# Daratumumab (SC), Bortezomib, Thalidomide and dexAMETHasone Consolidation Therapy

## INDICATIONS FOR USE:

| INDICATION | ICD10 | Regimen Code | Reimbursement Status |
|---|---|---|---|
| Daratumumab in combination with bortezomib, thalidomide and dexAMETHasone for the treatment of adults with newly diagnosed multiple myeloma who are eligible for autologous stem cell transplant. | C90 | 00755a | Daratumumab : ODMS 01/06/2022<br>Bortezomib: Hospital<br>Thalidomide: CDS |

## TREATMENT:

*The starting dose of the drugs detailed below may be adjusted downward by the prescribing clinician, using their independent medical judgement, considering each patient's individual clinical circumstances.*

The dosing schedule for daratumumab in combination with bortezomib, thalidomide and dexAMETHasone is based on a 28-day cycle regimen as detailed in the treatment tables below (Table 1 and 2).

Four cycles of induction therapy are administered **(Please refer to NCCP regimen 00703 Daratumumab (SC), Bortezomib, Thalidomide and dexAMETHasone Induction Therapy),** followed by the option of two cycles of consolidation therapy post high dose chemotherapy and ASCT.

Facilities to treat anaphylaxis MUST be present when the systemic anti-cancer therapy (SACT) is administered.

**Table 1: Daratumumab dosing schedule in combination with bortezomib, thalidomide and dexAMETHasone**

| Treatment Phase | Weeks | Schedule |
|---|---|---|
| Induction **(Refer to NCCP regimen 00703)** | Weeks 1-8 | Weekly (total of 8 doses) |
| | Weeks 9-16[a] | Every two weeks (total of 4 doses) |
| Stop for high dose chemotherapy and ASCT | | |
| Consolidation | Weeks 1-8[b] | Every two weeks (total of 4 doses) |

[a] First dose of the every-2-week dosing schedule is given at Week 9

[b] First dose of the every-2-week dosing schedule is given at Week 1 upon re-initiation of treatment following ASCT

**Table 2: Treatment table for daratumumab, bortezomib, thalidomide and dexAMETHasone**

**Consolidation Therapy, Cycles 1-2 (week 1-8, total of 4 doses of daratumumab)**

| Day | Drug | Dose | Route | Diluent and Rate | Cycle frequency |
|---|---|---|---|---|---|
| 1, 15 | Daratumumab[a] | 1800mg | SC | Over 3 to 5 mins | 28 days |
| 1, 4, 8, 11 | Bortezomib | 1.3mg/m$^2$ | [b, c] SC (abdomen or thigh) | n/a | 28 days |
| 1 – 28 | Thalidomide | 100 mg[d] PO (preferably nocte) | PO | n/a | 28 days |
| 1, 2, 8, 9, 15, 16 | dexAMETHasone | 20mg[e] | PO | n/a | 28 days |

[a] If a planned dose of daratumumab is missed, the dose should be administered as soon as possible and the dosing schedule should be adjusted accordingly, maintaining the treatment interval.

[b] Note: In individual cases where approved by Consultant, bortezomib may be administered as IV bolus over 3-5 seconds through a peripheral or central intravenous catheter followed by a flush with 0.9% NaCl. Note the concentration of bortezomib solution should be 1mg/ml when administered via the IV route

[c] The solution should be injected subcutaneously, at a 45-90$^0$ angle. Injection sites should be rotated for successive injections. If local injection site reactions occur, either a less concentrated solution may be administered SC or a switch to intravenous injection is recommended. At least 72 hours should elapse between consecutive doses of bortezomib. Bortezomib is a proteasome inhibitor and is neurotoxic. Refer to ***NCCP Guidance on the Safe Use of Neurotoxic drugs (including Vinca Alkaloids) in the treatment of cancer.***

[d] Patients may be started at a dose of thalidomide 50mg at the discretion of the prescribing consultant

[e] A reduced dose of 20 mg/week may be considered for patients >75 years, for patients with a Body Mass Index (weight in kg divided by the square of the height in metres) <18.5 and for patients with poorly controlled diabetes mellitus or prior intolerance/adverse event to steroid therapy.

