Head and neck squamous cell carcinoma locally advanced cARBOplatin (weekly) chemoradiation (part 2 of TPF)

ID: 732 v.6 **Endorsed** Essential Medicine List

This protocol was published over 10 years ago and has been assessed by the reference committee as suitable to be reviewed as required. The review due date has been removed. If something in this protocol requires reference committee consideration, please click on the feedback button at the bottom of the page.

Read more about the as required review process in this factsheet.

⚠ ADDIKD Carboplatin dosing:
For dosing carboplatin, ADDIKD recommends that:

- Directly measured glomerular filtration rate (mGFR) is the preferred kidney function value in the Calvert formula, especially where estimated kidney function may be unreliable for accurate therapeutic dosing.
- Where mGFR is unavailable, eGFR adjusted to an individual's body surface area (BSA-adjusted eGFR) is a suitable alternative for use in the Calvert formula.
- Kidney function should not be capped at 125 mL/min for use in the Calvert formula.
- Recalculation of carboplatin doses at each cycle is unnecessary, except when baseline kidney function (e.g., eGFR) alters by > 20% or when there is a change in the clinical status of the patient.

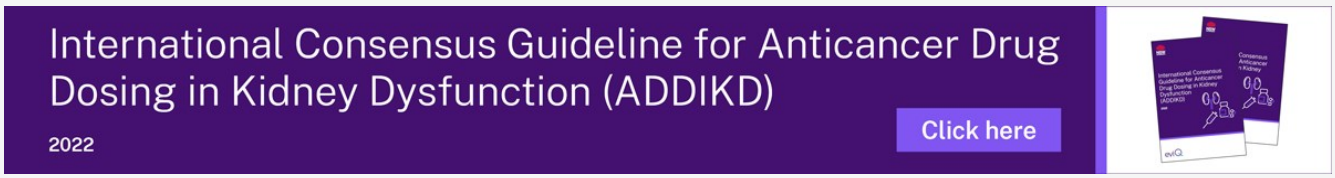
For further information refer the eviQ Factsheet around carboplatin dosing and the carboplatin drug monograph within the ADDIKD guideline. To assist with calculations, use the eviQ Estimated Glomerular Filtration Rate (eGFR) and carboplatin dose calculators.

Head and neck cancer treatment is complex and combined modality therapy is common; the involvement of a multidisciplinary team (MDT) in the initial development and ongoing evaluation of the treatment plan, and the management of the sequelae associated with treatment is recommended.

This protocol is based on limited evidence; refer to the evidence section of this protocol 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:

- Head and neck squamous cell carcinoma locally advanced induction TPF (DOCEtaxel ciSplatin fluorouracil) followed by chemoradiation overview
- Head and neck squamous cell carcinoma locally advanced induction TPF (DOCEtaxel ciSplatin fluorouracil) (part 1)

Treatment schedule - Overview

Cycle 1 and further cycles

Drug	Dose	Route	Day

cARBOplatin	1.5 AUC *	IV infusion	1

*If estimated GFR is greater than 125 mL/min. (i.e. 1.5 AUC dose greater than 225 mg), obtaining direct measurement rather than an estimated renal function and/or dose capping is strongly recommended.

Frequency: 7 days

Cycles: with concurrent radiation therapy (commencing 3 to 4 weeks after the completion of induction chemotherapy with TPF)

Notes:
In the TAX 324 trial, chemoradiation was commenced 3 to 8 weeks after the start of the third cycle of induction chemotherapy[1] however, it is the consensus of the eviQ Reference Committee that commencing chemoradiation 3 to 4 weeks after the completion of induction chemotherapy is recommended.

Drug status: Carboplatin is on the PBS general schedule

Cost: ~ $20 per cycle (chemotherapy only)

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
Palonosetron	0.25 mg (IV bolus)	30 minutes before chemotherapy
cARBOplatin	1.5 AUC (IV infusion)	in 500 mL glucose 5% over 30 to 60 minutes (if estimated GFR is greater than 125 mL/min (i.e. 1.5 AUC dose greater than 225 mg), obtaining direct measurement rather than an estimated renal function and/or dose capping is strongly recommended)
Day 2 and 3		
Dexamethasone	8 mg (PO)	ONCE a day (or in divided doses) with or after food. Note: dexamethasone doses on day 2 and 3 may not be required and may be reduced or omitted at the clinicians discretion. *

* Link to ID 7 Prevention of chemotherapy induced nausea and vomiting

Frequency: 7 days

Cycles: with concurrent radiation therapy (commencing 3 to 4 weeks after the completion of induction chemotherapy with TPF)

