

Neuroendocrine advanced lanreotide (somatuline autogel)

ID: 3841 v.1 Endorsed

Check for clinical trials in this patient group. Link to [Australian Clinical Trials](#) website

For patients with progressive disease, consider referral to or discussion with a centre experienced in NET management.

This protocol is based on limited evidence; refer to the evidence section of this protocol for more information.

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:

- [Neuroendocrine advanced octreotide \(sandostatin LAR\)](#)
 - [Neuroendocrine advanced lanreotide \(somatuline autogel\) 90 mg SUPERSEDED](#)
 - [Neuroendocrine advanced telotristat ethyl](#)
-
- [WHO 2019 classification of tumours of the digestive system](#)

Treatment schedule - Overview

Cycle 1 and further cycles

Drug	Dose	Route	Day
Lanreotide (Somatuline autogel)	120 mg	Subcut	1

Frequency: 28 days

Cycles: Continuous as clinically indicated and/or until disease progression or unacceptable toxicity

Drug status: Lanreotide (Somatuline autogel) is [PBS authority](#)

Cost: ~ \$1,540 per cycle

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

Day 1		
Lanreotide (Somatuline autogel)	120 mg (Subcut)	inject subcutaneously every 28 days

Frequency: 28 days

Cycles: Continuous as clinically indicated and/or until disease progression or unacceptable toxicity

Indications and patient population

Indications:

- Symptomatic control of carcinoid syndrome
- To prolong progression-free survival of WHO grade 1 or 2 unresectable locally advanced or metastatic gastroenteropancreatic neuroendocrine tumours (GEP-NETs).

Cautions:

- Insulinoma - possible increase in severity and duration of hypoglycaemia (consider treatment in consultation with NET specialist multidisciplinary team)
- History of gallstones
- History of thyroid dysfunction
- Diabetes
- Pre existing cardiac disease.

Clinical information

Functional imaging	<p>Short acting somatostatin analogues used for symptom control do not need to be stopped prior to somatostatin scintigraphy or PET/CT with somatostatin analogues. In patients receiving long-acting preparations, somatostatin receptor imaging should be scheduled shortly before the next injection.</p> <p>Somatostatin analogues affect biodistribution of the Gallium-68-DOTOTATE, leading to greater avidity/uptake in tumoural sites than normal tissues. Careful review of co-registered CT and use of consistent PET window thresholds is recommended to avoid misinterpretation as progression.</p> <p>Read more about the ENETS: NETs imaging guidelines.</p>
Carcinoid syndrome	<p>Neuroendocrine tumours may be associated with carcinoid syndrome.</p> <p>Read more about the management of carcinoid syndrome in the COSA and NCCN guidelines.</p>
Glucose regulation	<p>Somatostatin analogues (e.g. octreotide, lanreotide) affect glucose regulation.</p> <p>Monitoring of glucose tolerance and BSLs as required is recommended.</p> <p>Patients on hypoglycaemic medications may require a dose adjustment and should be closely observed during the introduction and withdrawal of octreotide/lanreotide.</p>
Gallstones	<p>Development of gallstones has been reported in patients on somatostatin analogues (e.g. octreotide, lanreotide).</p> <p>Consider ultrasonography examination of the gallbladder in patients on long term somatostatin analogues therapy.</p>
Thyroid dysfunction	<p>Somatostatin analogues (e.g. octreotide and lanreotide) have been associated with a decrease in thyroid function. Thyroid function tests are recommended where clinically indicated.</p>
Blood tests	<p>BSL and TFTs as clinically indicated.</p>

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.

The dose recommendations in kidney dysfunction (i.e. renal impairment) displayed may not reflect those in the ADDIKD guideline and have been included for historical reference only. Recommendations will be updated once the individual protocol has been evaluated by the reference committee, with this version of the protocol then being archived. Clinicians are expected to refer to the ADDIKD guideline prior to prescribing in kidney dysfunction.

