NICE National Institute for Health and Care Excellence

NICE Pathways

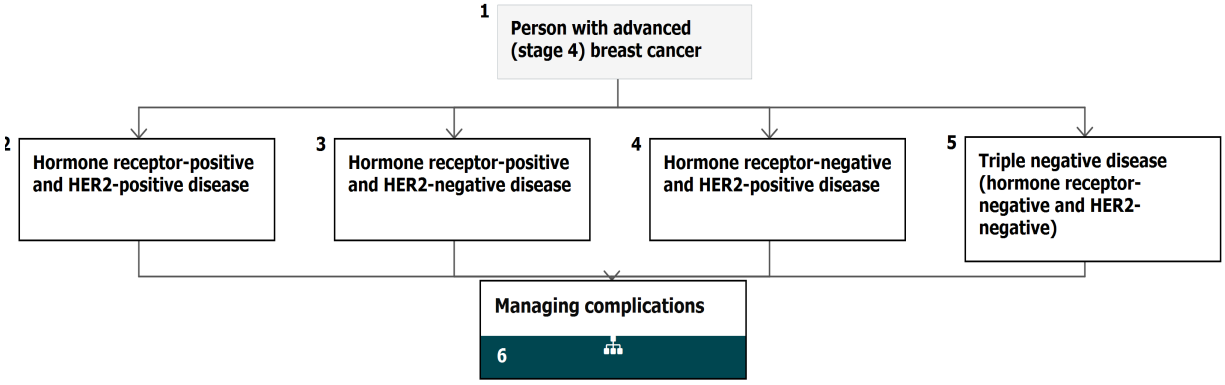
Managing advanced breast cancer

NICE Pathways bring together everything NICE says on a topic in an interactive flowchart. NICE Pathways are interactive and designed to be used online.

They are updated regularly as new NICE guidance is published. To view the latest version of this NICE Pathway see:

http://pathways.nice.org.uk/pathways/advanced-breast-cancer
NICE Pathway last updated: 07 May 2019

This document contains a single flowchart and uses numbering to link the boxes to the associated recommendations.



1 Person with advanced (stage 4) breast cancer

No additional information

2 Hormone receptor-positive and HER2-positive disease

First-line treatment

Pertuzumab with trastuzumab and docetaxel

The following recommendation is from NICE technology appraisal guidance on pertuzumab with trastuzumab and docetaxel for treating HER2-positive breast cancer.

Pertuzumab, in combination with trastuzumab and docetaxel, is recommended, within its marketing authorisation, for treating HER2-positive metastatic or locally recurrent unresectable breast cancer, in adults who have not had previous anti-HER2 therapy or chemotherapy for their metastatic disease, only if the company provides pertuzumab within the agreed commercial access arrangement.

See why we made the recommendation on pertuzumab with trastuzumab and docetaxel for treating HER2-positive breast cancer [See page 18].

NICE has written information for the public on pertuzumab with trastuzumab and docetaxel.

Trastuzumab

The following recommendations are from NICE technology appraisal guidance on trastuzumab for the treatment of advanced breast cancer.

Trastuzumab in combination with paclitaxel (combination trastuzumab is currently only licensed for use with paclitaxel) is recommended as an option for people with tumours expressing HER2 scored at levels of 3+ who have not received chemotherapy for metastatic breast cancer and in whom anthracycline treatment is inappropriate.

Trastuzumab monotherapy is recommended as an option for people with tumours expressing HER2 scored at levels of 3+ who have received at least two chemotherapy regimens for metastatic breast cancer. Prior chemotherapy must have included at least an anthracycline and a taxane where these treatments are appropriate. It should also have included hormonal

therapy in suitable oestrogen receptor positive patients.

HER2 levels should be scored using validated immunohistochemical techniques and in accordance with published guidelines. Laboratories offering tissue sample immunocytochemical or other predictive tests for therapy response should use validated standardised assay methods and participate in and demonstrate satisfactory performance in a recognised external quality assurance scheme.

NICE has written information for the public on trastuzumab.

Disease progression while receiving trastuzumab

For patients who are receiving treatment with trastuzumab for advanced breast cancer, discontinue treatment with trastuzumab at the time of disease progression outside the central nervous system. Do not discontinue trastuzumab if disease progression is within the central nervous system alone.