Indications and patient population

- Chemoradiation commencing 3 to 4 weeks after the completion of induction chemotherapy with TPF in patients with locally advanced squamous cell carcinoma (SCC) of the oral cavity, larynx, oropharynx or hypopharynx who have low probability of surgical cure, require organ preservation or where the tumour is technically unresectable

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 carboplatin. Hypersensitivity risk increases with number of cycles of carboplatin. Rechallenge with carboplatin after hypersensitivity carries a high risk of anaphylaxis, and where clinically indicated, should be undertaken with a desensitisation protocol with appropriate supports in place. Refer to local institutional policy. Read more about Hypersensitivity reaction
Emetogenicity MODERATE	Suggested default antiemetics have been added to the treatment schedule, and may be substituted to reflect institutional policy. Even though a combination of an NK1 receptor antagonist, 5HT3, and a steroid is available on the on the PBS for the prevention of nausea and vomiting associated with all moderate to highly emetogenic anti-cancer therapies, we have opted not to include the NK1 in the treatment schedule. 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
Dental assessment	Dental assessment is recommended for all patients prior to starting treatment Read more about health professional dental considerations for patients starting head and neck treatment
Nutrition risk HIGH	All patients should be assessed by a dietitian prior to commencement of treatment. Read more about COSA's evidence-based practice guidelines for the nutritional management of adult patients with head and neck cancer
Oral mucositis	Mucositis is common with this protocol. Discussion with treating clinicians, including radiation oncologists, before modification, is recommended. Access the oral mucositis assessment tool
Speech pathology	All head and neck patients presenting with either a swallowing and /or communication problem should be referred
Growth factor support	G-CSF (short or long-acting) is available on the PBS for chemotherapy induced neutropenia depending on clinical indication and/or febrile neutropenia risk. Access the PBS website
Blood tests	FBC, EUC, eGFR, and LFTs at baseline and prior to each cycle. Calcium and magnesium at baseline and as clinically indicated. Recalculation of carboplatin doses at each cycle is unnecessary, except when baseline kidney function (e.g., eGFR) alters by greater than 20% or when there is a change in the clinical status of the patient.
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).

For dosing carboplatin, ADDIKD recommends that:

- Directly measured glomerular filtration rate (mGFR) is the preferred kidney function value in the Calvert formula, especially where estimated kidney function may be unreliable for accurate therapeutic dosing.
- Where mGFR is unavailable, eGFR adjusted to an individual's body surface area (BSA-adjusted eGFR) is a suitable alternative for use in the Calvert formula.
- Kidney function should not be capped at 125 mL/min for use in the Calvert formula.
- Recalculation of carboplatin doses at each cycle is unnecessary, except when baseline kidney function (e.g., eGFR) alters by > 20% or when there is a change in the clinical status of the patient.

*For further information refer the **eviQ Factsheet** around carboplatin dosing and the carboplatin drug monograph within the ADDIKD guideline. To assist with calculations, use the eviQ **Estimated Glomerular Filtration Rate (eGFR)** and **carboplatin** dose calculators.*

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

Haematological toxicity	
ANC x 10^9/L (pre-treatment blood test)	
0.5 to less than 1.0	Delay treatment until recovery and maintain the dose
less than 0.5	Delay treatment until recovery and consider reducing carboplatin by 25% for subsequent cycles
Febrile neutropenia	Delay treatment until recovery and consider reducing carboplatin by 25% for subsequent cycles
Platelets x 10^9/L (pre-treatment blood test)	
75 to less than 100	Refer to local institutional guidelines; it is the view of the expert clinicians that treatment should continue if patient is clinically well.
50 to less than 75	Delay treatment until recovery and maintain the dose

Haematological toxicity	
less than 50	Delay treatment until recovery and consider reducing carboplatin by 25% for subsequent cycles

Renal impairment	
Creatinine clearance (mL/min)	
less than 30	Recalculate carboplatin dose using Calvert formula based on measured glomerular filtration rate (GFR) or consider omitting

Hepatic impairment
No dose modification necessary

Mucositis and stomatitis
Mucositis is common with this protocol; discussion with treating clinicians, including radiation oncologists, before dose modification, is recommended

Interactions

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*

For more information see References & Disclaimer .

Carboplatin		
	Interaction	**Clinical management**
Nephrotoxic drugs (e.g. aminoglycosides, amphotericin, contrast dye, frusemide, NSAIDs)	Additive nephrotoxicity	Avoid combination or monitor kidney function closely
Ototoxic drugs (e.g. aminoglycosides, frusemide, NSAIDs)	Additive ototoxicity	Avoid combination or perform regular audiometric testing
Paclitaxel	Administration schedule may influence the development of myelosuppression	Minimise toxicity by administering paclitaxel first in regimens using the combination

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.

