

# Breast adjuvant exemestane

ID: 25 v.4    **Endorsed**    Essential Medicine List

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](#).

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

2022

[Click here](#)



### Related pages:

- [Breast adjuvant tamoxifen](#)

## Treatment schedule - Overview

Drug	Dose	Route
Exemestane	25 mg ONCE a day	PO

**Continuous daily to complete a total of 5 to 10 years of adjuvant endocrine therapy**

**Drug status:** Exemestane is a [PBS restricted benefit](#)

**Cost:** ~ \$60 per month

## 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.*

### Continuous treatment

Exemestane	25 mg (PO)	ONCE a day with or after food
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**Continuous daily to complete a total of 5 to 10 years of adjuvant endocrine therapy**

## Indications and patient population

- Hormone receptor positive invasive breast cancer in post-menopausal women for a total of 5 to 10 years of adjuvant endocrine therapy.<sup>1</sup>

## Clinical information

<b>Emetogenicity MINIMAL</b>	No antiemetics should be routinely administered before treatment in patients without a history of nausea and vomiting. If patients experience nausea and/or vomiting, consider using the low antiemetic prophylaxis regimen.
<b>Bone mineral density (BMD)</b>	Baseline BMD and repeat as clinically indicated. Lifestyle modification including regular exercise, particularly weight bearing exercises should be encouraged.
<b>Supplements</b>	Consider daily oral supplements of at least calcium 500 mg and vitamin D 400 International Units for the duration of the therapy.
<b>Oestrogen preparations</b>	Oestrogen preparations should be avoided due to insufficient data on safety as systemic absorption of oestrogen may negate the effect of aromatase inhibitors. Minimal use of topical oestrogen therapies for vulvo-vaginal complaints may be considered.
<b>Blood tests</b>	LFTs, lipid studies, calcium and vitamin D at baseline and repeat as clinically indicated.

## 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.*

### Renal impairment

No dose modifications necessary

### Hepatic impairment

#### Hepatic dysfunction

Severe	Use with caution
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## 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](#)

Exemestane		
	Interaction	Clinical management
<b>Oestrogen containing therapies</b>	Negate the pharmacological action of exemestane	Combination contraindicated (minimal use of topical oestrogen therapy for vulvo-vaginal complaints may be considered)
<b>CYP3A4 inducers (e.g. carbamazepine, phenytoin, phenobarbitone, rifampicin, St John's wort etc.)</b>	Reduced efficacy of exemestane possible due to increased clearance	Caution advised if combination used - monitor for decreased clinical response to exemestane

## 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.*

### Administration

**This is a continuous oral treatment**

[Safe handling and waste management](#) (reproductive risk only)

[Safe administration](#)

#### Exemestane

- administer orally ONCE a day
- to be swallowed whole with a glass of water; do not break, crush or chew
- to be taken with or immediately after food
- if nausea develops, take after food at night

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

Continue [safe handling](#) precautions (reproductive risk only) for 7 days after completion of drug(s).

### Discharge information

#### Exemestane tablets

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

#### 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)	
<b>Nausea and vomiting</b>	
<b>Headache</b>	

Early (onset days to weeks)	
Hot flushes	
Hyperlipidaemia and hypercholesterolaemia	Abnormally elevated levels of lipids and cholesterol in the blood.
Fluid retention and oedema	An excess amount of fluid around the cells, tissues or serous cavities of the body, leading to swelling.
Late (onset weeks to months)	
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 <a href="#">arthralgia and myalgia</a>
Vaginal atrophy	Read more about <a href="#">vaginal dryness</a>
Delayed (onset months to years)	
Osteoporosis	

## Evidence

The evidence supporting this protocol is provided by a phase III, multicentre, international, randomised trial (IES) involving 4724 patients comparing exemestane after two to three years of tamoxifen therapy with continuing tamoxifen therapy in postmenopausal women with primary breast cancer.<sup>2</sup>

