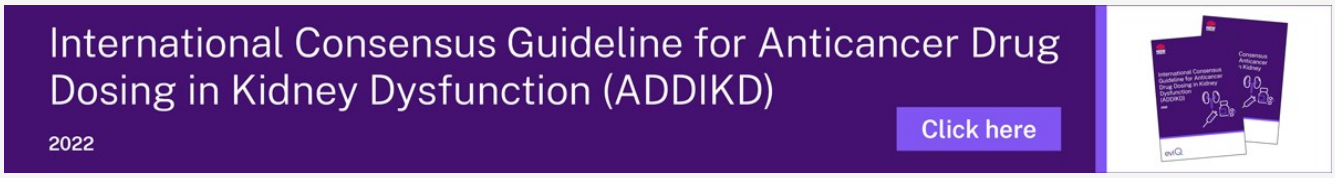
Hodgkin lymphoma ChlVPP (chlorambucil vinBLASTine procarbazine prednisolone)

ID: 371 v.4 **Endorsed** Essential Medicine List

Patients with lymphoma should be considered for inclusion into clinical trials. Link to ALLG website, ANZCTR website and Lymphoma Australia website.

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.



Treatment schedule - Overview

Cycle 1 to 6

Drug	Dose	Route	Day
Prednisolone	40 mg/m^2 ONCE a day (Cap dose at 60 mg)	PO	1 to 14
vinBLASTine	6 mg/m^2 (Cap dose at 10 mg)	IV	1 and 8
Procarbazine	100 mg/m^2 ONCE a day (Cap dose at 150 mg)	PO	1 to 14
Chlorambucil	6 mg/m^2 ONCE a day (Cap dose at 10 mg)	PO	1 to 14

Frequency: 28 days

Cycles: 6 to 8 cycles (complete remission + 2 cycles)

Notes:
Consider commencing with procarbazine 50 mg and increasing gradually by 50 mg increments after 5 to 6 days until full dose is reached as per procarbazine product information.

Drug status: **Chlorambucil, vinblastine** and **prednisolone** are on the PBS general schedule

Procarbazine: TGA registered for this indication but not PBS reimbursed

Chlorambucil is available as **2 mg** tablets
Procarbazine is available as **50 mg** capsules
Prednisolone is available as **25 mg**, **5 mg** and **1 mg** tablets

Cost: ~ $810 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 to 6

Day 1		
Granisetron	2 mg (PO)	60 minutes before chemotherapy. A dose reduction and/or omission of 5HT3 antagonist for subsequent doses of procarbazine may be considered depending on the patient's emetogenic response to the treatment.
Prednisolone	40 mg/m^2 (PO) (Cap dose at 60 mg)	ONCE a day on days 1 to 14. Take in the morning with food.
vinBLASTine	6 mg/m^2 (IV) (Cap dose at 10 mg)	in 50 mL sodium chloride 0.9% over 5 to 10 minutes
Procarbazine	100 mg/m^2 (PO) (Cap dose at 150 mg)	ONCE a day on days 1 to 14.
Chlorambucil	6 mg/m^2 (PO) (Cap dose at 10 mg)	ONCE a day on days 1 to 14.

Day 2 to 7		
Granisetron	2 mg (PO)	60 minutes before chemotherapy. A dose reduction and/or omission of 5HT3 antagonist for subsequent doses of procarbazine may be considered depending on the patient's emetogenic response to the treatment.
Prednisolone	40 mg/m^2 (PO) (Cap dose at 60 mg)	ONCE a day on days 1 to 14. Take in the morning with food.
Procarbazine	100 mg/m^2 (PO) (Cap dose at 150 mg)	ONCE a day on days 1 to 14.
Chlorambucil	6 mg/m^2 (PO) (Cap dose at 10 mg)	ONCE a day on days 1 to 14.

Day 8		
Granisetron	2 mg (PO)	60 minutes before chemotherapy. A dose reduction and/or omission of 5HT3 antagonist for subsequent doses of procarbazine may be considered depending on the patient's emetogenic response to the treatment.
Prednisolone	40 mg/m^2 (PO) (Cap dose at 60 mg)	ONCE a day on days 1 to 14. Take in the morning with food.
vinBLASTine	6 mg/m^2 (IV) (Cap dose at 10 mg)	in 50 mL sodium chloride 0.9% over 5 to 10 minutes
Procarbazine	100 mg/m^2 (PO) (Cap dose at 150 mg)	ONCE a day on days 1 to 14.
Chlorambucil	6 mg/m^2 (PO) (Cap dose at 10 mg)	ONCE a day on days 1 to 14.

