Incidence of antitachycardia therapy suspension due to magnet reversion in implantable cardioverter defibrillators.

Electromagnetic interference may result in transient or persistent suspension of antitachycardia therapies in ICDs. The incidence of such events has not been assessed so far. Patient charts were retrospectively analyzed for the occurrence of temporary suspension of antitachycardia therapies as it is stored in the Holter of St. Jude Medical or Ventritex ICDs. Follow-up data of 46 patients and 83.7-patient years were analyzed. Overall, 43 episodes of transient ICD inactivation occurred. Twenty-two of these episodes were related to intentional ICD inactivation in the emergency room or during surgery and 12 episodes were related to ICD follow-up. In nine episodes an environmental source of electromagnetic interference is presumed. None of the interactions resulted in persistent ICD inactivation or reprogramming of the devices. The risk for temporary suspension of ICD therapies unrelated to surgery, intentional magnet application in the emergency room, or routine follow-up is 11% per patient and year. Evaluation of its potential sources and the prevalence of ICD inhibition is warranted.