Between 1998 and 2003, 2352 patients were randomised to receive exemestane 25 mg daily and 2372 patients were randomised to receive tamoxifen 20 mg (or 30 mg in Denmark) daily to complete a total of five years of adjuvant endocrine treatment.<sup>2</sup>

The primary end point was disease-free survival (DFS) and secondary end points were overall survival (OS), the incidence of contralateral breast cancer, and long-term tolerability.<sup>2</sup>

A review by van Hellemond et al suggests considering extended adjuvant endocrine therapy with aromatase inhibitors for a total of 5 to 10 years treatment only in women with high-risk early breast cancer who tolerate treatment well.<sup>1</sup>

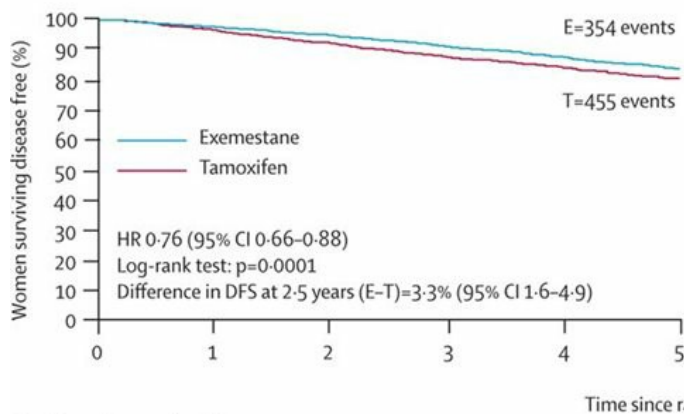
## Efficacy

After a median follow-up of 55.7 months, in the intention to treat group, the unadjusted hazard ratio (HR) for DFS was 0.76 (95% CI 0.66 to 0.88;  $p = 0.0001$ ) in favour of exemestane. This translated into a 3.3 % (95% CI 1.6 to 4.9) absolute improvement in DFS at 2.5 years after randomisation and a 3.4% (95% CI 0.1 to 6.8) improvement 5 years after randomisation.

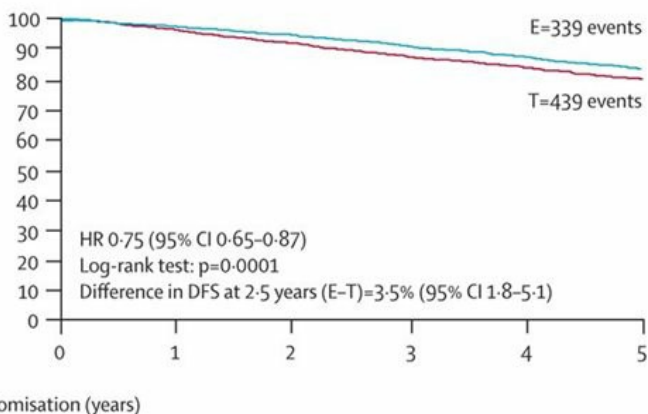
222 deaths occurred in the exemestane group compared with 261 deaths in the tamoxifen group; unadjusted HR 0.85 (95% CI 0.71 to 1.02,  $p = 0.08$ ). When 122 patients with oestrogen-receptor- negative disease were excluded, the unadjusted HR was 0.83 (0.69 to 1.00,  $p = 0.05$ ).<sup>2</sup>

