# UpSwinG: real-world study of TKI activity in patients with *EGFR* mutation-positive NSCLC with uncommon mutations, and sequencing of afatinib followed by osimertinib

#420TiP

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## Introduction

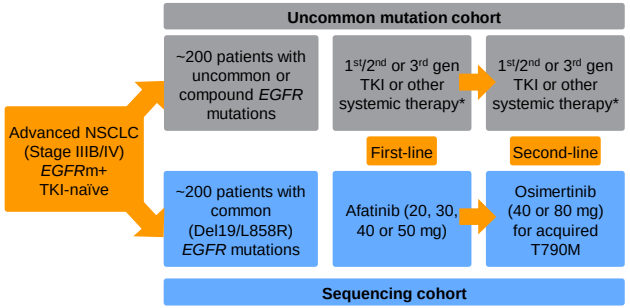
- EGFR TKIs are an effective treatment option for patients with *EGFR*m+ NSCLC harboring common *EGFR* mutations (Del19 or L858R)[1]
  - However, 7% to 23% of NSCLC tumors harbor uncommon *EGFR* mutations,[2] for which EGFR TKI efficacy is less established
  - Afatinib has shown broad inhibitory activity against uncommon *EGFR* mutations *in vitro*[3] and clinical activity against major uncommon mutations (G719X/L861Q/S768I)[2]
  - However, uncommon *EGFR* mutations are very heterogeneous,[2] and more information on the benefit of individual EGFR TKIs is needed
- Up to 75% of patients treated with afatinib develop T790M resistance[4]
  - Second-line osimertinib is highly effective in these patients[4]
- In the GioTag study, sequential afatinib and osimertinib was associated with encouraging outcomes (median TTF and OS: 27.7 and 37.6 months, respectively) in 203 patients who developed T790M mutations after first-line therapy in a real-world setting[5]
  - However, this study enrolled mainly Caucasian patients; study timelines and a lack of drug availability also led to limited enrollment of long-term responders, and maturity for time to treatment failure was 52% and for OS was 31%
  - More data from Asian patients and increased availability of both drugs will provide more robust data with increased maturity

*EGFR*m+, *EGFR* mutation-positive; OS, overall survival; TKI, tyrosine kinase inhibitor; TTF, time to treatment failure

## Study design and objectives

**Study design**

- Real-world, non-interventional, global study across 59 study centers in nine countries (NCT04179890)
- Pre-existing data will be retrospectively collected from medical records
- Selection bias will be minimized where possible, including by selecting only consecutive patients meeting eligibility criteria




*Patients must have been treated with an EGFR TKI in either first or second line; second-line treatment after first-line EGFR TKI is not mandatory. Gen, generation

# Key points

## Objectives

- **Uncommon mutation cohort:** To determine the time on treatment with EGFR TKIs as first- or second-line therapy in NSCLC with uncommon *EGFR* mutations
- **Sequencing cohort:** To determine the time on treatment with afatinib as first-line therapy in patients with *EGFR*m+ NSCLC followed by osimertinib for acquired T790M

http://tago.ca/esmoa3

## Study design

- Non-interventional, global, multicenter study based on existing data from medical records or electronic health records

## Endpoints

- **Primary**: Time on treatment with EGFR TKI
- **Secondary**: ORR, OS, TTF2 (uncommon mutation cohort), subsequent therapies used

## Current status

- As of September 2020, 400 patients have been recruited: 255 in uncommon mutation cohort, and 145 in sequencing cohort

Scan the QR code for an electronic copy of the e-poster, further information on the study, and references†



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## Patients

| Key inclusion criteria | |
|---|---|
| Adult patients | |
| Diagnosis of EGFR TKI-naïve, advanced *EGFR*m+ NSCLC | |
| Being treated for *EGFR*m+ NSCLC within regular clinical practice | |
| **Uncommon mutation cohort** | **Sequencing cohort** |
| Patients with uncommon/compound *EGFR* mutations | Patients with common *EGFR* mutations (Del19, L858R) |
| Patients who started either afatinib, gefitinib, erlotinib, or osimertinib in the first- or second-line setting within regular clinical practice | Patients treated with afatinib in the first-line setting and, for acquired T790m mutation, with osimertinib in the second-line setting |
| Patients must have started EGFR TKI treatment ≥12 months prior to data entry | Patients must have started osimertinib treatment ≥10 months prior to data entry |

| Key exclusion criteria |
|---|
| Patients treated for *EGFR*m+ NSCLC within a clinical trial or participated in GioTag study |
| Patients with active brain metastases at start of EGFR TKI therapy |
| For uncommon mutation cohort: patients treated with osimertinib with no further uncommon mutation other than acquired T790M |

## Endpoints and assessments

| Primary endpoint | Secondary endpoints |
|---|---|
| Time on treatment with EGFR TKI (from start until end of EGFR TKI treatment or death* in uncommon mutation cohort, and from start of first-line until end of second-line treatment or death* in sequencing cohort) | ORR |
| | OS |
| | TTF2 (uncommon mutation cohort only) |
| | Subsequent therapies used |

*By any cause. TTF2, time on treatment until failure of second-line therapy

## Study status

**Number enrolled:** 400 patients

**Uncommon mutation cohort:** 255 patients

**Sequencing cohort:** 145 patients

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