Day 9 to 14		
Granisetron	2 mg (PO)	60 minutes before chemotherapy. A dose reduction and/or omission of 5HT3 antagonist for subsequent doses of procarbazine may be considered depending on the patient's emetogenic response to the treatment.
Prednisolone	40 mg/m^2 (PO)	ONCE a day on days 1 to 14. Take in the morning with

Day 9 to 14		
	(Cap dose at 60 mg)	food.
Procarbazine	100 mg/m^2 (PO) (Cap dose at 150 mg)	ONCE a day on days 1 to 14.
Chlorambucil	6 mg/m^2 (PO) (Cap dose at 10 mg)	ONCE a day on days 1 to 14.

Consider commencing with procarbazine 50 mg and increasing gradually by 50 mg increments after 5 to 6 days until full dose is reached as per procarbazine product information.

Frequency: 28 days

Cycles: 6 to 8 cycles (complete remission + 2 cycles)

Indications and patient population

- Advanced stage Hodgkin lymphoma
  - Used as either salvage or first line treatment in the elderly, particularly in those not suitable for anthracyclines or bleomycin.
  - Link to Lugano classification adapted from the Ann Arbor staging system with Cotswolds modifications
  - Link to International Prognostic Score (IPS)

Clinical information

Caution with oral anti-cancer drugs	Select links for information on the safe prescribing, dispensing and administration of orally administered anti-cancer drugs. Read more about the COSA guidelines and oral anti-cancer therapy
Procarbazine oral administration	Procarbazine is a weak monoamine oxidase inhibitor (MAOI) and has the potential to interact with certain medications, alcohol and food. For further information see *Interactions* section of the protocol.
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
Antiemetics for multi-day protocols	Antiemetic therapy should be administered throughout the duration of the chemotherapy protocol and to cover delayed nausea. The acute and delayed emetic risk of multi-day chemotherapy protocols will overlap depending on the individual drugs and their sequence of administration. More or less antiemetic cover may be required. MASCC Guidelines 2016 classify procarbazine as HIGHLY emetogenic, but in clinical practice a moderate antiemetic regimen may be sufficient to control nausea and/or vomiting. Omission of 5HT3 antagonist for subsequent doses of procarbazine may be considered depending on the patient's emetogenic response to the treatment Suggested default antiemetics have been added to the treatment schedule, and may be substituted to reflect institutional policy. As a steroid has been included as part of this protocol, additional antiemetic steroids are not required. Ensure that patients also have sufficient antiemetics for breakthrough emesis: Metoclopramide 10 mg three times a day when necessary (maximum of 30 mg/24 hours, up to 5 days) OR Prochlorperazine 10 mg PO every 6 hours when necessary. Read more about preventing anti-cancer therapy induced nausea and vomiting

Seizure risk	Chlorambucil is epileptogenic. Patients with a history of seizures or head trauma, or on other epileptogenic medications may be at increased risk of seizures with chlorambucil. Read more about drugs that may cause seizures
Peripheral neuropathy	Assess prior to each treatment. Based on clinical findings, temporary omission, dose reduction or cessation of the vinca alkaloid may be indicated; review by medical officer before commencing treatment. Read more about peripheral neuropathy Link to chemotherapy-induced peripheral neuropathy screening tool
Constipation	Prescribe prophylactic laxatives to prevent constipation related to the use of vinca alkaloids.
Corticosteroids	Diabetic patients should monitor their blood glucose levels closely. To minimise gastric irritation, advise patient to take immediately after food. Consider the use of a H2 antagonist or proton pump inhibitor if appropriate. Read more about acute short term effects from corticosteroids
Tumour lysis risk	Assess patient for risk of developing tumour lysis syndrome. Read more about prevention and management of tumour lysis syndrome.
Pneumocystis jirovecii pneumonia (PJP) prophylaxis	Read more about prophylaxis of pneumocystis jiroveci (carinii) in cancer patients
Antiviral prophylaxis	Read more about antiviral prophylaxis drugs and doses
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
Irradiated blood components	The use of irradiated of blood components is recommended for patients receiving this treatment. Read more about the indications for the use of irradiated blood components
Blood tests	FBC, EUC, eGFR, LFTs, LDH and BSL at baseline, prior to each treatment, and as clinically indicated.
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 .

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).

Note: All dose reductions are calculated as a percentage of the starting dose.

Haematological toxicity	
ANC x 10^9/L and Platelets x 10^9/L (pre-treatment blood test)[1]	
ANC less than or equal to 1.5 and/or platelets less than or equal to 100	Delay treatment until recovery

Renal impairment	
Creatinine clearance (mL/min)	
Patients with impaired renal function should be closely monitored as they are susceptible to myelosuppression from chlorambucil	
less than 30	Reduce chlorambucil by 50%. Consider dose reduction of procarbazine.

Hepatic impairment	
Hepatic dysfunction	
Mild	Reduce vinblastine by 25%
Moderate	Reduce vinblastine by 50%
Severe	Omit vinblastine and procarbazine. Consider dose reduction of chlorambucil.