**Table 3: Dosing schedule for consolidation (Cycles 1 and 2)**

| Day | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daratumumab | ✓ | | | | | | | | | | | | | | ✓ | | | | | | | | | | | | | |
| Bortezomib | ✓ | | | ✓ | | | | ✓ | | | ✓ | | | | | | | | | | | | | | | | | |
| Thalidomide | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| dexAMETHasone 20mg | ✓ | ✓ | | | | | | ✓ | ✓ | | | | | | ✓ | ✓ | | | | | | | | | | | | |

## ELIGIBILITY:

- Indication as above
- ECOG 0-2
- Patients with pre-existing severe neuropathy should be treated with thalidomide and bortezomib only after careful risk/benefit assessment. Caution should be exercised as further treatment may result in severe prolonged neuropathy.

## EXCLUSIONS:

- Hypersensitivity to daratumumab, bortezomib, thalidomide or dexAMETHasone or any of the excipients

- Pregnancy
- Breastfeeding
- Severe uncontrolled obstructive airways disease/asthma
- Grade 2 or higher peripheral neuropathy or neuropathic pain
- Patients who are unable to comply with the Thalidomide Pregnancy Prevention Programme
- Acute diffuse infiltrative pulmonary and pericardial disease

## PRESCRIPTIVE AUTHORITY:

- The treatment plan must be initiated by a Consultant Haematologist working in the area of haematological malignancies

## TESTS:

**Baseline tests:**

- FBC, renal, liver and bone profile
- Uric acid
- Neutrophil count of ≥1.0×$10^9$/L and platelets ≥50×$10^9$/L
- Urine pregnancy testing or serum hCG test for women of child bearing potential as per Pregnancy Prevention Programme
- Send a "group and save" sample to transfusion and inform patient and transfusion laboratory that patient is due to commence daratumumab. Patient will require red cell phenotyping as cross match fails due to binding of daratumumab to red cells.
- Virology screen - EBV, CMV, Hepatitis B (HBsAg, HBcoreAb) & C, HIV ***See Adverse Effects/Regimen Specific Complications re Hepatitis B Reactivation**
- Blood pressure, Blood glucose* if being treated with oral hypoglycaemics (*See Drug Interactions)
- Assessment of peripheral neuropathy status
- VTE risk assessment
- Assessment and registration as per Thalidomide Pregnancy Prevention Programme for both male and female patients

**Regular tests:**

- FBC; monitor platelet count **at a minimum** of day 1 and day 11 each cycle.
- Renal, liver and bone profile
- Blood pressure, blood glucose* if being treated with oral hypoglycaemics (*See Drug Interactions)

- Urine pregnancy testing or serum hCG test every 28 days for female of childbearing potential as per Pregnancy Prevention Programme.

**Disease monitoring:**

Disease monitoring should be in line with the patient's treatment plan and any other test/s as directed by the supervising Consultant.

## DOSE MODIFICATIONS:

- Any dose modification should be discussed with a Consultant.
- No dose reductions of daratumumab are recommended.
    - Dose delay may be required to allow recovery of blood cell counts in the event of haematological toxicity (see table 5 below)

**Table 4: Dose reduction steps for bortezomib**

| Dose Level | Dose |
|---|---|
| Starting dose | 1.3mg/$m^2$ |
| Dose level 1 | 1.0mg/$m^2$ |
| Dose level 2 | 0.7mg/$m^2$ |
| Dose level 3 | Discontinue |

### Haematological:

**Table 5: Dose modification of daratumumab and bortezomib for haematological toxicity**

| Drug | ANC ($x10^9$/L) | | Platelets ($x10^9$/L) | | Dose Modification |
|---|---|---|---|---|---|
| **Daratumumab** | ≥0.5 - 1 | Or | ≥25 - 50 | With bleeding | Consider withholding treatment until symptoms of the toxicity have resolved |
| | <0.5 | Or | <25 | | Consider withholding treatment until symptoms of the toxicity have resolved |
| **Bortezomib** | <0.5 | Or | <25 | | Withhold treatment until symptoms of the toxicity have resolved.<br>Treatment may be reinitiated at the next lower dose level If the toxicity is not resolved or if it recurs at the lowest dose, discontinuation of bortezomib must be considered unless the benefit of treatment clearly outweighs the risk |