**Kaplan-Meier plots for disease-free survival (DFS)<sup>2</sup>**

## ITT



## Oestrogen-receptor-positive/unknown



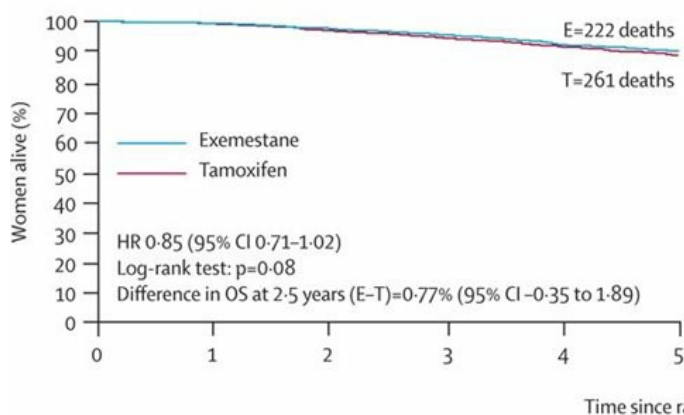
### Number of events/at risk

E	0/2352	58/2244	66/2165	83/1954	70/1506	50+27*/846	0/2296	55/2191	61/2117	80/1912	67/1474	49+27*/829
T	0/2372	83/2252	104/2134	103/1898	71/1442	48+46*/812	0/2306	81/2190	101/2075	98/1848	67/1399	46+46*/785

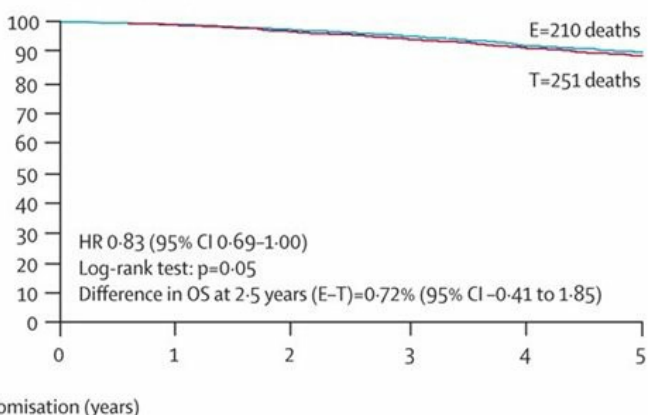
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## Kaplan-Meier plots for overall survival (OS)<sup>2</sup>

### ITT



### Oestrogen-receptor-positive/unknown



### Number of events/at risk

E	0/2352	18/2282	41/2226	47/2041	65/1582	27+24*/906	0/2296	17/2227	40/2172	43/1995	59/1548	27+24*/886
T	0/2372	24/2308	54/2238	55/2041	58/1570	33+37*/892	0/2306	23/2245	52/2177	52/1987	56/1523	33+35*/861

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## Toxicity

Patients who received exemestane reported fewer venous thromboembolic events on treatment than did those on tamoxifen. The incidence of cardiovascular events (excluding venous thromboembolic events) did not seem to differ between the groups. Musculoskeletal pain, carpal tunnel syndrome, joint stiffness, paraesthesia, and arthralgia were reported more frequently and cramp less frequently in patients who switched to exemestane than those who remained on tamoxifen. Rates of fracture per 1000 women-years were 19.2 (99% CI 15.9 to 23.1) for exemestane and 15.1 (95% CI 12.2 to 18.7) for tamoxifen.

Fewer clinically serious gynaecological events were reported in patients who switched to exemestane but the number of endometrial cancers did not differ significantly.

