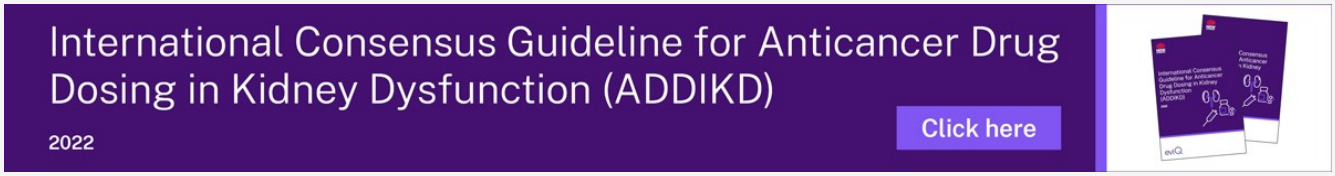
Prostate metastatic cabazitaxel three weekly and prednisolone

ID: 1415 v.4 **Endorsed**

⚠ Ranitidine recall:
The TGA has suspended the registration of all ranitidine medicines. Further information is available from the TGA safety alert. Ranitidine is included as a default premedication in eviQ protocols and alternative approaches should be considered based on assessment of individual patients, institutional policy and availability of alternative drugs [e.g. famotidine - see ID 3264 Premedication for prophylaxis of taxane hypersensitivity reactions (infusion related reactions and anaphylaxis)]. Refer to BOPA Position Statement - H2 antagonists in paclitaxel pre-medication regimens for more information.

Check for clinical trials in this patient group. Link to Australian Clinical Trials 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.



Related pages:

- Prostate metastatic zoledronic acid
- Prostate metastatic denosumab

Treatment schedule - Overview

Cycle 1 and further cycles

Drug	Dose	Route	Day
Cabazitaxel	20 mg/m^2	IV infusion	1
Prednisolone *	10 mg ONCE a day	PO	1 to 21

* prednisolone is given continuously during all cycles of treatment. This is often tapered off slowly over a period of 1 month after completion of chemotherapy at the discretion of the medical officer.

Starting cabazitaxel dose has been reduced to 20mg/m^2 following the publication of the PROSELICA [1] study. This study reported similar progression-free and overall survival with both doses, with reduced toxicity using the lower dose. However the higher dose of 25mg/m2 was associated with a higher PSA response rate, and may be considered in select young, healthy and fit patients where response is important.

Frequency: 21 days

Cycles: Continuous until disease progression or unacceptable toxicity

Notes:
Patients had their luteinising hormone-releasing hormone (LHRH) agonist therapy continued.[2]

Concomitant use of bisphosphonate therapy was allowed if the dose had been stable for 12 weeks prior to enrolment in the

study.[2] Bone modifying agents (e.g. zoledronic acid or denosumab) should be considered in patients with recurrent metastatic prostate cancer since it may prevent skeletal-related events and improve bone mineral density.

Drug status: **Cabazitaxel** is PBS authority

Cost: ~ $170 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		
Dexamethasone	8 mg (PO)	60 minutes before chemotherapy
Loratadine	10 mg (PO)	60 minutes before chemotherapy
Ranitidine	150 mg (PO)	60 minutes before chemotherapy
Cabazitaxel	20 mg/m^2 (IV infusion)	in 250 mL sodium chloride 0.9% over 60 minutes (in non-PVC containers only)
Prednisolone	10 mg (PO)	ONCE a day with or after food. Prednisolone is given continuously during all cycles of treatment. This is often tapered off slowly over a period of 1 month after completion of chemotherapy at the discretion of the medical officer.
Day 2 to 21		
Prednisolone	10 mg (PO)	ONCE a day with or after food. Prednisolone is given continuously during all cycles of treatment. This is often tapered off slowly over a period of 1 month after completion of chemotherapy at the discretion of the medical officer.

Starting cabazitaxel dose has been reduced to 20mg/m^2 following the publication of the PROSELICA [1] study. This study reported similar progression-free and overall survival with both doses, with reduced toxicity using the lower dose. However the higher dose of 25mg/m2 was associated with a higher PSA response rate, and may be considered in select young, healthy and fit patients where response is important.

