



**Guideline 7-22 BEING UPDATED**

**A Quality Initiative of the  
Program in Evidence-Based Care (PEBC), Cancer Care Ontario (CCO)**

**The Use of Systemic Treatment in the Maintenance of  
Patients with Non-small Cell Lung Cancer**

*S. Kulkarni, E. Vella, N. Coakley, S. Cheng, R. Gregg, Y.C. Ung, P.M. Ellis, and the Lung DSG*

**Report Date: August 14, 2015**

**Guideline 7-22 is currently BEING UPDATED. It is still appropriate for this document to be available while this updating process unfolds. The PEBC has a formal a standardized process to ensure the currency of each document. ([PEBC Assessment & Review Protocol](#))**

**Guideline 7-22 is comprised of 5 sections. You can access the summary and full report here:**  
<https://www.cancercareontario.ca/en/guidelines-advice/types-of-cancer/831>

<b>Section 1:</b>	<b>Recommendations Summary .....</b>	<b>1</b>
<b>Section 2:</b>	<b>Guideline.....</b>	<b>2</b>
<b>Section 3:</b>	<b>Guideline Methods Overview .....</b>	<b>6</b>
<b>Section 4:</b>	<b>Evidence Review .....</b>	<b>8</b>
<b>Section 5:</b>	<b>Internal and External Review .....</b>	<b>57</b>
<b>Appendices:</b>	<b>A to C.....</b>	<b>61</b>
<b>References:</b>	<b>.....</b>	<b>70</b>

For information about this document, please contact Dr. S Kulkarni, the lead author, through the PEBC via:

Phone: 905-527-4322 ext. 42822 Fax: 905 526-6775 E-mail: [ccopgi@mcmaster.ca](mailto:ccopgi@mcmaster.ca)

For information about the PEBC and the most current version of all reports, please visit the CCO website at <http://www.cancercare.on.ca/> or contact the PEBC office at:  
Phone: 905-527-4322 ext. 42822 Fax: 905 526-6775 E-mail: [ccopgi@mcmaster.ca](mailto:ccopgi@mcmaster.ca)

**PEBC Report Citation (Vancouver Style):** Kulkarni S, Vella, E, Coakley N, Cheng S, Gregg R, Ung YC, Ellis PM. The use of systemic treatment in the maintenance of patients with non-small cell lung cancer. Toronto (ON): Cancer Care Ontario; 2015 August 14 [Being Updated 2018 Dec]. Program in Evidence-based Care Evidence-based Series No.: 7-22 BEING UPDATED.

**Journal Citation (Vancouver Style):** Kulkarni S, Vella ET, Coakley N, Cheng S, Gregg R, Ung YC, et al. The use of systemic treatment in the maintenance of patients with non-small cell lung cancer: a systematic review. J Thorac Oncol. 2016 Jul;11(7):989-1002.

*Copyright*

This report is copyrighted by Cancer Care Ontario; the report and the illustrations herein may not be reproduced without the express written permission of Cancer Care Ontario. Cancer Care Ontario reserves the right at any time, and at its sole discretion, to change or revoke this authorization.

## Guideline 7-22: Section 1

# The Use of Systemic Treatment in the Maintenance of Patients with Non-small Cell Lung Cancer: Recommendations Summary

### GUIDELINE OBJECTIVES

To make recommendations in the maintenance setting regarding the use of systemic treatment in the care of patients with non-small cell lung cancer (NSCLC).

### TARGET POPULATION

Advanced, stage IIIB/IV patients who have NSCLC who have not progressed (i.e., complete response, partial response or stable disease) following four to six cycles of platinum-based chemotherapy and maintained an Eastern Cooperative Oncology Group performance status of 0 to 2.

### INTENDED USERS

Oncologists involved in the care of patients with NSCLC who require maintenance systemic treatment.

### RECOMMENDATION

Maintenance therapy is recommended as an option for therapy as described below:

- Maintenance therapy with pemetrexed should be considered an option for patients with non-squamous NSCLC. Maintenance therapy with pemetrexed is not recommended for patients with squamous NSCLC.
- Maintenance therapy with epidermal growth factor receptor (EGFR) tyrosine kinase inhibitors (TKIs) may be considered an option. No recommendation can be made with respect to the choice of gefitinib or erlotinib. Any decision should be made in conjunction with discussion with the patient.
- There is insufficient evidence to recommend docetaxel or gemcitabine as maintenance chemotherapies.
- In patients who elect to have a break following first-line therapy, second-line therapy should be considered at the time of progression. Please refer to the Program in Evidence-Based Care guidelines on the use of second-line therapies in NSCLC [1,2].

#### *Qualifying statements*

- These recommendations apply both to patients who previously received pemetrexed or non-pemetrexed-containing platinum-doublet chemotherapy.
- Trials have evaluated both erlotinib and gefitinib, but no trials directly compared these two agents as maintenance therapy. However, the strongest data would support the use of erlotinib in this setting, although the overall survival advantage was modest for both agents.
- The recommendation for EGFR TKIs applies to both EGFR mutation-positive and wild-type patients.
- In patients receiving maintenance bevacizumab, it is unclear whether the addition of maintenance pemetrexed improves overall survival.

IN REVIEW