**Title:** Guidelines for the Use of Antiemetics

**Purpose:** To provide trust-wide guidance on the safe and effective use of antiemetics for the prevention and treatment of chemotherapy and radiotherapy induced nausea and vomiting

**Document application:** Trust-wide

**Responsibilities for implementation:** All members of trust staff involved in the recommendation, prescribing and monitoring of antiemetic therapy

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**Job title:** Consultant Pharmacist/Advanced Practice Pharmacist

**Consultation process:** Drugs & Therapeutics Committee

**References (if applicable):**

**Associated policies/documents:** Symptom Control Guidelines , Surgical antiemetic guidelines, Chemotherapy Protocols

**Intranet category for location:** Pharmacy

**Key words/phrases (no more than six):** Antiemetics, Chemotherapy induced nausea and vomiting

**Approved by:** Drugs and Therapeutics Committee

**Date:**
Guidelines for the Use of Antiemetics

**Definitions:**

<table>
<thead>
<tr>
<th>Condition</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute Nausea and vomiting</td>
<td>Up to 24 hours after chemotherapy.</td>
</tr>
<tr>
<td>Delayed Nausea and vomiting</td>
<td>Later than 24 hours after chemotherapy, can be up to 3-5 days later.</td>
</tr>
<tr>
<td>Anticipatory Nausea and vomiting</td>
<td>Days to hours before chemotherapy.</td>
</tr>
</tbody>
</table>

**General Principles:**

- Anti-emetics should be administered regularly and prophylactically.
- Optimal emetic control in the acute phase is essential to reduce the risk of nausea and vomiting in the delayed phase.
- Always commence anti-emetics before chemotherapy/radiotherapy.
- Give oral doses at least 30 minutes before chemotherapy/radiotherapy.
- For patients who are unable to tolerate oral anti-emetics, suppositories can be prescribed to ensure absorption (e.g. domperidone, ondansetron or prochlorperazine). Suppositories should not be used in neutropenic patients because of the risk of perianal sepsis.
- Anticipatory nausea and vomiting is believed to be a learned response to chemotherapy and or radiotherapy. If post-chemotherapy nausea and vomiting does not occur, anticipatory nausea and vomiting is very unlikely.
- Patients must be given the standard anti-emetic letter for their GP when they receive their first cycle of chemotherapy (Appendix 3).
- Always consider other causes of nausea and vomiting, see notes in section 2.
- Breakthrough Nausea and Vomiting.
- In the case of anti-emetic failure, subsequent chemotherapy cycles should be supported by the use of anti-emetics recommended for the next higher group. In the case of the highest group (high and very high emetic potential) consideration should be given to the use of palanosetron or if appropriate aprepitant.

1. CYTOTOXIC CHEMOTHERAPY

**Emetic Risk of Chemotherapy**

- The emetic risk of chemotherapy is shown in Appendix 1 and 2.
- The recommended agents for the prophylaxis of chemotherapy induced nausea and vomiting according to emetogenicity of the regimen is shown in table 1 below.
- For combination chemotherapy choose the appropriate regimen for the most emetogenic drug to be administered. However, drug combinations have an additive emetic effect, combination chemotherapy may have a greater emetogenicity than the sum of the single agents used alone.

See Disease Group guidelines for recommendations of anti-emetic use with specific protocols.
• For multi-day regimens choose appropriate pre-chemotherapy regimen for each
day and on discharge give the anti-emetics suggested for the chemotherapy
agent with the highest emetogenic potential.
• Patients with 3 or more known risk factors for emesis should be considered for
additional anti-emetics at the outset of treatment:
  Female
  <30 years old
  Pre-existing nausea and vomiting
  Poor control with prior chemotherapy
  History of sickness: in pregnancy/travel sickness/with surgery
  Anxiety

NB: A history of high alcohol intake can have a protective effect and reduce the
risk of emesis

Table 1: Initial choice of anti-emetics for chemotherapy induced emesis

<table>
<thead>
<tr>
<th>Low emetogenic potential</th>
<th>Pre chemotherapy</th>
<th>On completion of chemotherapy</th>
<th>Anti-emetic failure (see Table 2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>No routine antiemetics Necessary</td>
<td>No routine anti-emetics necessary However consider: metoclopramide 10-20mg tds PRN 5/7</td>
<td>Breakthrough nausea and vomiting: Commence with 1st line anti-emetics Subsequent cycles as for moderately emetogenic chemotherapy</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Moderate emetogenic potential</th>
<th>Pre chemotherapy</th>
<th>On completion of chemotherapy</th>
<th>Anti-emetic failure (see Table 2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ondansetron 8mg IV Dexamethasone 8mg IV</td>
<td>Metoclopramide 10-20mg tds 5/7 Dexamethasone 4mg bd 2/7</td>
<td>Breakthrough nausea and vomiting: Commence with 2nd line anti-emetics. Subsequent cycles as for highly emetogenic chemotherapy</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>High and Very High emetogenic potential</th>
<th>Pre chemotherapy</th>
<th>On completion of chemotherapy</th>
<th>Anti-emetic failure (see Table 2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ondansetron 8mg IV Dexamethasone 8mg IV</td>
<td>Ondansetron 8mg bd 2/7 Dexamethasone 8mg bd 2/7 Metoclopramide 10-20mg tds 5/7*</td>
<td>Breakthrough nausea and vomiting: Commence with 3rd line anti-emetics Treat on subsequent cycles with palonosetron 250 micrograms IV pre chemotherapy. See note below on aprepitant</td>
<td></td>
</tr>
</tbody>
</table>
**Aprepitant** may be considered first line for the prophylaxis of nausea and vomiting for the following patient groups who are receiving regimens containing high doses cisplatin > 50mg/m² (lung cancers, germ cell cancers, ovarian cancers, head and neck cancers). Aprepitant may also be considered as second line prophylaxis for breast cancer patients experiencing poorly controlled nausea and vomiting who are receiving an anthracycline. A dose of 125mg IV pre chemotherapy followed by 80mg od 2/7 post chemotherapy in ADDITION to the agents named above. NB: the dose of Dexamethasone must NOT exceed 8mg daily if given in combination with aprepitant.

Note: In multiple day chemotherapy regimens it maybe appropriate to administer IV antiemetics prior to chemotherapy on a daily basis depending on the emetogenicity of the agents. In this instance oral anti-emetics would not commence until completion of IV chemotherapy. However, see individual chemotherapy protocols or contact pharmacy for advice.

### 2. BREAKTHROUGH NAUSEA AND VOMITING

- Anti-emetic failure is defined as prolonged, distressing nausea or 2 or more episodes of vomiting in 24 hours.
- Patients must be told to contact the GP or Hotline if they start vomiting at home.
- Other causes of nausea and vomiting should also be considered e.g. radiotherapy, infection, metabolic disorders, constipation, indigestion, gastrointestinal obstruction, metastases (e.g. brain, liver), and other emetogenic medication (e.g. opioids, antibiotics).
- The 5HT3 receptor antagonists are no more effective than other agents in treating established delayed nausea and vomiting. A detailed analysis of clinical trial data has failed to demonstrate that the combination of 5HT3-receptor antagonist plus dexamethasone is superior to dexamethasone alone in delayed emesis.
- The recommendations for the treatment of breakthrough nausea and vomiting are detailed in table 2 below.

### Table 2: Choice of anti-emetics for breakthrough nausea and vomiting

If patients suffer breakthrough nausea and vomiting whilst receiving the recommended anti-emetics the following should be considered as additional therapy.

<table>
<thead>
<tr>
<th>1st line (for patients not taking regular antiemetics)</th>
<th>Metoclopramide 10-20mg tds Or Domperidone 10-20mg 3-4 times daily</th>
</tr>
</thead>
<tbody>
<tr>
<td>2nd line</td>
<td>Cyclizine 50mg PO/IV/IM</td>
</tr>
<tr>
<td></td>
<td>Ondansetron 8mg PO/IV stat if less than 24 hours after chemotherapy (NB. max daily dose is 24mg)</td>
</tr>
</tbody>
</table>
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Approved: D&TC
Review date: July 2011

3rd line

| Levomepromazine 6mg qds prn PO or 6.25 - 25mg over 24 hours SC/IV bolus injection or by continuous SC infusion |
| Cyclizine 150mg /24hr by SC infusion |
| Haloperidol 1mg IV infusion over 12 hr or continuous SC infusion 2.5-10mg/24hr |

