OVERRIDING DRUG ALERTS RESULTS IN PATIENT DEATH

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DESCRIPTION

A 61-year-old female with a complex medical history died after being administered contraindicated medications.

CLINICAL EVENTS

A 61-year-old female with a complicated medical history was admitted for an evaluation of a large right ventricular thrombus with Automatic Implantable Cardioverter Defibrillator (AICD) lead involvement. Her history included non-ischemic cardiomyopathy with ventricular tachycardia, an AICD placement, atrial fibrillation, and recurrent pulmonary emboli. The patient was also taking the antiarrhythmic Dofetilide (500mcg/day), which is associated with QT interval prolongation, a heart rhythm disorder that can lead to an arrhythmia.

The plan was to surgically remove the thrombus, AICD device and leads. Prior to the procedure, the patient exhibited wide complex tachycardia/ventricular tachycardia and reported chest pain and nausea. Due to the risks of a large intra-cardiac thrombus, the cariology resident decided to treat her with Amiodarone. The resident discussed the plan with their attending and Amiodarone was ordered and administered. Amiodarone is contraindicated for patients on Dofetilide because it may cause QT interval prolongation. The cardiology resident overrode the electronic medical record alert. The attending did not recall being informed the patient was on Dofetilide when they decided to order Amiodarone.

The patient also complained of nausea and was treated with Zofran and Compazine. The resident also overrode alerts regarding administering Zofran and Compazine. Like Amniodarone, they are contraindicated because of their impact on the QT interval. The patient suffered a cardiac arrest due to an arrhythmia associated with prolonged QT interval. The patient was resuscitated and transferred to the ICU. Over the next two hours, the patient had multiple ventricular tachycardia arrests without a sustainable pulse. The patient was cannulated for Extracorporeal Membrane Oxygenation (ECMO). Ultimately, the patient had poor neurological function and it was decided to take the patient off life support. The patient died two days later. Upon interrogation of the AICD, it was believed the lethal dysrhythmias were correlated with the administration of the Amiodarone, Zofran, and Compazine.

PATIENT SAFETY RESOURCES

ALLEGATION

A claim was asserted against the attending cardiologist and cardiology resident alleging improper management of the patient's medication regimen.

DISPOSITION

The case was settled for more than $400,000.

ANALYSIS

Performing a thorough assessment includes reading the medical chart

It is critical that a patient's chart be reviewed before initiating any treatments, particularly with a patient that has an extensive history. The cardiology resident did not read the medical chart to review all the patient's medications.

Drug-drug interaction alerts account for the highest rate of overrides

Alert fatigue can cause providers to override important notifications. The treating physicians must remain diligent during critical times of a patient's care. The cardiology resident overrode the alerts warning of drug interactions between Amiodarone, Zofran, and Compazine with Dofetilide that could cause prolonged QT intervals.

Trainees require vigilant supervision

Inadequate supervision of trainees (e.g., interns, residents) can contribute to medical error. The cardiology resident discussed plans with the attending and was given the go-ahead. The attending was not familiar with the patient's medication list.

DISCUSSION QUESTIONS

1. What efforts are being made to eliminate the low-priority drug-drug interaction alert list?
2. What safeguards are embedded within the pharmacy to stop the line for medications that can cause lethal results?
3. What is the culture of your institution? Do staff feel empowered to speak up?