Early Access to Medicines Scheme Scientific Opinion - Public Assessment Report	
Product	**Osimertinib (AZD9291) 40 mg film-coated tablets** **Osimertinib (AZD9291) 80 mg film-coated tablets**
Condition **Full indication**	**Osimertinib is a medicine used in the Early Access to Medicines Scheme to treat a type of lung cancer.** **For the treatment of adult 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 TKI therapy.**
Company	**AstraZeneca UK Limited**
EAMS number	**17901/0001**

Introduction
The aim of the Early Access to Medicines Scheme (EAMS) is to provide earlier availability of promising new unlicensed medicines to UK patients that have a high unmet clinical need. The MHRA scientific opinion provides benefit and risk information to doctors who may wish to prescribe the unlicensed medicine under their own responsibility. More information about the scheme and the MHRA can be found here:
https://www.gov.uk/apply-for-the-early-access-to-medicines-scheme-eams

https://www.gov.uk/government/organisations/medicines-and-healthcare-products-regulatoryagency/about

The scientific opinion is based on the information supplied to the MHRA on the benefits and risks of a promising new medicine. As such this is a scientific opinion and should not be regarded as a medicine licensed by the MHRA or a future commitment by the MHRA to licence such a medicine. The General Medical Council's guidance on prescribing unlicensed medicines can be found here: http://www.gmcuk.org/mobile/news/14327

Osimertinib (AZD9291) 40 mg film-coated tablets
Osimertinib (AZD9291) 80 mg film-coated tablets

What is osimertinib?
Osimertinib (also called AZD9291) is the active substance of an anticancer medicine, which is available as tablets; 40 milligrams (mg) and 80 milligrams tablets.

What is osimertinib used to treat?
Osimertinib is used to treat adults with advanced non-small cell lung cancer who have been previously treated with other anticancer medicines. The medicine can be given to adults when a laboratory test shows that the lung cancer has a specific change (mutation) in the gene called 'EGFR' (Epidermal Growth Factor Receptor).

How is osimertinib used?
Treatment must be started and supervised by a doctor experienced in the use of anticancer therapies.

Before treatment, it is necessary that the cancer is investigated for a specific gene change (a mutation called EGFR T790M). The EGFR T790M mutation should be determined by a clinical laboratory using a valid test method.

The recommended dose is normally one 80 mg tablet each day, but the treating doctor may reduce the dose to one 40 mg tablet each day.

How does osimertinib work?
Osimertinib belongs to a group of medicines called Tyrosine Kinase Inhibitors. Osimertinib was specifically designed to have anticancer activity in patients who develop the EGFR T790M mutation. osimertinib may help to shrink, slow or stop the lung cancer growing.

How has osimertinib been studied?
Osimertinib has been investigated in two clinical studies (called AURA and AURA2) in 411 patients with EGFR T790M mutation-positive lung cancer, whose tumour had grown on prior therapy. All patients received osimertinib at a dose of 80 mg once daily. The main measure of anticancer activity was tumour response (how osimertinib affects the growth of the cancer).

What are the benefits and risks of osimertinib?
Benefits
The results from the two clinical studies showed that in patients treated with osimertinib, nearly two thirds (61%) of patients experienced some tumour shrinkage (their cancer got smaller). In some of the other patients treated with osimertinib, the cancer did not get any bigger. Preliminary data also showed that osimertinib may improve the symptoms of the disease and the quality of life of patients.

Risks
Most adverse reactions reported in the clinical studies to date have been generally of low severity. The most commonly reported adverse drug reactions (ADRs) were diarrhoea (42% of patients), rash (41%) and dry skin (31%). Decreases in blood cell counts (platelets and white blood cells) were also commonly observed following treatment with osimertinib. In 2.7% of patients, osimertinib caused a serious condition in the lungs called ‘interstitial lung disease’, which can be fatal in some cases.

Why has osimertinib been given a positive Early Access to Medicine Scientific opinion?
EGFR T790M mutation-positive lung cancer is a life threatening disease. Patients with this condition have very limited treatment options, reduced life expectancy and there is an urgent need for more therapies.

In clinical studies, osimertinib was able to slow or shrink the cancer in these patients. Other currently available treatments have limited activity. The MHRA has considered the benefits of osimertinib in this difficult to treat condition and concluded that the benefits are greater than the risks.

What are the uncertainties?
Results regarding the duration of response (how long osimertinib works for) and the overall survival of patients treated with osimertinib are still preliminary. The safety profile of osimertinib has only been studied in a relatively moderate number of patients and some adverse reactions may not yet be known.

Are there on-going clinical studies?
There is an ongoing larger clinical study (AURA3) which is designed to confirm the results seen in the two smaller studies and to provide comparative data against the current standard of care (chemotherapy). Several other clinical studies are ongoing in different groups of patients and include investigating the potential benefits of osimertinib in combination with other medicines.

What measures are in place to monitor and manage risks?
A risk management plan has been developed to ensure that osimertinib is used as safely as possible. Based on this plan, the company that makes osimertinib must ensure that all healthcare professionals expected to use the medicine, as well as patients, are provided with information on the medicine including the side effects of treatment and recommendations for preventing or minimising these side effects.

Information will be collected about patients before they enter the scheme. Healthcare professionals will be asked by the Company to report adverse effects experienced by patients receiving osimertinib through the scheme. These safety data will be reviewed and reported to the MHRA on a regular basis by the Company.

Patients in the Early Access to Medicines Scheme will also receive an alert card from their doctor summarising the important risks with the medicine. Patients should carry the card with them in case they need treatment or advice from a healthcare professional who is not familiar with osimertinib treatment.

Other information about osimertinib – see EAMS Treatment Protocol