ul style="list-style-type: none"> Eligibility criteria: participants of any age, diagnosed with any advanced or end-stage 	Cannabinoids	-	<ul style="list-style-type: none"> Review process by independent reviewers Language restriction unclear

Study ID	Methods	Patient characteristics	Intervention	Results	Critical appraisal of study quality
	<ul style="list-style-type: none"> Funding: Commonwealth Department of Health, the NSW Government Centre for Medicinal Cannabis Research and Innovation, the Victorian Department of Health and Human Services and the Queensland Department of Health; NHMRC research fellowship #1041472; the Australian Government under the Substance Misuse Prevention and Service Improvements Grant Fund"; Col: none Search date: Mar 2017 Databases: CENTRAL, Medline, PsycINFO, PubMed, and Scopus Study designs: RCTs N included studies: N=9 RCTs 	<p>medical disease (e.g. cancer, dementia, HIV/Acquired Immune Deficiency Syndrome (AIDS), heart disease, lung disease, and liver disease)</p> <ul style="list-style-type: none"> Exclusion: non-randomized studies, short abstracts, case reports, and studies without focus on palliative care aspects; studies on neuropathic pain in patients with HIV 			<ul style="list-style-type: none"> Complete GRADE process used No relevant included RCTs
Murray-Brown 2015	<ul style="list-style-type: none"> Design: systematic review Funding: unclear; Col: none Search date: Nov 2014 	<ul style="list-style-type: none"> Eligibility criteria: adults receiving palliative care or suffering from an incurable progressive medical condition, and suffering 	Haloperidol	-	<ul style="list-style-type: none"> Duplicate selection No language restriction No relevant RCTs

Study ID	Methods	Patient characteristics	Intervention	Results	Critical appraisal of study quality
	<ul style="list-style-type: none"> Databases: Medline, CENTRAL, Embase, Cinahl, AMED, trial registries Study designs: RCTs N included studies: N=1 RCTs 	<ul style="list-style-type: none"> from nausea or vomiting, or both Exclusion: nausea or vomiting, or both, thought to be secondary to pregnancy or surgery 			
Sande 2019	<ul style="list-style-type: none"> Design: systematic review Funding: none; Col: none Search date: Nov 2017 Databases: Medline, Embase Study designs: RCTs N included studies: N=15 RCTs 	<ul style="list-style-type: none"> Eligibility criteria: patients with cancer; at least 18 years of age; on opioids (weak or strong opioid) as defined by WHO's Analgesic Ladder for cancer pain relief; nausea and/or vomiting assessed as a primary or secondary outcome Exclusion: nausea and vomiting related to chemotherapy, radiotherapy, malignant bowel obstruction, or postoperative settings 	Management of opioid-induced nausea and vomiting	<ul style="list-style-type: none"> See below for results of included studies 	<ul style="list-style-type: none"> Restricted to English literature Unclear if study selection was done by independent reviewers Data extraction and quality appraisal done by independent reviewers GRADE process used Relevant included studies: Bruera 2004
Solmi 2023	<ul style="list-style-type: none"> Design: systematic review Funding: none; Col: extensive list in article Search date: Feb 2022 Databases: PubMed, PsychInfo, Embase, Cochrane Library Study designs: meta-analyses 	<ul style="list-style-type: none"> Eligibility criteria: meta-analyses of observational studies (ie, case-control and cohort studies) and randomised controlled trials that reported on any outcome associated with cannabis and cannabinoids use in humans Exclusion: systematic reviews without a meta-analysis, meta-analyses of 	Cannabis	-	<ul style="list-style-type: none"> Duplicate study selection and data extraction No language restriction Quality appraisal using Amstar instrument No relevant included studies

Study ID	Methods	Patient characteristics	Intervention	Results	Critical appraisal of study quality
	<ul style="list-style-type: none"> N included studies: N=0 RCTs 	<p>risk factors for cannabinoids use, meta-analyses of cross-sectional studies only, pooled analyses of studies identified without a systematic search, and individual studies</p>			
Storror 2014	<ul style="list-style-type: none"> Design: systematic review Funding: Cochrane Collaboration; Col: none Search date: Nov 2013 Databases: Medline, Embase, CENTRAL, AMED, Cinahl, trial registers Study designs: RCTs N included studies: N=0 RCTs 	<ul style="list-style-type: none"> Eligibility criteria: adults receiving palliative care or suffering from an incurable progressive medical condition, and suffering from nausea or vomiting, or both Exclusion: nausea or vomiting, or both, thought to be secondary to pregnancy or surgery; antiemetic(s) used for the prophylaxis of nausea or vomiting associated with chemotherapy 	Droperidol	-	<ul style="list-style-type: none"> Duplicate selection No language restriction
Sutherland 2018	<ul style="list-style-type: none"> Design: systematic review Funding: Health Education Thames Valley; Col: none Search date: Sep 2017 Databases: CENTRAL, Medline, Embase Study designs: RCTs N included studies: N=14 RCTs 	<ul style="list-style-type: none"> Eligibility criteria: patients with cancer (of any type or stage), who had nausea and vomiting treated with olanzapine, or where olanzapine was used to prevent nausea and vomiting Exclusion: studies in which olanzapine was used for the treatment or prevention of nausea and vomiting in non-cancer patients 	Olanzapine	<ul style="list-style-type: none"> See below for results of included studies 	<ul style="list-style-type: none"> Review process by independent reviewers No language restriction Relevant included RCTs: Navari 2013

Study ID	Methods	Patient characteristics	Intervention	Results	Critical appraisal of study quality
Tramer 1999	<ul style="list-style-type: none"> • Design: systematic review • Funding: PROSPER research grant from the Swiss National Science Foundation (Grant No 3233-051939.97); Col: unclear • Search date: Apr 1998 • Databases: Medline, Embase, Cochrane Library • Study designs: RCTs • N included studies: N=14 RCTs 	<ul style="list-style-type: none"> • Eligibility criteria: prophylactic efficacy of antiemetic interventions compared with placebo or no treatment in patients with acute, postoperative pain treated with a PCA device containing an opioid • Exclusion: abstracts, letters, and review articles; interventions to treat established postoperative nausea and vomiting 	Prophylactic antiemetics during patient-controlled analgesia therapy	-	<ul style="list-style-type: none"> • Unclear if study selection was done by independent reviewers • Data extraction and quality appraisal done by independent reviewers • No language restriction • Quality appraisal using Jadad scale • No relevant included studies
Vayne-Bossert 2017	<ul style="list-style-type: none"> • Design: systematic review • Funding: Mater Research - The University of Queensland, School of Pharmacy and Menzies Health Institute Queensland, Griffith University, The Mater Palliative Care Research Fund and St Vincent's Hospital Brisbane, Australia; Col: none • Search date: Aug 2016 • Databases: CENTRAL, Medline, Embase, Cinahl, EBSCO, Web 	<ul style="list-style-type: none"> • Eligibility criteria: participants with cancer suffering from nausea, vomiting or both not related to chemotherapy, radiotherapy, or surgery, aged 18 years and above 	Corticosteroids	<ul style="list-style-type: none"> • See below for results of included studies 	<ul style="list-style-type: none"> • Review process by independent reviewers • No language restriction • Relevant included studies: Bruera 2004

