News Release



TAGRISSO™ (osimertinib) approved by Health Canada as treatment for patients with locally advanced or metastatic EGFR T790M mutation-positive non-small cell lung cancer

A result of one of the fastest development programs from start of clinical trials to regulatory approval

MISSISSAUGA, ON, July 11, 2016 /CNW/ – AstraZeneca Canada announced today that Health Canada has approved TAGRISSO™ (osimertinib) once-daily tablets for the treatment of patients with locally advanced or metastatic epidermal growth factor receptor (EGFR) T790M mutation-positive non-small cell lung cancer (NSCLC), who have progressed on or after EGFR tyrosine kinase inhibitor (TKI) therapy. As a first-in-class treatment, TAGRISSO has been granted the Health Canada Notice of Compliance with Conditions (NOC/c), based on promising evidence of clinical efficacy data, pending the results of additional trials to verify its clinical benefit.¹

TAGRISSO is the first and only approved medicine indicated for patients with locally advanced or metastatic EGFR T790M mutation-positive NSCLC. As a targeted cancer therapy, TAGRISSO is an EGFR-TKI that acts on both the sensitizing EGFR mutation involved in cancer development and T790M, a genetic mutation that makes tumours resistant to existing treatment with EGFR-TKIs.² This advancement in therapy allows patients to remain on an oral EGFR-TKI medication longer, delaying the need for chemotherapy.³

Tumour cells almost always develop resistance to treatment, leading to disease progression.⁴ Nearly two-thirds of NSCLC patients who are EGFR mutation-positive and experience disease progression after being treated with an EGFR-TKI develop the T790M resistance mutation, for which there have been limited treatment options.

On average, 57 Canadians die from lung cancer every day⁵ – that's more than 20,000 each year⁶. In fact, more people die from lung cancer than breast cancer, colorectal cancer and prostate cancer combined.⁷ NSCLC is the most common form of lung cancer and accounts for 85 to 90% of all lung cancers in Canada.⁸ Often diagnosed in late stage, fewer than 17% of patients diagnosed with NSCLC will live more than five years following diagnosis.⁹

"Non-small cell lung cancer is an aggressive disease, and until now we have had limited options to offer patients whose disease has progressed while on current EGFR-TKI therapies," says Dr. Glenwood Goss, Chair of the Thoracic Oncology Site Committee, Professor of Medicine, University of Ottawa, and Director of Clinical and Translational Research at the Ottawa Hospital Cancer Centre. "TAGRISSO constitutes a significant breakthrough for

patients with both the EGFR and T790M mutations, providing us with a targeted treatment and a new way to battle this devastating disease. Importantly, it allows us to delay chemotherapy treatments, which typically have significant side effects for patients."

Genetic Mutations in NSCLC

Ethnicity can increase risk for genetic mutations in NSCLC. In Caucasian populations, 10 to 15% of all NSCLC diagnoses are EGFR mutation-positive, but this climbs to 30 to 40% in people of Asian background with NSCLC.¹⁰
Also, NSCLC patients with the EGFR T790M mutation are more likely to be female and to have never smoked.¹¹

TAGRISSO is part of a new era of medical advances that demonstrate the promise of 'personalized medicine' or 'targeted therapy', which is the tailoring of medical treatment to the individual characteristics, needs and preferences of each patient. Biomarker-based treatments differ from standard, one-size-fits-all therapy. Treatment response is much more predictable and as a result those who are most likely to benefit are treated while avoiding additional treatment burden and cost for those who would not benefit.

"The approval of TAGRISSO represents an exciting advance in targeted therapy and provides new hope for Canadians living with this devastating disease," says Shem Singh, Executive Director, Lung Cancer Canada. "With continued research, it is our hope that we can learn more about the role of genetic mutations and that we will continue to find better ways to fight non-small cell lung cancer."

Testing for the EGFR T790M resistance mutation should be conducted using a validated methodology, prior to starting treatment with TAGRISSO, after a patient has progressed on TKI treatment.¹² Testing currently involves collecting samples of tumour tissue from patients by biopsy. Canadian labs are in the process of validating plasma-based EGFR T790M mutation detection, which would allow patients to be assessed with a simple blood test.

About TAGRISSO

Regulatory approval is based on data from two pivotal Phase II, multicentre, single-arm, open-label clinical studies (AURA Phase II extension and AURA2), which demonstrated efficacy in 397 EGFR T790M mutation-positive NSCLC patients who had progressed on or after an EGFR-TKI. In those trials, objective response rate (ORR) was achieved in 66% of patients (Confidence Interval, CI, 61%, to 71%). Median progression free survival was 9.7 months (CI 8.3 months; upper bound of CI not reached at time of analysis as a significant proportion of patients were still ongoing on treatment at time of analysis). Rapid onset of response was observed with TAGRISSO as the majority of patients (86%) demonstrated a response to TAGRISSO within six weeks from the start of the trial. Studies have identified the

most common adverse reactions to include diarrhea, rash, dry skin, and nail-related events, as well as pruritis and

stomatitis.13

In Canada, TAGRISSO was reviewed under Health Canada's accelerated approval framework and has been granted

the Notice of Compliance with Conditions (NOC/c), based on promising evidence of clinical efficacy data, pending the

results of additional trials to verify its clinical benefit.14 In the U.S., TAGRISSO was granted Fast Track, Breakthrough

Therapy, Priority Review and Accelerated Approval Status by the FDA,15 and was granted Accelerated Assessment

and Priority Review status in Europe¹⁶ and Japan.¹⁷

About AstraZeneca

AstraZeneca is a global, innovation-driven biopharmaceutical business with a primary focus on the discovery,

development and commercialization of primary and specialty care medicines that transform lives. Our primary focus

is on three important areas of healthcare: Cardiovascular and Metabolic disease; Oncology; and Respiratory,

Inflammation and Autoimmunity. AstraZeneca operates in more than 100 countries and its innovative medicines are

used by millions of patients worldwide. In Canada, we employ more than 675 employees across the country and our

AstraZeneca Canada headquarters are located in Mississauga, Ontario. For more information, please visit the

company's website at www.astrazeneca.ca.

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egfr-t790m-mutation-positive-metastatic-non-small-cell-lung-cancer-29032016.html. Accessed on June 7, 2016.

¹ TAGRISSO™ (osimertinib) Product Monograph.

² TAGRISSO™ (osimertinib) Product Monograph.

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⁶ Canadian Cancer Society. Canadian Cancer Statistics 2015. Available at: http://www.cancer.ca/~/media/cancer.ca/CW/cancer%20information/cancer%20101/Canadian%20cancer%20stat istics/Canadian-Cancer-Statistics-2015-EN.pdf?la=en. Accessed on June 7, 2016.

⁷ Ibid.

⁸ Molina JR, et al. Non-small cell lung cancer: Epidemiology, risk factors, treatment and survivorship. Mayo Clin Proc. 2008 May; 83(5): 584-594.

⁹ Canadian Cancer Society. Canadian Cancer Statistics 2015. Available at: http://www.cancer.ca/~/media/cancer.ca/CW/cancer%20information/cancer%20101/Canadian%20cancer%20stat

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¹² TAGRISSO™ (osimertinib) Product Monograph.

¹³ Ibid.

¹⁴ Ibid.

¹⁵ U.S. Food and Drug Administration (FDA). FDA approves new pill to treat certain patients with non-small cell lung cancer. Press release issued November 13, 2015. Available at:

¹⁶ European Medicines Agency (EMA). EMA fast-tracks new oral treatment for non-small cell lung cancer. Press release issued December 18, 2015. Available at: