

Complete Summary

GUIDELINE TITLE

The role of trastuzumab (Herceptin®) in the treatment of women with HER2/neu-overexpressing metastatic breast cancer.

BIBLIOGRAPHIC SOURCE(S)

Crump M, Trudeau M, Sinclair S, O'Malley F, Breast Cancer Disease Site Group. The role of trastuzumab (Herceptin®) in the treatment of women with HER2/neu-overexpressing metastatic breast cancer. Toronto (ON): Cancer Care Ontario (CCO); 2005 Nov 8. 28 p. (Practice guideline report; no. 1-15). [55 references]

GUIDELINE STATUS

This is the current release of the guideline.

The Evidence-based Series report, initially the full original Guideline, over time will expand to contain new information emerging from their reviewing and updating activities.

Please visit the [Cancer Care Ontario Web site](#) for details on any new evidence that has emerged and implications to the guidelines.

**** REGULATORY ALERT ****

FDA WARNING/REGULATORY ALERT

Note from the National Guideline Clearinghouse: This guideline references a drug(s) for which important revised regulatory and/or warning information has been released.

On August 31, 2005, Genentech and the U.S. Food and Drug Administration (FDA) notified healthcare professionals of updated cardiotoxicity information related to the use of Herceptin (trastuzumab), obtained from the National Surgical Adjuvant Breast and Bowel Project (NSABP) study (B-31), a randomized, Phase III trial that was conducted in 2043 women with operable, HER2 overexpressing breast cancer (IHC 3+ or FISH+). This study demonstrated a significant increase in cardiotoxicity in patients who were randomized to the Herceptin-containing arm as compared to patients who received chemotherapy alone. See the [FDA Web site](#) for more information.

COMPLETE SUMMARY CONTENT

** REGULATORY ALERT **

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SCOPE

DISEASE/CONDITION(S)

Human epidermal growth factor receptor 2 (HER2)/neu-overexpressing metastatic breast cancer

GUIDELINE CATEGORY

Assessment of Therapeutic Effectiveness
Treatment

CLINICAL SPECIALTY

Oncology

INTENDED USERS

Physicians

GUIDELINE OBJECTIVE(S)

In women with human epidermal growth factor receptor 2 (HER2)/neu-overexpressing metastatic breast cancer:

- To evaluate if trastuzumab in combination with chemotherapy can improve clinically meaningful outcomes (overall response rates, time-to-disease progression, overall survival, toxicity, or quality of life), compared with chemotherapy alone.
- To evaluate if single-agent trastuzumab therapy can improve clinically meaningful outcomes compared with placebo or observation.
- To evaluate the best way to identify women who will benefit from trastuzumab therapy
- To evaluate the adverse events associated with trastuzumab therapy
- To evaluate the optimal dose, schedule, and duration for trastuzumab therapy

TARGET POPULATION

Women with human epidermal growth factor receptor 2 (HER2)/neu-overexpressing metastatic breast cancer

INTERVENTIONS AND PRACTICES CONSIDERED

1. Trastuzumab alone
2. Trastuzumab in combination with chemotherapy
3. Monitor for adverse events

MAJOR OUTCOMES CONSIDERED

- Overall response rates
- Time-to-disease progression
- Overall survival
- Toxicity
- Quality of life

METHODOLOGY

METHODS USED TO COLLECT/SELECT EVIDENCE

Hand-searches of Published Literature (Primary Sources)
Hand-searches of Published Literature (Secondary Sources)
Searches of Electronic Databases

DESCRIPTION OF METHODS USED TO COLLECT/SELECT THE EVIDENCE

Literature Search Strategy

MEDLINE was searched to August 2004 using disease-specific medical subject heading terms ("breast neoplasms" and "neoplasm metastasis") and an agent-specific MeSH term ("antibodies, monoclonal") or an oncogene-specific MeSH term ("receptor, erbB-2"). The Excerpta Medica database (EMBASE) was also searched up to August 2004 using a disease-specific Excerpta Medica Tree (EMTREE) subject-heading term ("breast cancer") and keywords ("advanced" or "metastatic" or "metastases") as well as an agent-specific EMTREE subject heading term ("trastuzumab") or an oncogene-specific EMTREE subject heading term ("oncogene c erb"). The Cochrane Library, conference proceedings from the American Society of Clinical Oncology, the European Society for Medical Oncology, and the San Antonio Breast Cancer Symposium, article bibliographies, and personal files were also searched up to August 2004 for relevant evidence.

