



HOME OF SIDNEY KIMMEL MEDICAL COLLEGE

Background

Amiodarone is a class III antiarrhythmic drug (Vaughn-Williams classification) indicated for the treatment of arrhythmias that works by increasing the duration and refractory period of the cardiac action potential prolonging the QT interval. Officially approved for refractory ventricular arrhythmias, it is frequently used for atrial fibrillation and supraventricular tachycardias[1]. However, it carries significant side effects including pulmonary fibrosis, epithelial keratopathy, thyroid toxicity and hepatotoxicity. The incidence and prevalence of serious adverse effects from amiodarone therapy are as high as 15% within the first year of use and up to 50% for long-term drug therapy [2]. Monitoring for the development of such complications is paramount.

The North American Society for Pacing and Electrophysiology recommends baseline screening tests for early detection and mitigation of amiodarone adverse reactions.[3] These include:

> - Evaluation of thyroid and liver function tests prior to initiation of therapy and then again every 6 months

> - Baseline chest x ray and PFTs with DLCO and then again yearly

> - Ophthalmologic exam in the setting of any visual disturbance at any time of the therapy [4].

The purpose of this study was to determine baseline adherence to amiodarone screening guidelines and t.

Improving adherence with Amiodarone complications screening guidelines using a clinical Epic tool

Wajahat Humayun, MD, Alec Vishnevsky, MD Thomas Jefferson University Hospital, Philadelphia, PA

Epic Query Patients initiated on amiodarone Assess compliance with screening guidelines Design Epic tool to monitor screening compliance

Reassess compliance with screening guidelines

Methods

EPIC was initially queried for patients initiated on amiodarone both inpatient and outpatient from April 2017 until October 2019. These patients were then analyzed to determine compliance with screening guidelines for complications of amiodarone therapy. Following baseline assessment of guideline adherence, we will then design an EPIC tool to alert providers to amiodarone screening recommendations for their particular patient. We will then re-assess compliance with screening guidelines.

Amiodarone is a medication with significant side effects, and adherence to recommendations to for development of complications is screen paramount. We intend to demonstrate that with the aid of a clinical tool in EPIC provider compliance with the recommended guidelines can be improved.

References

- 2018;7(10):356. Published 2018 Oct 15. doi:10.3390/jcm7100356
- doi:10.1016/j.hrthm.2007.07.020
- 1097(97)00220-9

Conclusions

1. Serhan Özcan K, Zengin A, Tatlısu A, Aruğarslan E, Nurkalem Z. Anaphylactic shock associated with intravenous amiodarone. J Cardiol Cases. 2013;9(2):61-62. Published 2013 Dec 12. doi:10.1016/j.jccase.2013.10.001 2. Skeoch S, Weatherley N, Swift AJ, et al. Drug-Induced Interstitial Lung Disease: A Systematic Review. J Clin Med. 3. Goldschlager N, Epstein AE, Naccarelli GV, et al. A practical guide for clinicians who treat patients with amiodarone: 2007 [published correction appears in Heart Rhythm. 2007 Dec;4(12):1590]. *Heart Rhythm*. 2007;4(9):1250-1259. 4. Vorperian VR, Havighurst TC, Miller S, January CT. Adverse effects of low dose amiodarone: a meta-analysis. JAm Coll

Cardiol. 1997;30(3):791-798. doi:10.1016/s0735-