Additional Points:
- Sub-cutaneous administration of anti-emetics should be considered for in-patients who are unable to tolerate oral medication. Drugs that may be administered via SC injection or continuous SC infusion include cyclizine, metoclopramide (up to 80mg daily), levomepromazine, haloperidol, dexamethasone (1-2mg/24hrs, may be increased if no irritation).
- If anxiety is thought to be a significant contributor to a patient's nausea and vomiting, then subcutaneous midazolam (usually 10 – 30mg/24hrs) can be added to a syringe driver.
- Compatibility for drugs mixed in SC syringe drivers should be checked with the ward pharmacist or palliative care team.
- Use of other anti-emetics (such as haloperidol 1.5 – 6mg PO daily in divided doses) may be considered if patients do not respond to the standard breakthrough schedules.
- The hospital palliative care team should be contacted for advice about refractory nausea and vomiting that has not resolved with standard anti-emetics.
- Patients are at risk of dehydration, consider starting IVI until nausea is controlled.

3. RADIOThERAPY

- Most patients receiving fractionated radiotherapy do not need antiemetics. Patients who receive radiotherapy which includes the upper abdomen are at the highest risk of emesis.
- High risk patients include those having TBI or hemibody radiotherapy. Single fraction radiotherapy to the lower thoracic or upper lumbar spine also results in high risk of emesis.
- Moderate risk patients include those having fractionated abdominal or pelvic radiotherapy. High risk patients should have prophylactic oral antiemetics prior to radiotherapy usually with an oral 5HT3 receptor antagonist. Treatment should be continued for 24 hours after completion of radiotherapy.
- Moderate risk patients should have prophylactic oral antiemetic therapy either with ondansetron, metoclopramide or domperidone. Prolonged courses of ondansetron should be avoided because of the risk of severe constipation.
- Low risk e.g. breast, head & neck, limb or brain radiotherapy does not require routine antiemetic therapy. If these patients experience emesis, other causes of nausea and vomiting should be excluded before assuming that it is due to radiotherapy.
- Radiotherapy fields including the inner ear can cause nausea which responds well to prochlorperazine.
- Nausea/vomiting can occur due to mild cerebral oedema in patients who are having treatments that include all or part of the brain, in which case a short course of dexamethasone works well.

**DRUG INFORMATION**

**Aprepitant**
*Mode of Action:* Neurokinin 1 receptor antagonist
*Preparations available:* 125mg and 80mg capsules
*Dose:* 125mg 1 hour before chemotherapy, then 80mg daily for two days. Side effects: hiccups, dyspepsia, diarrhoea, constipation, anorexia, asthenia, headache, dizziness.
*Notes:*
- Give in combination with a corticosteroid and a 5HT3 receptor antagonist.
- Multiple drug interactions, consult product literature.
- Concomitant daily dose of dexamethasone should not exceed 8mg.
- Aprepitant should not be given in combination with ifosfamide as it predisposes patient to encephalopathy.
- NK1 antagonists are only recommended in certain circumstances e.g.: In combinations with a 5HT3 receptor antagonist and dexamethasone for highly emetogenic cisplatin-based cancer chemotherapy. Following treatment failure with standard antiemetic regimen in chemotherapy regimens of high and very high emetogenicity.

**Cyclizine**
*Mode of action:* Cyclizine is an antihistaminic antimuscarninic anti-emetic which exerts its action on the vomiting centre.
*Preparations available:* 50mg tablets, 50mg/ml injection
*Dose:* 50mg tds PO/IV/IM or 150mg continuous subcutaneous infusion over 24 hours
*Side effects:* drowsiness, urinary retention, dry mouth, blurred vision, and gastrointestinal disturbances
*Notes:* Metoclopramide or Domperidone should not be given concomitantly with cyclizine as they have antagonistic actions.