[International Consensus Guideline for Anticancer Drug Dosing in Kidney Dysfunction \(ADDIKD\).](#)

Renal impairment

No dose modification necessary

Hepatic impairment

No dose modification necessary

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](#)

Lanreotide		
	Interaction	Clinical management
Cyclosporin	Reduced efficacy of cyclosporin due to reduced intestinal absorption caused by lanreotide	Monitor cyclosporin levels and clinical state; dose increase may be needed
Bromocriptine	Increased bioavailability of bromocriptine possible; mechanism unknown	Monitor for increased effect/toxicity of bromocriptine (e.g. psychiatric symptoms); consider dose reduction if necessary
Insulin/Oral antidiabetic drugs	Reduced insulin requirements/altered glucose tolerance and glycaemic control due to lanreotide's hormonal effects	Monitor glucose tolerance and blood glucose levels, adjusting dosages of hypoglycaemic agents if required
Bradycardia-inducing drugs (e.g. beta blockers)	Additive heart rate reduction with lanreotide	Monitor heart rate and adjust dose of interacting drugs if required
Drugs metabolised by CYP3A4 (e.g. atorvastatin, benzodiazepines, calcineurin inhibitors, clarithromycin, dihydroergotamine, simvastatin, etc.)	Increased effect/toxicity of these drugs possible due to suppression of growth hormone by lanreotide causing reduced activity of CYP3A4, resulting in reduced clearance	Caution advised if combination used; monitor for increased effect/toxicity of interacting drugs with low therapeutic index (e.g. digoxin, carbamazepine, warfarin)

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

Subcutaneous injection

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

Treatment - Time out

Lanreotide

Lanreotide (Somatuline autogel) is indicated for subcutaneous injection only.

- prepare lanreotide as per manufacturer's instructions immediately prior to administration
- administer by deep subcutaneous injection into the upper, outer quadrant of the buttock:
 - alternate between the left and right buttocks
 - insert needle at right angles to the skin
 - do not fold the skin prior to administration.

Discharge information

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)	
Nausea and vomiting	Read more about prevention of treatment induced nausea and vomiting
Flatulence	
Headache	
Injection-site reaction	Inflammation of or damage to the tissue surrounding the area where a drug was injected. Subcutaneous nodules at injection site are not uncommon.
Early (onset days to weeks)	
Diarrhoea	Diarrhoea due to pancreatic enzyme insufficiency is common. Determination of faecal elastase to establish the diagnosis is recommended, followed by pancreatic enzyme replacement. Use of supportive medication such as loperamide is recommended if no specific reason can be identified. Read more about treatment induced diarrhoea
Constipation	
Abdominal pain	Dull ache, cramping or sharp pains are common with some anti-cancer drugs. These are caused by either increased or decreased gastrointestinal motility and can be associated with diarrhoea or constipation.
Hyperglycaemia	High blood sugar, an excess of glucose in the blood stream.
Bradycardia	An abnormally slow heart rate of 60 beats per minute or less can occur with this treatment. Assess baseline cardiac status and history and monitor those with pre-existing cardiac disease.
Late (onset weeks to months)	
Hypothyroidism	
Cholelithiasis (gallstones)	Cholelithiasis (gallstones) and biliary colic have been associated with somatostatin analogues. Patients on long term treatment should have an ultrasound of their gallbladder every 6 to 12 months.
Vitamin deficiencies	Vitamin B12 and/or fat soluble vitamins (A, D, E, K) deficiencies have been reported in patients with long term somatostatin analogues use. This should be monitored and replaced as required. Expert dietitian input is recommended. Read more about nutritional issues in patients with GEP NETs .

Evidence

A search of the literature did not find strong evidence to support the use of lanreotide in the treatment of neuroendocrine tumours. The expert reference panel supported publication of the protocol on the basis of the information summarised below. The committee was most strongly influenced by two phase III, randomised, double-blind, placebo-controlled studies:

The multinational CLARINET study involving 204 patients comparing lanreotide with placebo in patients with advanced, well/moderately differentiated, non-functioning, somatostatin receptor-positive neuroendocrine tumors of grade 1 or 2. Patients were randomly assigned to receive lanreotide at a dose of 120 mg (101 patients) or placebo (103 patients) once every 28 days for 96 weeks. The primary endpoint was progression-free survival (PFS).¹

The ELECT study investigating the utility of lanreotide in controlling symptoms of carcinoid syndrome in patients with/without prior somatostatin analog use. 115 patients were randomized to receive lanreotide at a dose of 120 mg (59 patients) or placebo (56 patients) every 4 weeks for 16 weeks. The primary endpoint was percentage of days with rescue octreotide use.²

