

Improving initiation of Disopyramide for patients with symptomatic obstructive Hypertrophic Cardiomyopathy

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Disopyramide is recommended as second line therapy for symptomatic obstructive HCM in combination with beta blocker or verapamil prior to consideration of septal reduction therapy.^{1,2} It is a class 1a antiarrhythmic medication but is now rarely used to control arrhythmias. It has marked negative inotropic properties which make it effective in reducing gradients created by outflow tract obstruction but it can have proarrhythmic properties and patients should be monitored for QT prolongation as a marker of risk for arrhythmia. Previous guidelines suggest that initiation should be performed in hospital with cardiac monitoring for serious adverse events (sustained atrial or ventricular arrhythmia, Torsade de Point) and regular QT interval assessment.³ Updated guidelines make no recommendation regarding this and there are very few studies assessing the safety of outpatient initiation.^{4,5}

Current practice in our Trust requires a 48-hour inpatient admission. This is costly, limited by bed space which delays admission and impacts other services, and is an inconvenience to patients. Furthermore, the Covid-19 pandemic prevented such patients from receiving this treatment.

OBJECTIVES

We aimed to assess our own inpatient initiation service, understand the practice of colleagues in England and develop a safe outpatient initiation pathway. This service will be re-audited to assess improvement in access to treatment and safety. It is hoped that centres across our network will be able to use the pathway in conjunction with referral to the SRT clinic.

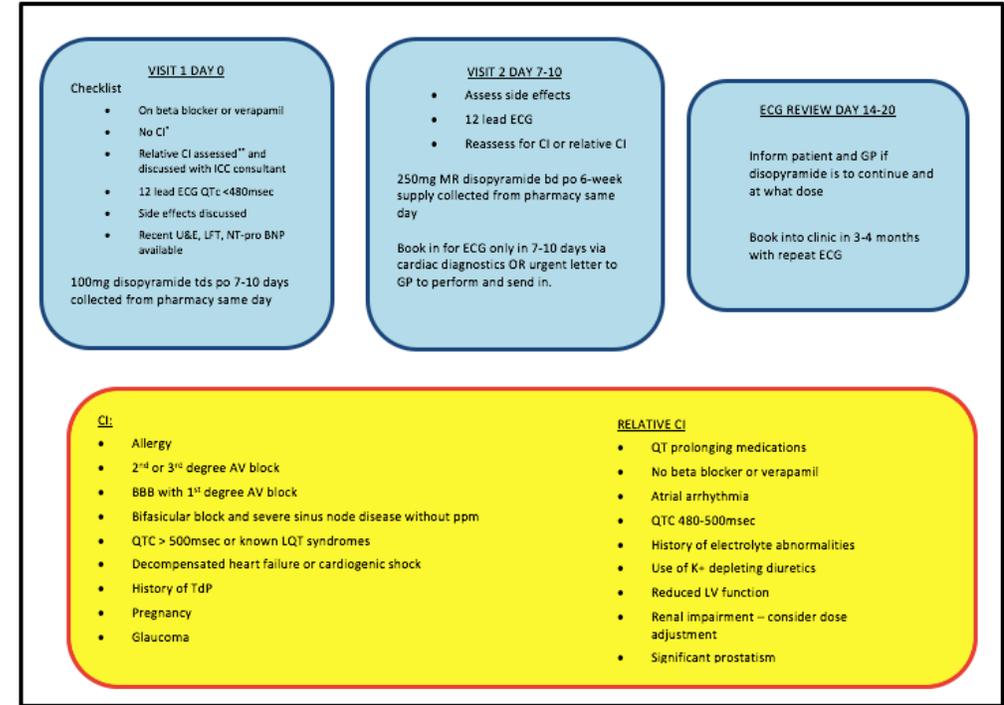
MATERIALS & METHODS

A survey was sent to cardiologists caring for patients with HCM in England, to determine current usual practice and experience of adverse events. The electronic patient records (EPR) of patients admitted for disopyramide between 1st January 2019 and 17th March 2020 were retrospectively reviewed for adverse events or significant QT prolongation whilst an inpatient and at 3 and 12 months. A pathway (figure 1) and standard operating policy (SOP) was produced and approved by stakeholders to begin disopyramide therapy in the outpatient department. Suitable patients were brought to clinic to begin disopyramide and electronic records will be reviewed at 3 months.

RESULTS

57% (12/21) of surveys were returned. 2 Cardiologists would refer to a specialist centre for disopyramide. Of those that prescribe disopyramide all, but one centre initiated this as an outpatient and no serious adverse events were reported. Physicians questioned from the same centre had variation in practice for starting dose and follow up. At our centre 20 patients were admitted with an average cost of £1564.16 per bed stay. No patient suffered from arrhythmia or unacceptable QT prolongation during admission. One patient has been lost to follow up. 19/19 patients had acceptable QT interval and no known arrhythmia at 3 and 12 month follow up. 2/19 patients stopped medication due to intolerable anticholinergic side effects within 6 weeks increasing to 3/19 patients at 12 months. One patient died at 18 months following initiation from a non cardiac related cause. Since the introduction of an outpatient service on 1st March 2021, 10 patients have already been started on treatment and have continued at 7 and 14 days with no adverse events.

Fig 1: outpatient pathway



CONCLUSION

Disopyramide is largely initiated as an outpatient in England and appears to be safe. The development of an outpatient initiation pathway enables a greater number of patients to have access to guideline recommended therapy without the delay, cost and inconvenience of an inpatient stay and with no immediate compromise to patient safety. As the SRT service expands even further it is hoped that this pathway can be extended across the referral network for cardiologists to safely initiate disopyramide in conjunction with referral for consideration of intervention.

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