Reference (include title, author, journal title, year of publication, volume and issue, pages)	Evidence level (I-VII)	Key findings, outcomes or recommendations
Bakshi, S., Batra, A., Biswas, B., Dhawan, D., Paul, R., & Sreenivas, V. (2015) Aprepitant as an add-on therapy in children receiving highly emetogenic chemotherapy: a randomized, double-blind, placebo-controlled trial. *Supportive Care in Cancer,* 23, 3229-3237	I	- randomized, double-blind controlled trial; 93 paediatric oncology patients (age 5-18 years) - patients were chemotherapy naïve receiving one of four highly emetogenic chemotherapy protocols - findings showed that aprepitant significantly decreased the incidence of chemotherapy-induced vomiting during the acute phase when used as an add-on drug with ondansetron and dexamethasone in children receiving highly emetogenic chemotherapy

Baxter, A.L., Watcha, M.F., Baxter, W.V., Leong, T., & Wyatt, M.M. (2011) Development and validation of a pictorial nausea rating scale for children. *Pediatrics,* 127(6), e1542-1549	VI	- authors developed a pictorial nausea scale, Baxter Retching Faces Scale (BARF) to assist health professionals in assessing nausea in paediatric patients - goal of the study was to create and validate a pictorial scale with regular increment levels between scores to display increases in nausea severity - 30 hematology-oncology patients, aged 4 to 17 years, and 15 paediatric nurses participated in the development of the scale - 127 patients ages 7 to 18 years who presented to a hospital emergency department or for ambulatory surgery participated in the validation of the scale - the vomiting face was selected by 90% of participants as the most severe type of nausea - findings suggest that the BARF scale is an effective tool for measuring nausea and vomiting and detecting change after antiemetic therapy and should be implemented for children less than 7 years of age in the paediatric setting - the Visual Analogue Scale - Nausea (VAS-N) was identified as a validated self-assessment tool in adult studies of nausea and should be implemented for measuring the severity of nausea in participants older than 7 years of age
Berger, M.J., Ettinger, D.S., Aston, J., Barbour, S., Bergsbaken, J., Bierman, P.J., Brandt, D., Dolan, D.E., Ellis, G., Kim, E.J., Kirkegaard, S., Kloth, D.D., Lagman, R., Lim, D., Loprinzi, C., Ma, C.X., Maurer, V., Michaud, L. B., Nabell, L.M., Noonan, K., Roeland, E., Rugo, H.S., Schwartzberg, L.S., Scullion, B., Timoney, J., Todaro, B., Urba, S.G., Shead, D.A. & Hughes, M. (2017) NCCN Guidelines Insights: Antiemesis, Version 2.2017. *Journal of the National Comprehensive Cancer Network,* 15(7), 883-893	VII	- review and update of previously published NCCN Clinical Practice Guideline in Oncology for Antiemesis - guidelines address all aspects of management for chemotherapy-induced nausea and vomiting (CINV); provides an overview of the treatment principles for preventing CINV and provides recommendations for antiemetic prophylaxis according to emetogenic potential of antitumour therapies - update revised the emetogenic potential of carboplatin, recommended a new formulation of granisetron (extended release subcutaneous injection) and added a new 4 drug regime including olanzepine for use with high emetogenic chemotherapy

Blichfeldt-AEro, S. C., Leinebo, T. L., Messell, C, & Sanfi, I. (2017) Music and imagery for children undergoing chemotherapy: preliminary results of two RCTs. *Tsukuba, Japan: The 15th World Congress of Music Therapy* (Unpublished)	VII	- conference abstract; preliminary results of two mixed methods multi-site randomised controlled trials - trials aimed to investigate music and imagery reduction effects of side effects of chemotherapy in children - preliminary results suggest that music imagery has health promoting effects
Chan C.W.H., Lam, L.W., Li, C.K., Cheung, J.S.S., Cheng, K.K.F., Chik, K.W., Chan, H.Y.L., So, W.K.W., & Tang, W.P.Y. (2015) Feasibility of psychoeducational interventions in managing chemotherapy-associated nausea and vomiting (CANV) in paediatric oncology patients. *European Journal of Oncology Nursing,* 19, 182-190	III	- pre-post-test control group designed study; 40 paediatric oncology patients - the beneficial effect of relaxation and patient education in alleviating chemotherapy-associated nausea and vomiting (CANV) was not well supported statistically - findings from descriptive data suggested that relaxation and patient education promoted the intake of preventative antiemetics - relaxation and patient education were well received by patients and parents, further research needed in the use of these interventions as preventative measures for managing CANV

