- Antisécrétoire
    - Le racécadotril – TIORFAN® 100 mg.
      - Le tiorfan n'a que très peu été étudié dans la littérature oncologique. Il semble qu'il soit peu efficace sur la prévention des diarrhées induites par la chimiothérapie (irinotécan) (133). Il s'agit toutefois d'un traitement autant (voire plus) efficace que le lopéramide dans plusieurs essais randomisés. Par ailleurs, il induit moins d'effets indésirables (constipation rebond) et génère moins d'interactions médicamenteuses que le lopéramide (134–136). Par analogie aux autres causes de diarrhées aiguës, il semble que le racécadotril puisse être recommandé en cas d'inefficacité du lopéramide ou en alternative à ce dernier en cas d'intolérance ou de contre-indication.
      - Prescription : prendre une gélule d'emblée, après la première selle diarrhéique, puis une gélule au début des trois principaux repas sans dépasser 7 jours.
    - Analogue de la somatostatine – octreotide 500 µg / 100 µg / 50 µg SC
      - Hors AMM, l'octréotide est utilisé pour la prise en charge des diarrhées aiguës sévères. Cet agent a principalement été étudié dans le contexte des diarrhées induites par les cytotoxiques standard (cisplatine et 5FU essentiellement), avec une très bonne efficacité (137). Les doses utilisées variaient dans les études de 100 µg x 2/j SC à 2000 µg/j SC en passant par des injections de 100-150 µg/h IVSE. Toutefois, la plupart des recommandations suggèrent de débuter le traitement à 100-150 µg x 2/j SC (116,117), et ce uniquement en cas de diarrhées grade 3 ou 4 résistantes aux traitements usuels.
- Les absorbants intestinaux (diosmectite – SMECTA® 3 g)
  - La littérature sur l'utilité du diosmectite en oncologie est à nouveau très pauvre. Toutefois, il s'agit d'un traitement efficace et bien toléré de la diarrhée aiguë, dont l'utilisation peut être considérée en cas d'inefficacité du lopéramide (140).
  - Prescription : prendre 3 à 6 sachets par jour les deux premiers jours puis 3 sachets par jour.

2.3 Traitement symptomatique

Des complications et notamment de la déshydratation et de la dénutrition induite par les diarrhées. Une hospitalisation pour hydratation intraveineuse peut parfois s'avérer nécessaire.

2.4 Traitement étiologique

Il est recommandé de suspendre puis d'adapter les doses de TKI en cas de diarrhées sévères.

- Grade 1 et grade 2 « simple » : pas de modification.
- Grade 2 « prolongé » (persistance des diarrhées au-delà de 48 h, ou non toléré malgré un traitement symptomatique bien conduit) et grade ≥ 3 : suspension du TKI jusqu'à un retour à un grade 0/1 puis reprendre en diminuant la dose de 25 à 30%.

Recommandations

Le lopéramide est le traitement de première intention des diarrhées ; il doit être prescrit de manière concomitante aux TKI pour être débuté dès les premiers symptômes.
En cas de diarrhée de grade 3/4 ou 2 prolongé ou mal toléré, il est nécessaire de suspendre le traitement par TKI et de reprendre à dose réduite lors de la résolution des symptômes (grade 0/1).

