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Recommendations on requesting plasma Epidermal Growth Factor Receptor (*EGFR*) mutation analysis for non-small cell lung cancer (NSCLC) patients in NTEC

Implementation date: 20 September 2021

The service of plasma *EGFR* T790M mutation testing (with simultaneous testing for the L858R mutation and exon 19 deletions) was implemented in August 2020. This test is reserved for NSCLC patients who have developed resistance to $1^{st}/2^{nd}$ generation tyrosine kinase inhibitors (TKI). A positive plasma *EGFR* T790M mutations status is indicative for responsiveness to 3^{rd} generation TKI. Under the existing arrangement, specialists from the following departments/teams, including Clinical Oncology, M&T (Respiratory Medicine) and Cardiothoracic Surgery, can request this test.

In view of the rapid growth in the number of plasma EGFR mutation testing requests, a new arrangement will be implemented to enhance the cost-effectiveness of the plasma EGFR mutation testing service starting from 20 September 2021, with an aim to maintain a reasonable test turnaround time and to facilitate timely decisions on appropriate treatment for patients.

Test is **RECOMMENDED** for the following circumstances:

- Histologically confirmed NSCLC, to assess *EGFR* status for treatment plan.
- Newly diagnosed metastatic lung cancer in patient unfit for histological confirmation, with a plan to start TKI if *EGFR* mutation is detected.

Test will be REJECTED for the following circumstances:

- Imaging study shows non-specific lung lesion(s) without a clinical diagnosis of lung cancer.
- Insufficient/non-specific clinical information

For enquiries, please contact our Duty Biochemist via the PWH Operator at 3505 2211.

Thank you for your kind attention and support to our service.

Sincerely yours,

Prof Allen KC CHAN



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