Frequency: 21 days

Cycles: Continuous until disease progression or unacceptable toxicity

Indications and patient population

Indications:

- metastatic castration-resistant prostate cancer previously treated with a docetaxel-containing regimen

Cautions:

- pre existing peripheral neuropathy
- heavily pre treated patients
- previous neutropenia with docetaxel

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 cabazitaxel
Premedication	The product information states that premedication is required for this treatment. Please refer to the treatment schedule for the suggested premedication regimen. This may be substituted to reflect institutional policy. Read more about premedication for prophylaxis of taxane hypersensitivity reactions
Emetogenicity LOW	Suggested default antiemetics have been added to the treatment schedule, and may be substituted to reflect institutional policy. 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
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
Peripheral neuropathy	Assess prior to each treatment. If a patient experiences grade 3 or greater, cessation of drug is recommended; review by medical officer before commencing treatment. Read more about peripheral neuropathy Link to chemotherapy-induced peripheral neuropathy screening tool
Bone modifying agents	The use of a bone modifying agent (BMA) should be considered as it may prevent skeletal related events and improve bone mineral density. Bone modifying agents include bisphosphonates (e.g. zoledronic acid and pamidronate) and the monoclonal antibody denosumab.
Diarrhoea	Consider prescribing prophylactic anti-diarrhoeals (eg loperamide) to prevent treatment induced diarrhoea. If severe diarrhoea occurs, dose reduce or discontinue cabazitaxel until condition improves or resolves. Read more about treatment induced diarrhoea
Blood tests	FBC, EUC, LFTs and BSL prior to each treatment and as clinically indicated. Consider monitoring nadir and reducing dose if neutropenia or diarrhoea is present.
Hepatitis B screening and prophylaxis	Routine screening for HBsAg and anti-HBc is NOT usually recommended for patients receiving this treatment. 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 and fathering a child	Cancer treatment can have harmful effects on fertility and this should be discussed with all patients of reproductive potential prior to commencing treatment. It is important that all patients of reproductive potential use effective contraception whilst on therapy and after treatment finishes. Effective contraception methods and contraception timeframe should be discussed with all patients of reproductive potential. 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 (pre-treatment blood test)	
1.0 to less than 1.5	Delay treatment until neutrophil recovery
less than 1.0 (for longer than one week)	Delay treatment until neutrophil recovery and consider reducing cabazitaxel by 20% for subsequent cycles
Febrile neutropenia	Delay treatment until neutrophil recovery and consider reducing cabazitaxel by 20% for subsequent cycles
Platelets x 10^9/L (pre-treatment blood test)	
75 to less than 100	The general recommendation is to delay, however if the patient is clinically well it may be appropriate to continue treatment; refer to treating team and/or local institutional guidelines.
50 to less than 75	Delay treatment until recovery
less than 50	Delay treatment until recovery and consider reducing cabazitaxel by 20% for subsequent cycles

Renal impairment	
Cabazitaxel is extensively metabolised in the liver with minimal excretion via the kidney	
Creatinine clearance mL/min	
30 to 50	Limited data available; treat with caution and monitor carefully during treatment
less than 30	No data available; treat with caution and monitor carefully during treatment

Hepatic impairment

Hepatic impairment	
Cabazitaxel is extensively metabolized in the liver	
Hepatic dysfunction	
Mild, Moderate and Severe	No data available Not recommended as patients with impaired hepatic function (total bilirubin ULN or greater, or AST and/or ALT 1.5 x ULN or greater) were excluded from the clinical trial

Peripheral neuropathy	
Grade 2 which is present at the start of the next cycle	Delay treatment until recovery and consider reducing cabazitaxel by 20% for subsequent cycles
Grade 3 or Grade 4	Cease cabazitaxel

Diarrhoea	
Grade 2 persisting diarrhoea despite fluid and electrolyte management	Delay treatment until toxicity resolves to Grade 1 or less and consider reducing cabazitaxel by 20% for subsequent cycles
Grade 3	Delay treatment until toxicity resolves to Grade 1 or less and consider reducing cabazitaxel by 20% for subsequent cycles
Grade 4	Cease cabazitaxel