REFERENCES

1. Temel JS, Greer JA, Muzikansky A, Gallagher ER, Admane S, Jackson VA, et al. Early palliative care for patients with metastatic non-small-cell lung cancer. N Engl J Med. 2010 Aug 19;363(8):733–42.
2. Di Maio M, Basch E, Bryce J, Perrone F. Patient-reported outcomes in the evaluation of toxicity of anticancer treatments. Nat Rev Clin Oncol. 2016 May;13(5):319–25.
3. Lorusso D, Bria E, Costantini A, Di Maio M, Rosti G, Mancuso A. Patients' perception of chemotherapy side effects: Expectations, doctor-patient communication and impact on quality of life - An Italian survey. Eur J Cancer Care (Engl). 2017 Mar;26(2).
4. Vidall C, Fernández-Ortega P, Cortinovis D, Jahn P, Amlani B, Scotté F. Impact and management of chemotherapy/radiotherapy-induced nausea and vomiting and the perceptual gap between oncologists/oncology nurses and patients: a cross-sectional multinational survey. Support Care Cancer. 2015 Nov;23(11):3297–305.
5. Durand J-P, Madelaine I, Scotté F. [Guidelines for prophylaxis and treatment of chemotherapy-induced nausea and vomiting]. Bull Cancer. 2009 Oct;96(10):951–60.
6. Feyer P, Jordan K. Update and new trends in antiemetic therapy: the continuing need for novel therapies. Ann Oncol. 2011 Jan;22(1):30–8.
7. Dranitsaris G, Molassiotis A, Clemons M, Roeland E, Schwartzberg L, Dielenseger P, et al. The development of a prediction tool to identify cancer patients at high risk for chemotherapy-induced nausea and vomiting. Ann Oncol. 2017 Jun 1;28(6):1260–7.
8. Ahrari S, Chow R, Goodall S, DeAngelis C. Anticipatory nausea: current landscape and future directions. Ann Palliat Med. 2017 Jan;6(1):1–2.
9. Karthaus M, Tibor C, Lorusso V, Singh-Arora R, Filippov A, Rizzi G, et al. Efficacy and safety of oral palonosetron compared with IV palonosetron administered with dexamethasone for the prevention of chemotherapy-induced nausea and vomiting (CINV) in patients with solid tumors receiving cisplatin-based highly emetogenic chemotherapy (HEC). Support Care Cancer. 2015 Oct;23(10):2917–23.
10. Raftopoulos H, Cooper W, O'Boyle E, Gabrail N, Boccia R, Gralla RJ. Comparison of an extended-release formulation of granisetron (APF530) versus palonosetron for the prevention of chemotherapy-induced nausea and vomiting associated with moderately or highly emetogenic chemotherapy: results of a prospective, randomized, double-blind, noninferiority phase 3 trial. Support Care Cancer. 2015 Mar;23(3):723–32.
11. VITAL-DURAND D. Guide pratique des médicaments Dorosz. 28th ed. 2009.
12. Saito H, Yoshizawa H, Yoshimori K, Katakami N, Katsumata N, Kawahara M, et al. Efficacy and safety of single-dose fosaprepitant in the prevention of chemotherapy-induced nausea and vomiting in patients receiving high-dose cisplatin: a multicentre, randomised, double-blind, placebo-controlled phase 3 trial. Ann Oncol. 2013 Apr;24(4):1067–73.
13. Aapro MS, Walko CM. Aprepitant: drug-drug interactions in perspective. Ann Oncol. 2010 Dec;21(12):2316–23.
14. Zhang L, Lu S, Feng J, Dechaphunkul A, Chang J, Wang D, et al. A Randomized Phase 3 Study Evaluating the Efficacy of Single-dose NEPA, a Fixed Antiemetic Combination of Netupitant and Palonosetron, Versus an Aprepitant Regimen for Prevention of Chemotherapy-induced Nausea and Vomiting (CINV) in Patients Receiving Highly Emetogenic Chemotherapy (HEC). Ann Oncol. 2017 Oct 28;
15. Fonte C, Fatigoni S, Roila F. A review of olanzapine as an antiemetic in chemotherapy-induced nausea and vomiting and in palliative care patients. Crit Rev Oncol Hematol. 2015 Aug;95(2):214–21.
16. Navari RM, Qin R, Ruddy KJ, Liu H, Powell SF, Bajaj M, et al. Olanzapine for the Prevention of Chemotherapy-Induced Nausea and Vomiting. N Engl J Med. 2016 Jul 14;375(2):134–42.
17. Yanai T, Iwasa S, Hashimoto H, Ohyanagi F, Takiguchi T, Takeda K, et al. A double-blind randomized phase II dose-finding study of olanzapine 10 mg or 5 mg for the prophylaxis of emesis induced by highly emetogenic cisplatin-based chemotherapy. Int J Clin Oncol. 2017 Oct 16;
18. Hesketh PJ, Kris MG, Basch E, Bohlke K, Barbour SY, Clark-Snow RA, et al. Antiemetics: American Society of Clinical Oncology Clinical Practice Guideline Update. J Clin Oncol. 2017 Oct 1;35(28):3240–61.

19. Herrstedt J, Roila F, Warr D, Celio L, Navari RM, Hesketh PJ, et al. 2016 Updated MASCC/ESMO Consensus Recommendations: Prevention of Nausea and Vomiting Following High Emetic Risk Chemotherapy. Support Care Cancer. 2017 Jan;25(1):277–88.

20. Roila F, Molassiotis A, Herrstedt J, Aapro M, Gralla RJ, Bruera E, et al. 2016 MASCC and ESMO guideline update for the prevention of chemotherapy- and radiotherapy-induced nausea and vomiting and of nausea and vomiting in advanced cancer patients. Ann Oncol. 2016 Sep;27(suppl 5):v119–33.

21. Hesketh PJ, Bohlke K, Lyman GH, Basch E, Chesney M, Clark-Snow RA, et al. Antiemetics: American Society of Clinical Oncology Focused Guideline Update. J Clin Oncol. 2016 Feb 1;34(4):381–6.

22. Grunberg SM, Warr D, Gralla RJ, Rapoport BL, Hesketh PJ, Jordan K, et al. Evaluation of new antiemetic agents and definition of antineoplastic agent emetogenicity--state of the art. Support Care Cancer. 2011 Mar;19 Suppl 1:S43-47.

23. Aapro MS, Bohlius J, Cameron DA, Dal Lago L, Donnelly JP, Kearney N, et al. 2010 update of EORTC guidelines for the use of granulocyte-colony stimulating factor to reduce the incidence of chemotherapy-induced febrile neutropenia in adult patients with lymphoproliferative disorders and solid tumours. Eur J Cancer. 2011 Jan;47(1):8–32.

24. Crawford J, Caserta C, Roila F, ESMO Guidelines Working Group. Hematopoietic growth factors: ESMO Clinical Practice Guidelines for the applications. Ann Oncol. 2010 May;21 Suppl 5:v248-251.

25. Smith TJ, Bohlke K, Lyman GH, Carson KR, Crawford J, Cross SJ, et al. Recommendations for the Use of WBC Growth Factors: American Society of Clinical Oncology Clinical Practice Guideline Update. Journal of Clinical Oncology. 2015 Oct 1;33(28):3199–212.

26. Xu H, Gong Q, Vogl FD, Reiner M, Page JH. Risk factors for bone pain among patients with cancer receiving myelosuppressive chemotherapy and pegfilgrastim. Support Care Cancer. 2016 Feb;24(2):723–30.

27. Lyman GH, Dale DC, Wolff DA, Culakova E, Poniewierski MS, Kuderer NM, et al. Acute myeloid leukemia or myelodysplastic syndrome in randomized controlled clinical trials of cancer chemotherapy with granulocyte colony-stimulating factor: a systematic review. J Clin Oncol. 2010 Jun 10;28(17):2914–24.

28. Klastersky J, de Naurois J, Rolston K, Rapoport B, Maschmeyer G, Aapro M, et al. Management of febrile neutropaenia: ESMO Clinical Practice Guidelines. Ann Oncol. 2016 Sep;27(suppl 5):v111–8.

29. Crawford J, Armitage J, Balducci L, Becker PS, Blayney DW, Cataland SR, et al. Myeloid growth factors. J Natl Compr Canc Netw. 2013 Oct 1;11(10):1266–90.