## Adverse events<sup>2</sup>

	Exemestane (n=2320)								Tamoxifen (n=2338)								p
	1	2	3	4	UG	Deaths	Total		1	2	3	4	UG	Deaths	Total		
							Number	100%							Number	100%	
CV events (excluding venous thromboembolic events)	44	20	11	2	378	28	483	20.8	51	24	14	1	327	24	441	18.9	0.09
Ischaemic cardiovascular disease	28	17	7	0	171	6	229	9.9	36	23	6	0	128	7	200	8.6	0.12
Other cardiovascular event	18	5	3	1	225	9	261	11.3	23	4	6	0	222	7	262	11.2	0.96
Hypertension	5	2	2	1	897	0	907	39.1	3	1	4	0	832	0	840	35.9	0.03
Venous thromboembolic events	15	5	8	1	15	1	45	1.9	14	12	21	6	19	0	72	3.1	0.01
Fracture	0	4	1	0	157	0	162	7.0	2	1	1	0	111	0	115	4.9	0.003
Other fracture (excluding hip, spine or wrist fractures)	0	2	1	0	113	0	116	5.0	2	1	1	0	76	0	80	3.4	0.007
Arthritis	25	12	5	0	363	0	405	17.5	21	9	5	1	305	0	341	14.6	0.008
Osteoarthritis	12	7	2	0	242	0	263	11.3	15	3	2	0	207	0	227	9.7	0.07
Arthralgia	225	145	27	1	85	0	483	20.8	180	100	20	3	51	0	354	15.1	<0.0001
Carpal tunnel syndrome	2	8	4	0	51	0	65	2.8	0	0	0	0	10	0	10	0.4	<0.0001
Osteoporosis	1	0	1	0	211	0	213	9.2	1	0	0	0	167	0	168	7.2	0.01
Musculoskeletal pain	253	195	37	6	105	0	596	25.7	234	128	27	3	82	0	474	20.3	<0.0001
Cramp	39	12	1	0	6	0	58	2.5	54	38	2	2	7	0	103	4.4	0.0004
Serious gynaecological events	45	21	11	0	62	0	139	7.0	58	30	5	1	119	0	213	10.6	0.0001
Vaginal bleeding	47	27	11	0	19	0	104	5.2	70	42	4	1	36	0	153	7.6	0.002
Uterine DC	0	0	0	0	16	0	16	0.8	0	0	0	0	36	0	36	1.8	0.006
Vaginal discharge	51	6	0	0	14	0	71	3.1	64	17	2	0	13	0	96	4.1	0.06
Endometrial hyperplasia	0	0	0	0	4	0	4	0.2	1	0	0	0	23	0	24	1.2	0.0002
Uterine polyp/fibroids	0	1	0	0	31	0	32	1.6	2	1	0	0	90	0	93	4.6	<0.0001
Menopausal symptoms	513	431	126	3	36	0	1109	47.8	507	391	112	0	44	0	1054	45.1	0.06
Hot flashes	505	375	100	1	3	0	984	42.4	492	350	89	0	1	0	932	39.9	0.08
Anxiety	51	36	3	0	62	0	152	6.6	44	24	4	0	55	0	127	5.4	0.11
Depression	55	44	5	0	159	0	263	11.3	37	30	5	0	158	0	230	9.8	0.10
Diarrhoea	61	33	9	1	6	0	110	4.7	39	15	3	1	4	0	62	2.7	0.0002
Dizziness	219	87	12	0	4	0	322	13.9	210	82	17	1	9	0	319	13.6	0.82
Fatigue	345	184	38	0	2	0	569	24.5	367	161	32	0	4	0	564	24.1	0.75
Headaches	277	137	27	1	1	0	443	19.1	255	126	19	2	0	0	402	17.2	0.09
Hypercholesterolaemia	8	3	0	1	192	0	204	8.8	7	2	0	0	169	0	178	7.6	0.14
Insomnia	278	146	44	0	14	0	482	20.8	241	144	32	0	9	0	426	18.2	0.03
Nausea	192	42	14	0	5	0	253	10.9	204	51	15	1	2	0	273	11.7	0.41
Paraesthesia	54	11	2	0	3	0	70	3.0	18	6	1	0	3	0	28	1.2	<0.0001
Sweating	227	160	55	1	0	0	443	19.1	217	153	60	0	1	0	431	18.4	0.56
Pain	169	90	13	1	35	0	308	13.3	190	77	12	0	56	0	335	14.3	0.30
Gastric ulcer	3	0	0	0	24	0	27	1.2	0	0	0	0	8	0	8	0.3	0.001

Criteria for inclusion of adverse events in table: toxic effects that had >1% point difference between the two treatment groups, ≥10% incidence in either treatment group, or statistically significant difference between the two treatment groups (p<0.01). This safety population includes on-treatment and post-treatment events for all treated patients, censoring at relapse or second primary cancer. The denominator for uterine-related symptoms excludes patients who had a hysterectomy before randomisation; n=1982 for exemestane and n=2008 tamoxifen treatment group. Some deaths of unknown cause were classified (by RB) conservatively as cardiac deaths for the safety analysis. CV=cardiovascular. UG=ungraded (classified as between grades 2 and 3). DC=dilatation and curettage.