Inclusion Criteria

Articles were selected for inclusion in this systematic review of the evidence if they met the following criteria:

- Trastuzumab, in combination or alone, was evaluated using a randomized controlled trial, meta-analysis, evidence-based clinical practice guideline, or

- non-randomized trial (for the non-randomized trials, only those with 25 or more patients evaluable for efficacy outcomes were included).
- Reported outcomes included overall response rates, time to progression (TTP), overall survival, toxicity, or quality of life.
 - Clinical trial results were reported in either full papers or abstracts. Although data presented in meeting abstracts may not be as reliable and complete as that from papers published in peer-reviewed journals, abstracts can be a source of important evidence from randomized trials and add to the evidence available from fully published studies. Those data often appear first in meeting abstracts and may not be published for several years.

Exclusion Criteria

Papers published in languages other than English were not considered.

NUMBER OF SOURCE DOCUMENTS

Not stated

METHODS USED TO ASSESS THE QUALITY AND STRENGTH OF THE EVIDENCE

Expert Consensus (Committee)

RATING SCHEME FOR THE STRENGTH OF THE EVIDENCE

Not applicable

METHODS USED TO ANALYZE THE EVIDENCE

Systematic Review with Evidence Tables

DESCRIPTION OF THE METHODS USED TO ANALYZE THE EVIDENCE

The data included in this review were not pooled because most of the evidence was immature and clinically heterogeneous.

METHODS USED TO FORMULATE THE RECOMMENDATIONS

Expert Consensus

DESCRIPTION OF METHODS USED TO FORMULATE THE RECOMMENDATIONS

Disease Site Group Consensus

Question #1: Compared with Chemotherapy Alone, Does Trastuzumab in Combination with Chemotherapy Improve Clinically Meaningful Outcomes?

Two randomized trials (one phase III, one phase II) detected improved outcomes when trastuzumab was administered in combination with chemotherapy compared to chemotherapy alone. Specifically, Slamon et al detected improved overall response and time to progression (TTP) with first-line weekly trastuzumab and six cycles of three-weekly anthracycline-cyclophosphamide (doxorubicin at 60mg/m^2 or epirubicin at 75mg/m^2 , cyclophosphamide at 600mg/m^2) in anthracycline-naïve patients or paclitaxel (175mg/m^2) in anthracycline-exposed patients. Although survival was statistically significantly better in the experimental arm as a whole, the difference in the subgroups (paclitaxel and anthracycline-cyclophosphamide) was not statistically significant. Extra et al detected improved overall response, TTP, and overall survival with the addition of weekly trastuzumab to docetaxel 100mg/m^2 given every three weeks. Based on that randomized evidence, the Breast Cancer Disease Site Group (DSG) members felt it reasonable to recommend first-line trastuzumab in combination with either six cycles of three weekly paclitaxel (175mg/m^2) or six cycles of three-weekly docetaxel (100mg/m^2). In combination with trastuzumab, there was no data to suggest that one taxane is superior to the other in the first-line setting.

Among the 13 non-randomized trastuzumab and taxane combination trials, trastuzumab was always administered weekly in all but two. Schedule, dose, and duration of paclitaxel or docetaxel treatment varied greatly. Only two trials excluded women with prior therapy for metastatic disease. Many of the women in the 11 trials that permitted previous therapy for metastatic disease had received anthracycline or taxane regimens. Overall response rates in women receiving either taxane ranged from 49% to 69% where that outcome was reported. TTP ranged from 8.5 months to 12.4 months. Based on non-randomized evidence, the members agreed that weekly trastuzumab in combination with a taxane could be offered in the second-line or greater setting for women who have received chemotherapy previously for metastatic breast cancer. In combination with trastuzumab, there was no data to suggest that one taxane is superior to the other in the second-line or greater setting. Due to the lack of consistent evidence for one regimen, the members agreed that the dose, schedule, and duration of taxane should be individualized according to patient preference, local and institutional standard patterns of practice, and best clinical judgement.