30. Smith TJ, Khatcheressian J, Lyman GH, Ozer H, Armitage JO, Balducci L, et al. 2006 update of recommendations for the use of white blood cell growth factors: an evidence-based clinical practice guideline. J Clin Oncol. 2006 Jul 1;24(19):3187–205.

31. Crawford J, Dale DC, Kuderer NM, Culakova E, Poniewierski MS, Wolff D, et al. Risk and timing of neutropenic events in adult cancer patients receiving chemotherapy: the results of a prospective nationwide study of oncology practice. J Natl Compr Canc Netw. 2008 Feb;6(2):109–18.

32. Bennett CL, Djulbegovic B, Norris LB, Armitage JO. Colony-stimulating factors for febrile neutropenia during cancer therapy. N Engl J Med. 2013 Mar 21;368(12):1131–9.

33. Crawford J, Dale DC, Kuderer NM, Culakova E, Poniewierski MS, Wolff D, et al. Risk and timing of neutropenic events in adult cancer patients receiving chemotherapy: the results of a prospective nationwide study of oncology practice. J Natl Compr Canc Netw. 2008 Feb;6(2):109–18.

34. Sheikh H, Colaco R, Lorigan P, Blackhall F, Califano R, Ashcroft L, et al. Use of G-CSF during concurrent chemotherapy and thoracic radiotherapy in patients with limited-stage small-cell lung cancer safety data from a phase II trial. Lung Cancer. 2011 Oct;74(1):75–9.

35. Skoetz N, Bohlius J, Engert A, Monsef I, Blank O, Vehreschild J-J. Prophylactic antibiotics or G(M)-CSF for the prevention of infections and improvement of survival in cancer patients receiving myelotoxic chemotherapy. Cochrane Database Syst Rev. 2015 Dec 21;(12):CD007107.

36. Timmer-Bonte JN, de Boo TM, Smit HJ, Biesma B, Wilschut FA, Cheragwandi SA, et al. Prevention of chemotherapy-induced febrile neutropenia by prophylactic antibiotics plus or minus granulocyte colony-stimulating factor in small-cell lung cancer: a Dutch Randomized Phase III Study. J Clin Oncol. 2005 Nov 1;23(31):7974–84.

37. Tjan-Heijnen VC, Postmus PE, Ardizzoni A, Manegold CH, Burghouts J, van Meerbeeck J, et al. Reduction of chemotherapy-induced febrile leucopenia by prophylactic use of ciprofloxacin and roxithromycin in small-cell lung cancer patients: an EORTC double-blind placebo-controlled phase III study. Ann Oncol. 2001 Oct;12(10):1359–68.

38. Réseau Régional de Cancérologie Rhône-Alpes Auvergne. Référentiel soins oncologiques de support. (consulté le 13/10/2011) [Internet]. 2010. Available from: http://www.rrc-ra.fr/Ressources/referentiels/PRA-SOS-1012ANEMIE.pdf

39. Campos MPO, Hassan BJ, Riechelmann R, Del Giglio A. Cancer-related fatigue: a practical review. Ann Oncol. 2011 Jun;22:1273–9.

40. Schrijvers D, De Samblanx H, Roila F, ESMO Guidelines Working Group. Erythropoiesis-stimulating agents in the treatment of anaemia in cancer patients: ESMO Clinical Practice Guidelines for use. Ann Oncol. 2010 May;21 Suppl 5:v244-247.

41. Watkins T, Surowiecka MK, McCullough J. Transfusion indications for patients with cancer. Cancer Control. 2015 Jan;22(1):38–46.

42. Rizzo JD, Brouwers M, Hurley P, Seidenfeld J, Arcasoy MO, Spivak JL, et al. American Society of Clinical Oncology/American Society of Hematology clinical practice guideline update on the use of epoetin and darbepoetin in adult patients with cancer. J Clin Oncol. 2010 Nov 20;28(33):4996–5010.

43. Bennett CL, Djulbegovic B, Norris LB, Armitage JO. Colony-stimulating factors for febrile neutropenia during cancer therapy. N Engl J Med. 2013 Mar 21;368(12):1131–9.

44. Grant MD, Piper M, Bohlius J, Tonia T, Robert N, Vats V, et al. Epoetin and Darbepoetin for Managing Anemia in Patients Undergoing Cancer Treatment: Comparative Effectiveness Update [Internet]. Rockville (MD): Agency for Healthcare Research and Quality (US); 2013 [cited 2016 Jan 28]. (AHRQ Comparative Effectiveness Reviews). Available from: http://www.ncbi.nlm.nih.gov/books/NBK143013/

45. Mhaskar R, Wao H, Miladinovic B, Kumar A, Djulbegovic B. The role of iron in the management of chemotherapy-induced anemia in cancer patients receiving erythropoiesis-stimulating agents. Cochrane Database Syst Rev. 2016 Feb 4;2:CD009624.

46. Pedrazzoli P, Farris A, Del Prete S, Del Gaizo F, Ferrari D, Bianchessi C, et al. Randomized trial of intravenous iron supplementation in patients with chemotherapy-related anemia without iron deficiency treated with darbepoetin alpha. J Clin Oncol. 2008 Apr 1;26(10):1619–25.

47. Steensma DP, Sloan JA, Dakhil SR, Dalton R, Kahanic SP, Prager DJ, et al. Phase III, randomized study of the effects of parenteral iron, oral iron, or no iron supplementation on the erythropoietic response to darbepoetin alfa for patients with chemotherapy-associated anemia. J Clin Oncol. 2011 Jan 1;29(1):97–105.

48. Petrelli F, Borgonovo K, Cabiddu M, Lonati V, Barni S. Addition of iron to erythropoiesis-stimulating agents in cancer patients: a meta-analysis of randomized trials. J Cancer Res Clin Oncol. 2012 Feb;138(2):179–87.

