

High frequency of EGFR mutations found in Asian population

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Adenocarcinoma histology, female sex, never-smoking status, and Asian ethnicity have been considered the most important factors associated with EGFR mutations in non-small cell lung cancer and response to EGFR inhibitors. A recent study has found that, within the Asian population, the frequency of EGFR mutations associated with other demographic and clinical characteristics is higher than previously reported, even in patients with a history of smoking, suggesting that mutation testing should be done on a broader basis among Asian patients with advanced adenocarcinoma of the lung.

The PIONEER study is the first prospective, multinational epidemiologic study to document the frequency of EGFR mutations in [lung adenocarcinoma](#) in the Asian population. The PIONEER authors found that EGFR mutations were present in 51.4% of stage IIIB or IV adenocarcinomas of the lung among 1,450 patients from seven regions of Asia. Previous reports have suggested a frequency of approximately 30% among the Asian population (compared with 20% among the white population). The findings of the PIONEER study are published in the February issue of the International Association for the Study of Lung Cancer's journal, the *Journal of Thoracic Oncology* (JTO).

The frequency of EGFR mutations was high among women (61.1%) and never-smokers (60.7%), but EGFR mutations were also common among men (44%), occasional smokers (51.6%), and previous smokers (43.2%). With regard to Asian regions, the frequency was highest in Vietnam (64.2%) and lowest in India (22.2%).

"The frequency of EGFR mutations in demographic and clinical subgroups of Asian patients in PIONEER suggests that EGFR [mutation testing](#) should be considered for all patients with stage IIIB or IV adenocarcinoma of the lung in Asian populations," says first author Yuankai Shi, MD, of

the Department of Medical Oncology, Cancer Institute/Hospital, Beijing, China. More widespread mutation testing would help to ensure the optimal identification and treatment of [patients](#) with [lung adenocarcinomas](#) that harbor EGFR [mutations](#).

Coauthors of the study include IASLC members Sumitra Thongprasert, MD, of the Department of Internal Medicine, Maharaj Nakorn Chiang Mai Hospital, Chiang Mai, Thailand; Chun-Ming Tsai, MD, of the Chest Department, Taipei Veteran's General Hospital, Taipei, Taiwan; Gerardo Cornelio, MD, of the St. Peregrine Oncology Unit, San Juan De Dios Hospital, Pasay City, Philippines; and Pan-Chyr Yang, MD, of the Department of Internal Medicine, National Taiwan University College of Medicine, Taipei, Taiwan who led the study.

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