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*

Cabazitaxel		
	Interaction	**Clinical management**
CYP3A4 inhibitors (e.g. aprepitant, azole antifungals, clarithromycin, erythromycin, grapefruit juice, ritonavir etc.)	Increased toxicity of cabazitaxel possible due to reduced clearance	Avoid combination or monitor for cabazitaxel toxicity (esp. neutropenia)
CYP3A4 inducers (e.g. carbamazepine, phenytoin, phenobarbitone, rifampicin, St John's wort etc.)	Reduced efficacy of cabazitaxel possible due to increased clearance	Avoid combination or monitor for decreased clinical response to cabazitaxel

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

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

Approximate treatment time: 90 minutes

Safe handling and waste management

Safe administration

General patient assessment prior to each day of treatment.

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

Peripheral neuropathy assessment tool.

Prime required IV lines with sodium chloride 0.9%:

- Low sorbing IV giving set with 0.22 micron filter must be used for cabazitaxel.
- 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.

Pre treatment medication

Verify premedication taken or administer as prescribed.

Verify antiemetics taken or administer as prescribed.

Prednisolone

- administer orally ONCE a day on **days 1 to 21**
- to be taken in the morning with or immediately after food

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

Chemotherapy - Time out

Cabazitaxel

Administer cabazitaxel (irritant):

- via IV infusion over 60 minutes
- observe for hypersensitivity reactions
- flush with ~ 100 mL of sodium chloride 0.9%.

Stop infusion at first sign of reaction:

- if symptoms are mild and resolve when infusion is stopped, consider recommencing infusion after review by medical officer at a slower rate.
- for severe reactions seek medical assistance immediately and do not restart infusion.

Remove IV cannula and/or deaccess TIVAD or CVAD.

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

Discharge information

Premedication

- Premedication for next cycle of chemotherapy.

Prednisolone tablets

- Prednisolone tablets with written instructions on how to take them.

Antiemetics

- Antiemetics as prescribed.

Antidiarrhoeals

- Antidiarrhoeals as prescribed.

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
Nausea and vomiting	Read more about prevention of treatment induced nausea and vomiting
Taste and smell alteration	Read more about taste and smell changes

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
Anorexia	Loss of appetite accompanied by decreased food intake. Read more about anorexia
Diarrhoea	Read more about treatment induced diarrhoea
Constipation	
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
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
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.
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

Late (onset weeks to months)	
Anaemia	Abnormally low levels of red blood cells (RBCs) or haemoglobin in the blood. Read more about anaemia
Alopecia - partial	Hair thinning and/or patchy hair loss. 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
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

The evidence for this protocol comes from the results of two randomised, multicentre, multinational, phase III trials- TROPIC[2] and PROSELICA.[1]

TROPIC[2]

This trial was designed to determine whether cabazitaxel plus prednisone improves overall survival compared with mitozantrone plus prednisone in men with metastatic castration-resistant prostate cancer who had progressed after docetaxel-based chemotherapy.

Between January 2007 and October 2008, 755 patients were randomly assigned to prednisone 10mg daily with either cabazitaxel or mitozantrone intravenously on day one of each 21 day cycle for a maximum of 10 cycles.

The primary end point was overall survival (OS) and secondary endpoints included progression-free survival (PFS), PSA response, PSA progression, objective tumour response, pain response, pain progression and time to tumour progression (TTP).[2]

PROSELICA[1]

The PROSELICA[1] study, presented in abstract form at ASCO 2016, was a randomised multinational, phase III non-inferiority study comparing 20mg/m^2 with 25mg/m^2 of cabazitaxel plus prednisolone in patients with metastatic castrate resistant prostate cancer who had progressed after docetaxel. Between April 2011 and December 2013, 1200 patients were randomised to receive either cabazitaxel 20mg/m2 and prednisolone (n=598) or cabazitaxel 25mg/m2 and prednisolone (n=602).