Oral mucositis assessment tool

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

Mucositis is common with this protocol. Discussion with treating clinicians, including radiation oncologists, before modification is recommended.

Prime IV line(s).

Insert IV cannula or access TIVAD or CVAD.

Pre treatment medication

Verify antiemetics taken or administer as prescribed.

Verify dexamethasone taken or administer as prescribed.

Chemotherapy - Time out

Carboplatin

Administer carboplatin (irritant):

- via IV infusion over 30 to 60 minutes
- observe for hypersensitivity reactions
- flush with ~100 mL of sodium chloride 0.9%
- hypersensitivity risk increases with number of cycles administered.

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

Antiemetics

- Antiemetics 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
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
Anorexia	Loss of appetite accompanied by decreased food intake. Read more about anorexia
Fatigue	Read more about fatigue

Late (onset weeks to months)	
Anaemia	Abnormally low levels of red blood cells (RBCs) or haemoglobin in the blood. Read more about anaemia

Evidence

The evidence supporting the use of this regimen comes from the TAX 324 trial, a randomised, multicentre open-label, phase III trial.[1] Between May 1999 and December 2003, a total of 501 patients with a WHO performance status of 0 or 1, were randomised to one of two arms:

Arm 1 (TPF): docetaxel 75mg/m^2 and cisplatin 100 mg/m^2 on day 1 followed by fluorouracil 1000 mg/m^2/day from day 1 to day 4
Arm 2 (PF): cisplatin 100 mg/m^2 on day 1 followed by fluorouracil 1000 mg/m^2/day from day 1 to day 5

The cycles were repeated every 3 weeks for 3 cycles. All patients who did not have progressive disease were to receive chemoradiation therapy (carboplatin at a dose of 1.5 AUC weekly with concurrent radiation therapy).

The primary endpoint was overall survival. Patients with tumours of the nasopharynx and nasal/paranasal cavities were excluded from this study.

A search of the literature did not find strong evidence to support the use of carboplatin chemoradiation in the treatment of locally advanced squamous cell carcinoma of the head and neck after induction chemotherapy. The effect of carboplatin chemoradiation after induction chemotherapy has not been compared with radiation therapy alone. The expert reference panel supported publication of the protocol on the basis of the information summarised below because it was the regimen used in this large phase III trial. The committee was most strongly influenced by the study by Posner et al.[1]

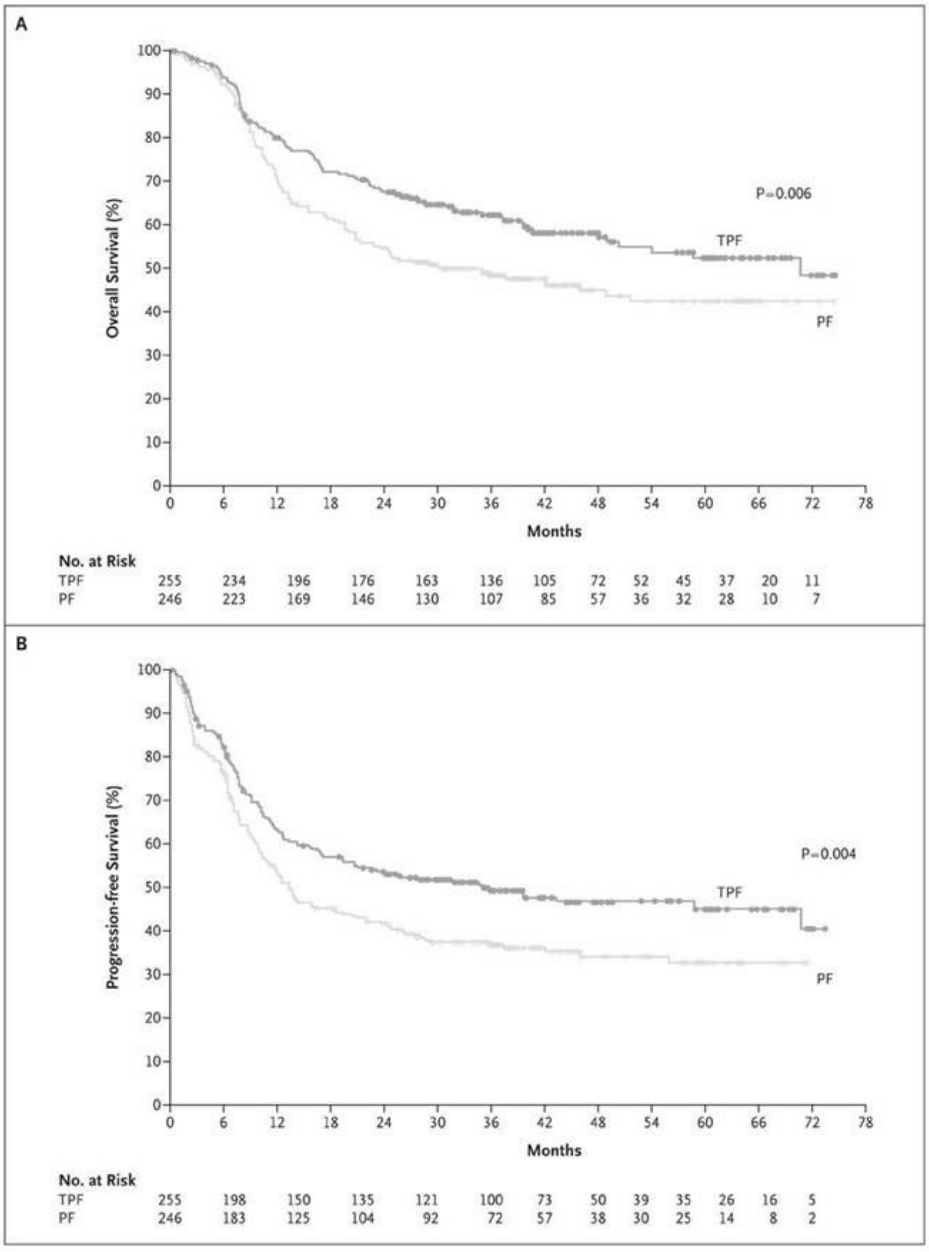
Source	Study & Year Published	Supports Use	Is the dose and regimen consistent with the protocol?	Comments
Phase III trials	Posner et al 2007[1]	**Yes**	Yes	given to both arms of the TAX 324 study post induction chemotherapy

