RISK ASSESSMENT AND INCIDENCE OF CARDIOVASCULAR ADVERSE EVENTS ASSOCIATED WITH ORAL ANTINEOPLASTIC AGENTS IN PATIENTS WITH NON–SMALL CELL LUNG CANCER

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Objective

To evaluate baseline cardiovascular (CV) risk and incidence of CV adverse events in patients with non–small cell lung cancer (NSCLC) treated with oral antineoplastic therapy.

Materials and Methods

Retrospective observational study conducted at a quaternary-care hospital. Patients initiating treatment between July and December 2023 were followed until February 2025.

VARIABLES

- **Patient:** sex, age and functional status (ECOG).
- **Baseline CV characteristics**: CV disease and cardiovascular risk factors (CVRF).
- **Treatment:** baseline concomitant therapy associated with QT interval prolongation and CV adverse events.

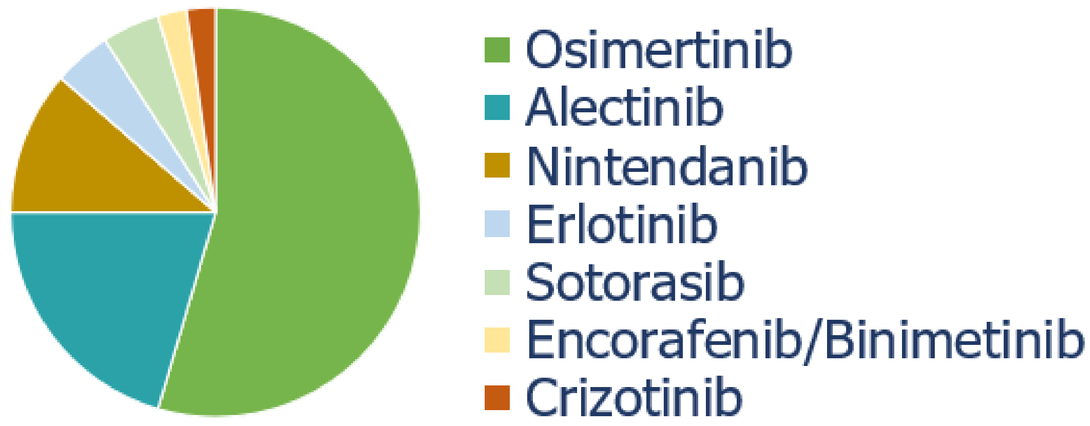
CV RISK STRATIFICATION ⇨ **HFA-ICOS risk score (European Cardio-Oncology Guidelines)**

Patients receiving:
- ❑ VEGF inhibitors
- ❑ RAF/MEK inhibitors

Results

N = 44 (57% male)
Median age: 74.5 (48–88) years
ECOG 0–1: 42/44 (95.5%)

CV disease: 27% of patients
CVRF: 84% of patients



QT interval prolongation risk

28 patients received antineoplastic agents associated with QT interval prolongation.

↳ 8 patients had cumulative QT risk (antineoplastic + concomitant therapy)

CV risk stratification (HFA-ICOS score)

6 patients received VEGF or RAF/MEK inhibitors:
- High CV risk: 3
- Moderate CV risk: 1
- Low CV risk: 2

ADVERSE EVENTS

CV and/or thromboembolic events: 8/44 patients (18%)

- Heart failure
- Mitral and tricuspid regurgitation
- Paroxysmal supraventricular tachycardia
- Sinus bradycardia
- QT interval prolongation
- Coronary artery calcification
- Stroke
- Pulmonary embolism

» **CV disease and/or CVRF among patients with events: 7/8** «

Conclusion

Patients with NSCLC receiving oral antineoplastic therapy have a high baseline cardiovascular risk, further increased by cardiotoxic effects.
Baseline risk assessment and close QT monitoring are essential.