

Multiple myeloma daratumumab maintenance

ID: 3629 v.2 Endorsed

⚠ Blood transfusion warning:

Interference with indirect antiglobulin tests may occur. Please notify your blood transfusion laboratory and send a blood sample for extended red blood cell phenotype and RBC antibody screen BEFORE the first dose of daratumumab.

If an emergency transfusion is required, non-cross-matched ABO/RhD-compatible RBCs can be given as per local blood bank practices. Please refer to the [ANZSBT/MSAG position paper](#).¹

This protocol is different from daratumumab monotherapy. It is intended for daratumumab maintenance following chemotherapy administration.

Patients with myeloma should be considered for inclusion into clinical trials. Link to [ALLG website](#) and [ANZCTR website](#).

Link to [Medical Scientific Advisory Group \(MSAG\) Clinical Practice Guideline Multiple Myeloma](#)

The anticancer drug(s) in this protocol may have been included in the ADDIKD guideline. Dose recommendations in kidney dysfunction have yet to be updated to align with the ADDIKD guideline. Recommendations will be updated once the individual protocol has been evaluated by the reference committee. For further information refer to the ADDIKD guideline. To assist with calculations, use the [eviQ Estimated Glomerular Filtration Rate \(eGFR\) calculator](#).

International Consensus Guideline for Anticancer Drug Dosing in Kidney Dysfunction (ADDIKD)

2022

[Click here](#)



Related pages:

- [Multiple myeloma DVd \(daratumumab bortezomib dexamethasone\) overview](#)
- [Multiple myeloma D-VMP \(daratumumab bortezomib melphalan prednisolone\) overview](#)

Treatment schedule - Overview

Cycle 1 and further cycles

Drug	Dose	Route	Day
Daratumumab	16 mg/kg	IV infusion	1

Frequency: 28 days

Cycles: Continuous until disease progression or unacceptable toxicity.

Notes:

- Daratumumab may be administered subcutaneously as a flat dose of 1,800 mg. For more information see [ID 4084 Multiple myeloma daratumumab subcutaneous](#).
- For patients with a history of chronic obstructive pulmonary disease or asthma, consider the use of post-infusion medications, including short and long-acting bronchodilators, and inhaled corticosteroids. Inhaled post-infusion medications may be discontinued following the fourth infusion, at the discretion of the treating clinician if the patient experiences no major IRRs.²

Drug status: Daratumumab: (PBS authority)

Cost: ~ \$7,360

Treatment schedule - Detail

The supportive therapies (e.g. antiemetics, premedications, etc.), infusion times, diluents, volumes and routes of administration, if included, are listed as defaults. They may vary between institutions and can be substituted to reflect individual institutional policy.

Antiemetics if included in the treatment schedule are based upon recommendations from national and international guidelines. These are **defaults only** and may be substituted to reflect individual institutional policy. Select here for recommended doses of alternative antiemetics.

Cycle 1 and further cycles

Day 1		
Paracetamol	1,000 mg (PO)	1 to 3 hours before treatment
Loratadine	10 mg (PO)	1 to 3 hours before treatment
Dexamethasone	12 mg (PO)	1 to 3 hours before treatment
Daratumumab	16 mg/kg (IV infusion)	in 500 mL sodium chloride 0.9% as per graded administration rate
Day 2 and 3		
Dexamethasone	4 mg (PO)	ONCE a day. Take in the morning with food.* Note: Dose(s) may be reduced or omitted at the clinicians discretion.

* For those who are at high risk for post infusion reaction or with a history of COPD or asthma

Frequency: 28 days

Cycles: Continuous until disease progression or unacceptable toxicity.

Indications and patient population

- Newly diagnosed multiple myeloma in patients who are ineligible for autologous stem cell transplant, following 9 cycles of D-VMP (daratumumab bortezomib melphalan prednisolone)
- Relapsed/refractory multiple myeloma after at least one prior line of therapy, following 8 cycles of DVd (daratumumab bortezomib dexamethasone)

Clinical information

Venous access required	IV cannula (IVC) or central venous access device (CVAD) is required to administer this treatment. Read more about central venous access device line selection
Hypersensitivity/infusion-related reaction	High risk with daratumumab. Infusion-Related Reactions (IRRs) can occur with administration of IV or SC daratumumab. Hypersensitivity risk is greatest with the first dose of daratumumab, and is higher in IV than SC administration. ³ Close monitoring during and after administration is recommended. ⁴