Children's Oncology Group. (2018). Guidelines for the Prevention and Treatment of Nausea and Vomiting due to Antineoplastic Medication in Pediatric Cancer Patients. *COG Supportive Care Endorsed Guidelines, Children's Oncology Group (COG),* Version date: August 22, 2018, Retrieved October 2018	VII	- provides a comprehensive overview of chemotherapy-induced nausea and vomiting (CINV) supportive care endorsed guidelines in the paediatric oncology population
		- guideline provides an evidence-based approach and recommendations
		  - to the assessment of the emetogenic potential of antineoplastic agents
		  - for the prevention of acute CINV
		  - for the prevention and treatment of anticipatory CINV
		  - for the treatment of breakthrough and prevention of refractory CINV

Duggin, K., Tickle, K., Norman, G., Yang, J., Wang, C., Cross, S.J., Gajjar, A. & Mandrell B. (2014) Aprepitant Reduces Chemotherapy-Induced Vomiting in Children and Young Adults With Brain Tumours. *Journal of Pediatric Oncology Nursing,* 31(5), 277-283	IV	- retrospective study; (52 paediatric oncology patients total) - 18 patients with a history of high-grade vomiting during radiation were prescribed a $5HT_3$ receptor antagonist and aprepitant (without corticosteroid) during the first course of highly emetogenic chemotherapy (HEC); each patient matched with 2 controls who did not receive aprepitant - significantly less vomiting observed in patients receiving HEC, $5HT_3$ receptor antagonist and aprepitant as compared to control group - suggests the addition of aprepitant (NK_1 antagoinst) may be beneficial to control emesis in paediatric brain tumour patients receiving highly emetogenic chemotherapy
Dupuis, L., Kelly, K., Krischer, J., Langevin, A., Tamura, R., … McLean, T. (2018) Acupressure bands do not improve chemotherapy-induced nausea control in pediatric patients receiving highly emetogenic chemotherapy: A single blinded, randomized controlled trial. *Cancer, 124,* 1188-1196	II	- randomised controlled trial: data collected from 200 patients, aged between 4-18 years - participants wore acupressure or sham bands continuously on each day of receiving chemotherapy and up to 7 days after, allowing for both acute and delayed nausea and vomiting timeframes - findings suggest that acupressure bands did not reduce the severity of chemotherapy induced nausea during the acute or delayed phase (OR 1.33; 95% CI 0.89 to 2.00; OR 1.23; 95% CI 0.7 to 2.01) respectively

Dupuis, L., Sung, L., Molassiotic, A., Orsey, A., & Tissing. (2017) 2016 updated MASCC/ESMO consensus recommendations: Prevention of acute chemotherapy-induced nausea and vomiting in children. *Supportive Care in Cancer, 25,* (1), 323-331	IV-VII	- review article updating recommendations for the prevention of acute chemotherapy-induced emesis in children
		- updated systematic literature search on randomised studies with the following inclusion criteria; children less than 18 years of age; mixed studies of adults and children, reporting paediatric results separately or median and mean age of less than 13 years old; evaluated acute chemotherapy induced nausea and vomiting prophylaxis provided sufficient information to permit determination of the emetogenicity of the antineoplastic therapy administered or the study investigators stated the emetogenicity of the chemotherapy administered; included an implicit or explicit definition of complete acute CINV response; described the antiemetic regimen in full; and reported the complete acute CINV response rate as a proportion.
		- 25 randomised studies included
		- clinical conclusions and recommendations drawn from the review as follows:
		  ○ for children receiving high or moderate emetogenic chemotherapy, 5HT3 antagonist prophylaxis (granisetron, ondansetron, palonosetron or tropisetron) ± dexamethasone ± Aprepitant is recommended
		  ○ for children receiving a low emetogenic chemotherapy, prophylaxis with a 5HT3 antagonist is recommended