The primary endpoint was overall survival. Secondary endpoints included progression free survival (PFS), safety, PSA, pain and tumour responses and quality of life. This data has yet to be published in a peer-review journal.

Efficacy

TROPIC[2]

Median overall survival was 15.1 months (95% CI 14.1-16.3) in the cabazitaxel group versus 12.7 months (11.6-13.7) in the mitozantrone group.

Median progression-free survival was 2.8 months (95% CI 2.4-3.0) in the cabazitaxel group and 1.4 months (1.4-1.7) in the mitozantrone group (HR 0.74, 95% CI 0.64-0.86, p<0.0001).

Patients receiving cabazitaxel and prednisone also had higher objective tumor response rates (14.4 versus 4.4%) and PSA response rates (39.2 versus 17.8%) and longer median times to tumor progression (8.8 versus 5.4 months) and PSA progression (6.4 versus 3.1 months), but had similar times to pain progression, compared with those receiving mitozantrone and prednisone.[2]

There was a significant overall survival benefit and progression-free survival in the cabazitaxel group.

	Mitoxantrone	Cabazitaxel	Hazard ratio (95% CI)	p value for comparison
Tumour response rate*				
Number of evaluable patients	204	201	..	..
Response rate (%)	4·4% (1·6–7·2)	14·4% (9·6–19·3)	..	0·0005
PSA response rate†				
Number of evaluable patients	325	329	..	..
Response rate (%)	17·8% (13·7–22·0)	39·2% (33·9–44·5)	..	0·0002
Pain response rate‡				
Number of evaluable patients	168	174	..	..
Response rate (%)	7·7% (3·7–11·8)	9·2% (4·9–13·5)	..	0·63
Progression				
Number of patients in intention-to-treat analysis	377	378	..	..
Median time to tumour progression (months)	5·4 (2·3–10·0)	8·8 (3·9–12·0)	0·61 (0·49–0·76)	<0·0001
Median time to PSA progression (months)	3·1 (0·9–9·1)	6·4 (2·2–10·1)	0·75 (0·63–0·90)	0·001
Median time to pain progression (months)§	Not reached	11·1 (2·9–not reached)	0·91 (0·69–1·19)	0·52

*Tumour response was evaluated only for patients with measurable disease according to Response Evaluation Criteria in Solid Tumors.[14] †Prostate-specific antigen (PSA) response was defined as a 50% or more reduction in serum PSA concentration, established only for patients with a serum PSA concentration of 20 µg/L or more at baseline, confirmed by a repeat PSA measurement after at least 3 weeks. ‡Pain response was established only for patients with median present pain intensity (PPI) score of 2 or more or mean analgesic score (AS) of 10 points or more at baseline, or both, and was defined as a two-point or greater reduction from baseline median PPI score without an increased AS or a decrease of 50% or more in the AS without an increase in the PPI score, maintained for at least 3 weeks. §Data for 265 patients in the cabazitaxel group and 279 patients in the mitoxantrone group were censored as a result of more than two PPI or AS assessments, or both, being missed during the same week (unless a complete evaluation of ≥5 values showed pain progression).