Lapatinib or trastuzumab

The following recommendations are from NICE technology appraisal guidance on lapatinib or trastuzumab in combination with an aromatase inhibitor for the first-line treatment of metastatic hormone-receptor-positive breast cancer that overexpresses HER2.

Lapatinib in combination with an aromatase inhibitor is not recommended for first-line treatment in postmenopausal women with metastatic hormone-receptor-positive breast cancer that overexpresses HER2.

Trastuzumab in combination with an aromatase inhibitor is not recommended for first-line treatment in postmenopausal women with metastatic hormone-receptor-positive breast cancer that overexpresses HER2.

Postmenopausal women currently receiving lapatinib or trastuzumab in combination with an aromatase inhibitor that is not recommended as above should have the option to continue treatment until they and their clinicians consider it appropriate to stop.

NICE has written information for the public on lapatinib or trastuzumab in combination with an aromatase inhibitor.

Subcutaneous trastuzumab

NICE has published an evidence summary on early and metastatic HER2-positive breast cancer: subcutaneous trastuzumab.

Second-line treatment

Trastuzumab emtansine

The following recommendations are from NICE technology appraisal guidance on trastuzumab emtansine for treating HER2 positive advanced breast cancer after trastuzumab and a taxane.

Trastuzumab emtansine is recommended, within its marketing authorisation, as an option for treating human epidermal growth factor receptor 2 (HER2)-positive, unresectable, locally advanced or metastatic breast cancer in adults who previously received trastuzumab and a taxane, separately or in combination. Patients should have either received prior therapy for locally advanced or metastatic disease or developed disease recurrence during or within 6 months of completing adjuvant therapy. Trastuzumab emtansine is recommended only if the company provides it with the discount agreed in the patient access scheme.

NICE has written information for the public on trastuzumab emtansine.

Third-line treatment

Eribulin for treating locally advanced or metastatic breast cancer after 2 or more chemotherapy regimens

The following recommendations are from NICE technology appraisal guidance on erbulin for treating locally advanced or metastatic breast cancer after 2 or more chemotherapy regimens.

Eribulin is recommended as an option for treating locally advanced or metastatic breast cancer in adults, only when:

- it has progressed after at least 2 chemotherapy regimens (which may include an anthracycline or a taxane, and capecitabine)
- the company provides eribulin with the discount agreed in the patient access scheme.

This guidance is not intended to affect the position of patients whose treatment with eribulin was started within the NHS before this guidance was published. Treatment of those patients may continue without change to whatever funding arrangements were in place for them before this guidance was published until they and their NHS clinician consider it appropriate to stop.

NICE has written information for the public on eribulin for treating locally advanced or metastatic breast cancer after 2 or more chemotherapy regimens.

See what NICE says on medicines optimisation.

3 Hormone receptor-positive and HER2-negative disease

Endocrine therapy or chemotherapy

Offer endocrine therapy as first-line treatment for the majority of patients with ER-positive advanced breast cancer.

Offer chemotherapy as first-line treatment for patients with ER-positive advanced breast cancer whose disease is imminently life-threatening or requires early relief of symptoms because of significant visceral organ involvement, providing they understand and are prepared to accept the toxicity.

For patients with ER-positive advanced breast cancer who have been treated with chemotherapy as their first-line treatment, offer endocrine therapy following the completion of chemotherapy.

Endocrine therapy

Offer an aromatase inhibitor (either non-steroidal or steroidal) to:

- postmenopausal women with ER-positive breast cancer and no prior history of endocrine therapy
- postmenopausal women with ER-positive breast cancer previously treated with tamoxifen.

Offer tamoxifen and ovarian suppression as first-line treatment to premenopausal and perimenopausal women with ER-positive advanced breast cancer not previously treated with tamoxifen.

Offer ovarian suppression to premenopausal and perimenopausal women who have previously been treated with tamoxifen and then experience disease progression.

Offer tamoxifen as first-line treatment to men with ER-positive advanced breast cancer.

Aromatase inhibitors have been identified as a cause of secondary osteoporosis (see what NICE says on osteoporosis).