49. Litton E, Xiao J, Ho KM. Safety and efficacy of intravenous iron therapy in reducing requirement for allogeneic blood transfusion: systematic review and meta-analysis of randomised clinical trials. BMJ. 2013 Aug;347:f4822.

50. Steinmetz T, Tschechne B, Harlin O, Klement B, Franzem M, Wamhoff J, et al. Clinical experience with ferric carboxymaltose in the treatment of cancer- and chemotherapy-associated anaemia. Ann Oncol. 2013 Feb;24(2):475–82.

51. Lebrun F, Klastersky J, Levacq D, Wissam Y, Paesmans M. Intravenous iron therapy for anemic cancer patients: a review of recently published clinical studies. Support Care Cancer. 2017 Jul;25(7):2313–9.

52. Canon J-L, Vansteenkiste J, Hedenus M, Gascon P, Bokemeyer C, Ludwig H, et al. Transfusion risk in cancer patients with chemotherapy-induced anemia when initiating darbepoetin alfa therapy at a baseline hemoglobin level of <9 g/dL versus 9 to <10 g/dL versus ≥ 10 g/dL: an exploratory analysis of a phase 3 trial. Med Oncol. 2012 Sep;29(3):2291–9.

53. Pirker R, Hedenus M, Vansteenkiste J, Hernandez E, Belton L, Terwey J-H. Effectiveness of Darbepoetin Alfa for Chemotherapy-induced Anemia When Initiated at Hemoglobin ≤10 g/dL. Clin Ther. 2016 Jan 1;38(1):122–135.e6.

54. Fujisaka Y, Sugiyama T, Saito H, Nagase S, Kudoh S, Endo M, et al. Randomised, phase III trial of epoetin-β to treat chemotherapy-induced anaemia according to the EU regulation. Br J Cancer. 2011 Oct 25;105(9):1267–72.

55. Barni S, Cabiddu M, Guarneri P, Lonati V, Petrelli F. The risk for anemia with targeted therapies for solid tumors. Oncologist. 2012;17(5):715–24.

56. Tiotiu A, Clément-Duchêne C, Martinet Y. [Management of chemotherapy-induced anemia in lung cancer]. Rev Mal Respir. 2015 Oct;32(8):809–21.

57. Kenney B, Stack G. Drug-induced thrombocytopenia. Arch Pathol Lab Med. 2009 Feb;133(2):309–14.

58. Slichter SJ. Evidence-based platelet transfusion guidelines. Hematology Am Soc Hematol Educ Program. 2007;172–8.

59. Liumbruno G, Bennardello F, Lattanzio A, Piccoli P, Rossetti G, Italian Society of Transfusion Medicine and Immunohaematology (SIMTI) Work Group. Recommendations for the transfusion of plasma and platelets. Blood Transfus. 2009 Apr;7(2):132–50.

60. Bernard M, Brignone M, Adehossi A, Pefoura S, Briquet C, Chouaid C, et al. Perception of alopecia by patients requiring chemotherapy for non-small-cell lung cancer: a willingness to pay study. Lung Cancer. 2011 Apr;72(1):114–8.

61. Trüeb RM. Chemotherapy-induced alopecia. Semin Cutan Med Surg. 2009 Mar;28(1):11–4.

62. Institut National du Cancer. Traitements du cancer et chute de cheveux [Internet]. Available from: http://www.e-cancer.fr/content/download/63520/571469/file/Traitement-du-cancer-et-chute-des-cheveux.pdf

63. Nangia J, Wang T, Osborne C, Niravath P, Otte K, Papish S, et al. Effect of a Scalp Cooling Device on Alopecia in Women Undergoing Chemotherapy for Breast Cancer: The SCALP Randomized Clinical Trial. JAMA. 2017 14;317(6):596–605.

64. Shin H, Jo SJ, Kim DH, Kwon O, Myung S-K. Efficacy of interventions for prevention of chemotherapy-induced alopecia: a systematic review and meta-analysis. Int J Cancer. 2015 Mar 1;136(5):E442-454.

65. Rajpar S, Osio A, Besse B. [Management of targeted molecular therapies toxicities in thoracic cancerology]. Rev Pneumol Clin. 2008 Apr;64(2):104–10.

66. Curry JL, Torres-Cabala CA, Kim KB, Tetzlaff MT, Duvic M, Tsai KY, et al. Dermatologic toxicities to targeted cancer therapy: shared clinical and histologic adverse skin reactions. Int J Dermatol. 2014 Mar;53(3):376–84.

67. Joshi SS, Ortiz S, Witherspoon JN, Rademaker A, West DP, Anderson R, et al. Effects of epidermal growth factor receptor inhibitor-induced dermatologic toxicities on quality of life. Cancer. 2010 Aug 15;116(16):3916–23.

68. Perez-Soler R, Cappuzzo F, Leon L, Wojtowicz-Prag S. Time course of skin toxicity (tox) secondary to erlotinib (E) therapy in patients (pts) with non-small cell lung cancer (NSCLC) enrolled in the SATURN study. J Clin Oncol. 29(15).

69. Bachet J-B, Peuvrel L, Bachmeyer C, Reguiai Z, Gourraud PA, Bouché O, et al. Folliculitis induced by EGFR inhibitors, preventive and curative efficacy of tetracyclines in the management and incidence rates according to the type of EGFR inhibitor administered: a systematic literature review. Oncologist. 2012;17(4):555–68.

70. Rivera DR, Ganz PA, Weyrich MS, Bandos H, Melnikow J. Chemotherapy-Associated Peripheral Neuropathy in Patients With Early-Stage Breast Cancer: A Systematic Review. J Natl Cancer Inst. 2018 Feb 1;110(2).