Flank, J., Robinson, P., Holdsworth, M., Phillips, R., Portwine, C., Gibson, P., … Dupuis, L. (2016). Guideline for the treatment of breakthrough and the prevention of refractory chemotherapy induced nausea and vomiting in children with cancer. *Pediatric Blood Cancer, 63,* 1144-1151	IV-VII	- provides a comprehensive overview and guideline on the optimisation and refractory control of CINV in children and aimed for use on those aged between 1 month to 18 years of age, receiving chemotherapy. - "for children receiving acute CINV prophylaxis recommended for minimally, low, or moderately emetogenic chemotherapy, clinicians should upgrade or escalate the acute CINV prophylaxis provided to that recommended for chemotherapy of the next higher level of emetogenic risk." - "for children receiving acute CINV prophylaxis recommended for highly emetogenic chemotherapy (HEC), we suggest that olanzapine be added to guideline>consistent CINV prophylaxis. " - "for children receiving acute CINV prophylaxis recommended for HEC and who cannot receive olanzapine, we suggest that of the following antiemetic agents be added to guideline>consistent CINV prophylaxis: methotrimeprazine (also known as levomepromazine) metoclopramide (in children older than 1 year)." - "for children receiving acute CINV prophylaxis recommended for minimally, low, or moderately emetogenic chemotherapy, clinicians should upgrade or escalate the acute CINV prophylaxis provided to that recommended for chemotherapy of the next higher level of emetogenic risk." - "for children experiencing refractory CINV despite initiation of previous recommendations and who have not previously received aprepitant because it is known or suspected to interact with the chemotherapeutic agent(s) being given, we suggest that the addition of aprepitant to acute CINV prophylaxis be considered." - "for children experiencing refractory CINV despite initiation of the previous recommendations, we suggest that of the following interventions be added to the CINV prophylaxis provided: interventions that were employed successfully for the treatment of breakthrough CINV in previous treatment blocks (olanzapine, methotrimeprazine or metoclopramide) or simulation of P6 by means of acupressure or electroacupressure."

Ghezelbash, S., & Khosravi M. (2017) Acupressure for nausea-vomiting and fatigue management in acute lymphoblastic leukemia children. *Journal of Nursing and Midwifery Sciences,* 4(3), 75-81	II	- single blind, randomised controlled clinical trial; 120 hospitalized children (8-12 years of age) with acute lymphoblastic leukemia (ALL) as participants - study to determine the effectiveness of acupressure application in relieving nausea, vomiting and fatigue among children with ALL - suggested acupressure may reduce the intensity of nausea immediately post intervention, and fatigue and nausea at one hour post treatment - acupressure may be recommended as a complementary, nonpharmacological method for chemotherapy-induced nausea and vomiting and cancer-related fatigue management
Gore, L., Chawla, S., Petrelli, A., Hemenway, M., Schissel, D., Chua, V., Carides, A.D., Taylor, A., DeVandry, S., Valentine, J., Evans, J.K., Oxenius, B., & for the Adolescent Aprepitant in Cancer Study Group. (2009) Aprepitant in Adolescent Patients for Prevention of Chemotherapy-Induced Nausea and Vomiting: A Randomized, Double-Blind, Placebo-Controlled Study of Efficacy and Tolerability. *Pediatric Blood Cancer, 52, 242-247*	I	- randomized, double-blind study; 50 adolescent patients - study evaluated the tolerability, efficacy, and pharmacokinetics of aprepitant plus a 5HT3 receptor antagonist and corticosteroids (aprepitant triple therapy) in adolescent cancer patients - aprepitant triple therapy was generally well tolerated in the adolescent group - aprepitant triple therapy controlled CINV better than the control regimen in the delayed phase, and controlled vomiting better than the control regimen in both the delayed and overall phases - tolerability and efficacy observed in the study suggest that the aprepitant dosing regimen approved for use in adults may also be effective in children age 11 and older

Green, R., Horn, H. & Erickson, J.M. (2010) Eating Experiences of Children and Adolescents With Chemotherapy-Related Nausea and Mucositis. *Journal of Paediatric Oncology Nursing,* 27(4), 209-216	VI	- qualitative study; convenience sample of 8 paediatric oncology patients and their caregivers - explored the eating experiences of children and adolescents during chemotherapy treatment; focus on nausea and mucositis as treatment related side effects that compromise nutritional intake - findings revealed all experienced nausea and preferred not to eat during these periods - highlighted the need for health care professionals to offer detailed eating suggestions during therapy to ensure patients can maintain adequate nutrition, weight, growth and development to improve treatment tolerance and outcomes