Peripheral neuropathy [1]	
Grade 2 which is present at the start of the next cycle	Dose reduce or omit vinblastine

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*

Chlorambucil
No specific clinically significant drug-drug interactions

Prednisolone		
	Interaction	**Clinical management**
Antidiabetic agents (e.g. insulin, glibenclamide, glicazide, metformin, pioglitazone, etc)	The efficacy of antidiabetic agents may be decreased	Use with caution and monitor blood glucose
Azole antifungals (e.g. fluconazole, itraconazole, ketoconazole, posaconazole)	Increased toxicity of prednisolone possible due to reduced clearance	Avoid combination or monitor for prednisolone toxicity
Oestrogens (e.g. oral contraceptives)	Increased toxicity of prednisolone possible due to reduced clearance	Avoid combination or monitor for prednisolone toxicity. Dose reduction of prednisolone may be required
Ritonavir	Increased toxicity of prednisolone possible due to reduced clearance	Avoid combination or monitor for prednisolone toxicity

Procarbazine		
	Interaction	**Clinical management**
CNS depressants (including opiates, opioids, phenothiazines)	Additive CNS depressant effects (e.g. drowsiness, ataxia)	Avoid combination or monitor for excessive CNS depression
Alcohol	Disulfiram-like reaction (can include copious vomiting, dyspnoea, syncope) and increased sedation	Patients should abstain from alcohol during and for one week after completing treatment with procarbazine
Anti-depressants (including SSRIs, tricyclics, monoamine oxidase inhibitors (MAO-Is)), other MAO-Is (e.g. linezolid, selegiline), serotonergic agents (e.g. 'triptans', tramadol, pethidine, St John's wort)	Serotonin syndrome (hypertension, hyperthermia, agitation, hallucinations, rigidity, hyperreflexia, diaphoresis, tremor etc.) may be precipitated due to weak monoamine oxidase inhibition by procarbazine	Avoid combination
Sympathomimetic agents (e.g. pseudoephedrine and other cold and flu medications, stimulants such as guarana, some appetite suppressants)	Hypertensive crisis (headache, hyperpyrexia, hypertension) may be precipitated due to weak monoamine oxidase inhibition by procarbazine	Avoid combination
Tyramine-rich foods (e.g. aged cheeses, yoghurt, cured meats, liver, pickled herrings, over-ripe bananas, avocados and yeast extracts such as Vegemite® and Marmite®)	Hypertensive crisis (headache, hyperpyrexia, hypertension) may be precipitated due to weak monoamine oxidase inhibition by procarbazine	Patients should be advised to avoid excessive consumption of tyramine-rich foods while taking procarbazine; total abstinence is not considered necessary
Oral hypoglycaemics	Hypoglycaemia (MAO-Is can stimulate insulin secretion; procarbazine is a weak MAO-I)	Monitor blood glucose levels. Adjustment of the dose of antidiabetic medication may be required
CYP3A4 inducers (e.g. carbamazepine, phenytoin, phenobarbitone, rifampicin, St John’s wort etc.)	Increased risk of hypersensitivity reactions due to increased production of the reactive metabolite of procarbazine thought to be responsible	Avoid combination; select alternative antiepileptic (e.g. clonazepam, diazepam, lorazepam) or monitor for hypersensitivity reaction

Vinblastine		
	Interaction	**Clinical management**
CYP3A4 and P-gp inhibitors (e.g. amiodarone, aprepitant, azole-antifungals, ritonavir, lapatinib, nilotinib, sorafenib, macrolides, ciclosporin, grapefruit juice etc.)	Increased toxicity of vinblastine possible due to reduced clearance	Monitor for vinblastine toxicity (esp. neurotoxicity, adynamic ileus)
CYP3A4 inducers (e.g. carbamazepine, phenytoin, phenobarbitone, rifampicin, St John's wort etc.)	Reduced efficacy of vinblastine possible due to increased clearance	Monitor for decreased clinical response to vinblastine
Drugs undergoing P-gp-mediated elimination (e.g. dabigatran, loperamide, phenytoin etc.)	Reduced efficacy of these drugs possible due to induction of P-gp by vinblastine resulting in increased clearance	Avoid combination or monitor for decreased clinical response to interacting drugs
Mitomycin	Increased risk of pulmonary toxicity when vinblastine administered following or concomitantly with mitomycin	Avoid combination or monitor closely for pulmonary toxicity (i.e. interstitial infiltrates, pleural effusion resulting in respiratory distress and cough)
Ototoxic drugs (e.g. cisplatin, aminoglycosides, frusemide, NSAIDs)	Additive ototoxicity (as reported with other vinca alkaloids)	Avoid combination or perform regular audiometric testing