## Renal and Hepatic Impairment:

**Table 6: Recommended dose modification for renal or hepatic impairment**

| Drug | Renal impairment | Hepatic impairment | | | |
|---|---|---|---|---|---|
| **Daratumumab** | No formal studies of daratumumab in patients with renal impairment have been conducted.<br>Based on a population pharmacokinetic (PK) analysis no dosage adjustment is necessary for patients with renal impairment | No formal studies of daratumumab in patients with hepatic impairment have been conducted. Based on population PK analyses, no dosage adjustments are necessary for patients with hepatic impairment | | | |
| **Bortezomib** | No dose adjustment is needed<br><br>Haemodialysis: No dose adjustment is needed | **Grade of Hepatic Impairment*** | **Bilirubin Level** | **(AST) levels** | **Modification of starting dose** |
| | | Mild | ≤1 x ULN | > ULN | None |
| | | | >1-1.5 x ULN | Any | None |
| | | Moderate | >1.5-3 x ULN | Any | Reduce dose to 0.7mg/m$^2$ in the first treatment cycle. Consider dose escalation to 1mg/m$^2$ or further dose reduction to 0.5mg/m$^2$ in subsequent cycles based on patient tolerability. |
| | | Severe | >3 x ULN | Any | |
| **Thalidomide** | No specific dose recommendations | No specific dose recommendations. Monitor patients with severe hepatic impairment closely for adverse reactions | | | |

*Based on NCI Organ Dysfunction Working Group classification for categorising hepatic impairment (mild, moderate, severe).

## Management of adverse events:

**Table 7: Recommended dose modifications of bortezomib and thalidomide for neuropathy**

| Drug | Severity of neuropathy | Dose Modification |
|---|---|---|
| Bortezomib | Grade 1 (asymptomatic; loss of deep tendon reflexes or paresthesia) with no pain or loss of function | None |
| | Grade 1 with pain or Grade 2 (moderate symptoms; limiting instrumental Activities of Daily Living (ADL)) | Reduce dose to 1 mg/m$^2$ or change treatment schedule to 1.3mg/m$^2$ once every week |
| | Grade 2 with pain or Grade 3 (severe symptoms; limiting self-care ADL) | Withhold treatment until symptoms of toxicity have resolved. When toxicity resolves re-initiate treatment and reduce dose to 0.7mg/m$^2$ once every week |
| | Grade 4 (life-threatening consequences; urgent intervention indicated) and/or severe autonomic neuropathy | Discontinue treatment |
| Thalidomide | Grade 2 | Reduce dose or interrupt treatment and continue to monitor the patient with clinical and neurological examination. If no improvement or continued worsening of the neuropathy, discontinue treatment. If the neuropathy resolves to Grade 1 or better, the treatment may be restarted, if the benefit/risk is favourable. |
| | Grade 3 or 4 | Discontinue treatment |

**Table 8: Dose modification schedule of bortezomib and thalidomide based on other adverse events**

| Drug | Adverse reactions | Recommended dose modification |
|---|---|---|
| Bortezomib | Grade ≥3 Non-haematological toxicity | Withhold bortezomib until symptoms resolved to Grade 1 or baseline then reinitiate with one dose level reduction from 1.3mg/m$^2$ to 1 mg/m$^2$ or from 1mg/m$^2$ to 0.7mg/m$^2$<br>If the toxicity is not resolved or if it recurs at the lowest dose, discontinuation of bortezomib must be considered unless the benefit of treatment clearly outweighs the risk. |
| | New or worsening pulmonary symptoms (e.g. cough, dyspnoea) | Withhold treatment. Prompt diagnostic evaluation required and benefit/risk ratio should be considered prior to continuing bortezomib therapy. |
| | Posterior Reversible Encephalopathy Syndrome (PRES) | Discontinue bortezomib |
| Thalidomide | Angioedema | Discontinue thalidomide |
| | Skin rash | Withhold treatment and evaluate clinically. If allergic reaction do not resume treatment. |

| | | |
|---|---|---|
| | Thromboembolic Event | Withhold treatment and start standard anticoagulant therapy. Once stabilised on the anticoagulant therapy and complications of thromboembolic event have been managed, thalidomide treatment may be restarted at the original dose dependant on a benefit/risk assessment. Anticoagulant therapy should be continued during the course of thalidomide treatment. |

## SUPPORTIVE CARE:

### EMETOGENIC POTENTIAL:

- As outlined in NCCP Classification Document for Systemic Anti-Cancer Therapy (SACT) Induced Nausea and Vomiting - Available on the NCCP website