**Dexamethasone**
*Mode of action:* Dexamethasone is a corticosteroid which also has anti-emetic action
*Preparations available:* 2mg tablets, 2mg/5ml oral solution, 4mg/ml & 8mg/ml injection
*Dose:* varies - see individual chemotherapy regimens
*Side effects:* adverse effects of single dexamethasone doses are rare, although elevations of serum glucose levels, epigastric discomfort and sleep disturbances occur - see BNF for more details.
*Notes:*
- In general low doses and short courses are to be preferred to avoid the long term effects of corticosteroid use
- Dexamethasone should be given no later than 6pm to minimize wakefulness unless being used as a pre med to prevent allergic reactions.
- Prescribed concomitantly it enhances the efficacy of ondansetron and metoclopramide
• An extended course of up to 7 days can be prescribed if delayed nausea and vomiting is a problem.
• Some patients may experience withdrawal effects after a short course of dexamethasone. For these patients a short reducing course over 3 to 5 days may be more appropriate.
• Additional monitoring should be taken in those patients with diabetes as corticosteroids can elevate blood sugar levels.
• Rapid injection of dexamethasone can cause perineal irritation with patients experiencing a sensation of urgency. Patients should be warned of this effect (this is largely avoided by administering as a short infusion)
• Where corticosteroids are part of a chemo regimen they should be given before chemotherapy as they will enhance the effects of any co-prescribed anti emetics.
• Omit oral dexamethasone if the patient is on a chemotherapy regimen containing high dose steroids e.g. CHOP
• For patients receiving a taxane, the anti-emetic dose of dexamethasone should be the same as that given for prophylaxis of hypersensitivity
• Consider omitting steroid or reducing length of course if the patient is on a weekly regimen or an oral cytotoxic course longer than 3 days

**Domperidone**

**Mode of action:** Domperidone is a D₂-receptor antagonist with some prokinetic action.

**Preparations available:** 10mg tablet, 5mg/ml suspension, 30mg suppository

**Dose:** 10-20mg tds times a day PO, may be administered up to qds if required.

60mg bd PR

**Side effects:** rarely gastro-intestinal disturbances (including cramps), raised prolactin concentration

**Notes:**

- It does not cross the blood brain barrier so is useful in patients who cannot tolerate metoclopramide.
- Domperidone should not be given concomitantly with cyclizine as they have antagonistic actions

**Granisetron**

**Mode of action:** Granisetron is a 5HT3 receptor antagonist

**Preparations available:** 1mg tablet, 1mg in 1ml or 3mg in 3ml injection.

**Dose:** 1-3mg iv prior to chemotherapy then 1-2mg PO daily usually for 48 hours.

**Side effects:** Constipation, headache, rash

**Haloperidol**

**Mode of action:** Haloperidol is a specific D₂-receptor antagonist which acts on the area postrema.

**Preparations available:** 500microgram tablets, 1.5mg tablets, 1mg/ml liquid, 5mg/ml injection

**Dose:** 1mg IV infusion over 12 hr or continuous SC infusion 2.5-10mg over 24hr.

1.5 – 3mg po daily

**Side effects:** extra pyramidal effects and drowsiness although these are not usually problematic at doses less than 2.5 mgs daily- see BNF for more details

**Levomepromazine**
Levomepromazine

**Mode of action:** Levomepromazine is a potent D₂, α₁-receptor and 5HT2 antagonist anti-emetic which is widely used as a 2nd or 3rd line agent

**Preparations available:** 25mg tablets, 25mg/ml injection. Unlicensed preparation: 6mg tablets

**Dose:** 6 - 25mg over 24 hours PO/SC/IV or continuous SC infusion

**Side effects:** Doses larger than 6mgs daily are often associated with sedation.

Lorazepam

**Mode of action:** Lorazepam has limited activity as an anti-emetic but with its sedative and anxiolytic properties it is helpful in treatment of anticipatory symptoms

**Preparations available:** 1mg tablets, 4mg/ml injection

**Dose:** 0.5-1mg orally, sublingually or IV 15-30 minutes prior to treatment (standard tablets will dissolve under the tongue)

**Side effects:** Drowsiness and lightheadedness. If affected do not drive. Avoid alcoholic drink

**Notes:** Some patients may benefit from oral lorazepam the night before or on the morning of admission for treatment.

Metoclopramide

**Mode of action:** Metoclopramide is a prokinetic anti-emetic and is a combined D₂-receptor antagonist and 5HT₄ receptor agonist. At high doses it also acts as a 5HT3 antagonist. It crosses the blood brain barrier.

