

Management of torsade de pointes due to long QT syndrome

Brief episodes of self-terminating polymorphic ventricular tachycardia do not require any specific treatment apart from withdrawal of the suspect drug and correction of metabolic abnormalities. If torsade de pointes has haemodynamic consequences it requires prompt termination. Electrical defibrillation is usually effective. Infusion of magnesium or acceleration of the heart rate with rapid pacing or isoprenaline infusion can be useful as stabilisation therapy in the acute setting. To prevent a recurrence the offending drug is withdrawn and any electrolyte abnormality is corrected. Patients with proven congenital or idiopathic long QT_c syndrome who have a history of cardiac arrest, syncope, documented torsade de pointes or a family history of sudden death at a young age are usually treated with an implantable cardiac defibrillator.

Conclusion

Accurate identification of the patients at risk of QT_c prolongation and torsade de pointes is a difficult task. It is important to assess each patient before prescribing an implicated drug and then closely monitor them afterwards. Clinicians should be alert to the increasing list of drugs causing QT_c prolongation and to the presence of predisposing conditions.

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Conflict of interest: none declared

Self-test questions

The following statements are either true or false (answers on page 75)

5. Grapefruit juice prolongs the QT interval.
6. Women are more susceptible than men to drug-induced prolongation of the QT_c interval.

Book review

Dartnell, J. Understanding, influencing and evaluating drug use.

Melbourne: Therapeutic Guidelines Limited; 2001. 98 pages.

Price: \$33, students \$25.30, plus postage.*

Peter McManus, former secretary, Drug Utilisation Sub-Committee of the Pharmaceutical Benefits Advisory Committee

It is appropriate that a review of Jonathan Dartnell's book appears in the pages of *Australian Prescriber*, as the subject matter encompasses a common heartland – that of working towards the more rational use of medicines in society.

There are essentially three core sections in the book, beginning with the complex environment in which prescribing decisions are made, involving such influences as attitudes, time pressures, patient expectations and commercial incentives. It also outlines the current regulatory and funding processes, although mention in Figure 1 of the technical advice from the Pharmaceutical Evaluation Section going to the Pricing Authority should more correctly be from the Economics Sub-Committee to the Pharmaceutical Benefits Advisory Committee.

The following chapter moves on to the specific strategies that can be used to improve drug use. It considers the range of interventions that have proved effective and the settings in which they have been applied. It rightly highlights the importance of skilled personnel and adequate and sustained resources.

* For more information contact Therapeutic Guidelines Limited 1800 061 260.

Chapter 4 on the methods for monitoring and evaluating these strategies is particularly well researched and written. It highlights the iterative quality assurance cycle that is at the centre of drug use evaluation. The two main phases in the cycle are: firstly investigative (defining drug use, identifying problems and measuring the impact of interventions), while the second is interventional (problem solving, consensus building and activity implementation towards improving drug use).

This is not a 'how-to-do' manual but rather a detailed review of developments in the discipline of drug usage evaluation over time. It also sets the likely directions and challenges for the future in an area, given the inexorable pressure of rising drug expenditure within the health budget, whose importance will only grow.

Although this review is set in an international context, it is obvious that Australia has had a proud history of activity in this field, and this book adds to the recognition that drug use evaluation is an essential service for assuring and improving the way medicines are used.

It is a valuable resource for health professionals and students interested in drug usage evaluation. But it will also be of interest to wider groups such as epidemiologists, social scientists, health economists and administrators, whose disciplines either make significant contributions towards or could gain valuable insights from, a field that is working towards ensuring the best possible health outcomes from the medicines we use.