Daratumumab: Minimal (**Refer to local policy).**
Bortezomib: Low (**Refer to local policy).**
Thalidomide: Minimal to low (**Refer to local policy).**

**For information:**

**Within NCIS regimens, antiemetics have been standardised by Medical Oncologists and Haemato-oncologists and information is available in the following documents:**

- NCCP Supportive Care Antiemetic Medicines for **Inclusion in NCIS** (Medical Oncology) - Available on the NCCP website
- NCCP Supportive Care Antiemetic Medicines for **Inclusion in NCIS** (Haemato-oncology) - Available on the NCCP website

### PRE AND POST MEDICATIONS FOR DARATUMUMAB INJECTION:

- Pre-dose medications consisting of corticosteroid, anti-pyretic and anti-histamines should be administered to reduce the risk of IRRs to all patients 1-3 hours prior to every dose of daratumumab as suggested in table 9.
- When dexAMETHasone is the background-regimen specific corticosteroid, the dexAMETHasone treatment dose will instead serve as pre-medication on daratumumab dosing days. Additional background regimen specific corticosteroids (e.g. prednisolone) should not be taken on daratumumab dosing days when patients have received dexAMETHasone as a pre-medication.
- Consider use of montelukast 10mg PO 60 minutes pre-daratumumab before the first dose only to reduce the incidence of infusion-related reactions
- See other supportive care for recommended post-infusion medications

**Table 9: Suggested medications for pre and post daratumumab administration**

| Day | Drugs | Dose | Route | Timing | Cycle |
|---|---|---|---|---|---|
| 1, 2, 8, 9, 15, 16 | dexAMETHasone | Refer to Table 1: Treatment table for daratumumab, bortezomib, thalidomide and dexAMETHasone | | | All cycles |
| 1, 15 | Paracetamol | 1g | PO | 1-3 hours prior to daratumumab injection | All cycles |
| 1, 15 | Chlorphenamine[a] | 4mg | PO | 1-3 hours prior to daratumumab injection | All cycles |
| [a]Or equivalent oral or intravenous antihistamine | | | | | |

## OTHER SUPPORTIVE CARE:

- Anti-viral prophylaxis should be considered for the prevention of herpes zoster virus reactivation. (**Refer to local policy**).
- Bisphosphonates should be considered in all patients with myeloma related bone disease.
- Tumour lysis syndrome prophylaxis (**Refer to local policy**).
- H2 antagonist or proton pump inhibitor (**Refer to local policy**).
- Consider PJP prophylaxis (**Refer to local policy**).
- Influenza vaccination in appropriate patients
- Women of child-bearing potential should use effective contraception during, and for 3 months after cessation of daratumumab treatment. Women of child-bearing potential should use effective contraception without interruption for at least 4 weeks prior to starting thalidomide treatment, throughout the entire duration of treatment and at least 4 weeks after the end of treatment
- Male patients must use condoms during treatment, during dose interruption and for at least 7 days following discontinuation of treatment if their partner is pregnant or is of childbearing potential not using effective contraception. Male patients should not donate semen or sperm during treatment (including during dose interruptions) and for at least 7 days following discontinuation of thalidomide.
- Prophylactic laxatives to prevent thalidomide induced constipation **(Refer to local policy).**
- **Recommended post-infusion medications for patients with a history of obstructive pulmonary disorder**
    - The use of post-infusion medications including short and long acting bronchodilators, and inhaled corticosteroids should be considered. Following the first four infusions, if the patient experiences no major IRRs, these inhaled post-infusion medications may be discontinued at the discretion of the physician

## ADVERSE EFFECTS / REGIMEN SPECIFIC COMPLICATIONS:

*The adverse effects listed are not exhaustive. Please refer to the relevant Summary of Product Characteristics for full*

*details*.

- **Hepatitis B Reactivation:** HBV screening should be performed in all patients before initiation of treatment. Patients should be tested for both HBsAg and HBcoreAb as per local policy. If either test is positive, liaise with local hepatology/infectious diseases services regarding PCR testing and appropriate anti-viral prophylaxis. For patients with evidence of positive HBV serology, monitor for clinical and laboratory signs of HBV reactivation during, and for at least six months following the end of treatment. Manage patients according to current clinical guidelines.