**Table 5: Numbers of toxic effects reported on-treatment and post-treatment, by Common Toxicity Criteria grade**

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### Cardiovascular, cerebrovascular and thromboembolic events for aromatase inhibitors compared to tamoxifen<sup>3</sup>



Trial	Trmt arms	Cardiovascular	Cerebrovascular	Thromboembolic
ATAC <sup>4,33,76</sup>	A vs. T	Ischemic cardiovascular disease: 4.1% vs. 3.4%, <i>p</i> = 0.1	Ischemic cerebrovascular events: 2.0% vs. 2.8%, <i>p</i> = 0.03	Venous thromboembolic events: 2.8% vs. 4.5%, <i>p</i> = 0.0004, OR 0.61, 95% CI 0.46 to 0.80
BIG 1–98 <sup>6</sup>	L vs. T	Cardiovascular deaths: 2% vs. 1%, <i>p</i> = NR All cardiac events: 5.5% vs. 5.0%, <i>p</i> = 0.48 Ischemic heart disease: 2.2% vs. 1.7%, <i>p</i> = 0.21 Cardiac failure: 1.0% vs. 0.6%, <i>p</i> = 0.14 Other cardiovascular events: 0.8% vs. 0.2%, <i>p</i> = 0.014	Cerebrovascular deaths: <1% vs. 1%, <i>p</i> = NR Cerebrovascular accident or TIA: 1.4% vs. 1.4%, <i>p</i> = 0.90	Deep venous thromboembolic events: 1.6% vs. 2.4%, <i>p</i> = 0.02 Thromboembolic events: 2.0% vs. 3.8%, <i>p</i> < 0.001
IES <sup>8</sup>	T → E vs. T	Cardiovascular events: 20.8% vs. 18.9%, <i>p</i> = 0.09 Ischemic cardiovascular disease: 9.9% vs. 8.6%, <i>p</i> = 0.12	NR	Thromboembolic events: 1.9% vs. 3.1%, <i>p</i> = 0.01
ITA <sup>9</sup>	T → A vs. T	Cardiovascular diseases: 7.9% vs. 9.3%, <i>p</i> = 0.04	NR	NR
ABCSG-8/ARNO-95 <sup>10</sup>	T → A vs. T	Myocardial infarction: <1% vs. <1%, <i>p</i> = 1.0	NR	Embolism: <1% vs. <1%, <i>p</i> = 0.064 Thromboses: <1% vs. <1%, <i>p</i> = 0.034 <sup>a</sup>
MA.17 <sup>11</sup>	T → L vs. T → placebo	Cardiovascular disease: 5.8% vs. 5.6%, <i>p</i> = 0.76 Myocardial infarction: 0.3% vs. 0.4% New or worsening angina: 1.2% vs. 0.9% Angina requiring PTCA: 0.1% vs. 0.3% Angina requiring CABG: 0.2% vs. 0.5%	Stroke/TIA: 0.7% vs. 0.6%	Thromboembolic event: 0.4% vs. 0.2%

Note: Significant differences are shown in bold face.

Abbreviations: →, followed by; A, anastrozole; ABCSG, Austrian Breast and Colorectal Cancer Study Group; ARNO, Arimidex/Nolvadex; ATAC, Arimidex, Tamoxifen, Alone or in Combination; BIG, Breast International Group; CABG, coronary artery bypass graft; CI, confidence interval; E, exemestane; IES, Intergroup Exemestane Study; ITA, Italian Tamoxifen Anastrozole; L, letrozole; NR, not reported; OR, odds ratio; PTCA, Percutaneous Transluminal Coronary Angioplasty; T, tamoxifen; TIA, Transient Ischemic Attack; Trmt, treatment; vs, versus.