General		
	Interaction	**Clinical management**
Warfarin	Anti-cancer drugs may alter the anticoagulant effect of warfarin.	Monitor INR regularly and adjust warfarin dosage as appropriate; consider alternative anticoagulant.
Direct oral anticoagulants (DOACs) e.g. apixaban, rivaroxaban, dabigatran	Interaction with both CYP3A4 and P-gp inhibitors /inducers. DOAC and anti-cancer drug levels may both be altered, possibly leading to loss of efficacy or toxicity (i.e. increased bleeding).	Apixaban: avoid concurrent use with strong CYP3A4 and P-gp inhibitors. If treating VTE, avoid use with strong CYP3A4 and P-gp inducers. Rivaroxaban: avoid concurrent use with strong CYP3A4 and P-gp inhibitors. Dabigatran: avoid combination with strong P-gp inducers and inhibitors. If concurrent use is unavoidable, monitor closely for efficacy/toxicity of both drugs.
Digoxin	Anti-cancer drugs can damage the lining of the intestine; affecting the absorption of digoxin.	Monitor digoxin serum levels; adjust digoxin dosage as appropriate.
Antiepileptics	Both altered antiepileptic and anti-cancer drug levels may occur, possibly leading to loss of efficacy or toxicity.	Where concurrent use of an enzyme-inducing antiepileptic cannot be avoided, monitor antiepileptic serum levels for toxicity, as well as seizure frequency for efficacy; adjust dosage as appropriate. Also monitor closely for efficacy of the anti-cancer therapy.
Antiplatelet agents and NSAIDs	Increased risk of bleeding due to treatment related thrombocytopenia.	Avoid or minimise combination. If combination deemed essential, (e.g. low dose aspirin for ischaemic heart disease) monitor for signs of bleeding.
Serotonergic drugs, including selective serotonin reuptake inhibitors (SSRIs e.g. paroxetine) and serotonin noradrenaline reuptake inhibitors (SNRIs e.g. venlafaxine)	Increased risk of serotonin syndrome with concurrent use of 5-HT3 receptor antagonists (e.g. palonosetron, ondansetron, granisetron, tropisetron, dolasetron, etc.)	Avoid combination. If combination is clinically warranted, monitor for signs and symptoms of serotonin syndrome (e.g. confusion, agitation, tachycardia, hyperreflexia). For more information link to TGA Medicines Safety Update
Vaccines	Diminished response to vaccines and increased risk of infection with live vaccines.	Live vaccines (e.g. BCG, MMR, zoster and varicella) are contraindicated in patients on immunosuppressive therapy. Use with caution in patients on non-immunosuppressive therapy. For more information; refer to the recommended schedule of vaccination for cancer patients, as outlined in the Australian Immunisation Handbook

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 to 14 (PO)

This is an oral treatment

Safe handling and waste management

Safe administration

General patient assessment prior to each day of treatment.

Peripheral neuropathy assessment tool

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

Pre treatment medication

Verify antiemetics taken or administer as prescribed.

Prednisolone

- administer orally ONCE a day on **days 1 to 14**
- to be taken in the morning with or after food

Note: if a dose is forgotten or vomited, contact treating team.

Chemotherapy - Time out

Chlorambucil

- administer orally ONCE a day on **days 1 to 14**
- to be swallowed whole with a glass of water; do not break, crush or chew
- to be taken on an empty stomach, one hour before or three hours after food
- may be given in divided doses if nausea is a problem
- chlorambucil tablets should be stored in the fridge (2 to 8 degrees C).

Note: missed doses should not be replaced; if a dose is forgotten or vomited, normal dosing should be resumed at the next scheduled dose.

Procarbazine

- administer orally ONCE a day on **days 1 to 14**
- to be swallowed whole with a glass of water; do not break, crush or chew
- can be taken with food or on an empty stomach.

Note: missed doses should not be replaced; if a capsule is forgotten or vomited, consult treating team. If treating team unavailable, advise patient that normal dosing should be resumed at the next scheduled dose.

Patients should be advised to avoid alcohol and large amounts of tyramine-rich foods (e.g. aged cheeses, cured meats, yeast extracts such as Vegemite® etc) while taking procarbazine.

Continue safe handling precautions until 7 days after completion of drug(s)

Day 1 and 8 (IV)

Approximate treatment time: 30 minutes

Safe handling and waste management

Safe administration

General patient assessment prior to each day of treatment.

Peripheral neuropathy assessment tool

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

Prime IV line(s).

Insert IV cannula or access TIVAD or CVAD.

Hydration if prescribed.

Pre treatment medication

Verify antiemetics taken or administer as prescribed.

Chemotherapy - Time out

Vinblastine

Administer vinblastine (vesicant):

- via a minibag over 5 to 10 minutes
- ensure vein is patent and monitor for signs of extravasation throughout administration
- flush with ~150 mL of sodium chloride 0.9%.