Chemotherapy

On disease progression, offer systemic sequential therapy to the majority of patients with advanced breast cancer who have decided to be treated with chemotherapy.

Consider using combination chemotherapy to treat patients with advanced breast cancer for whom a greater probability of response is important and who understand and are likely to tolerate the additional toxicity.

For patients with advanced breast cancer who are not suitable for anthracyclines (because they are contraindicated or because of prior anthracycline treatment either in the adjuvant or metastatic setting), systemic chemotherapy should be offered in the following sequence:

- first line: single-agent docetaxel
- second line: single-agent vinorelbine or capecitabine
- third line: single-agent capecitabine or vinorelbine (whichever was not used as second-line treatment).

Other first-line treatment

Abemaciclib

The following recommendation is from NICE technology appraisal guidance on abemaciclib with an aromatase inhibitor for previously untreated, hormone receptor -positive, HER2-negative, locally advanced or metastatic breast cancer.

Abemaciclib with an aromatase inhibitor is recommended, within its marketing authorisation, as an option for treating locally advanced or metastatic, hormone receptor-positive, human epidermal growth factor receptor 2 (HER2)-negative breast cancer as first endocrine-based therapy in adults. Abemaciclib is recommended only if the company provides it according to the commercial arrangement.

See why we made the recommendations on abemaciclib.

NICE has written information for the public on abemaciclib.

Palbociclib

The following recommendation is from NICE technology appraisal guidance on palbociclib with an aromatase inhibitor for previously untreated, hormone receptor-positive, HER2-negative,

locally advanced or metastatic breast cancer.

Palbociclib, with an aromatase inhibitor, is recommended within its marketing authorisation, as an option for treating hormone receptor-positive, human epidermal growth factor receptor 2-negative, locally advanced or metastatic breast cancer as initial endocrine-based therapy in adults. Palbociclib is recommended only if the company provides it with the discount agreed in the patient access scheme.

NICE has written information for the public on palbociclib.

Ribociclib

The following recommendation is from NICE technology appraisal guidance on ribociclib with an aromatase inhibitor for previously untreated, hormone receptor-positive, HER2-negative, locally advanced or metastatic breast cancer.

Ribociclib, with an aromatase inhibitor, is recommended within its marketing authorisation as an option for treating hormone receptor-positive, human epidermal growth factor receptor 2-negative, locally advanced or metastatic breast cancer as initial endocrine-based therapy in adults. Ribociclib is recommended only if the company provides it with the discount agreed in the patient access scheme.

See why we made the recommendation on ribociclib [See page 19].

NICE has written information for the public on ribociclib.

Fulvestrant for untreated locally advanced or metastatic oestrogen-receptor positive breast cancer

The following recommendation is from NICE technology appraisal guidance on fulvestrant for untreated locally advanced or metastatic oestrogen-receptor positive breast cancer.

Fulvestrant is not recommended, within its marketing authorisation, for treating locally advanced or metastatic oestrogen-receptor positive breast cancer in postmenopausal women who have not had endocrine therapy before.

This recommendation is not intended to affect treatment with fulvestrant that was started in the NHS before this guidance was published. People having treatment outside this recommendation may continue without change to the funding arrangements in place for them before this guidance was published, until they and their NHS clinician consider it appropriate to stop.

See why we made the recommendation on fulvestrant for untreated locally advanced or metastatic oestrogen-receptor positive breast cancer [See page 19].

NICE has written information for the public on fulvestrant for untreated locally advanced or metastatic oestrogen-receptor positive breast cancer.

Second-line treatment

Abemaciclib with fulvestrant

The following recommendation is from NICE technology appraisal guidance on abemaciclib with fulvestrant for treating hormone receptor-positive, HER2-negative advanced breast cancer after endocrine therapy.

Abemaciclib with fulvestrant is recommended for use within the Cancer Drugs Fund as an option for treating hormone receptor-positive, human epidermal growth factor receptor 2 (HER2)-negative locally advanced or metastatic breast cancer in people who have had endocrine therapy only if:

- exemestane plus everolimus would be the most appropriate alternative and
- the conditions in the managed access agreement for abemaciclib with fulvestrant are followed.