Several trials have evaluated the efficacy of trastuzumab in combination with weekly vinorelbine at doses of 25mg/m^2 or 30mg/m^2 until disease progression or unacceptable toxicity. Overall response rates for vinorelbine plus trastuzumab ranged from 52% to 86%, and TTP ranged from four months to 17 months. Based on this non-randomized evidence, the Breast Cancer DSG members felt it reasonable to offer trastuzumab in combination with vinorelbine, particularly for those women whose disease has progressed after previous therapy with anthracyclines and/or taxanes, either in the adjuvant or metastatic setting.

The Breast Cancer DSG members agreed that the evidence for trastuzumab in combination with gemcitabine, platinum salts, or liposomal pegylated doxorubicin is insufficient to recommend their use outside clinical trials at this time.

Question #2: Compared with Placebo or Observation, Does Single-Agent Trastuzumab Therapy Improve Clinically Meaningful Outcomes?

Among five non-randomized single-agent trastuzumab trials and one single-agent randomized trial of two trastuzumab doses, rates of overall response in the two first-line trials ranged from 19% to 28% and 12% to 26% in the four second- or greater-line trials. TTP was 3.5 months or 3.8 months depending on trastuzumab dose in one first-line trial. TTP in three second- or greater-line trials ranged from three to four months. Based on this evidence, the Breast Cancer DSG agreed that trastuzumab is effective as a single-agent for women with untreated metastatic breast cancer. Therefore, the use of single-agent trastuzumab, which is relatively non-toxic, could be an appropriate choice prior to initiating any type of chemotherapy, for those women who would like to avoid the side effects of chemotherapy (nausea and vomiting, alopecia and myelosuppression) for as long as possible. As there were no randomized trials identified comparing single-agent trastuzumab to chemotherapy, there is no way to judge the effect on overall survival.

The Breast Cancer DSG also agreed that the evidence suggests that trastuzumab has a unique mechanism of action, producing responses in women whose cancer has progressed following treatment with anthracyclines or taxanes, the most active chemotherapy agents in metastatic breast cancer. Therefore, the members offered the opinion that trastuzumab could be an appropriate second- or greater-line single-agent therapy for women who wish to avoid the side effects of further chemotherapy.

Question #3: What is The Best Way to Identify Women Who Will Benefit from Trastuzumab Therapy?

In general, among trials where subgroup analysis of the level of human epidermal growth factor receptor 2 (HER2)/neu overexpression was available, the most benefit was seen with an immunohistochemical (IHC) score of 3+ or fluorescence in situ hybridization (FISH) positivity. In the experience of the Breast Cancer DSG members, tumour samples scoring 2+ (weak membrane staining) by IHC testing should undergo FISH analysis and receive trastuzumab therapy if the FISH test is positive. Therefore, the Breast Cancer DSG members felt it reasonable to include a qualifying statement that trastuzumab combination therapy is appropriate for women whose tumours show IHC 3+ staining (i.e., moderate to strong membrane staining in at least 10% of tumour cells) or show HER2/neu gene amplification by FISH analysis (defined as HER2/CEP ratio ≥ 2).

Question #4: Adverse Events Associated with Trastuzumab

The risk of cardiotoxicity from trastuzumab in combination with anthracyclines led the Breast Cancer DSG members to conclude that this combination could not be recommended. Furthermore, women with significant pre-existing cardiac dysfunction should not receive trastuzumab therapy. Women receiving trastuzumab should undergo a thorough baseline cardiac assessment and continued monitoring for signs and symptoms of congestive heart failure during treatment.

