Objective
Torsade de pointes (TdP) is a rare complication of drug-poisoning, while QTc-prolongation in this setting is common. Recommendations regarding prophylactic management of high risk cases are lacking. A recent case of poisoning complicated by sotalol-induced TdP is reported and suggestions for prophylactic treatment are presented.

Method
Our management suggestions are based on a systematic literature review and clinical experiences. They consist of an assessment of risk factors as type and dose of ingested drug, extent of QTc-prolongation, heart rate and possible co-existing electrolyte disturbances. The recommendations are briefly summarized below in the conclusion.

Case presentation
A 40-year-old man ingested 100 sotalol tablets of 80 mg each. At presentation 1 hour later he was fully awake and displayed a normal ECG. Our poison centre was consulted and advised monitoring and treatment presented below (conclusion). After gastric lavage and administration of charcoal, the patient was referred to ICU for continuous cardiac monitoring. During the following ten hours his blood pressure slowly decreased and the ECG monitoring displayed sinus rhythm of 50-60 bpm with an increasing QTc-prolongation.

For unclear reasons, the given advice was not followed. The patient was treated with intravenous fluids and noradrenalin only. Suddenly, he developed ventricular fibrillation and became unconscious. The patient was defibrillated twice after which sinus bradycardia was restored and he woke up. An amiodarone infusion was started and our centre was contacted again. We recommended to stop amiodarone and instead administrate isoproterenol and magnesium. The patient then had an uneventful hospital course.

When checking the recorded ECG-tapes, it was evident that the QTc-time was over 700 ms during the hour before the cardiac arrest and that a long and typical TdP preceded the ventricular fibrillation.

Conclusion
Suggested prophylactic management of poisoned patients at high risk of developing torsade de pointes:

- If a patient has overdosed a pharmaceutical known to carry a risk of inducing TdP (1), continuous ECG monitoring is imperative.
- If the QTc-time is 450-500 ms, s-potassium and s-calcium should be checked and corrected if low, s-potassium to 4.5-5.0 mmol/L. Further, the administration of magnesium, 10 mmol intravenously over 5 minutes, is recommended.
- If the QTc-time exceeds 500 ms, an infusion of magnesium, 4 mmol/h during six hours, should be added and treatment with isoproterenol, or the insertion of an overdrive pacemaker, be considered if the heart rate is below 60 bpm.

References:
1. www.qtdrugs.org