Remove IV cannula and/or deaccess TIVAD or CVAD.

Continue safe handling precautions until 7 days after completion of drug(s)

Discharge information

Procarbazine capsules, prednisolone and chlorambucil tablets

- Procarbazine capsules, prednisolone and chlorambucil tablets with written instructions on how to take them.

Antiemetics

- Antiemetics as prescribed.

Laxatives

- Ensure patient has prophylactic laxatives.

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.

Extravasation, tissue or vein injury	The unintentional instillation or leakage of a drug or substance out of a blood vessel into surrounding tissue. This has the potential to cause damage to affected tissue. Read more about extravasation management
Flu-like symptoms	
Nausea and vomiting	Read more about prevention of treatment induced nausea and vomiting
Taste and smell alteration	Read more about taste and smell changes

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
Constipation	
Fatigue	Read more about fatigue
Oral mucositis	Erythematous and ulcerative lesions of the gastrointestinal tract (GIT). It commonly develops following chemotherapy, radiation therapy to the head, neck or oesophagus, and high dose chemotherapy followed by a blood and marrow transplant (BMT). Read more about oral mucositis
Peripheral neuropathy	Typically symmetrical sensory neuropathy, affecting the fingers and toes, sometimes progressing to the hands and feet. It is associated with several classes of anti-cancer drugs. These include taxanes, platinum-based compounds, vinca alkaloids and some drugs used to treat multiple myeloma. Read more about peripheral neuropathy
Side effects of corticosteroids	Insomnia, oedema, increased risk of infection e.g. oral thrush, gastric irritation, worsening of peptic ulcer disease, increased blood sugar levels, loss of diabetic control, mood and behavioural changes - including anxiety, euphoria, depression, mood swings, increased appetite and weight gain, osteoporosis and fractures (long term use), bruising and skin fragility are associated with corticosteroid use.
Skin rash	Anti-cancer drugs can cause a number of changes in the skin with maculo-papular rash the most common type of drug-induced skin reaction. Read more about skin rash

Late (onset weeks to months)	
Anaemia	Abnormally low levels of red blood cells (RBCs) or haemoglobin in the blood. Read more about anaemia
Alopecia	Hair loss may occur from all parts of the body. Patients can also experience mild to moderate discomfort of the hair follicles, and rarely pain as the hair is falling out. Read more about alopecia and scalp cooling
Cognitive changes (chemo fog)	Changes in cognition characterised by memory loss, forgetfulness and feeling vague. This is also referred to as 'chemo brain' or 'chemo fog'. Read more about cognitive changes (chemo fog)

Delayed (onset months to years)	
Pulmonary toxicity	Pulmonary toxicity may include damage to the lungs, airways, pleura and pulmonary circulation. Read more about pulmonary toxicity associated with anti-cancer drugs

Evidence

A retrospective analysis of 960 patients from four research groups[2] demonstrated comparable results in younger patients when compared to published results for MOPP. Chlorambucil, vinblastine, procarbazine, and prednisolone (ChlVPP) was better tolerated, but it should be noted that many patients also received radiation therapy. In a randomised trial of 100 patients with advanced Hodgkin's lymphoma[3] ChlVPP had comparable efficacy to ChlVPP alternating with ABOD (doxorubicin, bleomycin, vincristine and dacarbazine).

Efficacy

The results of the 3 largest studies are tabulated below, but appear comparably efficacious. It was noted that patients over the age

of 50 did less well than those under 50 years of age and another regimen should be considered.

Selby et al[1]	No prior treatment (%)	Prior radiation therapy (%)
complete remission (CR)	85	91
10 year probability of survival	65	64
10 year probability of CR	71	68

Holte et al[3]	ChlVPP (%)	ChlVPP/ABOD (%)
complete remission	80	80
5 year overall survival	87	74
5 year relapse free survival	76	73

Stage[2]	Complete remission (%)	5 year failure free survival (%)	5 year overall survival (%)
IA	84	78	82
IIA	89	73	85
IB/IIA	77	62	69
IIIA	89	67	78
IIIA less than 50 years	94	76	88
IIIA greater than or equal to 50 years	75	39	44
IIIB/IV	72	51	63
IVA less than 50 years	84	72	82
IVB less than 50 years	77	58	71
IVA greater than or equal to 50 years	67	45	47
IVB greater than or equal to 50 years	55	26	36

International ChlVPP group[2]

Toxicity

The International ChlVPP Treatment Group[2] found that there were decreased acute toxicities (in particular nausea/vomiting, alopecia and peripheral neuropathy) associated with ChlVPP compared to MOPP. With a median follow up of 92 months, Selby et al[1]encountered 2 cases of acute myeloid leukaemia that were seen at 7.5 and 8.7 years. The actuarial risk of secondary leukaemia was 2.7% at 10 years. Twelve other second cancers were noted: one malignant melanoma, one stomach cancer, two carcinoma of the bronchus, one non-Hodgkin's lymphoma, one breast, one pancreas and five basal cell carcinomas. The actuarial risk of any second malignancy is 8.3% at 10 years. Toxicities from Selby et al[1] are tabulated below.