Study ID	Methods	Patient characteristics	Intervention	Results	Critical appraisal of study quality
	<p>of Science, LILACS, Conference Proceedings Citation Index, trial registries</p> <ul style="list-style-type: none"> • Study designs: RCTs • N included studies: N=3 RCTs 				

Primaire studies

Study ID	Methods	Patient characteristics	Intervention	Results	Critical appraisal of study quality
Bruera 2004	<ul style="list-style-type: none"> • Design: RCT • Funding: Brown Foundation, Houston, Texas; Col: not reported • Setting: 5 international centres • Sample size: N=51 • Duration: 7 days 	<ul style="list-style-type: none"> • Eligibility criteria: patients with a history of chronic nausea (defined as nausea lasting more than 2 weeks) resulting from advanced cancer (local recurrence or metastatic disease); had residual mild to moderate nausea (greater than or equal to 3 on a 0-10 numerical scale measuring intensity of nausea) despite treatment with metoclopramide at a minimal daily dose of 40-60 mg for 2 days; had no evidence of mechanical bowel obstruction; had received no chemotherapy or radiation therapy for 4 weeks; had a normal cognitive status (defined as normal state of arousal 	<p>Dexamethasone, 10 mg orally twice a day (N=25)</p> <p>vs.</p> <p>Placebo (N=26)</p>	<p>CRITICAL OUTCOMES</p> <ul style="list-style-type: none"> • Nausea / vomiting: NRS <ul style="list-style-type: none"> ◦ Intensity of nausea: mean change from baseline (SD) <ul style="list-style-type: none"> ▪ Day 3: 4.5 (4.1) vs. 2.9 (3.9), p=0.16 ▪ Day 8: 5.9 (3.6) vs. 5.7 (3.2), p=0.85 ◦ Median number of daily vomiting episodes: 0 at day 3 and 8 in both groups (NS) • Quality of life: FACT, day 8, mean (SD) <ul style="list-style-type: none"> ◦ Physical well-being: 17.5 (5.9) vs. 17.9 (6.6) ◦ Social / Family well-being: 18.2 (5.8) vs. 19.6 (7.4) ◦ Emotional well-being: 13.7 (5.9) vs. 13.1 (5.3) ◦ Functional well-being: 10.9 (5.8) vs. 12.3 (7.0) • Patient satisfaction: not reported • Adverse events: 6 vs.8 <ul style="list-style-type: none"> ◦ Ankle edema: 8% vs. 12% ◦ Insomnia: 4% vs. 8% 	<p>Level of evidence: unclear risk of bias</p> <ul style="list-style-type: none"> • Each participating pharmacy randomly assigned patients: not reported how • Capsules containing both drugs were identical in appearance • Double-blind study, but unclear if assessors were blinded • Unclear if ITT analysis was used, 3 vs. 5 drop-outs

Study ID	Methods	Patient characteristics	Intervention	Results	Critical appraisal of study quality
		<p>and absence of obvious clinical findings of confusion, memory or concentration deficit); and were 16 years of age or older</p> <ul style="list-style-type: none"> • Exclusion criteria: had already received dexamethasone within the previous 4 weeks; had been treated with antiemetics other than metoclopramide during the preceding 3 days; did not have a stable opioid dose (defined as a dose change of less than 50% in the past 3 days); or had contraindications (i.e., diabetes mellitus) to oral dexamethasone therapy • <i>A priori</i> patient characteristics: <ul style="list-style-type: none"> ○ Median age: 66 vs. 60y ○ M/F: 10/15 vs. 14/12/1? ○ Cancer type: gastrointestinal N=22, gynaecological N=7, genitourinary N=6, lung N=3, breast N=2, unknown N=9 		<ul style="list-style-type: none"> ○ Restlessness: 4% vs. 8% ○ Other mild side effects: 8% vs. 4% 	
Johansson 1982	<ul style="list-style-type: none"> • Design: cross-over RCT • Funding: not reported; Col: not reported 	<ul style="list-style-type: none"> • Eligibility criteria: adult patients with an age range of 18-70 years, with a good performance status (less than 2 on the EGOG scale), 	Nabilone 2 mg twice daily orally (N=26) vs.	<p>CRITICAL OUTCOMES</p> <ul style="list-style-type: none"> • Nausea / vomiting: 	<p>Level of evidence: high risk of bias</p> <ul style="list-style-type: none"> • The order of administration of the

Study ID	Methods	Patient characteristics	Intervention	Results	Critical appraisal of study quality
	<ul style="list-style-type: none"> Setting: unclear Sample size: N=27 Duration: recruitment Sep 1981 – Apr 1982 	<p>receiving the same cycles of cancer chemotherapy as previously, who had uncontrolled nausea and vomiting despite the use of standard antiemetic drugs</p> <ul style="list-style-type: none"> Exclusion criteria: patients with known psychotic or cardiovascular diseases, currently under medication, i.e. with phenothiazines, or with previous usage of marijuana A priori patient characteristics: <ul style="list-style-type: none"> Cancer type: ovarian N=13, cervix N=2, fallopian tubes N=2, testis N=2 	Prochlorperazine 10 mg twice daily orally (N=23)	<ul style="list-style-type: none"> Severity of nausea (none-mild-moderate-severe): less with nabilone (p=0.027) <ul style="list-style-type: none"> None: 17% vs. 0% Mild: 33% vs. 17% Moderate: 39% vs. 61% Severe: 11% vs. 22% Less nausea: 9/18 vs. 1/18 Mean number of vomiting episodes: 18.4 vs. 38.7, p<0.001 Proportion without vomiting: 3 vs. 0 Quality of life: not reported Patient satisfaction: not reported Adverse events: <ul style="list-style-type: none"> At least one adverse event: 14/26 vs. 9/23 	<p>drugs was randomly allocated, but unclear how</p> <ul style="list-style-type: none"> Double-blind study, but unclear if assessors were blinded No ITT analysis, only 18 patients included in efficacy analysis
McCabe 1988	<ul style="list-style-type: none"> Design: cross-over RCT Funding: not reported; Col: not reported Setting: single cancer centre, US Sample size: N=36 Duration: unclear 	<ul style="list-style-type: none"> Eligibility criteria: adult patients undergoing chemotherapeutic treatment, no prior history of psychiatric illness or preexisting cardiac disease; performance status 0-1; severe nausea and vomiting that was refractory to standard antiemetics A priori patient characteristics: <ul style="list-style-type: none"> Median age: 48y M/F: 9/27 Cancer type: breast N=11, hematologic N=9, 	<p>Delta-9-tetrahydrocannabinol 15 mg/m² (N=36)</p> <p>vs.</p> <p>Prochlorperazine 10 mg/day (N=36)</p>	<p>CRITICAL OUTCOMES</p> <ul style="list-style-type: none"> Nausea / vomiting: <ul style="list-style-type: none"> Complete response: 9 vs. 0 Partial response: 14 vs. 1 No response: 13 vs. 35 Quality of life: not reported Patient satisfaction: not reported Adverse events: not reported 	<p>Level of evidence: unclear risk of bias</p> <ul style="list-style-type: none"> The patient served as his own control, and received each study drug twice in a randomly allocated sequence (method unclear) Blinding unclear (but unlikely: prochlorperazine was supplied in its usual tablet form) Nausea was rated on a 0-4 scale: 0 = None; 1 = Mild; 2 = Moderate; 3 =

