

Implantation of ICDs in children and teenagers – development of a nurse-led integrated care pathway

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Introduction

Implantation of cardioverter defibrillators (ICDs) may be indicated in children with an underlying heart rhythm disorder or cardiomyopathy. ICDs may also be implanted for the secondary prevention of ventricular arrhythmias in children who have presented with an out of hospital cardiac arrest.

Our centre has seen increasing numbers of patients requiring ICD implantation in recent years. The complex needs of this patient group and the need to minimise the length of admissions while simultaneously optimising quality of care has resulted in development of an integrated care pathway and a new specialist nurse role to support and educate families and to coordinate these admissions.

Objective

To improve the care of children and families undergoing ICD implantation in our centre by developing a new nurse-led care pathway. The aim is to standardise patient care using safe, evidence-based practice, to minimise delayed discharges and to improve the preparation of children and families prior to surgery and discharge.

Method

Inpatient admissions for ICD implantation at our centre were monitored over a twelve-month period. Any complications or delays were noted and the causes analysed. In order to develop a comprehensive care pathway, information and advice was sought from cardiologists, electrophysiologists, clinical psychologists, theatre staff, ward nurses and other relevant specialists.

Results

Seventeen children required ICD implantation during this period, with four devices implanted as secondary prevention following a cardiac arrest and thirteen implanted electively for primary prevention. Inconsistencies and delays identified during these admissions included those relating to education, psychology input, pain relief, wound dressings and rehabilitation. By drawing on these experiences and seeking input from relevant specialists, an integrated care pathway was constructed which included a comprehensive plan for the education and psychological preparation of children and families.

Conclusions

The process of ICD implantation is a challenging time for children and their families. An integrated care pathway enables a consistent, safe and evidence-based approach. Specialist nurses are ideally placed to lead and coordinate the holistic care required by these patients and the development of a role specifically dedicated to ICD patients is warranted in centres carrying out significant numbers of implantations.