71. Kerckhove N, Collin A, Condé S, Chaleteix C, Pezet D, Balayssac D. Long-Term Effects, Pathophysiological Mechanisms, and Risk Factors of Chemotherapy-Induced Peripheral Neuropathies: A Comprehensive Literature Review. Front Pharmacol. 2017;8:86.

72. Bouhassira D, Attal N, Alchaar H, Boureau F, Brochet B, Bruxelle J, et al. Comparison of pain syndromes associated with nervous or somatic lesions and development of a new neuropathic pain diagnostic questionnaire (DN4). Pain. 2005 Mar;114(1–2):29–36.

73. Cioroiu C, Weimer LH. Update on Chemotherapy-Induced Peripheral Neuropathy. Curr Neurol Neurosci Rep. 2017 Jun;17(6):47.

74. Hershman DL, Unger JM, Crew KD, Minasian LM, Awad D, Moinpour CM, et al. Randomized double-blind placebo-controlled trial of acetyl-L-carnitine for the prevention of taxane-induced neuropathy in women undergoing adjuvant breast cancer therapy. J Clin Oncol. 2013 Jul 10;31(20):2627–33.

75. Leal AD, Qin R, Atherton PJ, Haluska P, Behrens RJ, Tiber CH, et al. North Central Cancer Treatment Group/Alliance trial N08CA-the use of glutathione for prevention of paclitaxel/carboplatin-induced peripheral neuropathy: a phase 3 randomized, double-blind, placebo-controlled study. Cancer. 2014 Jun 15;120(12):1890–7.

76. Smith EML, Pang H, Cirrincione C, Fleishman S, Paskett ED, Ahles T, et al. Effect of duloxetine on pain, function, and quality of life among patients with chemotherapy-induced painful peripheral neuropathy: a randomized clinical trial. JAMA. 2013 Apr 3;309(13):1359–67.

77. Seretny M, Colvin L, Fallon M. Therapy for chemotherapy-induced peripheral neuropathy. JAMA. 2013 Aug 7;310(5):537–8.

78. Smith EML, Pang H. Therapy for chemotherapy-induced peripheral neuropathy--in reply. JAMA. 2013 Aug 7;310(5):538.

79. Mendoza TR, Wang XS, Cleeland CS, Morrissey M, Johnson BA, Wendt JK, et al. The rapid assessment of fatigue severity in cancer patients: use of the Brief Fatigue Inventory. Cancer. 1999 Mar 1;85(5):1186–96.

80. Montgomery GH, David D, Kangas M, Green S, Sucala M, Bovbjerg DH, et al. Randomized controlled trial of a cognitive-behavioral therapy plus hypnosis intervention to control fatigue in patients undergoing radiotherapy for breast cancer. J Clin Oncol. 2014 Feb 20;32(6):557–63.

81. Posadzki P, Moon T-W, Choi T-Y, Park T-Y, Lee MS, Ernst E. Acupuncture for cancer-related fatigue: a systematic review of randomized clinical trials. Support Care Cancer. 2013 Jul;21(7):2067–73.

82. Ling W-M, Lui LYY, So WKW, Chan K. Effects of acupuncture and acupressure on cancer-related fatigue: a systematic review. Oncol Nurs Forum. 2014 Nov 1;41(6):581–92.

83. Oldervoll LM, Loge JH, Lydersen S, Paltiel H, Asp MB, Nygaard UV, et al. Physical exercise for cancer patients with advanced disease: a randomized controlled trial. Oncologist. 2011;16(11):1649–57.

84. Steindorf K, Schmidt ME, Klassen O, Ulrich CM, Oelmann J, Habermann N, et al. Randomized, controlled trial of resistance training in breast cancer patients receiving adjuvant radiotherapy: results on cancer-related fatigue and quality of life. Ann Oncol. 2014 Nov;25(11):2237–43.

85. Tomlinson D, Diorio C, Beyene J, Sung L. Effect of exercise on cancer-related fatigue: a meta-analysis. Am J Phys Med Rehabil. 2014 Aug;93(8):675–86.

86. Kuehr L, Wiskemann J, Abel U, Ulrich CM, Hummler S, Thomas M. Exercise in patients with non-small cell lung cancer. Med Sci Sports Exerc. 2014 Apr;46(4):656–63.

87. Cavalheri V, Tahirah F, Nonoyama M, Jenkins S, Hill K. Exercise training for people following lung resection for non-small cell lung cancer - a Cochrane systematic review. Cancer Treat Rev. 2014 May;40(4):585–94.

88. Granger CL, McDonald CF, Berney S, Chao C, Denehy L. Exercise intervention to improve exercise capacity and health related quality of life for patients with Non-small cell lung cancer: a systematic review. Lung Cancer. 2011 May;72(2):139–53.

89. Jones LW, Hornsby WE, Goetzinger A, Forbes LM, Sherrard EL, Quist M, et al. Prognostic significance of functional capacity and exercise behavior in patients with metastatic non-small cell lung cancer. Lung Cancer. 2012 May;76(2):248–52.

90. Salakari MRJ, Surakka T, Nurminen R, Pylkkänen L. Effects of rehabilitation among patients with advances cancer: a systematic review. Acta Oncol. 2015 May;54(5):618–28.

91. Hwang C-L, Yu C-J, Shih J-Y, Yang P-C, Wu Y-T. Effects of exercise training on exercise capacity in patients with non-small cell lung cancer receiving targeted therapy. Support Care Cancer. 2012 Dec;20(12):3169–77.

92. Taso C-J, Lin H-S, Lin W-L, Chen S-M, Huang W-T, Chen S-W. The effect of yoga exercise on improving depression, anxiety, and fatigue in women with breast cancer: a randomized controlled trial. J Nurs Res. 2014 Sep;22(3):155–64.