<p>Pre and post-treatment medication</p>	<p>The product information states that pre- and post-treatment medication is required for this treatment.</p> <p>Please refer to the treatment schedule for the suggested pre- and post-treatment medication regimen. This may be substituted to reflect institutional policy.</p> <p>For patients with a history of chronic obstructive pulmonary disease, consider the use of post-treatment medications including short and long acting bronchodilators, and inhaled corticosteroids. Following the first four infusions or injections, if the patient experiences no major infusion-related reactions (IRRs), these inhaled post-treatment medications may be discontinued at the discretion of the treating clinician.</p>
<p>Daratumumab rapid infusion</p>	<p>Administration of daratumumab by rapid infusion is not in line with the product monograph, however published literature indicates that it can be completed safely.</p> <p>Read more about daratumumab rapid infusion</p>
<p>Emetogenicity MINIMAL</p>	<p>No antiemetics should be routinely administered before treatment in patients without a history of nausea and vomiting. If patients experience nausea and/or vomiting, consider using the low antiemetic prophylaxis regimen.</p> <p>Read more about preventing anti-cancer therapy induced nausea and vomiting</p>
<p>Bone modifying agents</p>	<p>Use of a bone modifying agent (BMA) should be considered in all patients with symptomatic myeloma requiring treatment. For patients with newly diagnosed symptomatic myeloma, zoledronic acid, pamidronate or denosumab should be considered for monthly administration (adjust for kidney dysfunction where appropriate) for up to 2 years. A longer duration of therapy may be appropriate (MRC M IX trial).⁵</p> <p>For more information, please see the following protocols: ID 137 Multiple myeloma zoledronic acid ID 147 Multiple myeloma pamidronate ID 3964 Multiple myeloma denosumab - note denosumab is TGA approved but not PBS reimbursed for this indication.</p>
<p>Bisphosphonates and dental review</p>	<p>Caution should be taken with prolonged use of bisphosphonates due to the risk of osteonecrosis of the jaw (ONJ). A dental review prior to treatment is recommended, and all dental issues treated before the initiation of bisphosphonates. Dental review 6 to 12 monthly during treatment is advisable to minimise risk of ONJ. Concurrent daily oral supplements of calcium 500 mg and vitamin D 400 International Units are recommended.</p> <p>Read more about medication-related osteonecrosis of the jaw (MRONJ)</p>
<p>Interference with indirect antiglobulin test (indirect Coombs test)</p>	<p>Daratumumab binds to CD38 found at low levels on red blood cells (RBCs) and may result in a positive indirect Coombs test.</p> <p>Daratumumab-mediated positive indirect Coombs test may persist for up to 6 months after the last dose of daratumumab. Daratumumab bound to RBCs may cause panagglutination during pretransfusion indirect Coombs tests and may therefore mask detection of alloantibodies to red blood antigens in the patient's serum.</p> <p>Extended red cell phenotyping and RBC antibody screen should be done for patients prior to starting daratumumab.</p> <p>Please refer to the ANZSBT/MSAG position paper.¹</p>
<p>Interference with serum protein electrophoresis and immunofixation tests</p>	<p>Daratumumab may be detected on serum protein electrophoresis (SPE) and immunofixation (IFE) assays used for monitoring disease monoclonal immunoglobulins (M protein), which can lead to false positive assay results in patients with IgG kappa myeloma protein. The initial assessment of complete responses by the International Myeloma Working Group (IMWG) criteria may be affected.</p> <p>For patients with persistent very good partial response other methods to evaluate the depth of response should be considered if it was to impact on management strategy.</p>
<p>Pneumocystis jirovecii pneumonia (PJP) prophylaxis</p>	<p>Read more about prophylaxis of pneumocystis jirovecii (carinii) in cancer patients</p>
<p>Antiviral prophylaxis</p>	<p>Read more about antiviral prophylaxis drugs and doses</p>