Toxicity[1]	Grade 1 to 2 (%)	Grade 3 to 4 (%)
Anaemia	29	0
Leucopenia	41	9
Thrombocytopenia	18	4.5
Nausea and vomiting	31	2
Alopecia	6.5	0.5
Neuropathy	14	0
Infection	17	3
Diarrhoea	3	0

Toxicity[1]	Grade 1 to 2 (%)	Grade 3 to 4 (%)
Stomatitis	2.5	0

References

1 Selby, P., P. Patel, S. Milan, et al. 1990. "ChlVPP combination chemotherapy for Hodgkin's disease: long-term results." Br.J.Cancer. 62(2):279-285.

2 1995. "ChlVPP therapy for Hodgkin's disease: experience of 960 patients. The International ChlVPP Treatment Group." Ann.Oncol. 6(2):167-172.

3 Holte, H., O. Mella, E. Wist, et al. 1996. "ChlVPP is as effective as alternating ChlVPP/ABOD in advanced stage Hodgkin's disease." Acta Oncol. 35 Suppl 8:73-80.:73-80.

Bibliography

Swerdlow, A. J., J. A. Barber, A. Horwich, et al. 1997. "Second malignancy in patients with Hodgkin's disease treated at the Royal Marsden Hospital." Br.J.Cancer. 75(1):116-123.

Vose, J. M., P. J. Bierman, J. R. Anderson, et al. 1991. "CHLVPP chemotherapy with involved-field irradiation for Hodgkin's disease: favorable results with acceptable toxicity." J.Clin Oncol. 9(8):1421-1425.

Weekes, C. D., J. M. Vose, J. C. Lynch, et al. 2002. "Hodgkin's disease in the elderly: improved treatment outcome with a doxorubicin-containing regimen." J.Clin Oncol. 20(4):1087-1093.

History

Version 4

Date	Summary of changes
09/10/2007	Minor reformatting
22/05/2008	Clarification of drug doses and addition of extra information
02/06/2008	Review and addition of extra information, including missing side effects and special clinical instructions (hepatitis B screening), to increase the comprehensiveness of the protocol
26/06/2008	Rewording of administration of vesicants to the standardised format
29/03/2010	Review of protocol; review of dose modifications; transferred to eviQ
16/03/2011	New format to allow for export of protocol information Protocol version number changed to *V.2* Antiemetics and premedications added to the treatment schedule Additional Clinical Information, Key Prescribing table and Key Administration table combined into new section titled Clinical Considerations Drug specific information placed behind the drug name link
19/01/2012	PHC format created
04/06/2012	Palonosetron added as default 5HT3 antagonist antiemetic in treatment schedule
11/10/2013	Reviewed at categorisation meeting, not for review, review in 2 years. PHC view removed.
11/09/2015	Reviewed at RCM, no changes, review in 2 years, updated drug costs
19/09/2016	Updated the volume of vinblastine in 50 mL in the treatment schedule.
31/05/2017	Transferred to new eviQ website. Version number change to V.4.
25/05/2018	Reviewed by Haematology Reference Committee with no significant changes, review in 2 years
10/10/2019	Clinical information updated with PBS expanded indications for G-CSF.

Date	Summary of changes
27/03/2020	Reviewed by Haematology Reference Committee with no changes, review in 2 years
11/11/2022	Protocol electronically reviewed by the Haematology Reference Committee, nil changes.Review in 2 years.
28/04/2023	Protocol electronically reviewed electronically by the Haematology Reference Committee. • Updated hepatic dose modifications for procarbazine. For review in 4 years.

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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/371
22 Nov 2023

Patient information - Hodgkin lymphoma - ChlVPP (chlorambucil, vinblastine, procarbazine, prednisolone)

Patient's name:

Your treatment

The treatment schedule below explains how the drugs for this treatment are given.

ChlVPP (chlorambucil, vinblastine, procarbazine, prednisolone)			
This treatment cycle is repeated every 28 days. You will have 6 to 8 cycles.			
Day	**Treatment**	**How it is given**	**How long it takes**
1 to 14	**Prednisolone** *(pred-nis-o-lone)*	Take orally ONCE a day in the morning with food on days 1 to 14 only.	
1 and 8	**Vinblastine** *(vin-blas-teen)*	By a drip into a vein	About 5 to 10 minutes
1 to 14	**Procarbazine** *(pro-carba-zeen)*	Take orally ONCE a day on with or without food days 1 to 14 only. Swallow whole with a glass of water, do not break, open, chew or crush the capsules.	
1 to 14	**Chlorambucil** *(*klor-am-bue-sil*)*	Take orally ONCE a day on day 1 to 14 only. Take on an empty stomach, at least one hour before or three hours after food. Swallow whole with a glass of water, do not break, crush or chew the tablets. Chlorambucil tablets need to be stored in the fridge.	