93. Larkey LK, Roe DJ, Weihs KL, Jahnke R, Lopez AM, Rogers CE, et al. Randomized controlled trial of Qigong/Tai Chi Easy on cancer-related fatigue in breast cancer survivors. Ann Behav Med. 2015 Apr;49(2):165–76.

94. Minton O, Richardson A, Sharpe M, Hotopf M, Stone P. A systematic review and meta-analysis of the pharmacological treatment of cancer-related fatigue. J Natl Cancer Inst. 2008 Aug 20;100(16):1155–66.

95. Moraska AR, Sood A, Dakhil SR, Sloan JA, Barton D, Atherton PJ, et al. Phase III, randomized, double-blind, placebo-controlled study of long-acting methylphenidate for cancer-related fatigue: North Central Cancer Treatment Group NCCTG-N05C7 trial. J Clin Oncol. 2010 Aug 10;28(23):3673–9.

96. Escalante CP, Meyers C, Reuben JM, Wang X, Qiao W, Manzullo E, et al. A randomized, double-blind, 2-period, placebo-controlled crossover trial of a sustained-release methylphenidate in the treatment of fatigue in cancer patients. Cancer J. 2014 Feb;20(1):8–14.

97. Cruciani RA, Zhang JJ, Manola J, Cella D, Ansari B, Fisch MJ. L-carnitine supplementation for the management of fatigue in patients with cancer: an eastern cooperative oncology group phase III, randomized, double-blind, placebo-controlled trial. J Clin Oncol. 2012 Nov 1;30(31):3864–9.

98. Jean-Pierre P, Morrow GR, Roscoe JA, Heckler C, Mohile S, Janelsins M, et al. A phase 3 randomized, placebo-controlled, double-blind, clinical trial of the effect of modafinil on cancer-related fatigue among 631 patients receiving chemotherapy: a University of Rochester Cancer Center Community Clinical Oncology Program Research base study. Cancer. 2010 Jul 15;116(14):3513–20.

99. Spathis A, Fife K, Blackhall F, Dutton S, Bahadori R, Wharton R, et al. Modafinil for the treatment of fatigue in lung cancer: results of a placebo-controlled, double-blind, randomized trial. J Clin Oncol. 2014 Jun 20;32(18):1882–8.

100. Berenson JR, Yellin O, Shamasunder HK, Chen C-S, Charu V, Woliver TB, et al. A phase 3 trial of armodafinil for the treatment of cancer-related fatigue for patients with multiple myeloma. Support Care Cancer. 2015 Nov;23(6).

101. 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. J Clin Oncol. 2013 Sep 1;31(25):3076–82.

102. Paulsen O, Klepstad P, Rosland JH, Aass N, Albert E, Fayers P, et al. Efficacy of methylprednisolone on pain, fatigue, and appetite loss in patients with advanced cancer using opioids: a randomized, placebo-controlled, double-blind trial. J Clin Oncol. 2014 Oct 10;32(29):3221–8.

103. Xará S, Amaral TF, Parente B. [Undernutrition and quality of life in non small cell lung cancer patients]. Rev Port Pneumol. 2011 Aug;17(4):153–8.

104. Barret M, Malka D, Aparicio T, Dalban C, Locher C, Sabate J-M, et al. Nutritional status affects treatment tolerability and survival in metastatic colorectal cancer patients: results of an AGEO prospective multicenter study. Oncology. 2011;81(5–6):395–402.

105. Ross PJ, Ashley S, Norton A, Priest K, Waters JS, Eisen T, et al. Do patients with weight loss have a worse outcome when undergoing chemotherapy for lung cancers? Br J Cancer. 2004 May 17;90(10):1905–11.

106. Senesse P, Bachmann P, Bensadoun RJ, Besnard I, Bourdel-Marchasson I, Bouteloup C, et al. Nutrition chez le patient adulte atteint de cancer : textes courts. Nutrition Clinique et Métabolisme. 2012 Dec;26(4):151–8.

107. Arends J, Baracos V, Bertz H, Bozzetti F, Calder PC, Deutz NEP, et al. ESPEN expert group recommendations for action against cancer-related malnutrition. Clin Nutr. 2017 Oct;36(5):1187–96.

108. Detsky AS, McLaughlin JR, Baker JP, Johnston N, Whittaker S, Mendelson RA, et al. What is subjective global assessment of nutritional status? JPEN J Parenter Enteral Nutr. 1987 Feb;11(1):8–13.

109. Bauer J, Capra S, Ferguson M. Use of the scored Patient-Generated Subjective Global Assessment (PG-SGA) as a nutrition assessment tool in patients with cancer. Eur J Clin Nutr. 2002 Aug;56(8):779–85.

110. Chambrier C, Sztark F, Société Francophone de nutrition clinique et métabolisme (SFNEP), Société française d'anesthésie et réanimation (SFAR). French clinical guidelines on perioperative nutrition. Update of the 1994 consensus conference on perioperative artificial nutrition for elective surgery in adults. J Visc Surg. 2012 Oct;149(5):e325-336.

111. Chambrier C, Sztark F. Recommandations de bonnes pratiques cliniques sur la nutrition périopératoire. Actualisation 2010 de la conférence de consensus de 1994 sur la « Nutrition artificielle périopératoire en chirurgie programmée de l'adulte ». Nutrition Clinique et Métabolisme. 2010 Dec;24(4):145–56.

112. Arends J, Bodoky G, Bozzetti F, Fearon K, Muscaritoli M, Selga G, et al. ESPEN Guidelines on Enteral Nutrition: Non-surgical oncology. Clin Nutr. 2006 Apr;25(2):245–59.