Thromboprophylaxis	Thromboprophylaxis should be considered based on an individual benefit/risk assessment and at clinician discretion. Read more about the prophylaxis of venous thromboembolism (VTE) in multiple myeloma
Growth factor support	G-CSF (short or long-acting) is available on the PBS for chemotherapy induced neutropenia depending on clinical indication and/or febrile neutropenia risk. Access the PBS website
Blood tests	FBC, EUC, LFTs, calcium, magnesium and phosphate at baseline and prior to each treatment.
Hepatitis B screening and prophylaxis	Routine screening for HBsAg and anti-HBc is recommended prior to initiation of treatment. Prophylaxis should be determined according to individual institutional policy. Read more about hepatitis B screening and prophylaxis in cancer patients requiring cytotoxic and/or immunosuppressive therapy
Vaccinations	Live vaccines are contraindicated in cancer patients receiving immunosuppressive therapy and/or who have poorly controlled malignant disease. Refer to the recommended schedule of vaccination for immunocompromised patients, as outlined in the Australian Immunisation Handbook . Read more about COVID-19 vaccines and cancer .
Fertility, pregnancy and lactation	Cancer treatment can have harmful effects on fertility and this should be discussed with all patients of reproductive potential prior to commencing treatment. There is a risk of foetal harm in pregnant women. A pregnancy test should be considered prior to initiating treatment in females of reproductive potential if sexually active. It is important that all patients of reproductive potential use effective contraception whilst on therapy and after treatment finishes. Effective contraception methods and adequate contraception timeframe should be discussed with all patients of reproductive potential. Possibility of infant risk should be discussed with breastfeeding patients. Read more about the effect of cancer treatment on fertility

Dose modifications

Evidence for dose modifications is limited, and the recommendations made on eviQ are intended as a guide only. They are generally conservative with an emphasis on safety. Any dose modification should be based on clinical judgement, and the individual patient's situation including but not limited to treatment intent (curative vs palliative), the anti-cancer regimen (single versus combination therapy versus chemotherapy versus immunotherapy), biology of the cancer (site, size, mutations, metastases), other treatment related side effects, additional co-morbidities, performance status and patient preferences. Suggested dose modifications are based on clinical trial findings, product information, published guidelines and reference committee consensus. The dose reduction applies to each individual dose and not to the total number of days or duration of treatment cycle unless stated otherwise. Non-haematological gradings are based on [Common Terminology Criteria for Adverse Events \(CTCAE\)](#) unless otherwise specified. Renal and hepatic dose modifications have been standardised where possible. For more information see dosing considerations & disclaimer.

Note: The modifications in this section are as recommended in the product information.²

No dose reductions are recommended for daratumumab. Dose may be delayed until blood cell count recovery if haematological toxicity occurs.

Infusion-related reactions (IRRs)

- For IRRs of any grade/severity, immediately interrupt the daratumumab infusion and manage symptoms.
- Management of IRRs may further require reduction in the rate of infusion, or treatment discontinuation of daratumumab.

Interactions

Drug interactions in eviQ protocols are under review and being updated to align with current literature. Further site-wide updates and changes will occur in due course. [References & Disclaimer](#)

The drug interactions shown below are not an exhaustive list. For a more comprehensive list and for detailed information on specific drug

interactions and clinical management, please refer to the specific drug product information and the following key resources:

- [MIMS - interactions tab](#) (includes link to a CYP-450 table) (login required)
- [Australian Medicines Handbook \(AMH\) – interactions tab](#) (login required)
- [Micromedex Drug Interactions](#) (login required)
- [Cancer Drug Interactions](#)
- [Cytochrome P450 Drug Interactions](#)

Daratumumab

No drug-drug interaction studies have been performed. Clinical pharmacokinetic assessments of daratumumab in combination with lenalidomide, pomalidomide, thalidomide, bortezomib and dexamethasone indicated no clinically-relevant drug-drug interaction

Administration

eviQ provides safe and effective instructions on how to administer cancer treatments. However, eviQ does not provide every treatment delivery option, and is unable to provide a comprehensive list of cancer treatment agents and their required IV line giving set/filter. There may be alternative methods of treatment administration, and alternative supportive treatments that are also appropriate. Please refer to the individual product information monographs via the [TGA](#) website for further information.

Day 1

Approximate treatment time: 4 hours

[Handling of monoclonal antibodies and waste management](#)

[Safe administration](#)

[General patient assessment](#) prior to each day of treatment.

Any toxicity grade 2 or greater may require delay of treatment and review by medical officer before commencing treatment.

Prime required IV lines with sodium chloride 0.9%:

- low protein-binding polyethersulfone (PES) filter (pore size 0.22 or 0.2 micrometre), polyurethane (PU), polybutadiene (PBD), polyvinyl chloride (PVC), polypropylene (PP) or polyethylene (PE) administration sets must be used for daratumumab.
- attach a second IV line via a luer lock connector as close as possible to the site of injection
 - this may be required in case of a hypersensitivity reaction.

Insert IV cannula or access [TIVAD](#) or [CVAD](#).

🕒 Treatment - Time out

Daratumumab

Prior to administration:

- check for any adverse events during previous infusion. If previous reaction occurred, please refer to the daratumumab infusion table.
- check baseline observations
- verify premedication has been taken. If not, administer 1 to 3 hours prior to daratumumab administration:
 - paracetamol 1000 mg orally AND
 - loratadine 10 mg orally (or similar antihistamine)
 - a corticosteroid should be included as a premed according to local guidelines unless a regimen-specific corticosteroid is indicated

Subsequent infusions in 500 mL sodium chloride 0.9%:

If previous reaction occurred, please refer to the daratumumab infusion table.

If **no** adverse event experienced with previous infusions:

- **commence** daratumumab infusion at 100 mL/hr
- repeat observations prior to each rate increase

- **increase rate** by 50 mL/hr increments every hour to a maximum of 200 mL/hr if observations are stable
- flush with ~ 100 mL of sodium chloride 0.9%

If an infusion reaction occurs, temporarily discontinue the infusion and notify medical officer

- when symptoms have resolved, recommence the infusion at **half the rate** prior to the reaction
- for severe reactions **stop** infusion and manage as per emergency

Read more about daratumumab rapid infusion

Remove IV cannula and/or deaccess [TIVAD](#) or [CVAD](#).

Discharge information

Antiemetics

- Antiemetics if required or prescribed.

Growth factor support

- Arrangements for administration if prescribed.

Prophylaxis medications

- Prophylaxis medications (if prescribed) i.e. tumour lysis prophylaxis, PJP prophylaxis, antivirals.

Patient information

- Ensure patient receives patient information sheet.

Side effects

The side effects listed below are not a complete list of all possible side effects for this treatment. Side effects are categorised into the approximate onset of presentation and should only be used as a guide.

Immediate (onset hours to days)

Hypersensitivity reaction

Anaphylaxis and infusion related reactions can occur with this treatment.
Read more about [hypersensitivity reaction](#)

Early (onset days to weeks)	
Neutropenia	Abnormally low levels of neutrophils in the blood. This increases the risk of infection. Any fever or suspicion of infection should be investigated immediately and managed aggressively. Read more about immediate management of neutropenic fever
Thrombocytopenia	A reduction in the normal levels of functional platelets, increasing the risk of abnormal bleeding. Read more about thrombocytopenia
Arthralgia and myalgia	Generalised joint pain or and/or stiffness and muscle aches, often worse upon waking or after long periods of inactivity. Can improve with movement. May be mild or severe, intermittent or constant and accompanied by inflammation. Read more about arthralgia and myalgia
Fatigue	Read more about fatigue
Fever	
Nausea and vomiting	Read more about prevention of treatment induced nausea and vomiting
Respiratory tract infection	
Thromboembolism	Venous thromboembolism (VTE), including deep vein thrombosis (DVT) and pulmonary embolism (PE) is significantly increased in multiple myeloma patients treated with thalidomide in combination with other therapies including doxorubicin, melphalan and prednisolone or dexamethasone; and lenalidomide and pomalidomide in combination with dexamethasone. Read more about management of thromboembolism (VTE) in multiple myeloma
Thromboembolism	Thromboembolic events, including pulmonary embolism, deep vein thrombosis and cerebrovascular accidents can occur. Thromboprophylaxis should be considered based on an individual benefit/risk assessment and at clinician discretion. Read more about management of thromboembolism (VTE) in multiple myeloma

Late (onset weeks to months)	
Anaemia	Abnormally low levels of red blood cells (RBCs) or haemoglobin in the blood. Read more about anaemia
Anorexia	Loss of appetite accompanied by decreased food intake. Read more about anorexia
Constipation	
Diarrhoea	Read more about treatment induced diarrhoea

Evidence

The efficacy and toxicity data are addressed in the "parent" eviQ regimens. The eviQ reference committee directs you to the following links that detail the relevant evidence and toxicity sections:

- [ID 3611 Multiple myeloma DVd \(daratumumab bortezomib dexamethasone\)](#)
- [ID 3612 Multiple myeloma D-VMP \(daratumumab bortezomib melphalan prednisolone\)](#)

References

- 1 Quach, H., S. Benson, H. Haysom, et al. 2018. "Considerations for pre-transfusion immunohaematology testing in patients receiving the anti-CD38 monoclonal antibody daratumumab for the treatment of multiple myeloma." *Intern Med J* 48(2):210-220.
- 2 Janssen-Cilag Pty Ltd. Product Information Darzalex®. Date of First Approval 17 July 2017, Date of most recent amendment 28 October 2022

- 3 Mateos, M. V., H. Nahi, W. Legiec, et al. 2020. "Subcutaneous versus intravenous daratumumab in patients with relapsed or refractory multiple myeloma (COLUMBA): a multicentre, open-label, non-inferiority, randomised, phase 3 trial." *Lancet Haematol* 7(5): e370-e380.
- 4 King, T. A., J. Jagger, J. Wood, et al. 2018. "Best Practice for the Administration of Daratumumab in Multiple Myeloma: Australian Myeloma Nurse Expert Opinion." *Asia Pac J Oncol Nurs*
- 5 Morgan, G. J., J. A. Child, W. M. Gregory, et al. 2011. "Effects of zoledronic acid versus clodronic acid on skeletal morbidity in patients with newly diagnosed multiple myeloma (MRC Myeloma IX): secondary outcomes from a randomised controlled trial." *Lancet Oncol* 12(8):743-752.

Bibliography

King, T. A., J. Jagger, J. Wood, et al. 2018. "Best Practice for the Administration of Daratumumab in Multiple Myeloma: Australian Myeloma Nurse Expert Opinion." *Asia Pac J Oncol Nurs*

History

Version 2

Date	Summary of changes
30/04/2021	Protocol electronically reviewed by Haematology reference committee. Daratumumab rapid infusion link added to clinical information and administration. Drug cost added. Treatment schedule, interactions and side effects updated. For review in 2 years.
14/10/2022	The following changes have been made with the consensus agreement of the Haematology Reference Committee: <ul style="list-style-type: none"> • Link to Medical Scientific Advisory Group (MSAG) guidelines updated • Note regarding subcutaneous daratumumab added to treatment schedule • Bone modifying agents block added to "Clinical information" section, related note removed from treatment schedule and linked pages removed • Pre and post-treatment medication block streamlined • Thromboprophylaxis information added to "Clinical information" section • Discharge thromboprophylaxis information removed from "Administration" section • Thromboembolism side effect updated

Version 1

Date	Summary of changes
24/05/2019	New eviQ multi-indication protocol presented at Haematology Reference Committee meeting.
08/07/2019	Approved and published on eviQ.
10/10/2019	Clinical information updated with PBS expanded indications for G-CSF.

The information contained in this protocol is based on the highest level of available evidence and consensus of the eviQ reference committee regarding their views of currently accepted approaches to treatment. Any clinician (medical oncologist, haematologist, radiation oncologist, medical physicist, radiation therapist, pharmacist or nurse) seeking to apply or consult this protocol is expected to use independent clinical judgement in the context of individual clinical circumstances to determine any patient's care or treatment. While eviQ endeavours to link to reliable sources that provide accurate information, eviQ and the Cancer Institute NSW do not endorse or accept responsibility for the accuracy, currency, reliability or correctness of the content of linked external information sources. Use is subject to eviQ's disclaimer available at www.eviq.org.au

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The currency of this information is guaranteed only up until the date of printing, for any updates please check:

<https://www.eviq.org.au/p/3629>

13 Jun 2023

Patient information - Multiple myeloma - Daratumumab maintenance

Patient's name:


Your treatment

The treatment schedule below explains how the drug for this treatment is given.

Daratumumab			
This treatment cycle is repeated every 28 days. Your doctor will advise you of the number of treatments you will have.			
Day	Treatment	How it is given	How long it takes
1	Daratumumab (<i>dara-toom-oo-mab</i>)	By a drip into a vein	About 4 to 5 hours

When to get help

Anticancer drugs (drugs used to treat cancer) can sometimes cause serious problems. It is important to get medical help immediately if you become unwell.

 IMMEDIATELY go to your nearest hospital Emergency Department, or contact your doctor or nurse if you have any of the following at any time:	Emergency contact details Ask your doctor or nurse from your treating team who to contact if you have a problem
	Daytime:..... Night/weekend:..... Other instructions:.....

- a temperature of 38°C or higher
- chills, sweats, shivers or shakes
- shortness of breath
- uncontrolled vomiting or diarrhoea
- pain, tingling or discomfort in your chest or arms
- you become unwell.

Before starting daratumumab, my blood test results collected on (date) _____ were:

Blood type: A B AB O Rh+ Rh-

Indirect Coombs test (antibody screen) was: Negative Positive for the following antibodies:.....

Other:.....

Contact details of institution where the blood tests were performed:.....

During your treatment immediately tell the doctor or nurse looking after you if you get any of the following problems:

- leaking from the area where the drugs are being given
- pain, stinging, swelling or redness in the area where the drugs are being given or at any injection sites
- a skin rash, itching, feeling short of breath, wheezing, fever, shivers, or feeling dizzy or unwell in any way (allergic reaction).