<sup>a</sup> Favours anastrozole.

© Cancer Treat Rev 2008

## References

- 1 van Hellemond, I. E. G., S. M. E. Geurts and V. C. G. Tjan-Heijnen. 2018. "Current Status of Extended Adjuvant Endocrine Therapy in Early Stage Breast Cancer." *Curr Treat Options Oncol* 19(5):26.
- 2 Coombes, R. C., L. S. Kilburn, C. F. Snowdon, et al. 2007. "Survival and safety of exemestane versus tamoxifen after 2-3 years' tamoxifen treatment (Intergroup Exemestane Study): a randomised controlled trial." *Lancet* 369(9561):559-570.
- 3 Eisen, A., M. Trudeau, W. Shelley, et al. 2008. "Aromatase inhibitors in adjuvant therapy for hormone receptor positive breast cancer: a systematic review." *Cancer Treat Rev* 34(2):157-174.

## History

### Version 4

Date	Summary of changes
12/10/2020	Protocol reviewed electronically by Medical Oncology Reference Committee. Treatment duration changed to a total of 5 to 10 years in treatment schedule, indications and patient information. Version number changed to V.4. Next review in 5 years.
15/12/2021	Removed antiemetic block from clinical information as nil required.
19/05/2022	Antiemetic clinical information block added to align with other breast endocrine protocols. 'Not a traditional chemotherapy drug' statement added to patient information.
30/08/2022	Indications updated and switch time frame removed to align with ID 19 and ID 30. Evidence updated with extended adjuvant therapy information. Clinical information oestrogen preparations updated to include topical oestrogen therapies. Clinical information vaccinations block removed.

### Version 3

Date	Summary of changes
17/01/2008	Addition of long term toxicities from review article
11/01/2010	Review, new dose modifications and transferred to eviQ
05/05/2010	Link to Patient Information - "Managing Oral Cancer Treatments at Home" removed as chemotherapy safe handling is inappropriate for this treatment
17/01/2011	New format to allow for export of protocol information. Protocol version number changed to V.2. Antiemetics and premedications added to the treatment schedule. Additional Clinical Information, Key Prescribing table and Key Administration table combined into new section titled Clinical Considerations. Drug specific information placed behind the drug name link.
27/04/2012	Protocol reviewed at Medical Oncology Reference Committee meeting. Removed link to safe handling (as for antineoplastics).
22/04/2013	PBS restrictions updated.
20/06/2013	Evidence updated.
30/06/2013	Protocol reviewed by committee via email survey. No changes and next review in 2 years.
22/06/2015	Protocol reviewed electronically by Medical Oncology Reference committee. No changes and next review in 2 years.
18/02/2016	Discussion with Medical Oncology Reference Committee Chairs and protocol to be reviewed every 5 years. Next review due in 4 years.
31/05/2017	Transferred to new eviQ website. Version number change to V.3.

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

**First approved:** 7 June 2006  
**Last reviewed:** 12 October 2020  
**Review due:** 31 December 2025

***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/25>

07 Jun 2023



# Patient information - Breast cancer adjuvant - Exemestane

Patient's name:

## Your treatment

It is important to understand that exemestane is not a traditional chemotherapy drug and has a different way of working. It works by reducing hormones which stops the cancer cells growing and spreading. The treatment schedule below explains how the drug for this treatment is given.

Exemestane		
This treatment is continuous to complete a total of 5 to 10 years of hormone treatment. Your doctor will advise you how long to take this treatment for. Do not stop taking exemestane tablets without telling your doctor.		
Day	Treatment	How it is given
Continuous	<b>Exemestane</b> ( <i>EX-e-MES-tane</i> )	Take orally ONCE a day, at the same time each day, after food. Swallow tablets whole with a glass of water, do not break, crush or chew.  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 suddenly become unwell.



**IMMEDIATELY go to your nearest hospital Emergency Department, or contact your doctor or nurse if you notice any pain or swelling in your legs or arms or if you develop any sudden shortness of breath or chest pain**

### Emergency contact details

Ask your doctor or nurse from your treating team who to contact if you have a problem

Daytime: .....

