MTA REPORT ADDENDUM 1 ID620

LIVERPOOL REVIEWS AND IMPLEMENTATION GROUP (LRiG)

Erlotinib and gefitinib for treating non-small cell lung cancer that has progressed following prior chemotherapy (review of NICE technology appraisals 162 and 175)

ID620

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1 INTRODUCTION

A telephone conference prior to the second appraisal committee meeting for erlotinib and gefitinib for treating non-small cell lung cancer that has progressed following prior chemotherapy (review of NICE technology appraisals 162 and 175) took place on 26th February 2014. The discussion focussed on two issues raised in relation to the ACD issued by NICE; first, whether there is any evidence for the effectiveness of erlotinib in an EGFR M- population and second, what rate of febrile neutropenia (FN) associated with treatment with docetaxel most accurately reflects that seen in UK clinical practice.

The AG submitted two slides for use at the AC meeting to address the points raised in the discussion. This addendum describes the content of those slides.

2 THE EFFECTIVENESS OF ERLOTINIB IN AN EGFR M- POPULATION

Evidence from the TAILOR trial (docetaxel vs erlotinib in an EGFR M- population)

The AG noted in Table 3 of the published report of the TAILOR[1] trial that while 15 patients (15.5%) treated with docetaxel showed confirmed response to therapy (5 complete responses and 10 partial responses), three patients (3%) treated with erlotinib were also reported to have achieved a partial response. The tumour samples for these three patients were re-tested for mutation status and were confirmed as EGFR M-.

Evidence from the BR21 trial (erlotinib vs BSC in an unknown population)

In the main body of the AG report, the AG presented an analysis of the survival gain for patients from the subgroup of patients from the BR.21[2] trial who were later identified as EGFR M-. This analysis yielded a PFS/OS gain of 2.2 months for erlotinib vs BSC. Figure 1 is taken from the AG report (Figure 14) and depicts the outcomes for the erlotinib and BSC arms of the BR.21[2] trial.

Taken together these findings suggest that erlotinib exhibits measurable therapeutic activity in some EGFR M- patients, i.e. that the effectiveness of erlotinib may not be confined to EGFR M+ patients.

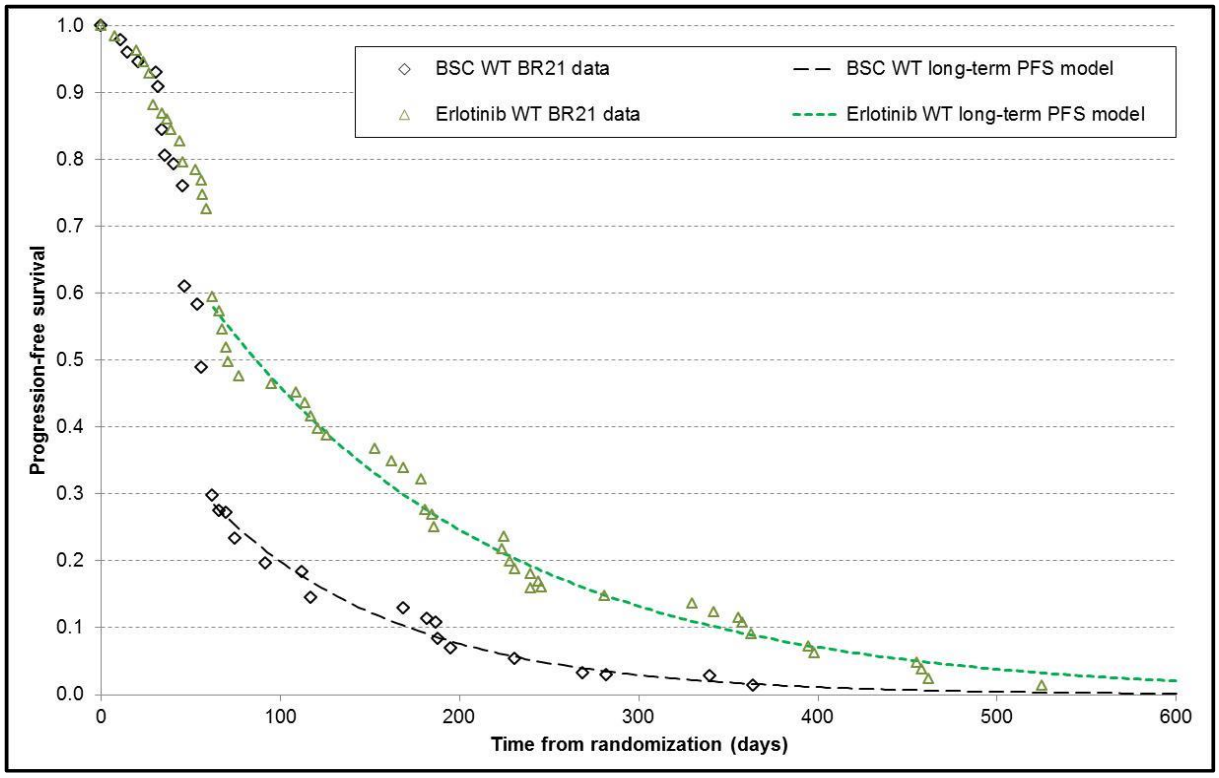

Figure 1 Projective models fitted to data from the EGFR M- subgroup of the BR.21 trial

3 RATES OF FEBRILE NEUTROPENIA ASSOCIATED WITH TREATMENT WITH DOCETAXEL

In the AG report, the AG's base case analysis used the overall incidence rate as reported in the TAILOR[1] trial for Grade 3/4 FN of 3.85% in the docetaxel arm. However, the TAILOR[1] trial employed two regimens of docetaxel, treatment administration every three weeks or a weekly administration. Details of the trial revealed that all cases of FN occurred in patients on the three-weekly regimen of docetaxel with none at all in the weekly regimen patients. The AG recalculated the FN incidence rate for the three-weekly regimen (i.e. that used in UK clinical practice) to be 6.35**%** (confidence interval: 1.8% - 13.5%).

The AG's revised the ICERs for docetaxel vs erlotinib using the revised FN TAILOR[1] trial data. The revised deterministic ICER is £31,039/QALY (incremental cost = £3,311 per patient, incremental QALYs = 0.1067 per patient) and the revised probabilistic ICER is £28,328/QALY; in this scenario, docetaxel is close to the maximum range of cost-effectiveness compared to erlotinib in the EGFR M- population.

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