ECG Screening of Young Adults: A Low Cost Model

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Disclosures:

Background

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Sudden cardiac death (SCD) in young adults is a staggering event for a community. It is estimated that over 2,000 of these deaths occur annually in the USA.
Experience in Italy utilizing ECG screening has demonstrated an 89% reduction in SCD in young athletes. Recent AHA guidelines acknowledge the benefit of ECG screening but conclude that large scale screening is impractical due to economical and operational considerations.
Methods:
Since its inception in 2006 the Young Hearts for Life (YH4L) ECG screening program has performed over 48,000 screening ECGs on high school students. Our model utilizes a solitary employee and community volunteers who are trained via a standardized 90 min ECG training session. In this study we analyzed the costs to deliver the program over a 12 month period in 2009.
Results:
In 2009, 19,279 high school students were tested at 19 area high schools in the suburban Chicago region. Total expenses during this period were $167,141 (see table). The average cost per ECG was $8.67. Cost for physician interpretation is not included in this amount. As a reference, 2009 medicare reimbursement for physician ECG interpretation was $9.52. Adding this amount to the calculated cost per ECG results in a total cost of $18.19.
Conclusions:
ECG screening via a large scale, high school based, program utilizing community volunteers is capable of performing ECGs at less than $19 per ECG. This is considerably less than the $50 per ECG estimate used to formulate recommendations in the 2007 AHA guidelines.
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