Study ID	Methods	Patient characteristics	Intervention	Results	Critical appraisal of study quality
		sarcoma N=6, gastrointestinal N=5			Severe; 4= Incapacitating <ul style="list-style-type: none"> Complete response was defined as the complete absence of nausea and vomiting; partial response represented at least a 50% decrease in frequency and intensity of nausea and vomiting as compared to baseline; no response was defined as less than a 50% decrease in nausea and vomiting
Navari 2013	<ul style="list-style-type: none"> Design: RCT Funding: supported by the Reich Family Endowment for the Care of the Whole Patient; Col: none Setting: 3 outpatient oncology centers Sample size: N=276 Duration: 72h observation period 	<ul style="list-style-type: none"> Eligibility criteria: adult patients with histologically or cytologically confirmed malignant disease that were chemotherapy naive and scheduled to receive HEC (cisplatin, ≥ 70 mg/m²; cyclophosphamide, ≥ 600–1000 mg/m²; and doxorubicin, ≥ 50–60 mg/m²); without nausea in 24 h prior to beginning of chemotherapy and should have serum creatinine of ≤ 2.0 mg/dl, serum bilirubin of ≤ 2.0 mg/dl, SGOT or SGPT values of ≤ 3 times the upper limits of normal, and absolute neutrophil count of ≥ 1500 mm³; patients of childbearing potential 	<p>Olanzapine 10 mg orally every 24h for 72h (+ oral placebo twice in every 24-h period for 72h) (N=58)</p> <p>vs.</p> <p>Metoclopramide 10 mg orally every 8h for 72h (N=54)</p>	<p>CRITICAL OUTCOMES</p> <ul style="list-style-type: none"> Nausea / vomiting: <ul style="list-style-type: none"> No emesis during 72h observation period: 39/56 vs. 15/52, p<0.01 No nausea during 72h observation period: 38/56 vs. 12/52, p<0.01 Quality of life: not reported Patient satisfaction: not reported Adverse events: <ul style="list-style-type: none"> No grade 3 or 4 toxicities attributable to the study drugs in any of the patients for the treatment periods 	<p>Level of evidence: unclear risk of bias</p> <ul style="list-style-type: none"> Computer-generated random assignment schedule created by a statistician not involved with the study Treatment packages were identical with neither the patients nor the investigators knowing which treatment the patients were assigned Only patients with CINV (N=112) received the study medication; 4/112 were excluded from analysis

Study ID	Methods	Patient characteristics	Intervention	Results	Critical appraisal of study quality
		<p>(men and women) must consent to use adequate contraception throughout protocol therapy; women of childbearing potential must have a negative urine pregnancy test; patients should have no severe cognitive compromise, no known history of CNS disease (e.g., brain metastases, seizure disorder), no treatment with other antipsychotic agents such as risperidone, quetiapine, clozapine, phenothiazine or butyrophenone for 30 days prior to or during protocol therapy; patients on chronic phenothiazine administration as an antipsychotic agent was not allowed, but they may receive prochlorperazine and other phenothiazines as rescue antiemetic therapy; patients should have no concurrent use of ethylol, no concurrent abdominal radiotherapy, no concurrent use of quinolone antibiotic therapy, no chronic alcoholism (as determined by the investigator), no</p>			

Study ID	Methods	Patient characteristics	Intervention	Results	Critical appraisal of study quality
		<p>known hypersensitivity to olanzapine, no known cardiac arrhythmia, uncontrolled congestive heart failure, or acute myocardial infarction within the previous 6 months, and no history of uncontrolled diabetes mellitus.</p> <ul style="list-style-type: none"> • <i>A priori</i> patient characteristics: <ul style="list-style-type: none"> ○ Median age: 61 vs. 63y ○ M/F: 28/28 vs. 30/22 ○ Cancer type: breast N=54, NSCLC N=37, lymphoma N=10, bladder N=7 			
Sallan 1975	<ul style="list-style-type: none"> • Design: cross-over RCT • Funding: grants (CA 19589, CA 22719, and CA 17979) from the National Institutes of Health; Col: not reported • Setting: unclear • Sample size: N=84 • Duration: unclear 	<ul style="list-style-type: none"> • Eligibility criteria: patients with neoplasms receiving chemotherapy, nausea and vomiting were inadequately controlled by conventional antiemetics, including phenothiazines • Exclusion criteria: pregnant women and patients with a history of emotional instability or untoward reactions to psychoactive drugs • <i>A priori</i> patient characteristics: <ul style="list-style-type: none"> ○ Mean age: 32.5y ○ M/F: 51/33 	<p>Delta-9-tetrahydrocannabinol 10 mg/m² (N=84)</p> <p>vs.</p> <p>Prochlorperazine 10 mg/day (N=84)</p>	<p>CRITICAL OUTCOMES</p> <ul style="list-style-type: none"> • Nausea / vomiting: <ul style="list-style-type: none"> ○ Complete response: 36/79 vs. 16/78 treatment courses ○ Partial response: 10/79 vs. 15/78 ○ No response: 33/79 vs. 47/78 • Quality of life: not reported • Patient satisfaction: not reported • Adverse events: not reported 	<p>Level of evidence: high risk of bias</p> <ul style="list-style-type: none"> • Method of randomization and allocation concealment unclear • Double-blinded; identical opaque capsules; assessors were also blinded • 27 patients received only one course of study drug and were removed from the study • Complete response was defined as no nausea or vomiting after chemotherapy; partial response = a reduction