Missed doses:

- **Procarbazine**: if you forget to take a dose or vomit a dose, call your treating team for further instructions. If you cannot reach your doctor or nurse, take your normal dose the next time it is due. Do not take an extra dose.
- **Prednisolone**: if you forget to take your tablets or vomit your tablets, contact your treating team.
- **Chlorambucil**: if you forget to take a tablet(s) or vomit a tablet(s), take your normal dose the next time it is due. Do not take an extra dose.

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
• a temperature of 38°C or higher	Daytime:..... Night/weekend:.....

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

Other instructions:

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

Changes to your dose or treatment delays

Sometimes a treatment may be started at a lower dose or the dose needs to be changed during treatment. There may also 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. This is called a dose reduction, dose change or treatment delay. Your doctor will explain if you need any changes or delays to your treatment and the reason why.

Blood tests and monitoring

Anti-cancer drugs can reduce the number of blood cells in your body. You will need to have regular blood tests to check that your blood cell count has returned to normal. If your blood count is low, your treatment may be delayed until it has returned to normal. 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.
- **Laxatives:** you may be given some medication to prevent or treat constipation. Your doctor or nurse will tell you how and when to take the laxatives.
- **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. Follow this link to read more information on how to give this injection.

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.

Pain or swelling at injection site (extravasation)	• This treatment can cause serious injury if it leaks from the area where it is going into the vein. • This can cause pain, stinging, swelling or redness at or near the site where the drug enters the vein. • If not treated correctly, you may get blistering and ulceration. • **Tell your doctor or nurse immediately if you get any of the symptoms listed above during or after treatment.**

Flu-like symptoms	• You may get:
	  ◦ a fever
	  ◦ chills or sweats
	  ◦ muscle and joint pain
	  ◦ a cough
	  ◦ headaches.
	• Tell your doctor or nurse if you get any of the symptoms listed above.
	• **Tell your doctor or nurse immediately, or go to the nearest hospital Emergency Department if you have a temperature of 38°C or higher.**

Nausea and vomiting	• 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.**
Taste and smell changes	• You may find that food loses its taste or tastes different. • These changes are likely to go away with time. • Do your mouth care regularly. • Chew on sugar-free gum or eat sugar-free mints. • Add flavour to your food with sauces and herbs. • Ask your doctor or nurse for eviQ patient information - Taste and smell changes during cancer treatment.

Infection risk (neutropenia)	• 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:** ◦ **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)	• 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.**
Constipation	• You may have bowel motions (stools, poo) that are less frequent, harder, smaller, painful or difficult to pass. • You may also get: ◦ 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.**
Tiredness and lack of energy (fatigue)	• 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.**

Mouth pain and soreness (mucositis)	• You may have:
	  ◦ bleeding gums
	  ◦ mouth ulcers
	  ◦ a white coating on your tongue
	  ◦ pain in the mouth or throat
	  ◦ difficulty eating or swallowing.
	• Avoid spicy, acidic or crunchy foods and very hot or cold food and drinks.
	• Try bland and soft foods.
	• Brush your teeth gently with a soft toothbrush after each meal and at bedtime. If you normally floss continue to do so.
	• Rinse your mouth after you eat and brush your teeth, using either:
	  ◦ 1/4 teaspoon of salt in 1 cup of warm water, or
	  ◦ 1/4 teaspoon of bicarbonate of soda in 1 cup of warm water
	• Ask your doctor or nurse for eviQ patient information - Mouth problems during cancer treatment.
	• **Tell your doctor or nurse if you get any of the symptoms listed above.**

Nerve damage (peripheral neuropathy)	• You may notice a change in the sensations in your hands and feet, including:
	  ◦ tingling or pins and needles
	  ◦ numbness or loss of feeling
	  ◦ pain.
	• You may find it difficult to do everyday activities, such as doing up buttons or picking up small objects.
	• Test water temperature with your elbow when bathing to avoid burns.
	• Use rubber gloves, pot holders and oven mitts in the kitchen.
	• Wear rubber shoes or boots when working in the garden or garage.
	• Keep rooms well lit and uncluttered.
	• Ask your doctor or nurse for eviQ patient information – Nerve problems during cancer treatment.
	• Tell your doctor or nurse if you get any of the symptoms listed above.