**Preparations available:** 10mg tablets, 5mg/5ml solution, 5mg/ml injection

**Dose:** 10-20mg tds, may be administered up to qds if required.

**Side effects:** Extrapyramidal effects more frequent with high doses and in children and young adults. Hyperprolinactinaemia, akathisia

**Notes:**
- As it blocks the central dopamine receptors there is a risk of developing acute dystonic reactions with facial and skeletal muscle spasms and oculogyric crises. These generally occur within a few days of starting treatment and subside within 24hr of stopping the drug.
- Severe symptoms should be treated with procyclidine IV 5-10mg
- Younger patients are at greater risk of extra pyramidal side effects from metoclopramide and should be considered for domperidone in preference. Domperidone should also be used if patients give a history of previous dystonic reactions with metoclopramide (e.g. jaw stiffness or difficulty swallowing)
- Patients intolerant of metoclopramide should be given domperidone instead
- Metoclopramide should not be given concomitantly with cyclizine as they have antagonistic actions.
- Prokinetic actions are useful in nausea and vomiting associated with gastric stasis.

Ondansetron

**Mode of action:** Ondansetron is a 5HT₃-receptor antagonist which prevents release of 5HT (serotonin) from entochromaffin cells in the duodenum.

**Preparations available:** 4mg and 8mg tablets/oral lyophilisates, 4mg/5ml syrup, 2mg/ml injection, 16mg suppository
**Dose:** 8mg IV prior to chemotherapy then 8mg bd PO usually for 48 hours or 16mg od PR

**Side effects:** include mild headache, constipation and transient elevations of serum aminotransferases. These can be treated symptomatically with simple analgesics and laxatives e.g. senna. Suppositories may cause rectal irritation. Patients experiencing side effects due to ondansetron may be offered an alternative 5HT₃-receptor antagonist such as granisetron (IV 1-3mg oral 1-2mg daily)

**Notes:** Can be very constipating; consider co-prescribing laxatives especially if being used for more than 48 hours.

**Palonosetron**

**Mode of Action:** 5HT₃ receptor antagonist acting on the area postrema and the gut wall

**Preparations available:** 250 microgram injection

**Dose:** 250 micrograms IV prior to chemotherapy

**Side effects:** diarrhoea, constipation, headache, dizziness

**Notes:**
- Second line in patients who have experienced uncontrolled delayed severe nausea or emesis due to ondansetron failure.
- Not to be used in combination with other 5HT₃ receptor antagonists either IV or Oral
- Dose not to be repeated within 7 days.
- Longer duration of action compared to other 5HT₃ receptor antagonists is due to its increased half life and different mode of binding to the 5HT₃ receptor.

**Prochlorperazine**

**Mode of Action:** Dopamine antagonist, some antimuscarinic and antihistaminic effects.

**Preparations available:** 5mg tablets, 3mg buccal tablets, 1mg/ml syrup, 12.5mg/ml injection

**Dose:** 5-10mg BD / TDS orally, 3mg bd – tds buccally, 12.5mg IM

**Side effects:** drowsiness, extrapyramidal effects
### Appendix 1: Relative emetogenic potential of anti-cancer drugs:

**ORAL PREPARATIONS**

For combination chemotherapy choose the appropriate regimen for the most emetogenic drug to be administered. However, drug combinations have an additive emetic effect, combination chemotherapy may have a greater emetogenicity than the sum of the single agents used alone. See Disease Group guidelines for recommendations of antiemetic use with specific protocols.

<table>
<thead>
<tr>
<th>Level</th>
<th>Drugs</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Very High (&gt;90%)</strong></td>
<td>Altretamine</td>
</tr>
<tr>
<td><strong>High (60-90%)</strong></td>
<td>Idarubicin, Lomustine</td>
</tr>
<tr>
<td><strong>Moderate (30-60%)</strong></td>
<td>Cyclophosphamide, Temozolamide, Procarbazine, Vinorelbine</td>
</tr>
<tr>
<td><strong>Low (&lt;10-30%)</strong></td>
<td>Busulfan, Chlorambucil, Fludarabine, Hydroxycarbamide, Lapatinib, Mercaptopurine, Sorafenib, Tioguanine, Capecitabine, Etoposide, Gefitinib, Imatinib, Melphalan, Methotrexate, Sunitinib</td>
</tr>
</tbody>
</table>
Appendix 2: Relative emetogenic potential of anti cancer drugs:

INTRAVENTOUS PREPARATIONS

For combination chemotherapy choose the appropriate regimen for the most emetogenic drug to be administered. However, drug combinations have an additive emetic effect, combination chemotherapy may have a greater emetogenicity than the sum of the single agents used alone. See Disease Group guidelines for recommendations of anti-emetic use with specific protocols.