Study ID	Methods	Patient characteristics	Intervention	Results	Critical appraisal of study quality
					in the severity of nausea and vomiting; no response = no reduction in the severity of nausea and vomiting
Stambaugh 1984	<ul style="list-style-type: none"> Design: RCT Funding: not reported; Col: not reported Setting: single private practice, US Sample size: N=20 Duration: 6 months recruitment period 	<ul style="list-style-type: none"> Eligibility criteria: patients with persistent nausea and vomiting from cancer chemotherapy determined to be refractory to maximally recommended doses of conventional antiemetics Exclusion criteria: subjects with severe liver or renal disease or with CNS metastasis A priori patient characteristics: <ul style="list-style-type: none"> Not reported 	Levonantradol IM 0.5 mg, 1.0 mg, 1.5 mg, 2.0 mg (N=16) vs. Placebo (N=4)	CRITICAL OUTCOMES <ul style="list-style-type: none"> Nausea / vomiting: <ul style="list-style-type: none"> Complete response: the antiemetic response of levonantradol for each of the doses were significantly different from those of placebo ($p < 0.05$), but there was no difference between doses Quality of life: not reported Patient satisfaction: not reported Adverse events: <ul style="list-style-type: none"> Eight of the 16 subjects who received 0.5 to 2.0 mg levonantradol experienced more than one side effect and did not receive all four dosings because of toxicity No subject receiving placebo was discontinued due to toxicity 	Level of evidence: unclear risk of bias <ul style="list-style-type: none"> Random design using a Latin-square treatment sequence; method unclear Double-blinded, but unclear if assessors were blinded Unclear how many patients were included in analysis Complete response was defined as the complete absence of nausea and vomiting; partial response represented a 50% reduction in nausea and vomiting compared to prior treatment and less than five episodes of emesis during the evaluation; no response was defined as less than a 50% reduction in the incidence of nausea and vomiting compared to prior treatments and five or more episodes of

Study ID	Methods	Patient characteristics	Intervention	Results	Critical appraisal of study quality
					emesis in the 24-hour observation period

Abbreviations: 95%CI: 95% confidence interval; Col: conflict of interest; ITT: intention to treat; IV: intravenous; NRS: numeric rating scale; NS: not significant; PCA: patient-controlled analgesia; RCT: randomised controlled trial; SD: standard deviation.

References

Bruera, E., et al., Dexamethasone in addition to metoclopramide for chronic nausea in patients with advanced cancer: a randomized controlled trial. *Journal of Pain & Symptom Management*, 2004. 28(4): p. 381-8.

Cox, L., E. Darvill, and S. Dorman, Levomepromazine for nausea and vomiting in palliative care. *Cochrane Database of Systematic Reviews*, 2015(11): p. CD009420.

Davis M, Hallerberg G. A systematic review of the treatment of nausea and/or vomiting in cancer unrelated to chemotherapy or radiation. *Journal of Pain and Symptom Management* 2010;39(4):756-67.

Dietz, I., et al., Evidence for the use of Levomepromazine for symptom control in the palliative care setting: A systematic review. *BMC Palliative Care*, 2013. 12(1).

Doppen, M., et al., Cannabis in Palliative Care: A Systematic Review of Current Evidence. *Journal of Pain & Symptom Management*, 2022. 64(5): p. e260-e284.

Douglas, C., et al., Symptom management for the adult patient dying with advanced chronic kidney disease: a review of the literature and development of evidence-based guidelines by a United Kingdom Expert Consensus Group. *Palliative Medicine*, 2009. 23(2): p. 103-10.

- Economos, G., et al., What is the evidence for mirtazapine in treating cancer-related symptomatology? A systematic review. *Supportive Care in Cancer*, 2020. 28(4): p. 1597-1606.
- Glare, P., et al., Systematic review of the efficacy of antiemetics in the treatment of nausea in patients with far-advanced cancer. *Supportive Care in Cancer*, 2004. 12(6): p. 432-40.
- Hardy, J., et al., A randomized open-label study of guideline-driven antiemetic therapy versus single agent antiemetic therapy in patients with advanced cancer and nausea not related to anticancer treatment. *BMC Cancer*, 2018. 18(1): p. 510.
- Hardy, J.R., et al., Methotrimeprazine versus haloperidol in palliative care patients with cancer-related nausea: a randomised, double-blind controlled trial. *BMJ Open*, 2019. 9(9): p. e029942.
- Johansson R, Kilku P, Groenroos M. A double-blind, controlled trial of nabilone vs. prochlorperazine for refractory emesis induced by cancer chemotherapy. *Cancer Treatment Reviews* 1982;9(Suppl B):25-33.
- McCabe M, Smith FP, Macdonald JS, Woolley PV, Goldberg D, Schein PS. Efficacy of tetrahydrocannabinol in patients refractory to standard antiemetic therapy. *Investigational New Drugs* 1988;6(3):243-6.
- Miller, S., et al., Use of corticosteroids for anorexia in palliative medicine: A systematic review. *Journal of Palliative Medicine*, 2014. 17(4): p. 482-485.
- Mucke, M., et al., Systematic review and meta-analysis of cannabinoids in palliative medicine. *Journal of Cachexia, Sarcopenia and Muscle*, 2018. 9(2): p. 220-234.
- Murray-Brown, F. and S. Dorman, Haloperidol for the treatment of nausea and vomiting in palliative care patients. *Cochrane Database of Systematic Reviews*, 2015(11): p. CD006271.
- Navari R, Nagy C, Gray S. The use of olanzapine versus metoclopramide for the treatment of breakthrough chemotherapy-induced nausea and vomiting in patients receiving highly emetogenic chemotherapy. *Supportive Care in Cancer* 2013; Vol. 21, issue 6:1655-63.
- Sallan SE, Zinberg NE, Frei E. Antiemetic effect of delta-9-tetrahydrocannabinol in patients receiving cancer chemotherapy. *New England Journal of Medicine* 1975;293:795-7.

Sande, T.A., B.J.A. Laird, and M.T. Fallon, The Management of Opioid-Induced Nausea and Vomiting in Patients with Cancer: A Systematic Review. *Journal of Palliative Medicine*, 2019. 22(1): p. 90-97.

Solmi, M., et al., Balancing risks and benefits of cannabis use: umbrella review of meta-analyses of randomised controlled trials and observational studies. *BMJ*, 2023. 382: p. e072348.

Stambaugh JE, McAdams J, Vreeland F. Dose ranging evaluation of the antiemetic efficacy and toxicity of intramuscular levonantradol in cancer subjects with chemotherapy-induced emesis. *J Clin Pharmacol* 1984;24:480-485.