In addition to cardiac events, hypersensitivity reactions, infusion reactions, exacerbation of chemotherapy-induced neutropenia, and pulmonary events leading to death have been infrequently or rarely reported with trastuzumab. While these events were not addressed in this systematic review, the Breast

Cancer DSG believed that women should be monitored for hypersensitivity, infusion reactions, and neutropenia and treated accordingly.

Question #5: Trastuzumab Dose, Duration, and Schedule

While the two randomized trials that showed a benefit with combination therapy administered trastuzumab weekly, four non-randomized trials administered a loading dose of 8mg/kg followed by a three-weekly 6mg/kg maintenance dose. Pharmacokinetic and safety data suggest that the increased dose and reduced frequency of trastuzumab administration are feasible. The members of the Breast Cancer DSG agreed that until randomized controlled data are available to confirm the efficacy of three-weekly trastuzumab, weekly therapy should be considered standard. The members felt that it might be reasonable to switch to three-weekly maintenance trastuzumab (6mg/kg) at a later time in women who are finding weekly treatments difficult. In the members' experience, the decision to switch from weekly to three-weekly therapy should be based on concurrent chemotherapy scheduling and patient preference.

The two randomized trials that showed a benefit with combination therapy administered a loading dose of 4mg/kg followed by 2mg/kg weekly doses. There is little evidence to suggest that higher doses offer any added benefit. Therefore the DSG members agreed that a loading dose of 4mg/kg followed by weekly doses of 2mg/kg should be recommended.

There is little data available regarding trastuzumab therapy duration. There are no prospective data to suggest that continuing trastuzumab therapy beyond progression offers any benefit; thus, the Breast Cancer DSG members recommend trastuzumab therapy only until disease progression.

RATING SCHEME FOR THE STRENGTH OF THE RECOMMENDATIONS

Not applicable

COST ANALYSIS

A formal cost analysis was not performed and published cost analyses were not reviewed.

METHOD OF GUIDELINE VALIDATION

External Peer Review
Internal Peer Review

DESCRIPTION OF METHOD OF GUIDELINE VALIDATION

Practitioner feedback was obtained through a mailed survey of 102 practitioners in Ontario (76 medical oncologists and 26 hematologists). The survey consisted of items evaluating the methods, results, and interpretive summary used to inform the draft recommendations and whether the draft recommendations should be approved as a practice guideline. Written comments were invited. The practitioner feedback survey was mailed out on October 14, 2004. Follow-up reminders were

sent at two weeks (post card) and four weeks (complete package mailed again). The Breast Cancer Disease Site Group (DSG) reviewed the results of the survey.

The final Practice Guideline report was reviewed and approved by one member of the Program in Evidence-based Care (PEBC) Report Approval Panel (RAP) with expertise in clinical and methodology issues.

The practice guideline report reflects the integration of the draft recommendations with feedback obtained from the external review process. The report has been approved by the Breast Cancer DSG.

RECOMMENDATIONS

MAJOR RECOMMENDATIONS

Question #1 -- Compared with Chemotherapy Alone, Does Trastuzumab in Combination with Chemotherapy Improve Clinically Meaningful Outcomes?

- Trastuzumab in combination with either six cycles of three-weekly paclitaxel (175mg/m²) or six cycles of three-weekly docetaxel (100mg/m²) is recommended as a first-line therapy for women with human epidermal growth factor receptor 2 (HER2)/neu-overexpressing metastatic breast cancer.
- Due to concerns regarding cardiotoxicity, trastuzumab is not recommended in combination with doxorubicin.
- Due to the lack of randomized trial data, no definitive recommendation regarding the use of trastuzumab with other combinations outside of clinical trials can be made at this time.

Question #2 -- Compared with Placebo or Observation, Does Single-Agent Trastuzumab Therapy Improve Clinically Meaningful Outcomes?

- Due to the lack of randomized trial data, no definitive recommendations regarding the use of single-agent trastuzumab therapy can be made at this time.

Question #3 -- What Is the Best Way to Identify Women Who Will Benefit from Trastuzumab Therapy?

- Trastuzumab combination therapy is most likely to be effective in women with the highest level of HER2/neu protein overexpression, as indicated by an immunohistochemistry score of 3+ (moderate/strong membrane staining in at least 10% of tumour cells) or by HER2/neu gene amplification (defined as HER2/CEP17 ≥ 2 by fluorescence in situ hybridization).

Question #4 -- What Are the Adverse Events Associated with Trastuzumab Therapy?

- Women should be monitored for signs and symptoms of congestive heart failure during treatment with trastuzumab.

Question #5 -- What Are the Optimal Dose, Schedule, and Duration for Trastuzumab Therapy?

- Regardless of combination, trastuzumab should be initiated at 4mg/kg and continued at 2mg/kg weekly until disease progression or unacceptable toxicity.

CLINICAL ALGORITHM(S)

None provided

EVIDENCE SUPPORTING THE RECOMMENDATIONS

TYPE OF EVIDENCE SUPPORTING THE RECOMMENDATIONS

The recommendations are supported by randomized controlled trials and non-randomized trials.

BENEFITS/HARMS OF IMPLEMENTING THE GUIDELINE RECOMMENDATIONS

POTENTIAL BENEFITS

- Two (one phase III [N=469], one phase II [N=188]) of three randomized trials in the first-line setting detected improved progression-free and overall survival when trastuzumab was administered in combination with chemotherapy versus chemotherapy alone. In the first trial, overall response (41% versus 17%; $p<0.001$) and median time-to-disease progression (6.9 months versus 3.0 months; $p<0.001$) were significantly improved when trastuzumab was combined with paclitaxel in anthracycline-exposed patients. Median overall survival (22.1 months vs. 18.4 months, $p=0.17$) was not improved. In the second trial, overall response (61% versus 36%; $p=0.001$), time-to-disease progression (10.6 months versus 6.1 months; $p=0.0001$), and overall survival (27.7 months versus 18.3 months; $p=0.0002$) were improved when weekly trastuzumab was combined with docetaxel. An interim analysis of the third trial found no difference between the paclitaxel combined with trastuzumab versus paclitaxel but did find significant improvement when the analysis was limited to patients with human epidermal growth factor receptor 2 (HER2)/neu immunohistochemical (IHC) 3+ disease. Of note, the two positive trials used every-three-week taxane therapy, while the negative trial used every-week taxane therapy.
- Thirteen non-randomized phase II trials, 11 of which included women with previous chemotherapy for metastatic disease, also evaluated trastuzumab in combination with a taxane. Overall response rates (ORR) ranged from 49% to 69%, and time-to-disease progression ranged from 8.5 months to 12.4 months. The range of overall response rates in the two trials which included only patients receiving first line therapy was 51% to 69%.
- Seven non-randomized trials, three of which included women with prior chemotherapy for metastatic disease, evaluated the efficacy of trastuzumab in combination with vinorelbine. Overall response rates ranged from 52% to 86%, and time-to-disease progression ranged from four months to 17

months. The range of overall response rate in the five trials which included only patients receiving first line therapy was 61% to 86%.

- Among five non-randomized single-agent trastuzumab trials and one single-agent randomized trial of two trastuzumab doses, rates of overall response in the two first-line trials ranged from 19% to 28% and 12% to 26% in the four second- or greater-line trials. Time-to-disease progression was 3.5 months or 3.8 months for standard loading and weekly dose compared to double the loading and weekly dose of trastuzumab dose in one first-line trial. Time-to-disease progression in three second- or greater-line trials ranged from three to four months.
- In the phase III randomized trial, human epidermal growth factor receptor 2/neu over-expression, documented by fluorescence in situ hybridization, was associated with a survival benefit in women treated with trastuzumab and chemotherapy (odds ratio, 0.71; 95% CI, 0.54 to 0.92; p=0.009), while there was no survival benefit seen in women with fluorescence in situ hybridization (FISH)-negative tumours (odds ratio, 1.11; 95% CI, 0.70 to 1.77; p-value not significant).
- Among several non-randomized combination and single-agent trastuzumab trials, immunohistochemical (IHC) 3+ or fluorescence in situ hybridization-positive assay results tended to be associated with improved overall response and time-to-disease progression compared with IHC 2+ results.