Side effects from steroid medication	• Steroid medication may cause:
	  ◦ mood swings and behaviour changes
	  ◦ an increased appetite
	  ◦ weight gain
	  ◦ swelling in your hands and feet
	  ◦ stomach upsets
	  ◦ trouble sleeping
	  ◦ fragile skin and bruising
	  ◦ an increase in your blood sugar level
	  ◦ weak and brittle bones (osteoporosis)
	• Take your steroid medication with food to reduce stomach upset
	• If you have diabetes, your blood sugar levels may be tested more often.
	• Tell your doctor or nurse if you get any of the symptoms listed above.

Skin rash	• You may get a red, bumpy rash and dry, itchy skin. • Moisturise your skin with a gentle non-perfumed moisturising cream like sorbolene or aqueous cream. • Do not scratch your skin. • Protect your skin from the sun by wearing sun-protective clothing, a wide-brimmed hat, sunglasses and sunscreen of SPF 50 or higher. • **Talk to your doctor or nurse about other ways to manage your skin rash.**

Late (onset weeks to months)	
Low red blood cells (anaemia)	• 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.**
Hair loss (alopecia)	• Your hair may start to fall out from your head and body. • Hair loss usually starts 2 to 3 weeks after your first treatment. • You may become completely bald and your scalp might feel tender. • Use a gentle shampoo and a soft brush. • Take care with hair products like hairspray, hair dye, bleaches and perms. • Protect your scalp from the cold with a hat, scarf or wig. • Protect your scalp from the sun with a hat or sunscreen of SPF 50 or higher. • Moisturise your scalp to prevent itching. • Ask your doctor or nurse about the Look Good Feel Better program
Chemo brain (chemotherapy-related cognitive impairment)	• You may notice that you are unable to concentrate, feel unusually disorganised or tired (lethargic) and have trouble with your memory. • These symptoms usually improve once treatment is completed. • Ask your doctor or nurse for eviQ patient information – Memory changes and chemotherapy (chemo brain). • Tell your doctor or nurse if you get any of the symptoms listed above.

Delayed (onset months to years)	

Lung problems	• Lung problems are rare, but can be serious. They may occur throughout treatment or after the completion of treatment.
	• You may get:
	  ◦ shortness of breath
	  ◦ fever
	  ◦ dry cough
	  ◦ wheezing
	  ◦ fast heartbeat
	  ◦ chest pain.
	• Your doctor will monitor how well your lungs are working during your treatment.
	• **Tell your doctor or nurse immediately, or go to the nearest hospital Emergency Department if you have chest pain or become short of breath.**

General advice for patients having cancer treatment

Chemotherapy safety

- Learn how to keep you and your family safe while you are having anticancer drugs.
- See our patient information sheet - Chemotherapy safety at home.

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.
- Grapefruit and grapefruit juice can interact with your medication and should be avoided while you are on this treatment.
- Certain foods may cause an unpleasant reaction (e.g. nausea/vomiting, headache, sweating) while taking procarbazine. The reaction is due to a substance called tyramine. Tyramine containing foods include mature cheeses (including processed cheeses), yeast or meat extracts (such as Vegemite®, Marmite®, Bovril®), broad bean pods, pickled herring, salami and pepperoni sausage, overripe fruit, and other foods that are not fresh, particularly if they have been fermented, pickled, smoked or aged. These reactions are very rare and if you want to eat any of these types of food, you could try a little at a time, until you are sure that you do not react.
- Alcohol can also cause a reaction with this treatment, and should be avoided while taking procarbazine and for a week after your last dose.
- If you have any concerns about recent weight loss or weight gain or questions about your diet, please ask to speak to a dietitian.
- There are some foods that may cause infection in high risk individuals and should be avoided. For further 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.

Risk of developing a second cancer

- Some anticancer treatments can increase your chance of developing a second cancer, this is rare. Your doctor will discuss with you the specific risks of your treatment.

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)
- Call the Myeloma Australia Support Line on 1800 693 566 (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
- Leukaemia Foundation – leukaemia.org.au
- Lymphoma Australia – lymphoma.org.au
- Myeloma Australia – myeloma.org.au
- NSW Agency for Clinical Innovation, Blood & Marrow Transplant Network – https://aci.health.nsw.gov.au/networks/bmtct
- NSW Agency for Clinical Innovation - aci.health.nsw.gov.au/projects/immune-effector-cell-service
- NCCN Guidelines for Patients Immunotherapy Side Effects: CAR T-Cell Therapy - nccn.org/patientresources/patient-resources/guidelines-for-patients
- Talk Blood Cancer – cmlsupport.org.uk/organisation-type/social-media-groups

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
- Carer Help - carerhelp.com.au
- eviQ Cancer Treatments Online – eviQ.org.au
- Food Standards Australia New Zealand: Listeria & Food Safety – foodstandards.gov.au/publications/pages/listeriabrochuretext.aspx
- LGBTQI+ 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

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