Storrar, J., et al., Droperidol for treatment of nausea and vomiting in palliative care patients. *Cochrane Database of Systematic Reviews*, 2014(11): p. CD006938.

Sutherland, A., et al., Olanzapine for the prevention and treatment of cancer-related nausea and vomiting in adults. *Cochrane Database of Systematic Reviews*, 2018. 9: p. CD012555.

Tramer MR, Walder B. Efficacy and adverse effects of prophylactic antiemetics during patient-controlled analgesia therapy: a quantitative systematic review. *Anesthesia and Analgesia* 1999;88:1354-61.

Vayne-Bossert, P., et al., Corticosteroids for adult patients with advanced cancer who have nausea and vomiting (not related to chemotherapy, radiotherapy, or surgery). *Cochrane Database of Systematic Reviews*, 2017. 7: p. CD012002.

GRADE-profielen

Auteur(s): Bruera, E., et al., Dexamethasone in addition to metoclopramide for chronic nausea in patients with advanced cancer: a randomized controlled trial. *Journal of Pain & Symptom Management*, 2004. 28(4): p. 381-8.

Vraagstelling: Dexamethason versus placebo voor patients with advanced cancer and refractory nausea

Setting:

Literatuur:

Certainty assessment							Aantal patiënten		Effect			
Aantal studies	Studieopzet	Risk of bias	Inconsistentie	Indirect bewijs	Onnauwkeurigheid	Andere factoren	dexamethason	placebo	Relatief (95% CI)	Absoluut (95% CI)	Certainty	Importantie

Intensity of nausea (NRS): mean change from baseline at day 3

1	gerandomiseerde trials	ernstig ^a	niet ernstig	niet ernstig	ernstig ^b	niet gevonden	22	21	-	SMD 0.39 hoger (0.21 lager tot 1 hoger)	⊕⊕○ ○ Laag ^{a,b}	CRUCIAAL
---	------------------------	----------------------	--------------	--------------	----------------------	---------------	----	----	---	--	---------------------------------	----------

Certainty assessment							Aantal patiënten		Effect			
Aantal studies	Studieopzet	Risk of bias	Inconsistentie	Indirect bewijs	Onnauwkeurigheid	Andere factoren	dexamethason	placebo	Relatief (95% CI)	Absoluut (95% CI)	Certainty	Importantie

Intensity of nausea (NRS): mean change from baseline at day 8

1	gerandomiseerde trials	ernstig ^a	niet ernstig	niet ernstig	ernstig ^c	niet gevonden	22	21	-	SMD 0.06 hoger (0.54 lager tot 0.66 hoger)	⊕⊕○ ○ Laag ^{a,c}	CRUCIAAL
---	------------------------	----------------------	--------------	--------------	----------------------	---------------	----	----	---	---	---------------------------------	----------

Certainty assessment							Aantal patiënten		Effect			
Aantal studies	Studieopzet	Risk of bias	Inconsistentie	Indirect bewijs	Onnauwkeurigheid	Andere factoren	dexamethason	placebo	Relatief (95% CI)	Absoluut (95% CI)	Certainty	Importantie

Median number of daily vomiting episodes

1	gerandomiseerde trials	ernstig ^a	niet ernstig	niet ernstig	zeer ernstig ^d	niet gevonden	0	0	-	MD 0 (0 tot 0)	⊕○○○ ○ Zeer laag ^{a,d}	CRUCIAAL
---	------------------------	----------------------	--------------	--------------	---------------------------	---------------	---	---	---	----------------	---------------------------------------	----------

Quality of life: FACT at day 8, Physical well-being

Certainty assessment							Aantal patiënten		Effect			
Aantal studies	Studieopzet	Risk of bias	Inconsistentie	Indirect bewijs	Onnauwkeurigheid	Andere factoren	dexamethason	placebo	Relatief (95% CI)	Absoluut (95% CI)	Certainty	Importantie
1	gerandomiseerde trials	ernstig ^a	niet ernstig	niet ernstig	zeer ernstig ^c	niet gevonden	22	21	-	SMD 0.06 lager (0.66 lager tot 0.54 hoger)	⊕○○ ○ Zeer laag ^{a,c}	CRUCIAAL

**Quality of
life: FACT at
day 8,
Social /
Family
well-being**

Certainty assessment							Aantal patiënten		Effect			
Aantal studies	Studieopzet	Risk of bias	Inconsistentie	Indirect bewijs	Onnauwkeurigheid	Andere factoren	dexamethason	placebo	Relatief (95% CI)	Absoluut (95% CI)	Certainty	Importantie
1	gerandomiseerde trials	ernstig ^a	niet ernstig	niet ernstig	ernstig ^e	niet gevonden	22	21	-	SMD 0.21 lager (0.81 lager tot 0.39 hoger)	⊕⊕○ ○ Laag ^{a,e}	CRUCIAAL

Quality of life: FACT at day 8, Emotional well-being

Certainty assessment							Aantal patiënten		Effect			
Aantal studies	Studieopzet	Risk of bias	Inconsistentie	Indirect bewijs	Onnauwkeurigheid	Andere factoren	dexamethason	placebo	Relatief (95% CI)	Absoluut (95% CI)	Certainty	Importantie
1	gerandomiseerde trials	ernstig ^a	niet ernstig	niet ernstig	ernstig ^b	niet gevonden	22	21	-	SMD 0.1 hoger (0.49 lager tot 0.7 hoger)	⊕⊕○ ○ Laag ^{a,b}	CRUCIAAL

Quality of life: FACT at day 8, Functional well-being

Certainty assessment							Aantal patiënten		Effect			
Aantal studies	Studieopzet	Risk of bias	Inconsistentie	Indirect bewijs	Onnauwkeurigheid	Andere factoren	dexamethason	placebo	Relatief (95% CI)	Absoluut (95% CI)	Certainty	Importantie
1	gerandomiseerde trials	ernstig ^a	niet ernstig	niet ernstig	ernstig ^e	niet gevonden	22	21	-	SMD 0.21 lager (0.81 lager tot 0.39 hoger)	⊕⊕○ ○ Laag ^{a,e}	CRUCIAAL

Patient satisfaction
- niet gerapporteerd

-	-	-	-	-	-	-	-	-	-	-	-	CRUCIAAL
---	---	---	---	---	---	---	---	---	---	---	---	----------

Certainty assessment							Aantal patiënten		Effect			
Aantal studies	Studieopzet	Risk of bias	Inconsistentie	Indirect bewijs	Onnauwkeurigheid	Andere factoren	dexamethason	placebo	Relatief (95% CI)	Absoloot (95% CI)	Certainty	Importantie