Table 3: **Response to treatment and disease progression**

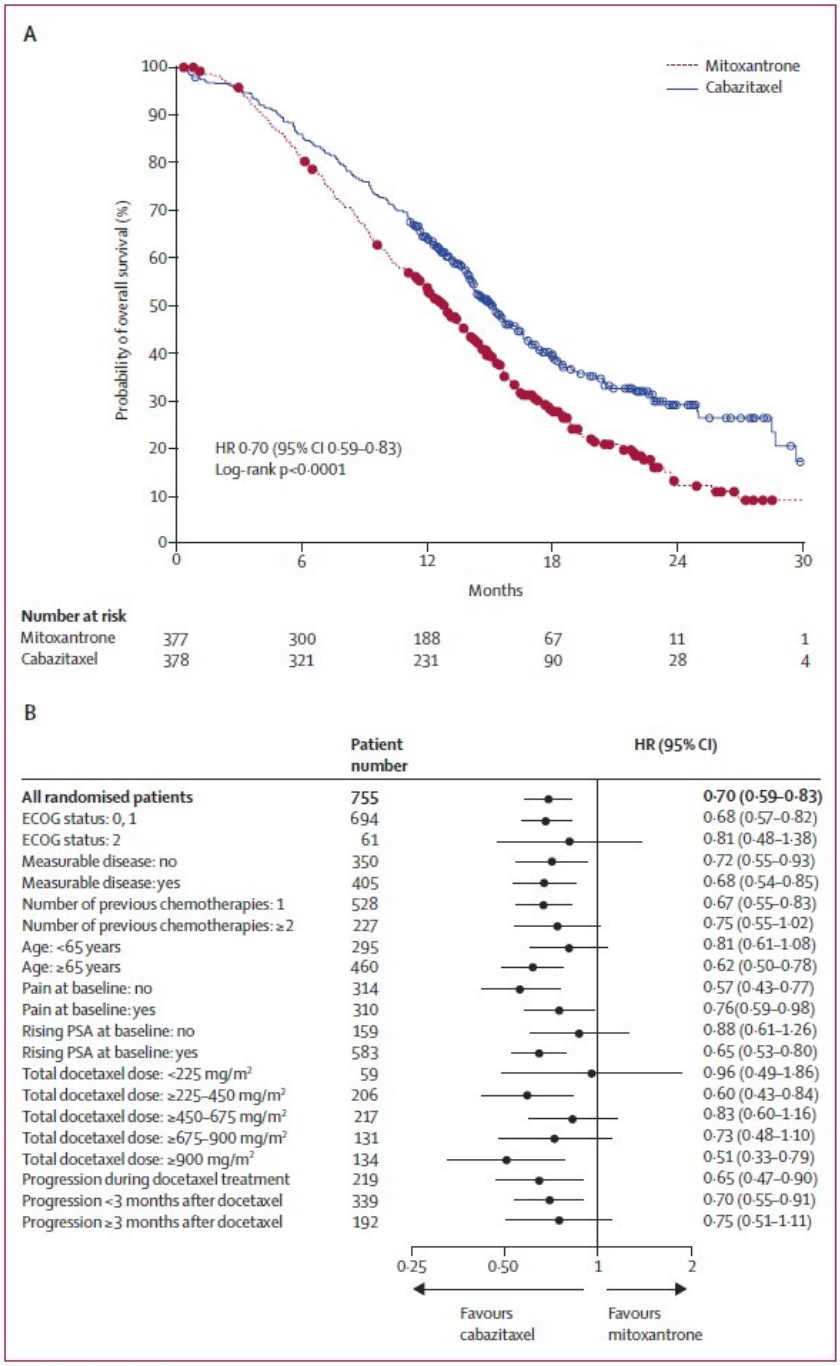


***Figure 2*: Overall survival**

(A) Kaplan-Meier estimates of the probability of survival in patients in all patients randomly assigned to treatment with cabazitaxel plus prednisone or mitoxantrone plus prednisone. The points on the curves show censored observations. (B) Intention-to-treat analysis of overall survival in subgroups of patients defined by baseline characteristics. Hazard ratios (HRs) lower than 1 favour the cabazitaxel group and greater than 1 favour the mitoxantrone group.