This recommendation is not intended to affect treatment with abemaciclib with fulvestrant that was started in the NHS before this guidance was published. People having treatment outside this recommendation may continue without change to the funding arrangements in place for them before this guidance was published, until they and their NHS clinician consider it appropriate to stop.

See why we made the recommendations on abemaciclib with fulvestrant.

NICE has written information for the public on abemaciclib with fulvestrant.

Everolimus

The following recommendation is from NICE technology appraisal guidance on everolimus with exemestane for treating advanced breast cancer after endocrine therapy.

Everolimus, in combination with exemestane, is recommended within its marketing authorisation, as an option for treating advanced HER2-negative, hormone-receptor-positive breast cancer in postmenopausal women without symptomatic visceral disease that has

recurred or progressed after a non-steroidal aromatase inhibitor. Everolimus is recommended only if the company provides it with the discount agreed in the patient access scheme.

NICE has written information for the public on everolimus.

Fulvestrant for the treatment of locally advanced or metastatic breast cancer

The following recommendations are from NICE technology appraisal guidance on fulvestrant for the treatment of locally advanced or metastatic breast cancer.

Fulvestrant is not recommended within its licensed indication, as an alternative to aromatase inhibitors for the treatment of oestrogen-receptor-positive, locally advanced or metastatic breast cancer in postmenopausal women whose cancer has relapsed on or after adjuvant anti-oestrogen therapy, or who have disease progression on anti-oestrogen therapy.

Post-menopausal women currently receiving fulvestrant within its licensed indication as an alternative to aromatase inhibitors for the treatment of oestrogen-receptor-positive, locally advanced or metastatic breast cancer whose cancer has relapsed on or after adjuvant anti-oestrogen therapy, or who have disease progression on anti-oestrogen therapy, should have the option to continue treatment until they and their clinicians consider it appropriate to stop.

NICE has written information for the public on fulvestrant for the treatment of locally advanced or metastatic breast cancer.

Eribulin for treating locally advanced or metastatic breast cancer after 1 chemotherapy regimen

The following recommendation is from NICE technology appraisal guidance on eribulin for treating locally advanced or metastatic breast cancer after 1 chemotherapy regimen.

Eribulin is not recommended for treating locally advanced or metastatic breast cancer in adults who have had only 1 chemotherapy regimen .

This guidance is not intended to affect treatment with eribulin that was started in the NHS before this guidance was published. People having treatment outside this recommendation may continue without change to the funding arrangements in place for them before this guidance was published, until they and their NHS clinician consider it appropriate to stop.

See why we made the recommendation on eribulin for treating locally advanced or metastatic breast cancer after 1 chemotherapy regimen [See page 18].

NICE has written information for the public on eribulin for treating locally advanced or metastatic breast cancer after 1 chemotherapy regimen.

Third-line treatment

Eribulin for treating locally advanced or metastatic breast cancer after 2 or more chemotherapy regimens

The following recommendations are from NICE technology appraisal guidance on erbulin for treating locally advanced or metastatic breast cancer after 2 or more chemotherapy regimens.

Eribulin is recommended as an option for treating locally advanced or metastatic breast cancer in adults, only when:

- it has progressed after at least 2 chemotherapy regimens (which may include an anthracycline or a taxane, and capecitabine)
- the company provides eribulin with the discount agreed in the patient access scheme.

This guidance is not intended to affect the position of patients whose treatment with eribulin was started within the NHS before this guidance was published. Treatment of those patients may continue without change to whatever funding arrangements were in place for them before this guidance was published until they and their NHS clinician consider it appropriate to stop.

NICE has written information for the public on eribulin for treating locally advanced or metastatic breast cancer after 2 or more chemotherapy regimens.

See what NICE says on medicines optimisation.

4 Hormone receptor-negative and HER2-positive disease

First-line treatment

Pertuzumab with trastuzumab and docetaxel

The following recommendation is from NICE technology appraisal guidance on pertuzumab with trastuzumab and docetaxel for treating HER2-positive breast cancer.

Pertuzumab, in combination with trastuzumab and docetaxel, is recommended, within its marketing authorisation, for treating HER2-positive metastatic or locally recurrent unresectable breast cancer, in adults who have not had previous anti-HER2 therapy or chemotherapy for their

metastatic disease, only if the company provides pertuzumab within the agreed commercial access arrangement.

