NCCP National SACT Regimen



eriBULin Monotherapy

INDICATIONS FOR USE:

INDICATION	ICD10	Regimen Code	HSE approved reimbursement status*
Treatment of locally advanced or metastatic breast cancer which has progressed after at least one chemotherapeutic regimens for advanced disease. Prior therapy should have included an anthracycline and a taxane in either the adjuvant or metastatic setting unless patients were not suitable for these treatments.	C50	00228a	ODMS 01/01/2014
Treatment of adult patients with unresectable liposarcoma who have received prior anthracycline containing therapy (unless unsuitable) for advanced or metastatic disease.	C49	00228b	N/A

* This is for post 2012 indications only.

TREATMENT:

The starting dose of the drugs detailed below may be adjusted downward by the prescribing clinician, using their independent medical judgement, to consider each patients individual clinical circumstances.

eriBULin is administered on day 1 and day 8 of a 21 day cycle until disease progression or unacceptable toxicity occurs.

Facilities to treat anaphylaxis MUST be present when systemic anti-cancer therapy (SACT) is administered.

Drug	Dose	Route	Diluent & Rate	Cycle		
^{a, b, c} eriBULin	1.23mg/m ²	IV infusion	^{d, e} 50mL 0.9% sodium chloride over 5 minutes	Repeat every 21 days		
^a Note: Breast cancer - eriBULIn may be used in combination with trastuzumab therapy (Ref NCCP Regimen 00200 Trastuzumab (IV) Monotherapy -21 days). ^b In the EU the recommended dose refers to the base of the active substance (eriBULin). Calculation of the individual dose to be administered to a patient must be based on the strength of the ready to use solution that contains 0.44 mg/mL eriBULin and the dose recommendation of 1.23 mg/m ² .						
The dose reduction recommendations shown below (Table 1, 2 and 3) are also shown as the dose of eriBULin to be administered based on the strength of the ready to use solution.						
^c In the EMBRACE trial and other trials, the corresponding publications and in some other regions e.g. the US and Switzerland, the recommended dose is based on the salt form (eriBULin mesylate). The equivalent dose of eriBULin mesylate is 1.4mg/m ² .						
	^{a, b, c} eriBULin cer - eriBULIn may b ommended dose re individual dose to b dose recommendation olution. trial and other trials form (eriBULin mes	a, b, ceriBULin 1.23mg/m ² cer - eriBULIn may be used in combin ommended dose refers to the base o individual dose to be administered to dose recommendation of 1.23 mg/m ² on recommendations shown below (T olution. trial and other trials, the correspondi	a, b, ceriBULin 1.23mg/m² IV infusion cer - eriBULIn may be used in combination with trastuz ommended dose refers to the base of the active substation individual dose to be administered to a patient must be dose recommendation of 1.23 mg/m². on recommendations shown below (Table 1, 2 and 3) and olution. trial and other trials, the corresponding publications ar form (eriBULin mesylate). The equivalent dose of eriBU	a, b, ceriBULin 1.23mg/m² IV infusion d, e 50mL 0.9% sodium chloride over 5 minutes cer - eriBULIn may be used in combination with trastuzumab therapy (Ref NCCP Regimen 00200) ommended dose refers to the base of the active substance (eriBULin). individual dose to be administered to a patient must be based on the strength of the ready to us dose recommendation of 1.23 mg/m². on recommendations shown below (Table 1, 2 and 3) are also shown as the dose of eriBULin to be olution. trial and other trials, the corresponding publications and in some other regions e.g. the US and S form (eriBULin mesylate). The equivalent dose of eriBULin mesylate is 1.4mg/m².		

^eFinal dose concentration should be 0.018 - 0.18mg/mL.

ELIGIBILITY:

- Indications as above
- ECOG 0-2
- Platelets > 100 x 10^9 /L and ANC ≥ $1.5x10^9$ /L

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EXCLUSIONS:

- Hypersensitivity to eriBULin or to any of the excipients
- Breast feeding
- Congenital long QT syndrome
- Significant cardiovascular impairment

PRESCRIPTIVE AUTHORITY:

• The treatment plan must be initiated by a Consultant Medical Oncologist.

TESTS:

Baseline tests:

- FBC, renal and liver profile
- ECG monitoring if therapy initiated in patients with congestive heart failure, bradyarrhythmias, medicinal products known to prolong the QT interval, including Class Ia and III antiarrhythmics, and electrolyte abnormalities

Regular tests:

- FBC, renal and liver profile at the start of each cycle
- ECG monitoring if clinically indicated as above

Disease monitoring:

Disease monitoring should be in line with the patient's treatment plan and any other test/s as directed by the supervising Consultant.