| Very High (>90%)              | Busulfan >4mg/kg/day                   | Cisplatin >50mg/m²          |
|                               | Carmustine >250mg/m²                   | Cyclophosphamide >1500 mg/m² |
|                               | Dacarbazine                            | Etoposide >60mg/m²          |
|                               | Ifosfamide >3g/m²                      | Streptozotocin              |

| High (60-90%)                  | Actinomycin-D                           | Amsacrine                   |
|                                | Carboplatin                             | Carmustine >100 mg/m² <250mg/m² |
|                                | Cisplatin < 50mg/ m²                    | Cytarabine > 1000mg/m²       |
|                                | Cyclophosphamide 750-1500mg/m²         | Daunorubicin >50mg/m²        |
|                                | Doxorubicin >60mg/ m²                   | Epirubicin >90mg/m²          |
|                                | Idarubicin                              | Ifosfamide <3g/ m²          |
|                                | Irinotecan                              | Oxaliplatin                 |
|                                | Melphalan >100mg/m²                     | Methotrexate >1000mg/m²      |

| Moderate (30-60%)              | Arsenic                                 | Carmustine <100mg/m²        |
|                                | Cyclophosphamide <750mg/m²             | Cytarabine <1000 mg/m²      |
|                                | Daunorubicin <50mg/m²                  | Docetaxel                   |
|                                | Doxorubicin >20<60 mg/m²               | Etoposide < 60mg/m²         |
|                                | Gemcitabine                             | Melphalan <100mg/m²         |
|                                | Methotrexate 250-1000mg/m²             | Mitomycin C                 |
|                                | Mitoxantrone                            | Paclitaxel                  |
|                                | Pemetrexed                              | Temsirolimus                |
|                                | Topotecan                               |                              |

| Low (<10-30%)                  | Alemtuzumab                             | Asparaginase                |
|                                | Bevacizumab                             | Bleomycin                   |
|                                | Bortezomib                              | Cetuximab                   |
|                                | Cladribine                              | Doxorubicin liposomal       |
|                                | Daunorubicin liposomal                  | Fludarabine                 |
|                                | Fluorouracil                            | Gemtuzumab Ogazamicin       |
|                                | Methotrexate <50mg/m²                   | Pentostatin                 |
|                                | Rituiximab                              | Trastuzumab                 |
|                                | Vinblastine                             | Vincristine                 |
|                                | Vindesine                               | Vinorelbine                 |
APPENDIX 3:

Dear Dr.

This letter is to inform you that……………………………………….…has commenced chemotherapy today.

Different chemotherapy drugs cause different side-effects. An information leaflet explaining these side-effects has been given to your patient, along with contact numbers for the Christie hospital. The majority of chemotherapy drugs have common side-effects, which include myelosuppression and increased risk of infection, anaemia, risk of bleeding, altered taste, sore mouth, nausea and vomiting, and lethargy.

Many of these side-effects can be managed at home, however it is very important that if it is suspected that your patient has an infection, the chemotherapy Hotline should be contacted for further advice on 0161 446 3658. This number is available to patients and health professionals 24 hours a day.

Nausea and vomiting can be a distressing side-effect of chemotherapy. It is important to try to achieve optimal emetic control to improve your patient’s quality of life, and to try to prevent them from developing anticipatory nausea and vomiting prior to subsequent treatments.

We have given your patient anti-emetics, we hope these will be effective. If however your patient experiences any problems at home with continued nausea and vomiting, some suggestions for alternative oral anti-emetics are given below:

- Metoclopramide 10-20mg 6 hourly
- Domperidone 10-20mg 6 hourly
- Cyclizine 50mg 8 hourly
- Prochlorperazine 10mg 8 hourly
- Levomepromazine 6mg 8 hourly

If required a single i.m. injection of metoclopramide 10mg or cyclizine 50mg may be useful for patients unable to tolerate oral therapy

We hope this letter is informative. Should you require any further help or advice, in normal working hours Monday-Friday, please contact the following:

Chemotherapy Suite - 0161 446 3393/3447, Ward 5 - 0161 446 3768/3766, Ward 3 -0161 446 3713/7360; for patients on clinical trials the DCU - 0161 446 8339; or the Hotline 01614463658 through the night and at weekends.

Yours sincerely,

Signature:

Print Name:
Chemotherapy Nurse