See why we made the recommendation on pertuzumab with trastuzumab and docetaxel for treating HER2-positive breast cancer [See page 18].

NICE has written information for the public on pertuzumab with trastuzumab and docetaxel.

Trastuzumab

The following recommendations are from NICE technology appraisal guidance on trastuzumab for the treatment of advanced breast cancer.

Trastuzumab in combination with paclitaxel (combination trastuzumab is currently only licensed for use with paclitaxel) is recommended as an option for people with tumours expressing HER2 scored at levels of 3+ who have not received chemotherapy for metastatic breast cancer and in whom anthracycline treatment is inappropriate.

Trastuzumab monotherapy is recommended as an option for people with tumours expressing HER2 scored at levels of 3+ who have received at least two chemotherapy regimens for metastatic breast cancer. Prior chemotherapy must have included at least an anthracycline and a taxane where these treatments are appropriate. It should also have included hormonal therapy in suitable oestrogen receptor positive patients.

HER2 levels should be scored using validated immunohistochemical techniques and in accordance with published guidelines. Laboratories offering tissue sample immunocytochemical or other predictive tests for therapy response should use validated standardised assay methods and participate in and demonstrate satisfactory performance in a recognised external quality assurance scheme.

NICE has written information for the public on trastuzumab.

Disease progression while receiving trastuzumab

For patients who are receiving treatment with trastuzumab for advanced breast cancer, discontinue treatment with trastuzumab at the time of disease progression outside the central nervous system. Do not discontinue trastuzumab if disease progression is within the central nervous system alone.

Subcutaneous trastuzumab

NICE has published an evidence summary on early and metastatic HER2-positive breast cancer: subcutaneous trastuzumab.

Second-line treatment

Trastuzumab emtansine

The following recommendation is from NICE technology appraisal guidance on trastuzumab emtansine for treating HER2-positive advanced breast cancer after trastuzumab and a taxane.

Trastuzumab emtansine is recommended, within its marketing authorisation, as an option for treating HER2-positive, unresectable, locally advanced or metastatic breast cancer in adults who previously received trastuzumab and a taxane, separately or in combination. Patients should have either received prior therapy for locally advanced or metastatic disease or developed disease recurrence during or within 6 months of completing adjuvant therapy. Trastuzumab emtansine is recommended only if the company provides it with the discount agreed in the patient access scheme.

NICE has written information for the public on trastuzumab emtansine.

Third-line treatment

Eribulin for treating locally advanced or metastatic breast cancer after 2 or more chemotherapy regimens

The following recommendations are from NICE technology appraisal guidance on erbulin for treating locally advanced or metastatic breast cancer after 2 or more chemotherapy regimens.

Eribulin is recommended as an option for treating locally advanced or metastatic breast cancer in adults, only when:

- it has progressed after at least 2 chemotherapy regimens (which may include an anthracycline or a taxane, and capecitabine)
- the company provides eribulin with the discount agreed in the patient access scheme.

This guidance is not intended to affect the position of patients whose treatment with eribulin was started within the NHS before this guidance was published. Treatment of those patients may continue without change to whatever funding arrangements were in place for them before this guidance was published until they and their NHS clinician consider it appropriate to stop.

NICE has written information for the public on eribulin for treating locally advanced or metastatic breast cancer after 2 or more chemotherapy regimens.

See what NICE says on medicines optimisation.

5 Triple negative disease (hormone receptor-negative and HER2-negative)

Chemotherapy

On disease progression, offer systemic sequential therapy to the majority of patients with advanced breast cancer who have decided to be treated with chemotherapy.

Consider using combination chemotherapy to treat patients with advanced breast cancer for whom a greater probability of response is important and who understand and are likely to tolerate the additional toxicity.

For patients with advanced breast cancer who are not suitable for anthracyclines (because they are contraindicated or because of prior anthracycline treatment either in the adjuvant or metastatic setting), systemic chemotherapy should be offered in the following sequence:

- first line: single-agent docetaxel
- second line: single-agent vinorelbine or capecitabine
- third line: single-agent capecitabine or vinorelbine (whichever was not used as second-line treatment).