Source	Study & Year Published	Supports Use	Is the dose and regimen consistent with the protocol?	Comments
Guidelines	**Date published/revised**	**Supports Use**	**Is the dose and regimen consistent with the protocol?**	**Comments**
NCCN	-	**N/A**	-	-
BCCA	-	**N/A**	-	-
CCO	-	**N/A**	-	-

Efficacy

After a median follow up of 42 months, treatment with TPF resulted in a 30% reduction in the risk of death (HR=0.70; p=0.006). The median survival was 71 months in the TPF group and 30 months in the PF group (p=0.006). There was better locoregional control in the TPF group than in the PF group (p=0.04), but the incidence of distant metastases in the two groups did not differ significantly (p=0.14)[1].

Kaplan-Meier estimates of (A) Overall Survival and (B) Progression-free survival[1]



Toxicity

Rates of neutropenia and febrile neutropenia were higher in the TPF group and rates of non-haematologic toxicity were similar in the 2 study groups[1].

Adverse events and treatment delays[1]

Table 4. Adverse Events and Treatment Delays.*

Variable	TPF	PF	P Value†
Adverse events during induction chemotherapy			
No. of patients	251	243	
Hematologic — %			
Anemia grade 3 or 4	12	9	0.32
Thrombocytopenia grade 3 or 4	4	11	0.005
Neutropenia grade 3 or 4‡	83	56	<0.001
Febrile neutropenia‡§	12	7	0.04
Neutropenic infection¶	12	8	0.23
Nonhematologic grade 3 or 4 — %			
Stomatitis (mucositis)	21	27	0.14
Nausea	14	14	1.00
Esophagitis, dysphagia, or odynophagia	13	9	0.26
Anorexia	12	12	0.78
Vomiting	8	10	0.54
Diarrhea	7	3	0.07
Infection	6	5	0.70
Lethargy	5	10	0.03
Treatment delays during induction chemotherapy‖			
No. of patients	251	243	
Patients who had delays — no. (%)	73 (29)	157 (65)	<0.001
Reason for delay			
Hematologic			
Any adverse event	11 (4)	108 (44)	<0.001
Neutropenia	2 (1)	95 (39)	
Nonhematologic	25 (10)	22 (9)	0.76
Other**	38 (15)	40 (16)	0.71
Adverse events during chemoradiotherapy			
No. treated with chemoradiotherapy	202	184	
Nonhematologic grade 3 or 4 — %			
Stomatitis (mucositis)	37	38	1.00
Esophagitis, dysphagia, or odynophagia	23	24	0.81
Anorexia	11	15	0.29
Infection	9	7	0.45
Lethargy	6	6	1.00
Nausea	6	6	1.00
Vomiting	3	5	0.46
Diarrhea	0	2	0.11