Hart, J. (2009) Music Therapy for Children and Adults with Cancer. *Alternative & Complementary Therapies,* 15(5), 221-225	V	- review article outlining the use of the music therapy as a complementary therapy in the paediatric and adult oncology setting - studies suggest music therapy can help ease stress, anxiety, depression, pain and treatment-related symptoms of cancer treatment - adult participants receiving music therapy during chemotherapy administration reported reductions in fear, anxieties, fatigue, and reported improved comfort levels. - one relevant study examined the efficacy of combined music therapy and relaxation imagery on pain and nausea in participants aged 5-65 years undergoing a bone marrow transplant; participants self-reported a significant decrease in pain and nausea after combined music therapy and relaxation imagery sessions - music therapy was concluded as a positive experience in the paediatric oncology population as it 'facilitates their adaptation to the new reality, increases their self-esteem and control of the situation, makes communication easier and improves their immune response to the disease thanks to the emotional support music provides' - health professionals should continue to raise awarenesss of the importance of music therapy during chemotherapy and facilitate effective music therapy sessions in the paediatric oncology setting

Hesketh, P.J., Kris, M.G., Basch, E., Bohlke, K., Barbour, S.Y, Clark-Snow, R. A., Danso, M.A., Dennis, K., Dupuis, L.L., Dusetzina, S.B., Eng, C., Feyer, P.C., Jordan, K., Noonan, K., Sparacio, D., Somerfield, M. R., & Lyman, G.H. (2017) Antiemetics: American Society of Clinical Oncology Clinical Practice Guideline Update. *Journal of Clinical Oncology,* 35(28), 3240-3261	VII	- review and update of previous clinical practice guidelines; systematic review of medical literature by expert panel
		- provides updated recommendations to prevent and manage nausea and vomiting by antineoplastic agents or radiation therapy for adult and paediatric cancer patients
		- recommendations for high-emetic-risk antineoplastic agents (paediatric patients);
		  ○ use three-drug combination of a 5-HT_3 receptor antagonist, dexamethasone and aprepitant
		  ○ if unable to receive aprepitant, use two-drug combination of a 5-HT3 receptor antagonist and dexamethasone
		  ○ if unable to receive dexamethasone, use a two-drug combination of palonosetron and dexamethasone
		- recommendations for moderate-emetic-risk antineoplastic agents (paediatric patients);
		  ○ use two-drug combination of a 5-HT3 receptor antagonist and dexamethasone
		  ○ if unable to receive dexamethasone, use a two-drug combination of a 5-HT3 receptor antagonist and aprepitant
		- recommendations for low-emetic-risk antineoplastic agents (paediatric patients);
		  ○ patients should be offered ondansetron or granisetron
		- recommendations for minimal-emetic-risk antineoplastic agents (paediatric patients);
		  ○ patients should not be offered routine antiemetic prophylaxis

Hughes, D., Ladas, E., Rooney, D., & Kelly, K. (2008) Massage Therapy as a Supportive Care Intervention for Children With Cancer. *Oncology Nursing Forum,* 35(3), 431-442	V	- systematic literature review to assess the efficacy of complementary therapy (massage) for children undergoing cancer treatment; 70 articles included - findings suggest gentle massage techniques (light to medium pressure) are appropriate methods for paediatric patients - massage therapy was concluded to reduce the duration and severity of nausea, pain, fatigue and anxiety in the paediatric oncology setting
Hussein, H.A., & Abdel Sadek, B.R. (2013) Acupressure for Chemotherapy Induced Vomiting Among School Age Children. *World Journal of Medical Sciences,* 8(4), 373-381	IV	- quasi experimental research design study; purposive sample of 50 school aged children with a diagnosis of leukemia - findings supported the use of acupressure in paediatric oncology patients in combination with anti-emetic medication regimes to decrease the frequency of vomiting during treatment with a statistically significant difference between the study and control groups - recommendations were made for health professionals to assist children in learning correct acupressure techniques to assist them in relieving their nausea associated with chemotherapy

Kang, H.J., Loftus, S., Taylor, A., DiCristina, C., Green, S., & Zwaan, C. M. (2015) Aprepitant for the prevention of chemotherapy-induced nausea and vomiting in children; a randomised, double-blind, phase 3 trial. *The Lancet Oncology,* 16(4), 385-394	II	- randomised, multicentre, double-blinded study; 307 paediatric oncology patients - study examined the safety and efficacy of aprepitant in paediatric patients receiving moderately or highly emetogenic chemotherapy - 51% of patients in the aprepitant group and 26% in the control group achieved complete response (defined as no vomiting, no retching and no use of rescue medication) during the 25 to 120 hours (delayed phase) after initiation of emetogenic chemotherapy - concluded the addition of aprepitant to ondansetron with or without dexamethasone was effective for the prevention of chemotherapy-induced nausea and vomiting in paediatric patients being treated with moderately or highly emetogenic chemotherapy
Karagozoglu, S., Tekyasar, F., & Yilmaz F.A. (2012) Effects of music therapy and guided imagery on chemotherapy-induced anxiety and nausea-vomiting. *Journal of Clinical Nursing,* 22(1-2), 39-50	III	- cross-sectional, pre-post-test designed study; 40 adult participants - reported music therapy and visual imagery reduced the severity and duration of chemotherapy-induced nausea and vomiting significantly - music therapy and visual imagery commenced 15 minutes prior to chemotherapy, and continuing until completion of administration of chemotherapy recommended - music therapy and guided imagery particularly effective over multiple chemotherapy cycles in reducing anticipatory nausea and vomiting

Mazlum, S., Chaharsoughil, N.T., Banihashem, A., & Vashani, H.B. (2013) The effect of massage therapy on chemotherapy-induced nausea and vomiting in pediatric cancer. *Iranian Journal of Nursing and Midwifery Research*, 18(4), 280-284	II	- randomised control trial; 70 paediatric oncology participants, aged 4-18 years, participants were randomly divided into two groups (massage therapy and control)
		- participants received three, 20-minute massage sessions during three set time periods (24 hours prior to chemotherapy, half an hour before and 24 hours post completion of chemotherapy)
		- massage techniques included a Swedish massage with effleurage, petrissage, friction and tapping movements with mild to moderate pressure
		- participants continued regular anti emetic medication regimes during massage therapy treatments
		- findings suggested massage as a useful intervention in reducing CINV in paediatric oncology patients after majority of nausea and vomiting cases decreased significantly after massage
		  ○ Incidence of nausea was 25.7%, the severity, length and times of nausea were 20%, 54 minutes and 0.35 times lower in the intervention group
		  ○ Vomiting incidence in the two groups was not however significantly different (p= 0.192)
		- recommendations were made for health professionals to educate and empower families to participate in massage therapy during their child's treatment
		- encouraged that regular anti emetic medication regimes are continued in conjunction with massage therapy for optimal management of CINV
		- using unscented massage oils will assist in minimising nausea associated with their scents

Miao, J., Liu, X., Wu, C., Kong, H., Xie, W., & Liu, K. (2017) Effects of acupressure on chemotherapy-induced nausea and vomiting: A systematic review with meta-analyses and trial sequential analysis of randomized controlled trials. *International Journal of Nursing Studies, 70, (*2017), 27-37	II	- twelve studies included in the review, with 1419 patients included
		- aim of review was to evaluate the effectiveness of acupressure as an additional intervention in chemotherapy induced nausea and vomiting control
		- study inclusion criteria applied to 6 English databases:
		  ○ Patient population receiving intravenous chemotherapy
		  ○ Acupressure was used as an intervention both with and without antiemetic coverage
		  ○ Antiemetics medications or nursing care were conducted as a comparator
		  ○ Chemotherapy induced nausea and or vomiting as an outcome
		- findings suggest the following;
		  ○ P6 was the most frequently used acupoint
		  ○ Acupressure reduced the severity of acute (SMD= -0.18, 95% CI -0.31 to -0.05, p<0.01) and delayed (SMD= -0.33, 95% CI -0.64 to -0.01, p=0.04) nausea. However no significant effect on the incidence or frequency of vomiting was found

Miladinia, M., Baraz, S., Nouri, E., & Baeis, M. (2016) Light massage eases chemotherapy-induced nausea, vomiting in pediatric leaukemia patients. *Massage Magazine,* 67	VII	- article cited a randomised controlled trial involving 43 children with acute leukemia and undergoing chemotherapy - authors reported that the study focused on the use of a lighter form of massage therapy, known as slow stroke back massage to provide relief from side effects of treatment - participants were randomly assigned to either the slow stroke back massage or control group - nausea and vomiting levels were measured on day one of commencing chemotherapy, days two to seven of chemotherapy administration the massage group received five minutes of slow-stroke massage immediately prior to each chemotherapy session beginning - nausea was measured in both groups during chemotherapy administration and half hour and three hours post chemotherapy finishing. Episodes of vomiting over the next 24 hours were also recorded between both groups - results suggest a progressive reduction in means nausea severity and frequency of vomiting over the 7 day treatment period, in those who received slow-stroke massage treatment - the study authors state; “The results of this study are suggesting that [slow stroke back massage] as a non-pharmacological, easy and safe method is effective in controlling chemotherapy-induced nausea and vomiting in paediatrics with acute leukemia”

Momani, T.G. & Berry, D.L. (2017) Integrative Therapeutic Approaches for the Management and Control of Nausea in Children Undergoing Cancer Treatment: A Systematic Review. *Journal of Pediatric Oncology Nursing,* 34(3), 173-184	II	- review of current evidence on integrative therapeutic approaches for the control of chemotherapy-induced nausea and vomiting (CINV) in children with cancer; 21 studies included - integrative therapies included acupuncture/acupressure, aromatherapy, herbal supplements, hypnosis and other cognitive behavioural interventions - minimal information on the effectiveness and safety on integrative therapeutic approaches for CINV management in the paediatric oncology patient; further research suggested in areas of cognitive distraction, hypnosis and acupressure
Orrigo, K.M. (2015) The Impact of Interactive Music Therapy on the Pediatric Oncology Population. *Senior Honors Projects, 2010-current, James Madison University,* 1-34, Retrieved August 2018 https://commons.lib.jmu.edu/cgi/viewcontent.cgi?referer=&httpsredir= 1&article=1125&context=honors201019	VII	- literature review of 13 trials - music therapy can have beneficial distraction effects on pain and anxiety levels experienced in the paediatric oncology population - music therapy had a positive impact on coping behaviours and overall wellbeing

Patel, P., Robinson, P.D., Thackray, J., Flank, J., Holdsworth, M.T., Gibson, P., Orsey, A., Portwine, C., Freedman, J., Madden, J. R., Phillips, R., Sung, L. & Dupuis, L.L. (2017) Guideline for the prevention of acute chemotherapy-induced nausea and vomiting in pediatric cancer patients: A focused update. *Pediatric Blood Cancer,* 64(10), e26542	VII	- update of previous clinical practice guidelines with guidance regarding the use of aprepitant and palonosetron for the prevention of acute chemotherapy-induced nausea and vomiting (CINV) in children - recommendations for the prevention of acute CINV in paediatric cancer patients were developed based on evidence from systematic reviews and expert panel opinion - recommendations for highly emetic chemotherapy (HEC); o children at least 6 months old receiving HEC, which is not known or suspected to interact with aprepitant, receive granisetron or ondansetron or palonosetron plus dexamethasone plus aprepitant o chilldren less than 6 months old receiving HEC receive granisetron or ondansetron or palonosetron plus dexamethasone o children 6 months or older receiving HEC, which is known or suspected to interact with aprepitant, receive granisetron or ondansetron or palonosetron plus dexamethasone o recommend that children at least 6 months old receiving HEC, which is not known or suspected to interact with aprepitant, and who cannot receive dexamethasone for CINV prophylaxis receive palonosetron + aprepitant o suggest children less than 6 months old receiving HEC and who cannot receive dexamethasone for CINV prophylaxis receive palonosetron o suggest that children receiving HEC, which is known or suspected to interact with aprepitant, and who cannot receive dexamethasone receive palonosetron - recommendations for moderately emetic chemotherapy (MEC); o children receiving MEC receive granisetron or ondansetron or palonosetron plus dexamethasone o suggest children 6 months or older receiving MEC who cannot receive dexamethasone for CINV prophylaxis receive granisetron or ondansetron or palonosetron plus aprepitant o suggest children less than 6 months receiving MEC who cannot receive dexamethasone for CINV prophylaxis receive palonosetron