Current guidelines recommend dose optimisation in patients whose symptoms are inadequately controlled whilst on treatment. High-dose treatment with lanreotide (>120 mg/month) has shown to improve treatment outcomes without a significant change in safety and tolerability.³

Source	Study & year published	Supports use	Is the dose and regimen consistent with the protocol?	Comments
Phase III trials	Wolin et al 2017 ⁴	Yes	Yes	Antiproliferative
	Vinik et al 2016 ²	Yes	Yes	Symptom control
	Caplin et al 2014 ¹			Antiproliferative
Phase II trials	Martin-Richard et al 2013 ⁵	Yes	Yes	Antiproliferative
	Ruszniewski et al 2004 ⁶	Yes	Yes	Symptom control
Observational studies	Kang et al 2019 ⁷	Yes	No	Antiproliferative Lanreotide LAR 90/120 mg q4w
	Ruszniewski et al 2016 ⁸	Yes	No	Symptom control Lanreotide LAR 60-120 mg q4w
	Chadha et al 2009 ⁹	Yes	No	Antiproliferative Octreotide LAR 40-90 mg q4w
Guidelines	Date published/revised	Supports use	Is the dose and regimen consistent with the protocol?	Comments
ESMO	Jul 2020	Yes	Yes	Antiproliferative and symptom control
NCCN	V.2 Jul 2020	Yes	No doses stated	Antiproliferative and symptom control
BCCA	Nov 2018	Yes	Yes	Antiproliferative and symptom control
ENETS	Mar 2017	Yes	Yes	Antiproliferative and symptom control
CCO	Dec 2016	Yes	Yes	Antiproliferative and symptom control
COSA	Nov 2014	Yes	Yes	Antiproliferative and symptom control

Efficacy

A summary of the evidence supporting the effect of this protocol is below:

Outcome	Study	No. of patients	Control arm	Effect
Flushing	Ruszniewski et al 2004 ⁶	71	-	1.3 episodes*
Diarrhoea			-	1.1 episodes*
5-hydroxyindoleacetic acid			-	24%**
Chromogranin A			-	38%**
Percentage of days with rescue octreotide	Vinik et al 2016 ²	115	Placebo	-14.8%*** (95% CI; -26.8% to 2.8%)
Median PFS	Wolin et al 2017 ⁴	101	-	38.5 months; 95% CI 30.9 to 59.4

Outcome	Study	No. of patients	Control arm	Effect
	Caplin et al 2014 ¹	204	Placebo	Not reached, HR=0.47; 95% CI 0.30 to 0.73

* mean no. of episodes less than baseline

** decrease in median levels

*** absolute percentage difference between lanreotide group vs placebo group

Toxicity

Incidence of adverse events is summarised in the table below.⁴

Adverse events	Incidence of event (pooled data from CLARINET and CLARINET OLE)
	n=41 (%)
Diarrhoea	36.6
Abdominal pain	31.7
Constipation	22
Cholelithiasis	22
Headache	19.5
Nausea	19.5
Vomiting	19.5
Dizziness	17.1
Hypertension	17.1

References

- 1 Caplin, M. E., M. Pavel, J. B. Cwikla, et al. 2014. "Lanreotide in metastatic enteropancreatic neuroendocrine tumors." *N Engl J Med* 371(3):224-233.
- 2 Vinik, A. I., E. M. Wolin, N. Liyanage, et al. 2016. "Evaluation of Lanreotide Depot/Autogel Efficacy and Safety as a Carcinoid Syndrome Treatment (Elect): A Randomized, Double-Blind, Placebo-Controlled Trial." *Endocr Pract* 22(9):1068-1080.
- 3 Ludlam, W. H. and L. Anthony. 2011. "Safety review: dose optimization of somatostatin analogs in patients with acromegaly and neuroendocrine tumors." *Adv Ther* 28(10):825-841.
- 4 Wolin E.M. P.M., M. Pawel, J.B. Cwikla, et al. 2017. "Final progression-free survival (PFS) analyses for lanreotide autogel/depot 120 mg in metastatic enteropancreatic neuroendocrine tumors (NETs): The CLARINET extension study." *J Clin Oncol* 35(15):4089-4089.
- 5 Martín-Richard, M., B. Massutí, E. Pineda, et al. 2013. "Antiproliferative effects of lanreotide autogel in patients with progressive, well-differentiated neuroendocrine tumours: a Spanish, multicentre, open-label, single arm phase II study." *BMC Cancer* 13(1):427.
- 6 Ruszniewski, P., S. Ish-Shalom, M. Wymenga, et al. 2004. "Rapid and sustained relief from the symptoms of carcinoid syndrome: results from an open 6-month study of the 28-day prolonged-release formulation of lanreotide." *Neuroendocrinology* 80(4):244-251.
- 7 Kang, J., C. Yoo, H. S. Hwang, et al. 2019. "Efficacy and safety of lanreotide in Korean patients with metastatic, well-differentiated gastroenteropancreatic-neuroendocrine tumors: a retrospective analysis." *Invest New Drugs* 37(4):763-770.
- 8 Ruszniewski, P., J. W. Valle, C. Lombard-Bohas, et al. 2016. "Patient-reported outcomes with lanreotide Autogel/Depot for carcinoid syndrome: An international observational study." *Dig Liver Dis* 48(5):552-558.

- 9 Chadha, M. K., J. Lombardo, T. Mashtare, et al. 2009. "High-dose octreotide acetate for management of gastroenteropancreatic neuroendocrine tumors." *Anticancer Res* 29(10):4127-4130.

History

Version 1

Date	Summary of changes
23/10/2020	New protocol taken to Medical Oncology Reference Committee meeting.
24/11/2020	Approved and published on eviQ. Next review in 1 year.
10/02/2021	ID 3636 Neuroendocrine advanced telotristat added as a related page.
20/01/2022	Protocol reviewed electronically by Medical Oncology Reference Committee. No changes. Next review 2 years.

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

First approved: 23 October 2020
Last reviewed: 31 December 2021
Review due: 31 December 2023

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/3841>

12 Jul 2023

Patient information - Neuroendocrine cancer advanced - Lanreotide

Patient's name:

Your treatment

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

Lanreotide is a hormone drug that is used to control symptoms such as diarrhoea and flushing in people with neuroendocrine tumours.


Lanreotide (Somatuline autogel)

Lanreotide (Somatuline autogel) is a long acting drug and is given every 4 weeks. Your doctor will advise you of the number of treatments you will have. Your doctor may vary the dose depending on your response.

Day	Treatment	How it is given	How long it takes
1	Lanreotide (lan-REE-oh-tide)	Lanreotide is usually given in the buttock by your nurse or doctor. If you are administering the injection yourself, the injection should be given in the upper, outer side of your thigh. Use a different site each time the injection is given. Lanreotide injections should be stored in the refrigerator (not the freezer).	About 5 minutes

When to get help

This treatment 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
<ul style="list-style-type: none">• 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.	Daytime:..... Night/weekend:..... Other instructions:.....

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

- pain, stinging, swelling or redness around the injection site
- 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

Blood tests and monitoring

You may need to have blood tests while you are receiving this treatment. Your doctor or nurse will tell you when to have these blood tests.

Blood sugar levels

If you have diabetes you should monitor your blood sugar levels closely. Your diabetic medication may need to be adjusted because of the effects of lanreotide. Speak to your doctor or diabetes advisor.

Tell your doctor or nurse immediately if you have symptoms of low blood sugar (sweating, dizziness and increased heart rate) or symptoms of high blood sugar (tiredness, blurred vision, thirst and the need to urinate more often than normal).

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)	
Nausea and vomiting	<ul style="list-style-type: none">• You may feel sick (nausea) or be sick (vomit).• Take your anti-sickness medication as directed even if you don't feel sick.• 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.• 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.
Passing wind (flatulence)	<ul style="list-style-type: none">• You may need to pass wind more often than usual.• You may also feel bloated.• Drinking peppermint tea or peppermint water may be helpful.• Avoid spicy foods.• Ensure that you open your bowels regularly.
Headache	<ul style="list-style-type: none">• You can take paracetamol if you have a headache.• Tell your doctor or nurse immediately, or go to the nearest hospital Emergency Department if you get a very bad headache that is not helped by pain medication.
Injection-site reaction	<ul style="list-style-type: none">• At the injection site you may get pain, redness, swelling, bruising or rash.• Reactions can occur more than 24 hours after the injection.• These symptoms are usually not serious.• Tell your doctor or nurse immediately if you notice any redness or pain during or after treatment.