113. Sullivan RJ. Accepting death without artificial nutrition or hydration. J Gen Intern Med. 1993 Apr;8:220–3.

114. Burge FI. Dehydration symptoms of palliative care cancer patients. J Pain Symptom Manage. 1993 Oct;8(7):454–64.

115. McCann RM, Hall WJ, Groth-Juncker A. Comfort care for terminally ill patients. The appropriate use of nutrition and hydration. JAMA. 1994 Oct 26;272(16):1263–6.

116. Bruera E, Hui D, Dalal S, Torres-Vigil I, Trumble J, Roosth J, et al. Parenteral hydration in patients with advanced cancer: a multicenter, double-blind, placebo-controlled randomized trial. J Clin Oncol. 2013 Jan 1;31(1):111–8.

117. Baldwin C, Spiro A, McGough C, Norman AR, Gillbanks A, Thomas K, et al. Simple nutritional intervention in patients with advanced cancers of the gastrointestinal tract, non-small cell lung cancers or mesothelioma and weight loss receiving chemotherapy: a randomised controlled trial. J Hum Nutr Diet. 2011 Oct;24(5):431–40.

118. Sugawara K, Takahashi H, Kasai C, Kiyokawa N, Watanabe T, Fujii S, et al. Effects of nutritional supplementation combined with low-intensity exercise in malnourished patients with COPD. Respir Med. 2010 Dec;104(12):1883–9.

119. Laviolette L, Lands LC, Dauletbaev N, Saey D, Milot J, Provencher S, et al. Combined effect of dietary supplementation with pressurized whey and exercise training in chronic obstructive pulmonary disease: a randomized, controlled, double-blind pilot study. J Med Food. 2010 Jun;13(3):589–98.

120. Murphy RA, Mourtzakis M, Chu QSC, Baracos VE, Reiman T, Mazurak VC. Nutritional intervention with fish oil provides a benefit over standard of care for weight and skeletal muscle mass in patients with nonsmall cell lung cancer receiving chemotherapy. Cancer. 2011 Apr 15;117(8):1775–82.

121. Murphy RA, Mourtzakis M, Chu QSC, Baracos VE, Reiman T, Mazurak VC. Supplementation with fish oil increases first-line chemotherapy efficacy in patients with advanced nonsmall cell lung cancer. Cancer. 2011 Aug 15;117(16):3774–80.

122. van der Meij BS, Langius JAE, Smit EF, Spreeuwenberg MD, von Blomberg BME, Heijboer AC, et al. Oral nutritional supplements containing (n-3) polyunsaturated fatty acids affect the nutritional status of patients with stage III non-small cell lung cancer during multimodality treatment. J Nutr. 2010 Oct;140(10):1774–80.

123. Vokurka S, Bystrická E, Koza V, Scudlová J, Pavlicová V, Valentová D, et al. Higher incidence of chemotherapy induced oral mucositis in females: a supplement of multivariate analysis to a randomized multicentre study. Support Care Cancer. 2006 Sep;14(9):974–6.

124. Robien K, Schubert MM, Bruemmer B, Lloid ME, Potter JD, Ulrich CM. Predictors of oral mucositis in patients receiving hematopoietic cell transplants for chronic myelogenous leukemia. J Clin Oncol. 2004 Apr 1;22(7):1268–75.

125. Jones JA, Avritscher EBC, Cooksley CD, Michelet M, Bekele BN, Elting LS. Epidemiology of treatment-associated mucosal injury after treatment with newer regimens for lymphoma, breast, lung, or colorectal cancer. Support Care Cancer. 2006 Jun;14:505–15.

126. Sonis ST. Oral mucositis in cancer therapy. J Support Oncol. 2004 Dec;2(6 Suppl 3):3–8.

127. Treister N, Sonis S. Mucositis: biology and management. Curr Opin Otolaryngol Head Neck Surg. 2007 Apr;15(2):123–9.

128. Kenny SA. Effect of two oral care protocols on the incidence of stomatitis in hematology patients. Cancer Nurs. 1990 Dec;13(6):345–53.

129. McGuire DB, Fulton JS, Park J, Brown CG, Correa MEP, Eilers J, et al. Systematic review of basic oral care for the management of oral mucositis in cancer patients. Support Care Cancer. 2013 Nov;21(11):3165–77.

130. Lalla RV, Ashbury FD. The MASCC/ISOO mucositis guidelines: dissemination and clinical impact. Support Care Cancer. 2013 Nov;21:3161–3.

131. Lalla RV, Bowen J, Barasch A, Elting L, Epstein J, Keefe DM, et al. MASCC/ISOO clinical practice guidelines for the management of mucositis secondary to cancer therapy. Cancer. 2014 May 15;120(10):1453–61.

132. Stein A, Voigt W, Jordan K. Chemotherapy-induced diarrhea: pathophysiology, frequency and guideline-based management. Ther Adv Med Oncol. 2010 Jan;2(1):51–63.

133. Ychou M, Douillard JY, Rougier P, Adenis A, Mousseau M, Dufour P, et al. Randomized comparison of prophylactic antidiarrheal treatment versus no prophylactic antidiarrheal treatment in patients receiving CPT-11 (irinotecan) for advanced 5-FU-resistant colorectal cancer: an open-label multicenter phase II study. Am J Clin Oncol. 2000 Apr;23(2):143–8.

134. Wang H-H, Shieh M-J, Liao K-F. A blind, randomized comparison of racecadotril and loperamide for stopping acute diarrhea in adults. World J Gastroenterol. 2005 Mar 14;11(10):1540–3.

135. Gallelli L, Colosimo M, Tolotta GA, Falcone D, Luberto L, Curto LS, et al. Prospective randomized double-blind trial of racecadotril compared with loperamide in elderly people with gastroenteritis living in nursing homes. Eur J Clin Pharmacol. 2010 Feb;66(2):137–44.