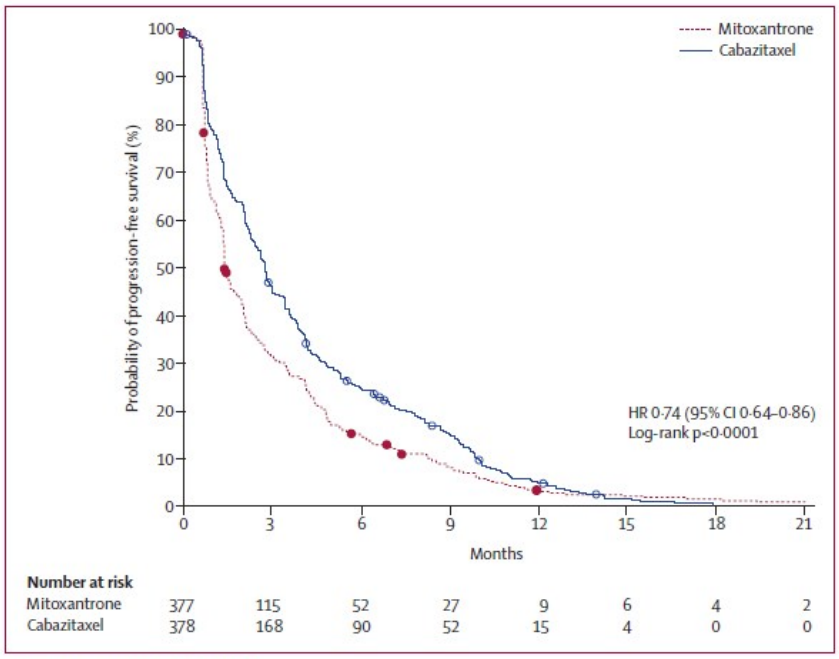


***Figure 3*: Progression-free survival**
Kaplan-Meier estimates of the probability of progression-free survival in all patients randomly assigned to treatment with cabazitaxel plus prednisone or mitoxantrone plus prednisone. The points on the curves show censored observations. Progression-free survival was established from the date of randomisation to whichever event occurred first—prostate-specific antigen progression, radiological progression, symptomatic progression, or death. HR=hazard ratio.

PROSELICA[1]

Median overall survival was 13.4 months (range 12.19 to 14.88) for the cabazitaxel 20mg/m^2 plus prednisolone group compared with 14.5 months (range 13.47 to 15.28) for the cabazitaxel 25mg/m^2 plus prednisolone group, upper limit of 98.89% confidence interval (CI) 1.184. The study reached its non-inferiority endpoint. The PSA and ORR were slightly higher in the group receiving cabazitaxel 25mg/m^2.

Outcome	C20 N=598	C25 N=602	C20 v C25
Median OS, mos	13.4 (12.19 to 14.88)	14.5 (13.47 to 15.28)	Upper limit of 98.89% Confidence Interval (CI): 1.184
Median PFS, mos	2.9 (2.79 to 3.45)	3.5 (3.12 to 3.94)	HR (95% CI): 1.099 (0.974 to 1.24)
PSA response, %	29.5 (25.6 to 33.3)	42.9 (38.8 to 47.1)	P>0.0001
ORR, n/N	50/271 18.5%	60/256 23.4%	

Toxicity

The cabazitaxel regimen was significantly more toxic than mitozantrone. The most common toxic effects of cabazitaxel were haematological and the most common non-haematological adverse event was diarrhoea. Higher frequencies of severe (grade 3 or greater) neutropenia (82 versus 58%), severe febrile neutropenia (7 versus 1%), diarrhoea (47 versus 11%, severe in 6 versus less than 1%), and peripheral neuropathy (13 versus 3%) were observed in patients receiving cabazitaxel and prednisone compared with those receiving mitozantrone and prednisone.[2]

The mitozantrone group had a 74% incidence of total deaths during the study which was higher compared to cabazitaxel which had an occurrence of 61%. However, patients in the cabazitaxel group had a higher risk of death of 5% within 30 days of the last drug dose than the mitozantrone group which had a 2% occurrence. Disease progression was the most common cause of early death among patients receiving mitozantrone, whereas adverse reactions, including neutropenic complications and renal failure, were the most frequent causes of early death among patients receiving cabazitaxel.[2]

	Mitoxantrone (n=371)	Cabazitaxel (n=371)
Total deaths during the study	275 (74%)	227 (61%)
Deaths ≤30 days after last dose of study drug	9 (2%)	18 (5%)
Causes of death ≤30 days after last dose of study drug		
Disease progression	6 (2%)*	0
Adverse events		
Neutropenia and clinical consequences/sepsis	1 (<1%)	7 (2%)
Cardiac	0	5 (1%)
Dyspnoea†	1 (<1%)	0
Dehydration/electrolyte imbalance	0	1 (<1%)
Renal failure	0	3 (1%)
Cerebral haemorrhage	0	1 (<1%)
Unknown cause	0	1 (<1%)
Motor vehicle accident	1 (<1%)	0
Deaths >30 days after last dose of study drug	266 (72%)	209 (56%)

Data are number of patients (%). *Includes three patients whose death was reported as an adverse event coded as disease progression. †Dyspnoea was reported as the adverse event leading to death, but the investigator regarded the death as related to disease progression.