**Daratumumab:**

- **Interference with Indirect Antiglobulin Test (Indirect Coombs Test):** Daratumumab binds to CD38 found at low levels on red blood cells (RBCs) and may result in a positive indirect Coombs test. Daratumumab mediated positive indirect Coombs test may persist for up to 6 months after the last daratumumab infusion. It should be recognised that daratumumab bound to RBCs may mask detection of antibodies to minor antigens in the patient's serum. The determination of a patient's ABO and Rh blood type are not impacted. Patients should be typed and screened prior to starting daratumumab treatment. Phenotyping may be considered prior to starting daratumumab treatment as per local practice. Red blood cell genotyping is not impacted by daratumumab and may be performed at any time. In the event of a planned transfusion blood transfusion centres should be notified of this interference with indirect antiglobulin tests. If an emergency transfusion is required, non-cross-matched ABO/RhDcompatible RBCs can be given per local blood bank practices.
- **Interference with determination of Complete Response**: Daratumumab is a human IgG kappa monoclonal antibody that can be detected on both the serum protein electrophoresis (SPE) and immunofixation (IFE) assays used for the clinical monitoring of endogenous M-protein. This interference can impact the determination of complete response and of disease progression in some patients with IgG kappa myeloma protein.
    - Consider use of daratumumab-specific IFE reflex assay (DIRA) to distinguish the therapeutic from the patient's M protein. The DIRA assay can be used to determine whether additional testing, including determination of the sFLC ratio and BM evaluation, is warranted in patients with IgG-κ band and low measurable M protein (≤2 g/L) to assess the presence of (stringent) CR.

**Bortezomib:**

- **Peripheral Neuropathy:** Patients with pre-existing severe neuropathy may be treated with bortezomib only after careful risk/benefit assessment.
- **Hypotension:** Treatment is commonly associated with orthostatic/postural hypotension. A minority of patients with orthostatic hypotension experienced syncopal events. Caution is advised when treating patients with a history of syncope receiving medicinal products known to be associated with hypotension; or who are dehydrated due to recurrent diarrhoea or vomiting.

- **Hepatic Impairment;** Bortezomib is metabolised by liver enzymes. Bortezomib exposure is increased in patients with moderate or severe hepatic impairment; these patients should be treated with bortezomib at reduced doses and closely monitored for toxicities.
- **Haematological toxicity:** Gastrointestinal and intracerebral haemorrhage have been reported in association with bortezomib treatment. Therefore platelet counts should be monitored prior to each dose of bortezomib and bortezomib should be withheld when the platelet count is < 25 x $10^9$ /L. Potential benefit of treatment should be carefully weighed against the risks, particularly in case of moderate to severe thrombocytopenia and risk factors for bleeding. Complete blood counts with differential and including platelet counts should be frequently monitored throughout treatment with bortezomib. Platelet transfusion should be considered when clinically appropriate.
- **Seizures**: Seizures have been uncommonly reported in patients without previous history of seizures or epilepsy. Special care is required when treating patients with any risk factors for seizures.
- **Posterior Reversible Encephalopathy Syndrome (PRES):** In patients developing PRES, treatment with bortezomib should be discontinued.
- **Heart Failure:** Acute development or exacerbation of congestive heart failure, and/or new onset of decreased left ventricular ejection fraction has been reported during bortezomib treatment. Patients with risk factors for or existing heart disease should be closely monitored.
- **Renal Impairment:** Patients with renal impairment should be monitored closely.

**Thalidomide:**

- **Teratogenetic effects:** Thalidomide must never be used by women who are pregnant or by women who could become pregnant unless all the conditions of the Thalidomide Pregnancy Prevention Programme are met. These conditions must be fulfilled for all male and female patients.
- **Venous and arterial thromboembolic events:** There is an increased risk of venous and arterial thromboembolism in patients treated with thalidomide particularly during the first 5 months of therapy. Previous history of thromboembolic events may also increase thromboembolic risk in these patients. Thromboprophylaxis should be considered especially in patients with additional thrombotic risk factors.
- **Allergic reactions and severe skin reactions:** Cases of allergic reactions including angioedema, anaphylactic reaction and severe cutaneous reactions including Stevens-Johnson syndrome (SJS), toxic epidermal necrolysis (TEN), and drug reaction with eosinophilia and systemic symptoms (DRESS) have been reported with the use of Thalidomide. Patients should be advised of the signs and symptoms of these reactions by their prescribers and should be told to seek medical attention immediately if they develop these symptoms. Thalidomide interruption or discontinuation should be considered for Grade 2-3 skin rash. Thalidomide must be discontinued for angioedema, anaphylactic reaction, Grade 4 rash, exfoliative or bullous rash, or if SJS, TEN or DRESS is suspected, and should not be resumed following discontinuation for these reactions.
- **Somnolence:** Patients should be monitored and dose reduction may be required.

