Report on New Patented Drugs – Iressa

Under its transparency initiative, the PMPRB publishes the results of the reviews of new patented drugs by Board Staff, for purposes of applying the PMPRB's Price Guidelines, for all new active substances introduced after January 1, 2002.

Brand Name: Iressa

Generic Name: gefitinib

DIN: 02248676 250 mg/tablet

Patentee: AstraZeneca Canada Inc.

Indication – as per product monograph:

As monotherapy (third line therapy) for the treatment of patients with locally advanced or metastatic non-small cell lung cancer after the failure of prior platinum-based and docetaxel chemotherapy. The efficacy is based on objective response rates (surrogate endpoints) that are reasonably likely to predict clinical benefit. This authorization is conditional upon confirmation of clinical benefit. Patients should be advised of the conditional nature of the authorization.

Notice of Compliance: Issued with conditions on 17 December 2003

Date of First Sale: 17 December 2003

ATC Class: L01XX31
Antineoplastic and Immunomodulating Agents, Antineoplastic agents, Other antineoplastic agents.

APPLICATION OF THE GUIDELINES

Summary:

The introductory price of Iressa was found to be within the Guidelines because the Canadian price did not exceed the median of the prices for the same drug product in those countries listed in the *Patented Medicines Regulations* (Regulations) in which it was sold.

Scientific Review:

Iressa is a new active substance and the PMPRB's Human Drug Advisory Panel (HDAP) reviewed it as a category 3 new medicine (provides moderate, little or no therapeutic advantage over comparable medicines).

The Therapeutic Class Comparison (TCC) test of the Guidelines provides that the price of a category 3 new drug product cannot exceed the prices of other drugs that treat the same disease or condition. Comparators are generally selected from among existing drug products in the same 4th level of the Anatomical, Therapeutic, Chemical (ATC) System that are clinically equivalent in addressing the approved indication.

None of the agents in the same 4th level ATC share the same indication as Iressa, nor is there any evidence supporting the use of these agents as single third line therapy for the treatment of non-small cell lung cancer. Consequently, the HDAP recommended no comparators for the conduct of a TCC for Iressa.

Price Review:

Under the Guidelines, the introductory price of a new category 3 drug product will be presumed to be excessive if it exceeds the prices of all of the comparable drug products in the TCC test. The Guidelines further provide that when it is inappropriate or impossible to conduct a TCC, the primary weight will be given to the median of the international prices identified in an International Price Comparison (IPC) test. The price will be presumed excessive if it exceeds the median of the prices of the same drug product sold in the seven countries listed in the Regulations. See the PMPRB's *Compendium of Guidelines, Policies and Procedures* for a more complete description of the Guidelines and the policies on IPCs.

As no comparable drug products could be identified for the purposes of conducting a TCC test, the price of Iressa was considered within the Guidelines as it did not exceed the median of the international prices identified in an IPC test.

	250 mg/tablet
Canada	$71.3333
France	--
Germany	--
Italy	--
Sweden	--
Switzerland	$89.0335
UK	--
US	$69.4179
Median	$79.2257

Sources:
Canada: PPS Publication Pharma, July 2004
Switzerland: Medwin, January-June 2004
US: Wholesale Acquisition Cost (WAC), April 2004 and Federal Supply Schedule (FSS), January-June 2004.

The Guidelines provide that when a medicine is sold in fewer than five countries at the time of its introduction, the introductory price will be treated as the interim benchmark price. The interim benchmark price may be reviewed at the end of three years or when the medicine is sold in at least five countries, whichever comes first.

Where comparators and dosage regimens are referred to in the Summary Reports, they have been selected by the PMPRB Staff and the HDAP for the purpose of carrying out the PMPRB's regulatory mandate, which is to review the prices of patented medicines sold in Canada to ensure that such prices are not excessive. The publication of these reports is also part of the PMPRB's commitment to make its price review process more transparent.

The information contained in the PMPRB's Summary Reports should not be relied upon for any purpose other than its stated purpose and is not to be interpreted as an endorsement, recommendation or approval of any drug nor is it intended to be relied upon as a substitute for seeking appropriate advice from a qualified health care practitioner.

Evidence/References

Side Bar: The references are available on the PMPRB website, under Patented Medicines; Reports on New Patented Drugs for Human Use; Iressa.

- Fukuoka M, Yano S, Giaccone G, et al. Multi-institutional randomized phase II trial of gefitinib for previously treated patients with advanced non-small-cell lung cancer. J Clin Oncol 2003;21:2237-46.

- Kris MG, Natale RB, Herbst RS, et al. Efficacy of gefitinib, an inhibitor of the epidermal growth factor receptor tyrosine kinase, in symptomatic patients with non-small cell lung cancer. JAMA 2003;290:2149-58.

- Giaccone G, Johnson DH, Manegold C, et al. A phase III clinical trial of ZD1839 "(Iressa)" in combination with gemcitabine and cisplatin in chemotherapy-naïve patients with advanced non-small-cell lung cancer (INTACT 1). Ann Oncol 2002;13(suppl 5):2-3.

- Johnson DH, Herbst R, Giaccone G, et al. ZD1839 ("Iressa") in combination with paclitaxel and carboplatin in chemotherapy-naïve patients with advanced non-small-cell lung cancer (NSCLC): Results from a phase II clinical trial (INTACT 2). Ann Oncol 2002;13(suppl 5):127-8.

- Pfister DG, Johnson DH, Azzoli CG, et al. American society of clinical oncology treatment of unresectable non-small-cell lung cancer guideline: Update 2003. J Clin Oncol 2004;22(2):330-53.

- Cersosimo RJ. Lung cancer: a review. Am J Health-Syst Pharm 2002;59:611-42.

- Anon. Selected Schedules of Therapy for Malignant Tumors. 11th update, Baxter Oncology, April 2003.

- Pho KH (ed). Cancer Care Handbook (7thed). Kingston Regional Cancer Centre, Kingston, Ontario, 2001.

- Liu CY, Seen S. Gefitinib therapy for advanced non-small-cell lung cancer. Ann Pharmacother 2003;37:1644-53.

- Culy CR, Faulds D. Gefintib. Drugs 2002;62:2237-48. Massarelli et al. A retrospective analysis of the outcome of patients who have received two prior chemotherapy regimens including platinum and docetaxel for recurrent non-small-cell lung cancer. Lung Cancer 39(2003);55-61.

- Pallis A.G et al. ZD 1839, a novel oral epidermal growth factor receptor-tyrosine kinase inhibitor, as salvage therapy in patients with advanced non-small cell lung cancer. Experience form a single center participating in a compassionate use program. Lung Cancer 40(2003):301-307.

- Simon GR. et al. Gefitinib (ZD1839) in previously treated advanced non-small cell lung cancer: Experience from a single institution. Cancer Control 203(10);5:388-395.

- Cappuzzo F. et al. Efficacy and tolerability of gefitinib in pre-treated elderly patients with advanced non-small cell lung cancer (NSCLC). British Journal of Cancer 2004(90):82-86.

- Hainsworth JD. et al. Gefitinib in the treatment of advanced, refractory non-small cell lung cancer: Results in 124 patients. Clinical Lung Cancer 2003(4);6:347-355.

- Cancer Care Ontario Guidelines:http://www.cancercare.on.ca/pdf/pebc7-2f.pdf, accessed February 2, 2004

- Lung Cancer Statistics (Canadian Cancer Society) http://www.cancer.ca/ccs/internet/standard/0,3182,3543_14459__langId-en,00.html, accessed January 23, 2004.