POTENTIAL HARMS

- In one randomized trial, symptomatic or asymptomatic cardiac dysfunction was observed in 27% of patients receiving anthracycline, cyclophosphamide, and trastuzumab compared with 8% in those receiving anthracycline and cyclophosphamide alone. The incidence of symptomatic congestive heart failure was 2% in women receiving trastuzumab and paclitaxel versus 1% in those receiving paclitaxel alone.
- In a second randomized trial, symptomatic heart failure in two patients receiving trastuzumab and docetaxel occurred compared with none in those receiving docetaxel alone.
- The most common reported adverse reactions associated with trastuzumab use are mild and include fever, diarrhea, chills, increased cough, headache, rash, and insomnia. Trastuzumab can result in the development of ventricular dysfunction and congestive heart failure, especially when administered with doxorubicin or epirubicin.

QUALIFYING STATEMENTS

QUALIFYING STATEMENTS

Question #1 - Compared with Chemotherapy Alone, Does Trastuzumab in Combination with Chemotherapy Improve Clinically Meaningful Outcomes?

- In combination with trastuzumab, there is no data to suggest that one taxane is superior to the other in any metastatic setting.
- No randomized data evaluating the role of trastuzumab in combination with paclitaxel or docetaxel in the second-line or greater setting were identified;

however, evidence from nonrandomized phase II trials suggests that, for women with human epidermal growth factor receptor 2 (HER2)/neu-overexpressing metastatic breast cancer who have received non-taxane-containing chemotherapy previously for metastatic breast cancer, trastuzumab in combination with paclitaxel or docetaxel (as above) may be an appropriate treatment.

- No randomized data evaluating the role of trastuzumab in combination with vinorelbine in the treatment of metastatic breast cancer were identified; however, evidence from nonrandomized phase II trials suggests that, for women with HER2/neu-overexpressing metastatic breast cancer whose disease has progressed with anthracycline or taxane therapy (either in the adjuvant or metastatic setting), trastuzumab in combination with vinorelbine (25mg/m² or 30mg/m² weekly until disease progression or unacceptable toxicity) may be an appropriate treatment.
- Decisions about the dose, schedule, and duration for second-line or greater paclitaxel and docetaxel treatment in combination with trastuzumab should be individualized based on patient preference, local and institutional standard patterns of practice, and best clinical judgement.

Question #2 -- Compared with Placebo or Observation, Does Single-Agent Trastuzumab Therapy Improve Clinically Meaningful Outcomes?

- No randomized data evaluating the role of single-agent first-line trastuzumab were identified; however, evidence from phase II trials suggests that for women with HER2/neu-overexpressing metastatic breast cancer who wish to postpone the side effects of chemotherapy for as long as possible, trastuzumab may be a reasonable treatment prior to initiating any type of chemotherapy.
- No randomized data evaluating the role of single-agent second-line or greater trastuzumab were identified; however, evidence from phase II trials suggests that, for women with HER2/neu-overexpressing metastatic breast cancer who wish to avoid the side effects of further chemotherapy, trastuzumab is a reasonable second-line or greater single-agent therapy.
- There are no data supporting the addition of chemotherapy to trastuzumab if the use of the trastuzumab alone results in disease progression.

Question #4 -- What Are the Adverse Events Associated with Trastuzumab Therapy?

- Although hypersensitivity and infusion reactions were not directly addressed by this systematic review, it is the opinion of the Breast Cancer Disease Site Group that patients receiving trastuzumab should also be monitored for hypersensitivity and infusion reactions, and that, when used in combination with chemotherapy, patients receiving trastuzumab should be monitored for neutropenia.
- Trastuzumab should be administered with extreme caution in women with impaired cardiac function; such patients should be monitored frequently for symptoms and signs of congestive heart failure.

Question #5 -- What Are the Optimal Dose, Schedule, and Duration for Trastuzumab Therapy?