**dexAMETHasone**

- **Steroid use:** Steroid use is associated with numerous side effects including insomnia, gastric irritation, increased blood sugar levels, mood changes, increased appetite, bruising, skin fragility and osteoporosis (long term use).

## DRUG INTERACTIONS:

- Current drug interaction databases should be consulted for more information.
- No interaction studies have been performed with daratumumab.
- Additive hypotensive effect with anti-hypertensives and bortezomib. Blood pressure should be monitored and ensure patient is well hydrated prior to bortezomib dose. Adjustment of anti-hypertensives may be required.
- During clinical trials, hypoglycemia was uncommonly reported and hyperglycemia commonly reported in diabetic patients receiving oral hypoglycemics. Patients on oral anti-diabetic agents receiving bortezomib treatment may require close monitoring of their blood glucose levels and adjustment of the dose of their anti-diabetic medications.
- Patients should be closely monitored when given bortezomib in combination with potent CYP3A4-inhibitors. Caution should be exercised when bortezomib is combined with CYP3A4- or CYP2C19 substrates.
- Thalidomide may enhance the sedation induced by anxiolytics, hypnotics, antipsychotics, H1 antihistamines, opiate derivatives, barbiturates and alcohol.
- Due to thalidomide's potential to induce bradycardia, caution should be exercised with medicinal products having the same pharmcodynamic effect such as active substances known to induce torsade de pointes, beta blockers or anticholinesterase agents.

## COMPANY SUPPORT RESOURCES/Useful Links:

*Please note that this is for information only and does not constitute endorsement by the NCCP*

**Daratumumab:**

**Educational materials- HCP**

HCP card
https://www.hpra.ie/img/uploaded/swedocuments/fdc060ab-a3f9-4b54-a125-711db53e63a4.pdf
Laboratory card
https://www.hpra.ie/img/uploaded/swedocuments/6c0b4305-1ec7-421b-8037-a07a93f7a5a9.pdf

**Educational materials – patient:**

Patient card
https://www.hpra.ie/img/uploaded/swedocuments/595cba0f-1112-4955-a62a-d817fe1b0a14.pdf

**Thalidomide:**

- Please refer to the HPRA website (www.hpra.ie) for the individual product for list of relevant support resources
- Prescribers are required to read and understand the relevant HCP Information Guide and to adhere to the PPP

## REFERENCES:


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3. Krens S D, Lassche,Jansman G F G A, et al. Dose recommendations for anticancer drugs in patients with renal or hepatic impairment. Lancet Onco/2019; 20:e201-08. https://doi.org/10.1016/S1470-2045(19)30145-7
4. NCCP Classification Document for Systemic Anti-Cancer Therapy (SACT) Induced Nausea and Vomiting. V5 2023. Available at: https://www.hse.ie/eng/services/list/5/cancer/profinfo/chemoprotocols/nccp-classification-document-for-systemic-anti-cancer-therapy-sact-induced-nausea-and-vomiting.pdf
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| Version | Date | Amendment | Approved By |
|---|---|---|---|
| 1 | 30/05/2022 | | Dr Patrick Hayden |

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|---|---|---|---|
| 2 | 20/11/2023 | Reviewed. Updated dexamethasone to tallman lettering. Added diluent and rate column to treatment tables. Amended baseline tests section. Updated renal dose modifications for bortezomib as per recommendations by Krens et al 2019 | Dr Patrick Hayden |
| 2a | 13/02/2024 | Amended COMPANY SUPPORT RESOURCES/Useful links section | NCCP |
| 2b | 27/11/2024 | Updated emetogenic potential section with standard wording. | NCCP |

Comments and feedback welcome at oncologydrugs@cancercontrol.ie