		○ suggest children receiving MEC, which is known or suspected to interact with aprepitant, and who cannot receive dexamethasone receive palonosetron - suggest the following aprepitant dose for children 6 months or older: day 1: 3mg/kg (maximum: 125mg) PO x1: days 2 and 3: 2mg/kg (maximum: 80mg) PO once daily - suggest the following palonosetron dose for children: 1 month to less than 17 years: 0.02mg/kg IV once (maximum: 1.5mg/dose) pre-chemotherapy; 17 years or older: 0.25mg/dose IV or 0.5mg/dose PO prechemotherapy
Phillips, R.S., Friend, A.J., Gibson, F., Houghton, E., Gopaul, S., Craig, S., Craig J.V. & Pizer, B. Antiemetic medication for prevention and treatment of chemotherapy-induced nausea and vomiting in childhood. *Cochrane Database of Systematic Reviews 2016,* Issue 2. Art. No.: CD007786. DOI: 10.1002/14651858.CD007786.pub3. (New search for studies and content updated (no change to conclusions), published in Issue 2, 2016)	I	- updated revision of 2010 review; 34 randomised controlled studies included - suggests that 5-HT_3 antagonists are effective in paediatric patients who are receiving emetogenic chemotherapy; granisetron or palonosetron possibly better than ondansetron - the addition of dexamethasone with 5-HT_3 antagonists improves emetic control; risk-benefit of adjunctive steroid is uncertain - cannabinoids may be effective but produce frequent side effects - further research required on valid, age appropriate nausea and vomiting measurement tools; consultation and input from patients and families

Robison, J.G. & Smith, C.L. (2016) Therapeutic Massage During Chemotherapy and/or Biotherapy Infusions: Patient Perceptions of Pain, Fatigue, Nausea, Anxiety, and Satisfaction. *Clinical Journal of Oncology Nursing,* 20(2), e34-40	V	- descriptive, correlational pilot study; 58 adult oncology participants - patients received therapeutic massage (TM) for 20 minutes whilst concurrently receiving chemotherapy and/or biotherapy; rated their pain, fatigue, nausea and anxiety pre and post TM using a Likert type scale; reported a statistically significant reduction in each of these variables post TM - results demonstrated a high level of patient satisfaction with the use of TM as part or patient care; may be an effective strategy for nurses to incorporate into holistic patient care - findings from study suggest that TM can be an effective strategy to decrease patients' perceptions of pain, fatigue, nausea and anxiety during chemotherapy and/or biotherapy
Rodgers, C., Norville, R., Taylor, O., Poon, C., Hesselgrave, J., Gregurich, M., & Hockenberry, M. (2012) Children's Coping Strategies for Chemotherapy-Induced Nausea and Vomiting. *Oncology Nursing Forum, 39* (2), 202-209	IV	- prospective cohort study; convenience sample of 40 children, aged 7-12 years, receiving either moderate or highly emetogenic chemotherapy - study aimed to identify anticipatory, acute and delayed chemotherapy-induced nausea and vomiting (CINV) frequency and coping strategies used by the paediatric oncology patient population - findings suggest CINV occurred during the anticipatory, acute, and delayed times, with the highest frequency occurring during the delayed time following chemotherapy administration - most frequently used coping strategies were distraction and wishful thinking - findings suggest the most efficacious coping strategies included active and passive coping, most effective were social support and distraction

Wood, J.M., Chapman, K., & Eilers, J. (2011) Tools for Assessing Nausea, Vomiting, and Retching: A Literature Review. *Cancer Nursing,* 34(1), e14-24	V	- systematic literature review and evaluation of chemotherapy induced nausea, vomiting and retching (CINVR) tools - 25 CINVR instruments identified in inclusion criteria; used in the adult oncology population - the ideal tool should measure for nausea, vomiting and retching symptoms, and be clear, concise and clinically relevant, whilst demonstrating validity and reliability - 1 tool, the Index of Nausea, Vomiting and Retching (INVR, Rhodes et al 1999) potentially met criteria - selecting the most appropriate CINVR tool for use in the clinical setting, will assist the nurse to provide optimum care for oncology patients
Yousef, Y., Zaki, N., & Sayed, A. (2018). Efficacy of acupressure on nausea and vomiting among children with leaukemia following chemotherapy. *Journal of Nursing Education and Practice, 9 (1),* 89-97	III	- quasi experimental study conducted at two paediatric oncology departments in South Egypt: data collected from 120 participants with a diagnosis of leukemia and aged between 6-18 years and an inpatient for at least three days for chemotherapy treatment - aim of the study was to determine the effect of acupressure on nausea and vomiting in those receiving chemotherapy and test the hypothesis of P6 stimulation reducing the incidence and severity of nausea - participants were divided into groups receiving acupressure at P6 for three consecutive intervention sessions on the day of chemotherapy (study group) and routine care only (control group) - utilising the Rhodes Index for Nausea and Vomiting tool, results found a significant reduction of the frequency, distress and severity of nausea and vomiting, in those who received acupressure (p=0.000) - recommendations were made to provide educational programs to health-care professionals on the skill, knowledge and management of acupressure as a supportive intervention