Table 5: **Deaths in patients who received at least one dose of study treatment**

	Mitoxantrone (n=371)		Cabazitaxel (n=371)	
	All grades	Grade ≥3	All grades	Grade ≥3
Haematological†				
Neutropenia	325 (88%)	215 (58%)	347 (94%)	303 (82%)
Febrile neutropenia	..	5 (1%)	..	28 (8%)
Leukopenia	343 (92%)	157 (42%)	355 (96%)	253 (68%)
Anaemia	302 (81%)	18 (5%)	361 (97%)	39 (11%)
Thrombocytopenia	160 (43%)	6 (2%)	176 (47%)	15 (4%)
Non-haematological				
Diarrhoea	39 (11%)	1 (<1%)	173 (47%)	23 (6%)
Fatigue	102 (27%)	11 (3%)	136 (37%)	18 (5%)
Asthenia	46 (12%)	9 (2%)	76 (20%)	17 (5%)
Back pain	45 (12%)	11 (3%)	60 (16%)	14 (4%)
Nausea	85 (23%)	1 (<1%)	127 (34%)	7 (2%)
Vomiting	38 (10%)	0	84 (23%)	7 (2%)
Haematuria	14 (4%)	2 (1%)	62 (17%)	7 (2%)
Abdominal pain	13 (4%)	0	43 (12%)	7 (2%)
Pain in extremity	27 (7%)	4 (1%)	30 (8%)	6 (2%)
Dyspnoea	17 (5%)	3 (1%)	44 (12%)	5 (1%)
Constipation	57 (15%)	2 (1%)	76 (20%)	4 (1%)
Pyrexia	23 (6%)	1 (<1%)	45 (12%)	4 (1%)
Arthralgia	31 (8%)	4 (1%)	39 (11%)	4 (1%)
Urinary-tract infection	11 (3%)	3 (1%)	27 (7%)	4 (1%)
Pain	18 (5%)	7 (2%)	20 (5%)	4 (1%)
Bone pain	19 (5%)	9 (2%)	19 (5%)	3 (1%)

Data are number of patients (%). *Toxic effects were graded according to the National Cancer Institute Common Terminology Criteria for Adverse Events (version 3.0)[16] and summarised with the Medical Dictionary for Regulatory Activities terminology (version 12.0).[17] Events listed are those occurring at grade 3 or higher severity in ≥1% of patients in either treatment group. Grade 3 or higher events include those reported as leading to death (grade 5). †Data for haematogical adverse events were based on laboratory assessments.

Table 4: **Adverse events reported in patients who received at least one dose of study treatment***

PROSELICA[1]

Grade 3-4 adverse events were less in the group receiving cabazitaxel 20 mg/m^2 39.7% compared with 54.5% for those in the group receiving 25mg/m^2. Grade 4 neutropaenia was less in the groups receiving 20mg/m^2 than those receiving 25mg/m^{2}21.3%

and 48.6% respectively and neutropaenic infection/sepsis was 2.2% and 6.1%.

References

1 de Bono, J.S., A-C. Hardy-Bessard, C-S. Kim, et al. 2016. "Phase III non-inferiority study of cabazitaxel (C) 20mg/m2 (C20) versus 25mg/m2 (C25) in patients with metastatic castration resistant prostate cancer (mCRPC) previoulsy treated with docetaxel (D). J Clin Oncol 34,2016 (suppl; abstr 5008).

2 de Bono, J. S., S. Oudard, M. Ozguroglu, et al. 2010. "Prednisone plus cabazitaxel or mitoxantrone for metastatic castration-resistant prostate cancer progressing after docetaxel treatment: a randomised open-label trial." Lancet 376(9747):1147-1154.

