



醫院管理局
HOSPITAL
AUTHORITY

From: Prof Allen KC CHAN
Honorary Chief of Service
Dept of Chemical Pathology
PWH

To: All COSs, DOMs & Medical staff,
PWH/SH/BBH/SCH

Cc: Dr SV LO, HCE(PWH)/ CCE(NTEC)
Dr NC SIN, HCE(BBH/SCH/SH)
Dr Michael CHAN, CCPath (NTEC)
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Date: 3 August 2020

**Introduction of plasma circulating tumor DNA (ctDNA)
targeted *EGFR* (Epidermal growth factor receptor) mutation analysis
for non-small cell lung cancer (NSCLC) patients**

Implementation date: 5 August 2020

Testing of tumor *EGFR* gene mutations in NSCLC patients is useful in assessing sensitivity and resistance to tyrosine kinase inhibitors (TKI) therapy. In particular, the use of Osimertinib, a third-generation TKI, has been established as a preferred treatment in T790M-positive NSCLC. Testing of these mutations in plasma ctDNA provides a non-invasive alternative in guiding therapy in NSCLC patients.

In view of the expanded clinical indications for Osimertinib use supported by Community Care Fund/ Samaritan Fund, targeted testing of plasma ctDNA *EGFR* T790M mutation using droplet digital PCR System will be provided beginning 5 August 2020. In addition to testing the T790M mutation, simultaneous testing for the original sensitizing mutation, i.e. L858R or exon19 deletion, will be performed. The test is reserved for patients with clinically suspected and/or confirmed NSCLC and should have been endorsed by one of the following specialist teams:

- M&T (Respiratory Medicine)
- Cardiothoracic Surgery
- Clinical Oncology

The test will be requestable via Generic Clinical Request System (GCRS).

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Please note the following arrangements for the new test with effect from 5 August 2020.

1. Specimen requirement: **TWO tubes of 3mL EDTA whole blood**
2. Test requesting procedure: **GCRS request as “EGFR T790M, Plasma, digital PCR”** under Biochemistry

The freshly collected EDTA bloods should be delivered to PWH Chemical Pathology Laboratory on normal working days between 09:00 and 16:00. Kindly send EDTA bloods immediately to the laboratory after blood collection as specimen will be rejected if sample arrival is >120 minutes after blood collection. Do NOT transport specimens with the pneumatic tube transport system.

For enquiries on the above new diagnostic service, please contact our Duty Biochemist at 3505 2685 / 3505 2331, or page through PWH Operator at 3505 2211.

Thank you for your kind attention.

Sincerely yours,

Prof Allen KC CHAN
Honorary Chief of Service
Department of Chemical Pathology
Prince of Wales Hospital and The New Territories East Cluster

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