THE IMPACT OF A CLINICAL PHARMACIST’S CONSULT ON DOCTORS MANAGEMENT OF DRUG-DRUG INTERACTIONS WITH POTENTIAL QT PROLONGATION IN AN INTERNAL MEDICINE WARD

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Introduction

• LQTS—the long QT syndrome is associated with increased risk of ventricular arrhythmia named torsades de pointes TdP.
• TdP can result in ventricular fibrillation and sudden death.
• Incidence of such arrhythmia is often a result of polypharmacy and drug-drug interactions.
• Several studies have shown an advantage of pharmacist involvement in monitoring and reduction of the risk.

Methods

• Cross-sectional, observational, retrospective, open label.

➢ Inclusion criteria:
  - All admissions to a single 44-bed internal medicine department during 2013, for whom a combination of drugs was prescribed.
  - The combination was defined as pharmacodynamic drug-drug interaction, of major severity, potentially causing QTc prolongation.
  - Admissions were divided into two groups, with and without pharmacist consult.
  - Demographic data, risk amplifiers and comorbidities, were collected.
  - Original ECG records were obtained.
  - Patient charts were searched for ECG analysis description in the follow up, and treatment interventions.
  - Using a logistic regression model, factors affecting doctors’ decision to intervene were identified.

Results

• Clinical pharmacist alert was associated with higher rate of ECG monitoring.

Figure 3: ECG monitoring rate by consult presence

• Clinical pharmacist alert was associated with higher rate of physician treatment intervention.

Figure 4: Physician treatment intervention by study groups

Figure 5: Physician treatment intervention by type

Conclusions

• A clinical pharmacist, by identifying potentially dangerous drug combinations, and alerting medical staff, may increase awareness and ECG monitoring in internal medicine wards.

• In our study, a pharmacists’ consult increased the probability of doctors intervention even in the absence of relevant ECG changes.

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