Gemcitabine

The following recommendation is from NICE technology appraisal guidance on gemcitabine for the treatment of metastatic breast cancer.

Gemcitabine in combination with paclitaxel, within its licensed indication, is recommended as an option for the treatment of metastatic breast cancer only when docetaxel monotherapy or docetaxel plus capecitabine are also considered appropriate.

NICE has written information for the public on gemcitabine.

Other first-line treatments

Bevacizumab in combination with capecitabine

The following recommendations are from NICE technology appraisal on bevacizumab in combination with capecitabine for the first-line treatment of metastatic breast cancer.

Bevacizumab in combination with capecitabine is not recommended within its marketing authorisation for the first-line treatment of metastatic breast cancer, that is, when treatment with other chemotherapy options including taxanes or anthracyclines is not considered appropriate, or when taxanes or anthracyclines have been used as part of adjuvant treatment within the past 12 months.

People currently receiving bevacizumab in combination with capecitabine that is not recommended according to above should have the option to continue treatment until they and their clinician consider it appropriate to stop.

NICE has written information for the public on bevacizumab in combination with capecitabine.

Bevacizumab in combination with a taxane

The following recommendations are from NICE technology appraisal guidance on bevacizumab in combination with a taxane for the first-line treatment of metastatic breast cancer.

Bevacizumab in combination with a taxane is not recommended for the first-line treatment of metastatic breast cancer.

Patients currently receiving bevacizumab in combination with a taxane for the first-line treatment of metastatic breast cancer should have the option to continue therapy until they and their clinicians consider it appropriate to stop.

NICE has written information for the public on bevacizumab in combination with a taxane.

Other second-line treatment

Eribulin for treating locally advanced or metastatic breast cancer after 1 chemotherapy regimen

The following recommendation is from NICE technology appraisal guidance on eribulin for treating locally advanced or metastatic breast cancer after 1 chemotherapy regimen.

Eribulin is not recommended for treating locally advanced or metastatic breast cancer in adults who have had only 1 chemotherapy regimen .

This guidance is not intended to affect treatment with eribulin that was started in the NHS before this guidance was published. People having treatment outside this recommendation may continue without change to the funding arrangements in place for them before this guidance was published, until they and their NHS clinician consider it appropriate to stop.

See why we made the recommendation on eribulin for treating locally advanced or metastatic breast cancer after 1 chemotherapy regimen [See page 18].

NICE has written information for the public on eribulin for treating locally advanced or metastatic breast cancer after 1 chemotherapy regimen.

Other third-line treatment

Eribulin for treating locally advanced or metastatic breast cancer after 2 or more chemotherapy regimens

The following recommendations are from NICE technology appraisal guidance on erbulin for treating locally advanced or metastatic breast cancer after 2 or more chemotherapy regimens.

Eribulin is recommended as an option for treating locally advanced or metastatic breast cancer in adults, only when:

- it has progressed after at least 2 chemotherapy regimens (which may include an anthracycline or a taxane, and capecitabine)
- the company provides eribulin with the discount agreed in the patient access scheme.

This guidance is not intended to affect the position of patients whose treatment with eribulin was started within the NHS before this guidance was published. Treatment of those patients may continue without change to whatever funding arrangements were in place for them before this guidance was published until they and their NHS clinician consider it appropriate to stop.

NICE has written information for the public on eribulin for treating locally advanced or metastatic breast cancer after 2 or more chemotherapy regimens.

See what NICE says on medicines optimisation.

6 Managing complications

See Advanced breast cancer / Advanced breast cancer: managing complications

Eribulin for treating locally advanced or metastatic breast cancer after 1 chemotherapy regimen

People with advanced breast cancer who have had 1 chemotherapy regimen are usually then offered an anthracycline, a taxane or capecitabine, depending on what they have had already. The clinical trial results for eribulin showed that it did not increase progression-free survival, but there was an average overall survival increase of 4.6 months compared with capecitabine. Since treatment is changed when the disease progresses, and eribulin would have been stopped at that stage, it is not clear whether the increase in overall survival is because of eribulin, or related to the treatments given after eribulin. Eribulin is already recommended after 2 previous chemotherapy treatments, and there are no trials which compare its effectiveness given after 1 or 2 previous treatments, so this remains uncertain.