Proportion of patients with at least one adverse event

1	gerandomiseerde trials	ernstig ^a	niet ernstig	niet ernstig	zeer ernstig ^f	niet gevonden	6/22 (27.3%)	8/21 (38.1%)	RR 0.72 (0.30 tot 1.71)	107 minder per 1.000 (from 267 minder tot 270 meer)	⊕○○ ○ Zeer laag ^{a,f}	BELANGRIJK
---	------------------------	----------------------	--------------	--------------	---------------------------	---------------	--------------	--------------	-----------------------------------	---	--------------------------------------	------------

Certainty assessment							Aantal patiënten		Effect			
Aantal studies	Studieopzet	Risk of bias	Inconsistentie	Indirect bewijs	Onnauwkeurigheid	Andere factoren	dexamethason	placebo	Relatief (95% CI)	Absoluut (95% CI)	Certainty	Importantie

Chemotherapy completion - niet gerapporteerd

-	-	-	-	-	-	-	-	-	-	-	-	BELANGRIJK
---	---	---	---	---	---	---	---	---	---	---	---	------------

Overall survival - niet gerapporteerd

Certainty assessment							Aantal patiënten		Effect			
Aantal studies	Studieopzet	Risk of bias	Inconsistentie	Indirect bewijs	Onnauwkeurigheid	Andere factoren	dexamethason	placebo	Relatief (95% CI)	Absoloot (95% CI)	Certainty	Importantie
-	-	-	-	-	-	-	-	-	-	-	-	BELANGRIJK

Progression-free survival - niet gerapporteerd

-	-	-	-	-	-	-	-	-	-	-	-	BELANGRIJK
---	---	---	---	---	---	---	---	---	---	---	---	------------

CI: Confidence interval; **MD:** Mean difference; **RR:** Risk ratio; **SMD:** Standardised mean difference

1.1.1.12 Explanations

- Bruera 2004: unclear method of randomisation and allocation concealment, unclear blinding of assessors, unclear ITT analysis (probably not)
- CI around SMD includes 0.5
- CI around SMD includes -0.5 and 0.5

d. No data to calculate precision

e. CI around SMD includes -0.5

f. CI around RR includes 0.75 and 1.25

Auteur(s): Stambaugh JE, McAdams J, Vreeland F. Dose ranging evaluation of the antiemetic efficacy and toxicity of intramuscular levonantradol in cancer subjects with chemotherapy-induced emesis. J Clin Pharmacol 1984;24:480–485.

Vraagstelling: Levonantradol versus placebo voor refractory CINV

Setting:

Literatuur:

Certainty assessment							Aantal patiënten		Effect		Certainty	Importantie
Aantal studies	Studieopzet	Risk of bias	Inconsistentie	Indirect bewijs	Onnauwkeurigheid	Andere factoren	levonantradol	placebo	Relatief (95% CI)	Absoluut (95% CI)		

Complete response (absence of nausea and vomiting)

Certainty assessment							Aantal patiënten		Effect		Certainty	Importantie
Aantal studies	Studieopzet	Risk of bias	Inconsistentie	Indirect bewijs	Onnauwkeurigheid	Andere factoren	levonantra dol	placebo	Relatief (95% CI)	Absoluut (95% CI)		
1	gerandomiseerde trials	ernstig ^a	niet ernstig	niet ernstig	zeer ernstig ^b	niet gevonden	The antiemetic response of levonantra dol for each of the doses were significantly different from those of placebo ($p < 0.05$), but there was no difference between doses				⊕○○ ○ Zeer laag ^{a,b}	CRUCIAAL

Certainty assessment							Aantal patiënten		Effect		Certainty	Importantie
Aantal studies	Studieopzet	Risk of bias	Inconsistentie	Indirect bewijs	Onnauwkeurigheid	Andere factoren	levonantra dol	placebo	Relatief (95% CI)	Absoluut (95% CI)		

Quality of life - niet gerapporteerd

-	-	-	-	-	-	-	-	-	-	-	-	CRUCIAAL
---	---	---	---	---	---	---	---	---	---	---	---	----------

Patient satisfaction - niet gerapporteerd

-	-	-	-	-	-	-	-	-	-	-	-	CRUCIAAL
---	---	---	---	---	---	---	---	---	---	---	---	----------

Certainty assessment							Aantal patiënten		Effect		Certainty	Importantie
Aantal studies	Studieopzet	Risk of bias	Inconsistentie	Indirect bewijs	Onnauwkeurigheid	Andere factoren	levonantra dol	placebo	Relatief (95% CI)	Absoluut (95% CI)		

Adverse events

1	gerandomiseerde trials	ernstig ^a	niet ernstig	niet ernstig	zeer ernstig ^b	niet gevonden	<p>- Eight of the 16 subjects who received 0.5 to 2.0 mg levonandrol experience d more than one side effect and did not receive all four dosings because of toxicity</p> <p>- No subject receiving placebo was discontinued</p>				<p>⊕○○ ○ Zeer laag^{a,b}</p>	BELANGRIJK
---	------------------------	----------------------	--------------	--------------	---------------------------	---------------	---	--	--	--	--	------------

Certainty assessment							Aantal patiënten		Effect		Certainty	Importantie
Aantal studies	Studieopzet	Risk of bias	Inconsistentie	Indirect bewijs	Onnauwkeurigheid	Andere factoren	levonantra dol	placebo	Relatief (95% CI)	Absoluut (95% CI)		
							d due to toxicity					

Completion of chemotherapy - niet gerapporteerd

-	-	-	-	-	-	-	-	-	-	-	-	BELANGRIJK
---	---	---	---	---	---	---	---	---	---	---	---	------------

Certainty assessment							Aantal patiënten		Effect		Certainty	Importantie
Aantal studies	Studieopzet	Risk of bias	Inconsistentie	Indirect bewijs	Onnauwkeurigheid	Andere factoren	levonantra dol	placebo	Relatief (95% CI)	Absoluut (95% CI)		

Overall survival - niet gerapporteerd

-	-	-	-	-	-	-	-	-	-	-	-	BELANGRIJK
---	---	---	---	---	---	---	---	---	---	---	---	------------

Progression-free survival - niet gerapporteerd

Certainty assessment							Aantal patiënten		Effect		Certainty	Importantie
Aantal studies	Studieopzet	Risk of bias	Inconsistentie	Indirect bewijs	Onnauwkeurigheid	Andere factoren	levonantra dol	placebo	Relatief (95% CI)	Absoluut (95% CI)		
-	-	-	-	-	-	-	-	-	-	-	-	BELANGRIJK

CI: Confidence interval

1.1.1.13 Explanations

a. Stambaugh 1984: poor describing of methodology

b. Insufficient information to calculate precision, small sample size

Auteur(s): Johansson R, Kilkku P, Groenroos M. A double-blind, controlled trial of nabilone vs. prochlorperazine for refractory emesis induced by cancer chemotherapy. Cancer Treatment Reviews 1982;9(Suppl B):25-33.

