

Increasing Utilization of the Preparticipation Physical Evaluation

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OBJECTIVE: The American Heart Association and American Academy of Pediatrics endorse the preparticipation physical evaluation (PPE) to screen student athletes for the risk of sudden cardiac arrest. We sought to identify barriers precluding its use and improve utilization.

METHODS: We analyzed documentation of PPE elements during well-care visits of patients aged 12 to 18 years from 5 primary care practices. Employing quality improvement (QI) methodology, we focused on improving PPE utilization in 1 practice by assessing the number of PPE elements addressed per chart. We expanded our QI project to 4 additional practices by using the same interventions but assessing the percentage of charts that had a complete PPE documented.

RESULTS: A baseline analysis of 5 targeted practices revealed an average of 3.5 of 14 PPE elements documented. Using plan-do-study-act cycles, PPE elements addressed increased from 2.5 to 14 over an 18-month period in the initial practice. By spreading successful interventions to 4 other practices, complete PPE utilization increased from a median baseline of 10.0% to a median of 70.0% over a 12-month period. Postintervention, 12 of 16 patients (75%) required additional follow-up with pediatric cardiology beyond the initial consultation, as compared with 2 of 14 patients (14%) preintervention.

CONCLUSION: The PPE is an underutilized but effective tool in screening student athletes for sudden cardiac arrest. QI methodology was helpful in increasing the use of PPE in the primary care setting.

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Dr Miliareisis conceptualized and designed the study, collected and analyzed the data, conducted all analyses and interventions, drafted the initial manuscript, and compiled all revisions; Dr Misra designed the data collection instruments, organized the data, and reviewed and revised the manuscript; Dr Altman conceptualized and designed the study, analyzed the data, assisted with interventions, and reviewed and revised the manuscript; Dr Friedman conceptualized and designed the study and reviewed and revised the manuscript; Dr Gewitz consulted on the initial study concept, contributed vital critiques throughout the project, and reviewed and revised the final manuscript, and all authors approved the final manuscript as submitted and agree to be accountable for all aspects of the work.

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