Methadone continues to be the drug of choice in managing opioid withdrawal. However, it is known that its use is related to QT prolongation, torsades de pointes and even sudden cardiac death. The interaction with other drugs could worsen this effect.

To quantify the prevalence of methadone drug-drug interactions with risk of QT interval prolongation and the incidence of cardiovascular events during admission.

Our results show a high prevalence of patients using methadone concomitant with other drugs likely to prolong QT during admission.

More significant proportion of patients with a previous history of cardiovascular events suffered a new event during hospitalization.

Background and importance
Methadone continues to be the drug of choice in managing opioid withdrawal. However, it is known that its use is related to QT prolongation, torsades de pointes and even sudden cardiac death. The interaction with other drugs could worsen this effect.

Aim and objectives
To quantify the prevalence of methadone drug-drug interactions with risk of QT interval prolongation and the incidence of cardiovascular events during admission.

Materials and methods
January 2021 - September 2022
Retrospective, descriptive study
Patients receiving methadone during admission in a tertiary hospital
Interactions reviewed in Lexicomp®

Variables
• Age, sex
• Opioid abuse
• Methadone: treatment prior to admission, dose
• Cardiovascular history
• Drugs prescribed (+ methadone) likely to prolong QT during admission
• Development of cardiovascular complications

Results
• N: 36 patients
• Median age: 56 [IQ: 50-60]
• 74,3% male
• 9,2% had a history of cardiovascular disease prior to admission
• Mean of 1,8 QT-prolonging drugs during admission
• Median methadone dose was 50 mg [IQR 35-80 mg]

11.0% suffered a cardiovascular event  54.6% arrhythmias.
More common those who already had underlying pathology (19.3% vs 7.2%)

4,6% new detoxifications
3,5% analgesia
9,3% respiratory weaning
61,5% previous opioid use
82,6% history of substance abuse

≥ 1 QT prolonging drug
≥ 2 QT prolonging drug
≥ 3 QT prolonging drug
93,6%
48,6%
21,1%

Conclusions and relevance
Our results show a high prevalence of patients using methadone concomitant with other drugs likely to prolong QT during admission.
A more significant proportion of patients with a previous history of cardiovascular events suffered a new event during hospitalization.