Night/weekend: .....

Other instructions: .....

.....

.....

.....

## 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**

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

**Hormonal cancer treatment**

Certain types of breast cancer need oestrogen to grow. This treatment works by reducing the supply of oestrogen to these cancer cells.  
Some people may experience hair thinning with this treatment. This is usually mild and rarely results in significant hair loss. You must not take any medications that contain oestrogen while you are having this treatment. This includes some oral contraceptives, hormone replacement therapy (HRT) and oestrogen creams. Ask your doctor or pharmacist for more information.

**Other medications given during this treatment**

- **Calcium and vitamin D supplements:** you may be given some calcium and vitamin D tablets. Your doctor or nurse will tell you how and when to take these.

**Side effects**

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

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

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

Immediate (onset hours to days)	
Nausea and vomiting	<ul style="list-style-type: none"><li>• You may feel sick (nausea) or be sick (vomit).</li><li>• Drink plenty of fluids (unless you are fluid restricted).</li><li>• Eat small meals more frequently.</li><li>• Try food that does not require much preparation.</li><li>• Try bland foods like dry biscuits or toast.</li><li>• Gentle exercise may help with nausea.</li><li>• Anti-sickness medication is usually not needed but may help in some people.</li><li>• Ask your doctor or nurse for eviQ patient information - <a href="#">Nausea and vomiting during cancer treatment</a>.</li><li>• <b>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.</b></li></ul>
Headache	<ul style="list-style-type: none"><li>• You can take paracetamol if you have a headache.</li><li>• <b>Tell your doctor or nurse immediately, or go to the nearest hospital Emergency Department if you get a very bad headache that is not helped by pain medication.</b></li></ul>

Early (onset days to weeks)	
<b>Hot flushes</b>	<ul style="list-style-type: none"> <li>You may get flushing of your face, sweating and sensations of heat.</li> <li>Avoid alcohol, coffee, tea and spicy foods, as they can make hot flushes worse.</li> <li>Wear lightweight clothes made from natural fibres; dress in layers.</li> <li>Put a cold, wet towel against your neck during hot flushes.</li> <li>Talk to your doctor or nurse about other ways to manage these symptoms.</li> </ul>
<b>High blood cholesterol levels</b>	<ul style="list-style-type: none"> <li>This treatment may increase your blood cholesterol levels. This is not a side effect you will notice.</li> <li>Your cholesterol levels will be checked during your treatment.</li> </ul>
<b>Extra fluid in the body (fluid retention)</b>	<ul style="list-style-type: none"> <li>You may gain weight over a short amount of time.</li> <li>Your hands and feet may become swollen, appear red or feel hot and uncomfortable.</li> <li>Wear loose clothing and shoes that are not too tight.</li> <li>Try not to stand up or walk around too much at one time.</li> <li>If your ankles or legs get swollen, try raising them.</li> <li>Make sure that any cuts or areas of broken skin are treated as soon as possible.</li> <li><b>Tell your doctor or nurse as soon as possible if you get any of the symptoms listed above or gain 1 to 2 kg in a week.</b></li> <li><b>Tell your doctor or nurse immediately or go to the nearest hospital Emergency Department if you become short of breath.</b></li> </ul>
Late (onset weeks to months)	
<b>Joint and muscle pain and stiffness</b>	<ul style="list-style-type: none"> <li>You may get muscle, joint or general body pain and stiffness.</li> <li>Applying a heat pack to affected areas may help.</li> <li>Talk to your doctor or nurse about other ways to manage these symptoms. You may need medication to help with any pain.</li> </ul>
<b>Vaginal changes</b>	<ul style="list-style-type: none"> <li>You may get a dry vagina.</li> <li>This may cause pain or discomfort during sex.</li> <li>Use a vaginal moisturiser.</li> <li>Before sex use a water-based lubricating gel.</li> <li>Talk to your doctor or nurse about other ways to manage these symptoms.</li> </ul>
Delayed (onset months to years)	
<b>Weak and brittle bones (osteoporosis)</b>	<ul style="list-style-type: none"> <li>Your bones may fracture easily and may become painful.</li> <li>You may have trouble moving around.</li> <li>You may find it hard to perform daily chores.</li> <li>Try to do some weight-bearing exercise for 30 minutes at least three times a week.</li> <li>Watch out for slippery floors and make sure walkways are well lit.</li> <li>Take calcium and vitamin D supplements if prescribed by your doctor.</li> <li>You may have regular tests to check your bones both before and during treatment.</li> <li>Tell your doctor or nurse if you get any of the signs or symptoms listed above.</li> </ul>