Early (onset days to weeks)	
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 antidiarrhoeal 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.
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.
Stomach pain	<ul style="list-style-type: none"> You may get: <ul style="list-style-type: none"> dull aches cramping or pain bloating or flatulence (gas). Tell your doctor or nurse immediately, or go to the nearest hospital Emergency Department if you have stomach pain that you are unable to control.
High blood sugar level (hyperglycaemia)	<ul style="list-style-type: none"> You may feel thirsty and need to urinate more often than normal. You may get repeated infections, especially thrush. If you are a diabetic you will need to have your blood sugar levels checked more often. You may also need to have your diabetes medication increased. Tell your doctor or nurse if you get any of the signs or symptoms listed above.
Slow heart rate (bradycardia)	<ul style="list-style-type: none"> You may get: <ul style="list-style-type: none"> a slow heart rate dizziness shortness of breath fainting. Tell your doctor if you have a history of heart problems or high blood pressure. Before or during treatment, you may be asked to have a test to see how well your heart is working. Tell your doctor or nurse immediately, or go to the nearest hospital Emergency Department if you get any of the symptoms listed above.

Late (onset weeks to months)	
Slow thyroid gland (hypothyroidism)	<ul style="list-style-type: none"> You may: <ul style="list-style-type: none"> fatigue and low energy levels depression slow heart rate unexplained weight gain intolerance to cold temperatures fatigued and aching muscles dry, coarse skin puffy face hair loss constipation problems with concentration You will have regular blood tests to check how well your thyroid is working Tell your doctor or nurse if you get any of the symptoms listed above.
Gallstones	<ul style="list-style-type: none"> You may get: <ul style="list-style-type: none"> right-sided stomach (abdominal) pain or tenderness upper back pain bloating, nausea or vomiting. Tell your doctor or nurse as soon as possible if you get any of the symptoms listed above.
Vitamin deficiencies	<p>You may get:</p> <ul style="list-style-type: none"> bone pain muscle weakness, muscle aches, or muscle cramps fatigued mood changes night blindness lightheaded pale skin a fast heartbeat shortness of breath easy bruising unexpected bleeding Tell your doctor or nurse immediately if you notice any of the above symptoms.

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.
- Vaccinations such as flu and tetanus vaccines are safe to receive while you are having treatment. If you are unsure, check with your doctor before you have any vaccinations.

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

- 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.

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

Neuroendocrine tumour information

- NeuroEndocrine Cancer Australia – neuroendocrine.org.au

General cancer information and support

- Australian Rare Cancer (ARC) Portal – arcportal.org.au/
- Beyondblue – beyondblue.org.au
- Cancer Australia – canceraustralia.gov.au
- Cancer Council Australia – cancer.org.au
- Cancer Voices Australia – cancervoicesaustralia.org
- CanTeen – canteen.org.au
- Carers Australia – carersaustralia.com.au
- CHILL Cancer related hair loss - scalpcooling.org
- eviQ Cancer Treatments Online – eviQ.org.au
- LGBTIQ+ People and Cancer - cancercouncil.com.au/cancer-information/lgbtqi

- Look Good Feel Better – lgfb.org.au
- Patient Information – patients.cancer.nsw.gov.au
- Radiation Oncology Targeting Cancer – targetingcancer.com.au
- Redkite – redkite.org.au
- Return Unwanted Medicines – returnmed.com.au
- Staying active during cancer treatment – patients.cancer.nsw.gov.au/coping-with-cancer/physical-wellbeing/staying-active

Quit smoking information and support

Quitting smoking is helpful even after you have been diagnosed with cancer. The following resources provide useful information and support to help you quit smoking. Talk to your treating team about any other questions you may have.

- Call Quitline on 13 QUIT (13 78 48)
- iCanQuit – iCanQuit.com.au
- Patient Information - patients.cancer.nsw.gov.au/coping-with-cancer/physical-wellbeing/quitting-smoking
- Quitnow – quitnow.gov.au

Additional notes:

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

First approved: 23 October 2020
Last reviewed: 31 December 2021
Review due: 31 December 2023

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

<https://www.eviq.org.au/pi/3841>

12 Jul 2023