* Adverse events are listed regardless of whether they were associated with treatment. Major adverse events are shown; see the tables in the Supplementary Appendix for a complete list. PF denotes cisplatin and fluorouracil, and TPF docetaxel plus cisplatin and fluorouracil.
† P values were calculated by Fisher's exact test.
‡ Percentages are based on the number of patients who could be evaluated for neutropenia (248 in the TPF group and 241 in the PF group).
§ Febrile neutropenia was defined as fever of grade 2 or more concomitant with grade 4 neutropenia requiring intravenous antibiotics, hospitalization, or both.
¶ Neutropenic infection was defined as infection of grade 2 or more concomitant with grade 3 or 4 neutropenia.
‖ A patient may have had a delay in treatment because of one or more adverse events.
** Other reasons for treatment delays included logistics, personal reasons, and vacations.

References

1 Posner, M. R., D. M. Hershock, C. R. Blajman, et al. 2007. "Cisplatin and fluorouracil alone or with docetaxel in head and neck cancer." N Engl J Med 357(17):1705-1715.

History

Version 6

Date	Summary of changes
31/01/2024	Protocol assessed by eviQ medical oncology reference committee and deemed suitable to be reviewed as required. Flag added, review date removed and version number increased to V.6. Read more about as required review protocol status in this factsheet.

Version 5

Date	Summary of changes
08/10/2019	Clinical information updated with PBS expanded indications for GCSF.

Version 4

Date	Summary of changes
30/04/2010	New protocol taken to Medical Oncology Reference Committee meeting.
25/06/2010	Approved and published on eviQ.
29/05/2011	PHC view created.
29/07/2011	Protocol reviewed at reference committee meeting 29/07/11. Title changed "with concurrent radiotherapy" to "chemoradiation". Side effect for diarrhoea removed as not common with this protocol.
17/04/2012	PHC OMIS view updated.
01/05/2012	Palonosetron added as the preferred $5HT_3$ antagonist for moderate emetogenicity.
31/05/2012	Made searchable, recategorised, PHC OMIS view published.
03/05/2013	Protocol Reviewed at Medical Oncology Reference Committee meeting Next review in 2 years.
20/08/2014	PHC view removed.
18/06/2015	Protocol reviewed electronically by Medical Oncology Reference Committee. Next review in 2 years.
16/02/2016	Carboplatin dosing - For estimated GFR > 125 mL/min, note about measuring GFR and/or dose capping added.
21/10/2016	Protocol reviewed by Medical Oncology Reference Committee. Limited evidence table added. Next review 2 years.
31/05/2017	Transferred to new eviQ website.Version number changed to V.3.
10/05/2018	Haematological dose modifications updated as per consensus of the expert clinician group. Version number changed to V.4.
22/06/2018	Antiemetics updated to be in line with international guidelines. Note to dexamethasone added.
15/03/2019	Protocol reviewed by Medical Oncology Reference Committee. No changes. Review 5 years.

First approved: 25 June 2010
Last reviewed: 15 March 2019
Review due: As required

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/732
05 Mar 2024

Patient information - Head and neck cancer locally advanced - Carboplatin with radiation therapy (part 2 of TPF)

Patient's name:

Your treatment

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

Carboplatin with radiation therapy

This is the second part of your treatment and should begin 3 to 4 weeks after your chemotherapy with TPF (docetaxel, cisplatin and fluorouracil). This treatment cycle is repeated every 7 days during radiation therapy (usually 6 weeks). Your doctor will advise you of the number of treatments you will have.

Day	Treatment	How it is given	How long it takes
1	**Carboplatin** (*carb-o-PLAT-in*)	By a drip into a vein	About 1.5 hours

When to get help

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

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

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.**
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.**

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.
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.**

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.**

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.

- Speak to your doctor or nurse about whether drinking alcohol is safe with your treatment.
- If you have any concerns about recent weight loss or weight gain or questions about your diet, ask to speak to a dietitian.

Fertility

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

Pregnancy and breastfeeding

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

Sex life and sexuality

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

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

Head and neck cancer information

- Head and Neck Cancer Australia - headandneckcancer.org.au/

General cancer information and support

- Australian Rare Cancer (ARC) Portal – arcportal.org.au/
- Beyond Blue – beyondblue.org.au
- Beyond Five – beyondfive.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

- 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: 25 June 2010
Last reviewed: 15 March 2019
Review due: 31 December 2033

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/732
05 Mar 2024