Vraagstelling: Nabilone versus prochlorperazine voor refractory CINV

Setting:

Literatuur:

Certainty assessment							Aantal patiënten		Effect		Certainty	Importantie
Aantal studies	Studieopzet	Risk of bias	Inconsistentie	Indirect bewijs	Onnauwkeurigheid	Andere factoren	nabilone	prochlorperazine	Relatief (95% CI)	Absoluut (95% CI)		

Proportion of patients without nausea

1	gerandomiseerde trials	ernstig ^a	niet ernstig	niet ernstig	zeer ernstig ^b	niet gevonden	3/18 (16.7%)	0/18 (0.0%)	RR 7.00 (0.39 tot 126.48)	0 minder per 1.000 (from 0 minder tot 0 minder)	⊕○○○ ○ Zeer laag ^{a,b}	CRUCIAAL
---	------------------------	----------------------	--------------	--------------	---------------------------	---------------	--------------	-------------	-------------------------------------	---	---------------------------------------	----------

Proportion of patients with less nausea

Certainty assessment							Aantal patiënten		Effect		Certainty	Importantie
Aantal studies	Studieopzet	Risk of bias	Inconsistentie	Indirect bewijs	Onnauwkeurigheid	Andere factoren	nabilone	prochlorperazine	Relatief (95% CI)	Absoluut (95% CI)		
1	gerandomiseerde trials	ernstig ^a	niet ernstig	niet ernstig	niet ernstig	niet gevonden	9/18 (50.0%)	1/18 (5.6%)	RR 9.00 (1.27 tot 63.89)	444 meer per 1.000 (from 15 meer tot 1.000 meer)	⊕⊕⊕○ Redelijk ^a	CRUCIAAL

Mean number of vomiting episodes

1	gerandomiseerde trials	ernstig ^a	niet ernstig	niet ernstig	ernstig ^c	niet gevonden	18.4 vs. 38.7, p<0.001				⊕⊕○○ Laag ^{a,c}	CRUCIAAL
---	------------------------	----------------------	--------------	--------------	----------------------	---------------	------------------------	--	--	--	-----------------------------	----------

Proportion of patients without vomiting

Certainty assessment							Aantal patiënten		Effect		Certainty	Importantie
Aantal studies	Studieopzet	Risk of bias	Inconsistentie	Indirect bewijs	Onnauwkeurigheid	Andere factoren	nabijne	prochlorperazine	Relatief (95% CI)	Absoloot (95% CI)		
1	gerandomiseerde trials	ernstig ^a	niet ernstig	niet ernstig	zeer ernstig ^b	niet gevonden	3/18 (16.7%)	0/18 (0.0%)	RR 7.00 (0.39 tot 126.48)	0 minder per 1.000 (from 0 minder tot 0 minder)	⊕○○○ ○ Zeer laag ^{a,b}	CRUCIAAL

Quality of life - niet gerapporteerd

-	-	-	-	-	-	-	-	-	-	-	-	CRUCIAAL
---	---	---	---	---	---	---	---	---	---	---	---	----------

Patient satisfaction - niet gerapporteerd

-	-	-	-	-	-	-	-	-	-	-	-	CRUCIAAL
---	---	---	---	---	---	---	---	---	---	---	---	----------

Certainty assessment							Aantal patiënten		Effect		Certainty	Importantie
Aantal studies	Studieopzet	Risk of bias	Inconsistentie	Indirect bewijs	Onnauwkeurigheid	Andere factoren	nabilone	prochlorperazine	Relatief (95% CI)	Absoluut (95% CI)		

Proportion of patients with at least 1 adverse event

1	gerandomiseerde trials	ernstig ^a	niet ernstig	niet ernstig	zeer ernstig ^b	niet gevonden	14/26 (53.8%)	9/23 (39.1%)	RR 1.38 (0.74 tot 2.56)	149 meer per 1.000 (from 102 minder tot 610 meer)	⊕○○○ ○ Zeer laag ^{a,b}	BELANGRIJK
---	------------------------	----------------------	--------------	--------------	---------------------------	---------------	---------------	--------------	-----------------------------------	---	---------------------------------------	------------

Chemotherapy completion - niet gerapporteerd

-	-	-	-	-	-	-	-	-	-	-	-	BELANGRIJK
---	---	---	---	---	---	---	---	---	---	---	---	------------

Overall survival - niet gerapporteerd

Certainty assessment							Aantal patiënten		Effect		Certain ty	Importan tie
Aant al studi es	Studieopzet	Risk of bias	Inconsisten tie	Indire ct bewijs	Onnauwkeurig heid	Andere factore n	nabilo ne	prochlorperaz ine	Relati ef (95% CI)	Absolu ut (95% CI)		
-	-	-	-	-	-	-	-	-	-	-	-	BELANGRIJ K

Progression-free survival - niet gerapporteerd

-	-	-	-	-	-	-	-	-	-	-	-	BELANGRIJ K
---	---	---	---	---	---	---	---	---	---	---	---	-------------

CI: Confidence interval; **RR:** Risk ratio; **SMD:** Standardised mean difference

1.1.1.14 Explanations

- Johansson 1982: unclear method of randomisation and allocation concealment, unclear blinding of assessors, no ITT analysis
- CI around RR includes 0.75 and 1.25
- Optimal information size probably met, but insufficient data to calculate

Auteur(s): Navari R, Nagy C, Gray S. The use of olanzapine versus metoclopramide for the treatment of breakthrough chemotherapy-induced nausea and vomiting in patients receiving highly emetogenic chemotherapy. Supportive Care in Cancer 2013; Vol. 21, issue 6:1655-63.