Eribulin meets NICE's criteria to be considered a life-extending treatment at the end of life. The estimates of cost effectiveness for eribulin range from £36,200 to £82,700 per quality-adjusted life year (QALY) gained. The most plausible estimate of cost effectiveness, based on a revised company model and the committee's preferred assumptions, is £69,800 per QALY gained. This is above what NICE normally considers to be acceptable for end-of-life treatments. Therefore, eribulin cannot be recommended as a cost-effective option for locally advanced or metastatic breast cancer in adults who have had only 1 chemotherapy regimen.

For more information see the committee discussion in the NICE technology appraisal guidance on eribulin for treating locally advanced or metastatic breast cancer after 1 chemotherapy regimen.

Pertuzumab with trastuzumab and docetaxel for treating HER2-positive breast cancer

This recommendation is for a drug that has been available on the Cancer Drugs Fund for several years and the committee recognised this as an exceptional circumstance. In this context, the committee considered it reasonable to apply flexibility in its interpretation of the criteria for special consideration as a life-extending treatment for people with a short life expectancy, but noted that the weight applied to the quality-adjusted life years gained would not be at the maximum allocated in other, more regular, circumstances where the end of life criteria have been applied. With this in mind, the committee accepted that the incremental cost-effectiveness ratio, taking into account the commercial access arrangement, provides for an acceptable use of NHS resources.

For more information see the committee discussion in the NICE technology appraisal guidance on pertuzumab with trastuzumab and docetaxel for treating HER2-positive breast cancer.

Ribociclib

Clinical trial evidence shows that ribociclib plus letrozole improves progression-free survival compared with letrozole alone. Although we do not know yet if improvement leads to a survival benefit with ribociclib. But with the patient access scheme discount, ribociclib is a cost-effective use of NHS resources and it can be recommended.

For more information see the committee discussion in the NICE technology appraisal guidance on ribociclib with an aromatase inhibitor for previously untreated, hormone receptor-positive, HER2-negative, locally advanced or metastatic breast cancer.

Fulvestrant for untreated locally advanced or metastatic oestrogen-receptor positive breast cancer

People with untreated disease are first offered an aromatase inhibitor, either anastrozole or letrozole. These drugs are considered to be similarly effective. Tamoxifen is used for women in whom an aromatase inhibitor is not tolerated or is contraindicated. Fulvestrant is a further treatment option that may have additional benefits for some women. However, the final results on overall survival from the FALCON trial are not available yet, so it is unclear whether fulvestrant will extend overall survival compared with aromatase inhibitors.

Because of the uncertainty in the clinical evidence, the cost effectiveness of fulvestrant compared with existing treatments is highly uncertain. However it is likely to be above the range normally considered a cost-effective use of NHS resources, so fulvestrant cannot be recommended.

For more information see the committee discussion in the NICE technology appraisal guidance on fulvestrant for untreated locally advanced or metastatic oestrogen-receptor positive breast cancer.

Glossary

ER

(oestrogen receptor)

HER2

(human epidermal growth factor receptor 2)

PET-CT

(positron emission tomography fused with computed tomography)

Sources

Advanced breast cancer: diagnosis and treatment (2009 updated 2017) NICE guideline CG81

Abemaciclib with fulvestrant for treating hormone receptor-positive, HER2-negative advanced breast cancer after endocrine therapy (2019) NICE technology appraisal guidance 579

Abemaciclib with an aromatase inhibitor for previously untreated, hormone receptor-positive, HER2-negative, locally advanced or metastatic breast cancer (2019) NICE technology appraisal guidance 563

Eribulin for treating locally advanced or metastatic breast cancer after 1 chemotherapy regimen (2018) NICE technology appraisal guidance 515

Pertuzumab with trastuzumab and docetaxel for treating HER2-positive breast cancer (2018) NICE technology appraisal guidance 509

Fulvestrant for untreated locally advanced or metastatic oestrogen-receptor positive breast cancer (2018) NICE technology appraisal guidance 503

Ribociclib with an aromatase inhibitor for previously untreated, hormone receptor-positive, HER2-negative, locally advanced or metastatic breast cancer (2017) NICE technology appraisal guidance 496