136. Eberlin M, Mück T, Michel MC. A comprehensive review of the pharmacodynamics, pharmacokinetics, and clinical effects of the neutral endopeptidase inhibitor racecadotril. Front Pharmacol. 2012;3:93.

137. Ippoliti C. Antidiarrheal agents for the management of treatment-related diarrhea in cancer patients. Am J Health Syst Pharm. 1998 Aug 1;55(15):1573–80.

138. Benson AB, Ajani JA, Catalano RB, Engelking C, Kornblau SM, Martenson JA, et al. Recommended guidelines for the treatment of cancer treatment-induced diarrhea. J Clin Oncol. 2004 Jul 15;22(14):2918–26.

139. Melosky B, Hirsh V. Management of Common Toxicities in Metastatic NSCLC Related to Anti-Lung Cancer Therapies with EGFR-TKIs. Front Oncol. 2014;4:238.

140. Guarino A, Lo Vecchio A, Pirozzi MR. Clinical role of diosmectite in the management of diarrhea. Expert Opin Drug Metab Toxicol. 2009 Apr;5(4):433–40.

141. Gralla RJ, Ahmad F, Blais JD, Chiodo J, Zhou W, Glaser LA, et al. Tolvaptan use in cancer patients with hyponatremia due to the syndrome of inappropriate antidiuretic hormone: a post hoc analysis of the SALT-1 and SALT-2 trials. Cancer Med. 2017 Apr;6(4):723–9.

142. Spasovski G, Vanholder R, Allolio B, Annane D, Ball S, Bichet D, et al. Clinical practice guideline on diagnosis and treatment of hyponatraemia. Nephrol Dial Transplant. 2014 Apr;29 Suppl 2:i1–39.

143. Verbalis JG, Goldsmith SR, Greenberg A, Korzelius C, Schrier RW, Sterns RH, et al. Diagnosis, evaluation, and treatment of hyponatremia: expert panel recommendations. Am J Med. 2013 Oct;126(10 Suppl 1):S1-42.

144. Mackall CL. T-cell immunodeficiency following cytotoxic antineoplastic therapy: a review. Stem Cells. 2000;18(1):10–8.

145. Haanen JBAG, Carbonnel F, Robert C, Kerr KM, Peters S, Larkin J, et al. Management of toxicities from immunotherapy: ESMO Clinical Practice Guidelines for diagnosis, treatment and follow-up†. Annals of Oncology. 2017 Jul;28(suppl_4):iv119-iv142.

146. Champiat S, Lambotte O, Barreau E, Belkhir R, Berdelou A, Carbonnel F, et al. Management of immune checkpoint blockade dysimmune toxicities: a collaborative position paper. Annals of Oncology. 2016 Apr;27(4):559–74.

147. Sgambato A, Casaluce F, Sacco PC, Palazzolo G, Maione P, Rossi A, et al. Anti PD-1 and PDL-1 Immunotherapy in the Treatment of Advanced Non- Small Cell Lung Cancer (NSCLC): A Review on Toxicity Profile and its Management. Curr Drug Saf. 2016;11(1):62–8.

148. Naidoo J, Wang X, Woo KM, Iyriboz T, Halpenny D, Cunningham J, et al. Pneumonitis in Patients Treated With Anti-Programmed Death-1/Programmed Death Ligand 1 Therapy. J Clin Oncol. 2017 Mar;35(7):709–17.

149. Delaunay M, Cadranel J, Lusque A, Meyer N, Gounant V, Moro-Sibilot D, et al. Immune-checkpoint inhibitors associated with interstitial lung disease in cancer patients. Eur Respir J. 2017;50(2).

150. Spain L, Diem S, Larkin J. Management of toxicities of immune checkpoint inhibitors. Cancer Treat Rev. 2016 Mar;44:51–60.

151. Byun DJ, Wolchok JD, Rosenberg LM, Girotra M. Cancer immunotherapy - immune checkpoint blockade and associated endocrinopathies. Nat Rev Endocrinol. 2017 Apr;13(4):195–207.

152. Peccatori FA, Azim HA, Orecchia R, Hoekstra HJ, Pavlidis N, Kesic V, et al. Cancer, pregnancy and fertility: ESMO Clinical Practice Guidelines for diagnosis, treatment and follow-up. Ann Oncol. 2013 Oct;24 Suppl 6:vi160-170.

153. Loren AW, Mangu PB, Beck LN, Brennan L, Magdalinski AJ, Partridge AH, et al. Fertility preservation for patients with cancer: American Society of Clinical Oncology clinical practice guideline update. J Clin Oncol. 2013 Jul 1;31(19):2500–10.

154. Schiffer CA, Mangu PB, Wade JC, Camp-Sorrell D, Cope DG, El-Rayes BF, et al. Central venous catheter care for the patient with cancer: American Society of Clinical Oncology clinical practice guideline. J Clin Oncol. 2013 Apr 1;31(10):1357–70.

155. Staun M, Pironi L, Bozzetti F, Baxter J, Forbes A, Joly F, et al. ESPEN Guidelines on Parenteral Nutrition: home parenteral nutrition (HPN) in adult patients. Clin Nutr. 2009 Aug;28(4):467–79.

156. Bozzetti F, Arends J, Lundholm K, Micklewright A, Zurcher G, Muscaritoli M, et al. ESPEN Guidelines on Parenteral Nutrition: non-surgical oncology. Clin Nutr. 2009 Aug;28(4):445–54.

157. Cozzaglio L, Balzola F, Cosentino F, DeCicco M, Fellagara P, Gaggiotti G, et al. Outcome of cancer patients receiving home parenteral nutrition. Italian Society of Parenteral and Enteral Nutrition (S.I.N.P.E.). JPEN J Parenter Enteral Nutr. 1997 Dec;21(6):339–42.