Other information about your treatment

Treatment delays

There may be times when your treatment is delayed. This can happen if your doctor thinks you are likely to have severe side effects, if you get severe side effects, if your blood counts are affected and causing delays in treatment, or if you are finding it hard to cope with the treatment. Your doctor will explain if you need any delays to your treatment and the reason why.

Blood tests and monitoring

You will need to have a blood test before you start treatment and regularly throughout your treatment. Your doctor or nurse will tell you when to have these blood tests.

Central venous access devices (CVADs)

This treatment may involve having chemotherapy through a central venous access device (CVAD). Your doctor or nurse will explain this to you. For more information, see the [eviQ patient information sheets](#) on CVADs.

Other medications given during this treatment

- **Anti-sickness (anti-nausea) medication:** you may be given some anti-sickness medication. Make sure you take this medication as your doctor or nurse tells you, even if you don't feel sick. This can help to prevent the sickness starting.
- **Prophylaxis medication:** you may need to take some medications to prevent infection and to help prevent or reduce some of the side effects of the chemotherapy. Your doctor or nurse will tell you how and when to take these medications.
- **G-CSF:** you may be given injection(s) of a drug called G-CSF (also called filgrastim, lipegfilgrastim or pegfilgrastim) under your skin. This helps to boost your white blood cell count. Your white blood cells help to fight infection. Lipegfilgrastim and pegfilgrastim are given once. Filgrastim is given for several days until your white blood cells recover. Your doctor will decide if you need this medication.
- **Daratumumab pre and post-treatment medication:** before your treatment with daratumumab you will need to take some tablets called a premedication to help prevent you from having a reaction. After your daratumumab infusion or injection you may be given some additional corticosteroid tablets called post-treatment medication to prevent further reactions.

Side effects

Cancer treatments can cause damage to normal cells in your body, which can cause side effects. Everyone gets different side effects, and some people will have more problems than others.

The table below shows some of the side effects you may get with this treatment. You are unlikely to get all of those listed and you may also get some side effects that have not been listed.

Tell your doctor or nurse about any side effects that worry you. Follow the instructions below and those given to you by your doctor or nurse.

Immediate (onset hours to days)

Allergic reaction

- Allergic reactions are uncommon but can be life threatening.
- **If you feel unwell during the infusion or shortly after it, or:**
 - **get a fever, shivers or shakes**
 - **feel dizzy, faint, confused or anxious**
 - **start wheezing or have difficulty breathing**
 - **have a rash, itch or redness of the face**

While you are in hospital: Tell your doctor or nurse immediately.

After you leave: Contact your doctor or nurse immediately, or go to the nearest hospital Emergency Department.

Early (onset days to weeks)

Infection risk (neutropenia)	<ul style="list-style-type: none"> • This treatment lowers the amount of white blood cells in your body. The type of white blood cells that help to fight infection are called neutrophils. Having low level of neutrophils is called neutropenia. If you have neutropenia, you are at greater risk of getting an infection. It also means that your body can't fight infections as well as usual. This is a serious side effect, and can be life threatening. • Wash your hands often. • Keep a thermometer at home and take your temperature regularly, and if you feel unwell. • Do your mouth care regularly. • Inspect your central line site (if you have one) daily for any redness, pus or swelling. • Limit contact with people who are sick. • Learn how to recognise the signs of infection. • Ask your doctor or nurse for eviQ patient information - Infection during cancer treatment. • Tell your doctor or nurse immediately, or go to the nearest hospital Emergency Department if you get any of the following signs or symptoms: <ul style="list-style-type: none"> ◦ a temperature of 38°C or higher ◦ chills, shivers, sweats or shakes ◦ a sore throat or cough ◦ uncontrolled diarrhoea ◦ shortness of breath ◦ a fast heartbeat ◦ become unwell even without a temperature.
Low platelets (thrombocytopenia)	<ul style="list-style-type: none"> • This treatment lowers the amount of platelets in your blood. Platelets help your blood to clot. When they are low, you are at an increased risk of bleeding and bruising. • Try not to bruise or cut yourself. • Avoid contact sport or vigorous exercise. • Clear your nose by blowing gently. • Avoid constipation. • Brush your teeth with a soft toothbrush. • Don't take aspirin, ibuprofen or other similar anti-inflammatory medications unless your doctor tells you to. • Tell your doctor or nurse if you have any bruising or bleeding. • Tell your doctor or nurse immediately, or go to your nearest hospital Emergency Department if you have any uncontrolled bleeding.
Joint and muscle pain and stiffness	<ul style="list-style-type: none"> • You may get muscle, joint or general body pain and stiffness. • Applying a heat pack to affected areas may help. • Talk to your doctor or nurse about other ways to manage these symptoms. You may need medication to help with any pain.
Tiredness and lack of energy (fatigue)	<ul style="list-style-type: none"> • You may feel very tired, have no energy, sleep a lot, and not be able to do normal activities or things you enjoy. • Do not drive or operate machinery if you are feeling tired. • Nap for short periods (only 1 hour at a time) • Prioritise your tasks to ensure the best use of your energy. • Eat a well balanced diet and drink plenty of fluids (unless you are fluid restricted). • Try some gentle exercise daily. • Allow your friends and family to help. • Tell your doctor or nurse if you get any of the symptoms listed above.
Fever	<ul style="list-style-type: none"> • You may feel warm. • Tell your doctor or nurse if you get this symptom.

Nausea and vomiting	<ul style="list-style-type: none"> • You may feel sick (nausea) or be sick (vomit). • Drink plenty of fluids (unless you are fluid restricted). • Eat small meals more frequently. • Try food that does not require much preparation. • Try bland foods like dry biscuits or toast. • Gentle exercise may help with nausea. • Anti-sickness medication is usually not needed but may help in some people. • Ask your doctor or nurse for eviQ patient information - Nausea and vomiting during cancer treatment. • Tell your doctor or nurse immediately, or go to the nearest hospital Emergency Department if you have uncontrolled vomiting or feel dizzy or light-headed.
Chest infection	<ul style="list-style-type: none"> • You can develop a chest infection whilst receiving this treatment. • Tell your doctor or nurse as soon as possible if you get any of the following symptoms: <ul style="list-style-type: none"> ◦ shortness of breath ◦ difficulty breathing ◦ wheezing ◦ coughing up mucus
Blood clots (thromboembolism)	<ul style="list-style-type: none"> • Blood clots can occur with this treatment. • Tell your doctor or nurse immediately, or go to the nearest hospital Emergency Department if you get any of the following signs or symptoms: <ul style="list-style-type: none"> ◦ redness, heat or pain in your leg(s) ◦ numbness or weakness in your face, arm or leg ◦ chest pain ◦ sudden shortness of breath ◦ dizziness ◦ trouble speaking ◦ blurred vision ◦ severe headache ◦ unexplained falls or loss of balance.

Late (onset weeks to months)	
Low red blood cells (anaemia)	<ul style="list-style-type: none"> You may feel dizzy, light-headed, tired and appear more pale than usual. Tell your doctor or nurse if you have any of these signs or symptoms. You might need a blood transfusion. Tell your doctor or nurse immediately, or go to the nearest hospital Emergency Department if you have any chest pain, trouble breathing, or feel like your heart is racing.
Appetite loss (anorexia)	<ul style="list-style-type: none"> You may not feel like eating. Try to avoid drinking fluids at meal times. Try to eat small meals or snacks regularly throughout the day. Try to eat food that is high in protein and calories. If you are worried about how much food you can eat, or if you are losing weight, ask to speak to a dietitian.
Constipation	<ul style="list-style-type: none"> You may have bowel motions (stools, poo) that are less frequent, harder, smaller, painful or difficult to pass. You may also get: <ul style="list-style-type: none"> bloating, cramping or pain a loss of appetite nausea or vomiting. Drink plenty of fluids (unless you are fluid restricted). Eat plenty of fibre-containing foods such as fruit, vegetables and bran. Take laxatives as directed by your doctor. Try some gentle exercise daily. Tell your doctor or nurse if you have not opened your bowels for more than 3 days.
Diarrhoea	<ul style="list-style-type: none"> You may get bowel motions (stools, poo) that are more frequent or more liquid. You may also get bloating, cramping or pain. Take your anti-diarrhoeal medication as directed by your doctor. Drink plenty of fluids (unless you are fluid restricted). Eat and drink small amounts more often. Avoid spicy foods, dairy products, high fibre foods, and coffee. Ask your doctor or nurse for eviQ patient information - Diarrhoea during cancer treatment. Tell your doctor or nurse immediately, or go to your nearest hospital Emergency Department if your diarrhoea is not controlled, you have 4 or more loose bowel motions per day, and if you feel dizzy or light-headed.

General advice for people having cancer treatment

Blood clot risk

- Cancer and anticancer drugs can increase the risk of a blood clot (thrombosis).
- Tell your doctor if you have a family history of blood clots.
- A blood clot can cause pain, redness, swelling in your arms or legs, shortness of breath or chest pain.
- If you have any of these symptoms go to your nearest hospital Emergency Department.