Palbociclib with an aromatase inhibitor for previously untreated, hormone receptor-positive, HER2-negative, locally advanced or metastatic breast cancer (2017) NICE technology appraisal guidance 495

Trastuzumab emtansine for treating HER2-positive advanced breast cancer after trastuzumab and a taxane (2017) NICE technology appraisal guidance 458

Eribulin for treating locally advanced or metastatic breast cancer after 2 or more chemotherapy regimens (2016) NICE technology appraisal guidance 423

Everolimus with exemestane for treating advanced breast cancer after endocrine therapy (2016) NICE technology appraisal guidance 421

Bevacizumab in combination with capecitabine for the first-line treatment of metastatic breast cancer (2012) NICE technology appraisal guidance 263

Lapatinib or trastuzumab in combination with an aromatase inhibitor for the first-line treatment of metastatic hormone-receptor-positive breast cancer that overexpresses HER2 (2012) NICE technology appraisal guidance 257

Fulvestrant for the treatment of locally advanced or metastatic breast cancer (2011) NICE technology appraisal guidance 239

Bevacizumab in combination with a taxane for the first-line treatment of metastatic breast cancer (2011) NICE technology appraisal guidance 214

Gemcitabine for the treatment of metastatic breast cancer (2007) NICE technology appraisal guidance 116

Guidance on the use of trastuzumab for the treatment of advanced breast cancer (2002) NICE technology appraisal guidance 34

Your responsibility

Guidelines

The recommendations in this guideline represent the view of NICE, arrived at after careful consideration of the evidence available. When exercising their judgement, professionals and practitioners are expected to take this guideline fully into account, alongside the individual needs, preferences and values of their patients or the people using their service. It is not mandatory to apply the recommendations, and the guideline does not override the responsibility to make decisions appropriate to the circumstances of the individual, in consultation with them and their families and carers or guardian.

Local commissioners and providers of healthcare have a responsibility to enable the guideline to be applied when individual professionals and people using services wish to use it. They should do so in the context of local and national priorities for funding and developing services, and in light of their duties to have due regard to the need to eliminate unlawful discrimination, to advance equality of opportunity and to reduce health inequalities. Nothing in this guideline should be interpreted in a way that would be inconsistent with complying with those duties.

Commissioners and providers have a responsibility to promote an environmentally sustainable health and care system and should assess and reduce the environmental impact of implementing NICE recommendations wherever possible.

Technology appraisals

The recommendations in this interactive flowchart represent the view of NICE, arrived at after careful consideration of the evidence available. When exercising their judgement, health professionals are expected to take these recommendations fully into account, alongside the individual needs, preferences and values of their patients. The application of the recommendations in this interactive flowchart is at the discretion of health professionals and their individual patients and do not override the responsibility of healthcare professionals to make decisions appropriate to the circumstances of the individual patient, in consultation with the patient and/or their carer or guardian.

Commissioners and/or providers have a responsibility to provide the funding required to enable the recommendations to be applied when individual health professionals and their patients wish to use it, in accordance with the NHS Constitution. They should do so in light of their duties to have due regard to the need to eliminate unlawful discrimination, to advance equality of opportunity and to reduce health inequalities.

Commissioners and providers have a responsibility to promote an environmentally sustainable health and care system and should assess and reduce the environmental impact of implementing NICE recommendations wherever possible.

Medical technologies guidance, diagnostics guidance and interventional procedures guidance

The recommendations in this interactive flowchart represent the view of NICE, arrived at after

careful consideration of the evidence available. When exercising their judgement, healthcare professionals are expected to take these recommendations fully into account. However, the interactive flowchart does not override the individual responsibility of healthcare professionals to make decisions appropriate to the circumstances of the individual patient, in consultation with the patient and/or guardian or carer.

Commissioners and/or providers have a responsibility to implement the recommendations, in their local context, in light of their duties to have due regard to the need to eliminate unlawful discrimination, advance equality of opportunity, and foster good relations. Nothing in this interactive flowchart should be interpreted in a way that would be inconsistent with compliance with those duties.

Commissioners and providers have a responsibility to promote an environmentally sustainable health and care system and should assess and reduce the environmental impact of implementing NICE recommendations wherever possible.