History

Version 4

Date	Summary of changes
16/11/2021	Pulmonary toxicity added to side effects. Version number changed to V.4.

Version 3

Date	Summary of changes
30/11/2012	New protocol taken to Medical Oncology Reference Committee meeting.
16/05/2013	Approved and published on eviQ.
09/05/2014	Reviewed by Medical Oncology Reference Committee electronically. No changes. PHC view removed. Review 2 years.
18/10/2016	Cabazitaxel dose changed to 20 mg/m^2 based on the PROSELICA study. GCSF removed as not PBS for indication. Evidence updated.
31/05/2017	Transferred to new eviQ website. Protocol version number changed to V.2. • updated note on the dose reduction to 20 mg/m^2 as per reference committee consensus • removed "up to 10 cycles" as per reference committee consensus • Hepatitis screening changed to not recommended.
10/05/2018	Haematological dose modifications updated as per consensus of the expert clinician group. Version number changed to V.3.
25/03/2019	Protocol reviewed at Medical Oncology Reference Committee meeting on 15/03/2019. No changes. Next review in 5 years.
17/04/2020	"Ranitidine recall" flag added.

First approved: 16 May 2005
Last reviewed: 15 March 2019
Review due: 30 June 2024

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/1415
19 Jun 2023

Patient information - Prostate cancer metastatic - Cabazitaxel and prednisolone

Patient's name:

Your treatment

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

Cabazitaxel and prednisolone			
This treatment cycle is repeated every 21 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	**Cabazitaxel** (*ca-ba-zi-tax-el*)	By a drip into a vein	About 1.5 hours
continuously throughout treatment	**Prednisolone** (*pred-NIS-oh-lone*)	Taken orally with or after food. If you forget to take a tablet or vomit a tablet, 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 • 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:

- 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.

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.
- **Antidiarrhoeals:** you may be given some medication to treat diarrhoea. Your doctor or nurse will tell you how and when to take your antidiarrhoeal medication.
- **Cabazitaxel premedication:** before your treatment with cabazitaxel you will need to take some tablets called a premedication to help prevent you from having a reaction to the cabazitaxel. The following table may be used to remind you when to take your premedication. Ask your doctor, nurse or pharmacist to fill it out for you.

Tablet	Dose	When to take

Tell your doctor or nurse if you have not taken your premedications before you have your treatment.

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**
	
	<u>While you are in hospital:</u> Tell your doctor or nurse immediately.
	<u>After you leave:</u> Contact your doctor or nurse immediately, or go to the nearest hospital Emergency Department.

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.

Early (onset days to weeks)	

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.**
Appetite loss (anorexia)	• 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.
Diarrhoea	• 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	• 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.**

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.**
Joint and muscle pain and stiffness	• 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)	• 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.**
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.
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.

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 thinning	• Your hair may become dry and may break easily. • You may lose some of your hair. • Use a gentle shampoo and a soft hairbrush. • Take care with hair products like hairspray, hair dye, bleaches and perms. • Protect your scalp from the cold with a hat or scarf. • Protect your scalp from the sun with a hat and sunscreen of SPF 50 or higher. • Ask your doctor or nurse about the Look Good Feel Better program (www.lgfb.org.au)
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 people 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

- 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.
- 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 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.

Fathering a child

- Some cancer treatments can be dangerous to unborn babies. Talk to your doctor or nurse if you think there is any chance that your partner could be pregnant.
- Do not try to 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 fatherhood after completing this treatment, talk to your doctor. Some doctors advise waiting between 6 months and 2 years after treatment.

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

Prostate cancer information

- Continence Foundation of Australia – continence.org.au
- Healthy Male Andrology Australia – healthymale.org.au
- National Continence Management Strategy – bladderbowel.gov.au/ncp/ncms
- National Public Toilet Map – toiletmap.gov.au
- Prostate Cancer Foundation of Australia – prostate.org.au
- South Australian Prostate Cancer Clinical Outcome Collaborative – prostatehealth.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
- 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

Additional notes:

First approved: 16 May 2005
Last reviewed: 15 March 2019
Review due: 30 June 2024

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/1415
16 Jun 2023