DOSE MODIFICATIONS:

- Any dose modification should be discussed with a Consultant
- The administration of eriBULin should be delayed on day 1 or day 8 for any of the following:
 - ANC < $1 \times 10^{9}/L$
 - \circ Platelets < 75 x 10⁹/L
 - Grade 3 or 4 non-haematological toxicities

Thereafter the dose modifications in Table 1 apply.

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Haematological:

Table 1: Dose modification of eriBULin in haematological toxicity

ANC (x10 ⁹ /L)	Dose			
< 0.5 lasting > 7 days				
< 1 complicated by fever or infection				
Platelets (x10 ⁹ /L)	0.97mg/m ²			
< 25				
< 50 complicated by haemorrhage or requiring blood or platelet transfusion				
Reoccurrence of any haematological adverse reactions as specified above				
Despite reduction to 0.97mg/m ²	0.62mg/m ²			
Despite reduction to 0.62mg/m ²	Consider discontinuation			
Do not re-escalate the eriBULin dose after it has been reduced.				

Renal and Hepatic Impairment:

Table 2: Dose modification of eriBULin in renal and hepatic impairment

Renal Impairment		Hepatic Impairment		
CrCl (mL/min)	Dose		Dose	
> 50	No dose adjustment is needed	Child-Pugh A ^b	80% of the original dose	
< 50	80% of the original dose	Child-Pugh B ^b	50% of the original dose	
Haemodialysis:	80% of the original dose may be considered	Child-Pugh C ^b	Not recommended	
	CrCl (mL/min) > 50 < 50	CrCl (mL/min)Dose> 50No dose adjustment is needed< 50	CrCl (mL/min) Dose > 50 No dose adjustment is needed Child-Pugh A ^b < 50	

Management of adverse events:

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Table 3: Dose Modification of eriBULin for Adverse Events

Adverse reactions	Recommended dose modification	
Grade 3 or 4 non-haematological toxicity in previous cycle.	 Reduce dose from 1.23mg/m² to 0.97mg/m². If there is any reoccurrence despite the dose reduction, reduce dose further to 0.62mg/m². If there is any reoccurrence despite dose reduction to 0.62mg/m², consider discontinuation. Do not re-escalate the eriBULin dose after it has been reduced. 	

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SUPPORTIVE CARE:

EMETOGENIC POTENTIAL:

As outlined in NCCP Classification Document for Systemic Anti-Cancer Therapy (SACT) Induced Nausea and Vomiting linked here

eriBULin: Low (Refer to local policy).

For information:

Within NCIS regimens, anti-emetics have been standardised by Medical Oncologists and Haemato-oncologist and information is available in the following documents:

- NCCP Supportive Care Antiemetic Medicines for Inclusion in NCIS (Medical Oncology) link here
- NCCP Supportive Care Antiemetic Medicines for Inclusion in NCIS (Haemato-oncology) link here

PREMEDICATIONS: Not usually required OTHER SUPPORTIVE CARE:

- Severe neutropenia may be managed by the use of G-CSF
- eriBULin may cause adverse reactions such as tiredness and dizziness which may lead to a minor or moderate influence on the ability to drive or use machines. Patients should be advised not to drive or use machines if they feel tired or dizzy

ADVERSE EFFECTS:

The adverse effects listed are not exhaustive. Please refer to the relevant Summary of Product Characteristics for full details.

DRUG INTERACTIONS:

• Current drug interaction databases and relevant drug SmPCs should be consulted for more information.

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REFERENCES:

- 1. Cartes J, O'Shaughnessy J, Loesch D et al. EriBULin monotherapy versus treatment of physicians choice in patients with metastatic breast cancer (EMBRACE): a phase three open label randomized study. Lancet 2011; 377 (9769): 914-923.
- 2. Phase II study of the halichondrin B analog eriBULin mesylate in patients with locally advanced or metastatic breast cancer previously treated with an anthracycline, a taxane, and capecitabine. J ClinOncol 2010;28(25):3922-8.
- 3. Sakaguchi K et al. Phase II Clinical Trial of First-line Eribulin Plus Trastuzumab for Advanced or Recurrent HER2-positive Breast Cancer. Anticancer Res. 2018 Jul; 38(7):4073-4081. doi:10.21873/anticanres.12697.
- Lutrino S.E. et al. Eribulin plus trastuzumab in pretreated HER2-positive advanced breast cancer (ABC) patients: Results on safety and efficacy—An Italian multicenter experience, Journal of Clinical Oncology 2016 34:15_suppl, e12087-e1208.
- Orditura M, Gravina A, Riccardi F, et al. Eribulin for metastatic breast cancer (MBC) treatment: a retrospective, multicenter study based in Campania, south Italy (Eri-001 trial). ESMO Open. 2017;2(2):e000176. Published 2017 Jun 2. doi:10.1136/esmoopen-2017-000176.
- 6. Dell'Ova M, De Maio E, Guiu S, et al. Tumour biology, metastatic sites and taxanes sensitivity as determinants of eribulin mesylate efficacy in breast cancer: results from the ERIBEX retrospective, international, multicenter study. BMC Cancer. 2015;15:659. Published 2015 Oct 8. doi:10.1186/s12885-015-1673-3.
- Mukai H, et al. Phase I combination study of eribulin mesylate with trastuzumab for advanced or recurrent human epidermal growth factor receptor 2 positive breast cancer. Invest New Drugs. 2015 Feb;33(1):119-27. doi: 10.1007/s10637-014-0161-y. Epub 2014 Sep 23. PubMed PMID: 25242374; PubMed Central PMCID: PMC4295025.
- Wilks S et al. Phase II, multicenter, single-arm study of eribulin mesylate with trastuzumab as firstline therapy for locally recurrent or metastatic HER2-positive breast cancer. Clin Breast Cancer. 2014 Dec;14(6):405-12. doi: 10.1016/j.clbc.2014.04.004. Epub 2014 Jun 2. PubMed PMID: 25024001.
- Schöffski P et al. European Organisation for Research and Treatment of Cancer (EORTC) Soft Tissue and Bone Sarcoma Group (STBSG). Activity of eribulin mesylate in patients with soft-tissue sarcoma: a phase 2 study in four independent histological subtypes. Lancet Oncol. 2011 Oct;12(11):1045-52. doi: 10.1016/S1470-2045(11)70230-3. Epub 2011 Sep 19. Erratum in: Lancet Oncol. 2015 Sep;16(9):e427. PMID: 21937277.
- 10. Giraud E L, Lijster B D, et al. Dose recommendations for anticancer drugs in patients with renal or hepatic impairment: an update. Available at: https://pubmed.ncbi.nlm.nih.gov/37269847/
- 11. NCCP Classification Document for Systemic Anti-Cancer Therapy (SACT) Induced Nausea and Vomiting. V5 2023 Available at: https://www.hse.ie/eng/services/list/5/cancer/profinfo/chemoprotocols/nccp-classification-

document-for-systemic-anti-cancer-therapy-sact-induced-nausea-and-vomiting.pdf

12. eriBULin (HALAVEN®) Summary of Product Characteristics. Last updated 14/11/2022. Accessed August 2023 Available at: <u>https://www.ema.europa.eu/en/documents/product-information/halaven-epar-product-information_en.pdf</u>

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Date	Amendment	Approved By
20/12/13		Dr Cathy Kelly
15/9/15	Update of dose modification in renal impairment as per change to SmPC	Dr Maccon Keane
4/11/15	Update of indication based on change to SmPC to allow treatment after one previous chemotherapeutic regimen	Dr Maccon Keane
15/11/17	Applied new NCCP regimen template, Updated Title and included equivalent dose of eriBULin mesylate	Prof Maccon Keane
22/5/19	Standardisation of treatment table. Update on use of eriBULin with trastuzumab. Updated adverse effects/ regimen specific complications as per update in SmPC for QT prolongation.	Prof Maccon Keane
28/04/21	Reviewed. Amended Management of adverse effects (Table 3), updated drug interactions.	Prof Maccon Keane
02/12/22	Amended infusion volume	Prof Maccon Keane
26/06/2024	Addition of new sarcoma indication. Updated footnotes. Added to Exclusions. Updated renal and hepatic recommendations. Updated adverse effects, regimen specific complications and	Prof Maccon Keane
	20/12/13 15/9/15 4/11/15 15/11/17 22/5/19 28/04/21 02/12/22	20/12/1320/12/1315/9/15Update of dose modification in renal impairment as per change to SmPC4/11/15Update of indication based on change to SmPC to allow treatment after one previous chemotherapeutic regimen15/11/17Applied new NCCP regimen template, Updated Title and included equivalent dose of eriBULin mesylate22/5/19Standardisation of treatment table. Update on use of eriBULin with trastuzumab. Updated adverse effects/ regimen specific complications as per update in SmPC for QT prolongation.28/04/21Reviewed. Amended Management of adverse effects (Table 3), updated drug interactions.02/12/22Amended infusion volume26/06/2024Addition of new sarcoma indication. Updated renal and hepatic recommendations.

Comments and feedback welcome at oncologydrugs@cancercontrol.ie.

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