## General advice for people having cancer treatment

### Blood clot risk

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

### Medications and vaccinations

- Before you start treatment, tell your doctor about any medications you are taking, including vitamins or herbal supplements.
- Don't stop or start any medications during treatment without talking to your doctor and pharmacist first.
- Vaccinations such as flu and tetanus vaccines are safe to receive while you are having treatment. If you are unsure, check with your doctor before you have any vaccinations.

### Other medical and dental treatment

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

### Diet

- While you are receiving this treatment it is important that you try to maintain a healthy diet.
- Speak to your doctor or nurse about whether drinking alcohol is safe with your treatment.
- If you have any concerns about recent weight loss or weight gain or questions about your diet, ask to speak to a dietitian.

### 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.

### Breast cancer information

- Australasian Lymphology Association – [lymphoedema.org.au](http://lymphoedema.org.au)
- Australasian Menopause Society – [menopause.org.au](http://menopause.org.au)
- Breast Cancer Network Australia – [bcna.org.au](http://bcna.org.au)
- National Breast Cancer Foundation – [nbcf.org.au](http://nbcf.org.au)
- YWCA Encore breast cancer exercise program – [ywcaencore.org.au](http://ywcaencore.org.au)

### General cancer information and support

- Australian Rare Cancer (ARC) Portal – [arcportal.org.au/](http://arcportal.org.au/)
- Beyondblue – [beyondblue.org.au](http://beyondblue.org.au)
- Cancer Australia – [canceraustralia.gov.au](http://canceraustralia.gov.au)
- Cancer Council Australia – [cancer.org.au](http://cancer.org.au)
- Cancer Voices Australia – [cancervoicesaustralia.org](http://cancervoicesaustralia.org)
- CanTeen – [canteen.org.au](http://canteen.org.au)
- Carers Australia – [carersaustralia.com.au](http://carersaustralia.com.au)
- CHILL Cancer related hair loss – [scalpcooling.org](http://scalpcooling.org)
- eviQ Cancer Treatments Online – [eviQ.org.au](http://eviQ.org.au)
- LGBTQI+ People and Cancer - [cancercouncil.com.au/cancer-information/lgbtqi](http://cancercouncil.com.au/cancer-information/lgbtqi)
- Look Good Feel Better – [lgfb.org.au](http://lgfb.org.au)

- Patient Information – [patients.cancer.nsw.gov.au](https://patients.cancer.nsw.gov.au)
- Radiation Oncology Targeting Cancer – [targetingcancer.com.au](https://targetingcancer.com.au)
- Redkite – [redkite.org.au](https://redkite.org.au)
- Return Unwanted Medicines – [returnmed.com.au](https://returnmed.com.au)
- Staying active during cancer treatment – [patients.cancer.nsw.gov.au/coping-with-cancer/physical-wellbeing/staying-active](https://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](http://iCanQuit.com.au)
- Patient Information – [patients.cancer.nsw.gov.au/coping-with-cancer/physical-wellbeing/quitting-smoking](http://patients.cancer.nsw.gov.au/coping-with-cancer/physical-wellbeing/quitting-smoking)
- Quitnow – [quitnow.gov.au](http://quitnow.gov.au)

**Additional notes:**

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

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