Vraagstelling: Olanzapine versus metoclopramide voor refractory CINV

Setting:

Literatuur:

Certainty assessment							Aantal patiënten		Effect		Certain ty	Importan tie
Aant al studies	Studieopzet	Risk of bias	Inconsiste ntie	Indire ct bewijs	Onnauwkeurig heid	Andere factore n	olanzapi ne	metoclopra mide	Relatief (95% CI)	Absolu ut (95% CI)		

No emesis during 72h observation period

1	gerandomise erde trials	niet ernstig	niet ernstig	niet ernstig	niet ernstig	niet gevonden	39/56 (69.6%)	15/52 (28.8%)	RR 2.41 (1.52 tot 3.83)	407 meer per 1.000 (from 150 meer tot 816 meer)	⊕⊕⊕⊕ Hoog	CRUCIAAL
---	-------------------------	--------------	--------------	--------------	--------------	---------------	---------------	---------------	-----------------------------------	---	--------------	----------

No nausea during 72h observation period

Certainty assessment							Aantal patiënten		Effect		Certainty	Importantie
Aantal studies	Studieopzet	Risk of bias	Inconsistentie	Indirect bewijs	Onnauwkeurigheid	Andere factoren	olanzapine	metoclopramide	Relatief (95% CI)	Absoluut (95% CI)		
1	gerandomiseerde trials	niet ernstig	niet ernstig	niet ernstig	niet ernstig	niet gevonden	38/56 (67.9%)	12/52 (23.1%)	RR 2.94 (1.73 tot 4.99)	448 meer per 1.000 (from 168 meer tot 921 meer)	⊕⊕⊕⊕ Hoog	CRUCIAAL

Quality of life - niet gerapporteerd

-	-	-	-	-	-	-	-	-	-	-	-	CRUCIAAL
---	---	---	---	---	---	---	---	---	---	---	---	----------

Patient satisfaction - niet gerapporteerd

-	-	-	-	-	-	-	-	-	-	-	-	CRUCIAAL
---	---	---	---	---	---	---	---	---	---	---	---	----------

Certainty assessment							Aantal patiënten		Effect		Certainty	Importantie
Aantal studies	Studieopzet	Risk of bias	Inconsistentie	Indirect bewijss	Onnauwkeurigheid	Andere factoren	olanzapine	metoclopramide	Relatief (95% CI)	Absoluut (95% CI)		

Grade 3 or 4 toxicities attributable study drug

1	gerandomiseerde trials	niet ernstig	niet ernstig	niet ernstig	niet ernstig	niet gevonden	0/56 (0.0%)	0/52 (0.0%)	Niet te berekenen		⊕⊕⊕⊕ Hoog	BELANGRIJK
---	------------------------	--------------	--------------	--------------	--------------	---------------	-------------	-------------	-------------------	--	--------------	------------

Completion of chemotherapy - niet gerapporteerd

-	-	-	-	-	-	-	-	-	-	-	-	BELANGRIJK
---	---	---	---	---	---	---	---	---	---	---	---	------------

Overall survival - niet gerapporteerd

-	-	-	-	-	-	-	-	-	-	-	-	BELANGRIJK
---	---	---	---	---	---	---	---	---	---	---	---	------------

Progression-free survival - niet gerapporteerd

Certainty assessment							Aantal patiënten		Effect		Certainty	Importantie
Aantal studies	Studieopzet	Risk of bias	Inconsistentie	Indirect bewijs	Onnauwkeurigheid	Andere factoren	olanzapine	metoclopramide	Relatief (95% CI)	Absoluut (95% CI)		
-	-	-	-	-	-	-	-	-	-	-	-	BELANGRIJK

CI: Confidence interval; **RR:** Risk ratio

Auteur(s):

Vraagstelling: THC versus prochlorperazine voor refractory CINV

Setting:

Literatuur:

Certainty assessment							Aantal patiënten		Effect		Certainty	Importantie
Aantal studies	Studieopzet	Risk of bias	Inconsistentie	Indirect bewijs	Onnauwkeurigheid	Andere factoren	THC	prochlorperazine	Relatief (95% CI)	Absoloot (95% CI)		

Proportion of patients with complete response (nausea and vomiting)

2	gerandomiseerde trials	ernstig ^{a,b}	niet ernstig	niet ernstig	niet ernstig	niet gevonden	45/115 (39.1%)	16/114 (14.0%)	RR 2.73 (1.67 tot 4.45)	243 meer per 1.000 (from 94 meer tot 484 meer)	⊕⊕⊕○ Redelijk ^{a,b}	CRUCIAAL
---	------------------------	------------------------	--------------	--------------	--------------	---------------	----------------	----------------	-----------------------------------	--	---------------------------------	----------

Proportion of patients without response (nausea and vomiting)

Certainty assessment							Aantal patiënten		Effect		Certainty	Importantie
Aantal studies	Studieopzet	Risk of bias	Inconsistentie	Indirect bewijs	Onnauwkeurigheid	Andere factoren	THC	prochlorperazine	Relatief (95% CI)	Absoluut (95% CI)		
2	gerandomiseerde trials	ernstig ^{a,b}	ernstig ^c	niet ernstig	niet ernstig	niet gevonden	46/115 (40.0%)	82/114 (71.9%)	RR 0.56 (0.43 tot 0.72)	316 minder per 1.000 (from 410 minder tot 201 minder)	⊕⊕○○ Laag ^{a,b,c}	CRUCIAAL

Quality of life - niet gerapporteerd

-	-	-	-	-	-	-	-	-	-	-	-	CRUCIAAL
---	---	---	---	---	---	---	---	---	---	---	---	----------

Patient satisfaction - niet gerapporteerd

-	-	-	-	-	-	-	-	-	-	-	-	CRUCIAAL
---	---	---	---	---	---	---	---	---	---	---	---	----------

Certainty assessment							Aantal patiënten		Effect		Certainty	Importantie
Aantal studies	Studieopzet	Risk of bias	Inconsistentie	Indirect bewijs	Onnauwkeurigheid	Andere factoren	THC	prochlorperazine	Relatief (95% CI)	Absoluut (95% CI)		

Adverse events - niet gerapporteerd

-	-	-	-	-	-	-	-	-	-	-	-	BELANGRIJK
---	---	---	---	---	---	---	---	---	---	---	---	------------

Completion of chemotherapy - niet gerapporteerd

-	-	-	-	-	-	-	-	-	-	-	-	BELANGRIJK
---	---	---	---	---	---	---	---	---	---	---	---	------------

Overall survival - niet gerapporteerd

-	-	-	-	-	-	-	-	-	-	-	-	BELANGRIJK
---	---	---	---	---	---	---	---	---	---	---	---	------------

Progression-free survival - niet gerapporteerd

Certainty assessment							Aantal patiënten		Effect		Certain ty	Importan tie
Aant al studi es	Studieopzet	Risk of bias	Inconsisten tie	Indire ct bewijs	Onnauwkeurig heid	Andere factore n	THC	prochlorperaz ine	Relati ef (95% CI)	Absolu ut (95% CI)		
-	-	-	-	-	-	-	-	-	-	-	-	BELANGRIJ K

CI: Confidence interval; **RR:** Risk ratio

1.1.1.15 Explanations

a. McCabe 1988: unclear method of randomisation and allocation concealment, unclear blinding

b. Sallan 1975: unclear method of randomisation and allocation concealment, no ITT analysis, analysis not at patient level

c. I2 80%, different definition of no response

