# LETTERS TO THE EDITOR

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## Management of paediatric arrhythmias in Europe

We read with great interest the EP wire report entitled 'How are arrhythmias managed in the paediatric population in Europe? Results of the European Heart Rhythm Survey' by Hernandez-Madrid *et al.*[1] On behalf of the Arrhythmias and Electrophysiology Working Group of the Association for European Pediatric and Congenital Cardiology (AEPC), we would like to comment on the methodology and content of the article.

The EHRA Research Network Centers do not include any of the dedicated paediatric centres providing interventional electrophysiological therapy. This creates a major sampling error and negates the validity of the conclusions of the survey. By including the paediatric centres, we would expect the results to be markedly different. The conclusion that paediatric catheter ablations in Europe are mainly performed by adult electrophysiology teams is not justified.

(1) It is reported that the majority of the responding centres performed a high volume of invasive EP procedures—in adult patients. No data are presented on the amount of procedures performed on paediatric patients or patients with congenital heart disease. Further, there are no data on the age or size distribution of paediatric patients.

(2) The fact that most left-sided accessory pathways were ablated using a retrograde approach and that only a small percentage of centres used electroanatomic mapping is again an indication that the sample does not reflect state-of-the-art practice. Most of the dedicated paediatric electrophysiology centres use the transseptal approach for left-sided substrates and the 3D mapping techniques to reduce or completely avoid fluoroscopy. In fact, the paediatric centres are pioneers in radiation reduction practices.[2–4]

(3) Cryoablation appears to be underutilized in the survey. In paediatric practice, it is a widely accepted modality, especially in small patients with arrhythmia substrates close to the AV node or to the coronary arteries.[5,6] In many paediatric centres, it is the preferred approach for ablation of AV nodal re-entrant tachycardia.

(4) Success and complication rates are reported to be similar in paediatric and adult patients, but no specific data are provided. As outcome is the crucial parameter for quality of care especially in a setting that may not be completely familiar with the physiology of small patients, we want to emphasize that no statement on this issue can be made unless robust data are provided.

(5) Pharmacological management of the paediatric tachyarrhythmias as reported in the survey does not reflect common practice in paediatric EP centres, again highlighting the fact that the survey did not include centres specialized in paediatric arrhythmias.

(6) Significant recent publications in the field of paediatric electrophysiology are not included in the references, such as the HRS/PACES guidelines on management of the asymptomatic WPW patients,[7] a document that is widely accepted as a reference for management of this condition.

(7) None of the authors are a dedicated paediatric EP specialist.

We conclude that the survey has been performed from adult electrophysiology perspective and, as such, is very misleading regarding the practice of paediatric electrophysiology in Europe.

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## Management of paediatric arrhythmias in Europe: authors' reply

We appreciate the letter by Juha-Matti Happonen *et al.*[1] addressing our recently published EP wire on, 'How are arrhythmias managed in the paediatric population in Europe? Results of the European Heart Rhythm Survey'.[2]