Medications and vaccinations

- Before you start treatment, tell your doctor about any medications you are taking, including vitamins or herbal supplements.
- Don't stop or start any medications during treatment without talking to your doctor and pharmacist first.
- Paracetamol is safe to take if you have a headache or other mild aches and pains. It is recommended that you avoid taking aspirin, ibuprofen and other anti-inflammatory type medications for pain while you are having treatment. However, if these medications have been prescribed by your doctor, do not stop taking them without speaking with your doctor.
- Vaccinations such as flu and tetanus vaccines are safe to receive while having treatment. Do not have any live vaccines during your treatment or for 6 months after it finishes. If you are unsure, check with your doctor before you have any vaccinations.
- People you live with should be fully vaccinated, including having live vaccines according to the current vaccination schedule. Extra care needs to be taken with hand washing and careful disposal of soiled nappies for infants who have recently received the rotavirus vaccine.

Other medical and dental treatment

- If you go to hospital or any other medical appointment (including dental appointments), always tell the person treating you that you are receiving anticancer drugs.
- Before you have any dental treatment, talk to your doctor.

Diet and food safety

- While you are receiving this treatment it is important that you try to maintain a healthy diet.
- Speak to your doctor or nurse about whether drinking alcohol is safe with your treatment.
- If you have any concerns about recent weight loss or weight gain or questions about your diet, ask to speak to a dietitian.
- There are some foods that may cause infection in high risk individuals and should be avoided. For more information on foods to avoid and food hygiene please ask for a copy of the [Listeria and food brochure](#).

Fertility

- Some cancer treatments can reduce your fertility. This can make it difficult or impossible to get pregnant or father a child.
- Talk to your doctor or nurse before you start any treatment. Depending on your situation there may be fertility sparing options available to you and/or your partner, discuss these with your doctor or nurse.

Pregnancy and breastfeeding

- Some cancer treatments can be dangerous to unborn babies. Talk to your doctor or nurse if you think there is any chance that you could be pregnant.
- Do not try to get pregnant or father a child during this treatment. Contraception should be used during treatment and after stopping treatment. Ask your doctor or nurse about what type of contraception you should use.
- If you are planning pregnancy/fatherhood after completing this treatment, talk to your doctor. Some doctors advise waiting between 6 months and 2 years after treatment.
- Do not breastfeed if you are on this treatment, as anti-cancer medications can also pass into breast milk.

Sex life and sexuality

- The desire to have sex may decrease as a result of this treatment or its side effects.
- Your emotions and the way you feel about yourself may also be affected by this treatment.
- It may help to discuss your concerns with your partner and doctor or nurse.

Quitting smoking

- It is never too late to quit smoking. Quitting smoking is one of the best things you can do to help your treatment work better.
- There are many effective tools to improve your chances of quitting.
- Talk to your treating team for more information and referral to a smoking cessation support service.

Staying active

- Research shows that exercise, no matter how small, has many benefits for people during and after cancer treatment.
- Talk to your doctor before starting an exercise program. Your doctor can advise whether you need a modified exercise program.

For more information about cancer treatment, side effects and side effect management see our [Patient and carers section](#).

Where to get more information

Telephone support

- Call Cancer Council on 13 11 20 for cancer information and support
- Call the Leukaemia Foundation on 1800 620 420 (Mon to Fri 9am – 5pm)
- Call the Lymphoma Nurse Support Line on 1800 953 081 (Mon to Fri 9am - 5pm)

Haematology, transplant and cellular therapy information

- Arrow bone marrow transplant foundation – arrow.org.au
- Australasian Menopause Society – menopause.org.au
- Chris O'Brien Lifehouse - Total Body Irradiation - mylifehouse.org.au/departments/radiation-oncology/total-body-irradiation/
- Healthy Male Andrology Australia – healthymale.org.au/
- International Myeloma Foundation – myeloma.org

This document is a guide only and cannot cover every possible situation. The health professionals caring for you should always consider your individual situation when making decisions about your care. Contact your cancer clinic staff or doctor if you have any questions or concerns about your treatment, or you are having problems coping with side effects. While eviQ endeavours to link to reliable sources that provide accurate information, eviQ and the Cancer Institute NSW do not endorse or accept responsibility for the accuracy, currency, reliability or correctness of the content of linked external information sources. Use of this document is subject to eviQ's disclaimer available at www.eviq.org.au

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