- Trastuzumab given 6mg/kg every three weeks has been tested alone and combined with chemotherapy in non-randomized trials and appears to provide similar benefit to weekly trastuzumab. Therefore, it is the opinion of the Breast Cancer Disease Site Group that for women who prefer three-weekly treatment, a switch to three-weekly maintenance trastuzumab (6mg/kg) may be appropriate after a reasonable period of weekly therapy.

Disclaimer

- Care has been taken in the preparation of the information contained in this document. Nonetheless, any person seeking to apply or consult the practice guideline is expected to use independent medical judgment in the context of individual clinical circumstances or seek out the supervision of a qualified clinician. Cancer Care Ontario makes no representation or warranties of any kind whatsoever regarding their content or use or application and disclaims any responsibility for their application or use in any way.

IMPLEMENTATION OF THE GUIDELINE

DESCRIPTION OF IMPLEMENTATION STRATEGY

An implementation strategy was not provided.

INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT CATEGORIES

IOM CARE NEED

Living with Illness

IOM DOMAIN

Effectiveness

IDENTIFYING INFORMATION AND AVAILABILITY

BIBLIOGRAPHIC SOURCE(S)

Crump M, Trudeau M, Sinclair S, O'Malley F, Breast Cancer Disease Site Group. The role of trastuzumab (Herceptin®) in the treatment of women with HER2/neu-overexpressing metastatic breast cancer. Toronto (ON): Cancer Care Ontario (CCO); 2005 Nov 8. 28 p. (Practice guideline report; no. 1-15). [55 references]

ADAPTATION

Not applicable: The guideline was not adapted from another source.

DATE RELEASED

2005 Nov 8

GUIDELINE DEVELOPER(S)

Program in Evidence-based Care - State/Local Government Agency [Non-U.S.]

GUIDELINE DEVELOPER COMMENT

The Program in Evidence-based Care (PEBC), is a Province of Ontario initiative sponsored by Cancer Care Ontario and the Ontario Ministry of Health and Long-Term Care.

SOURCE(S) OF FUNDING

Cancer Care Ontario
Ontario Ministry of Health and Long-Term Care

GUIDELINE COMMITTEE

Provincial Breast Cancer Disease Site Group

COMPOSITION OF GROUP THAT AUTHORED THE GUIDELINE

For a current list of past and present members, please see the [Cancer Care Ontario Web site](#).

FINANCIAL DISCLOSURES/CONFLICTS OF INTEREST

The members of the Breast Cancer Disease Site Group (DSG) disclosed potential conflicts of interest relating to the topic of this practice guideline. Two of the four lead authors reported related research involvement and research funding. One author (MC) reported receiving grant or research funding from Roche Canada, and one (MT) reported the receipt of honoraria from that same company.

GUIDELINE STATUS

This is the current release of the guideline.

The Evidence-based Series report, initially the full original Guideline, over time will expand to contain new information emerging from their reviewing and updating activities.

Please visit the [Cancer Care Ontario Web site](#) for details on any new evidence that has emerged and implications to the guidelines.

GUIDELINE AVAILABILITY

Electronic copies: Available in Portable Document Format (PDF) from the [Cancer Care Ontario Web site](#).

AVAILABILITY OF COMPANION DOCUMENTS

The following are available:

- The role of trastuzumab (Herceptin®) in the treatment of women with HER2/neu-overexpressing metastatic breast cancer. Summary. Toronto (ON): Cancer Care Ontario (CCO), 2005 Nov 8. Various p. (Practice guideline; no. 1-15 (Version 2.2004)). Electronic copies: Available in Portable Document Format (PDF) from the [Cancer Care Ontario Web site](#).
- Browman GP, Levine MN, Mohide EA, Hayward RSA, Pritchard KI, Gafni A, et al. The practice guidelines development cycle: a conceptual tool for practice guidelines development and implementation. J Clin Oncol 1995;13(2):502-12.

PATIENT RESOURCES

None available

NGC STATUS

This summary was completed by ECRI on January 25, 2006. The information was verified by the guideline developer on February 23, 2006.

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