Providing Leadership:
New Jersey Student Athlete Cardiac Screening Task Force

2016 ACSM Annual Meeting
Boston, Massachusetts

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Sudden Cardiac Death

• Always a topic of interest when a “healthy” young athlete dies suddenly
• Community is traumatized
• Reported in the media
• “Death ought to have been preventable”
• Call for action
• Approach your legislator to write a law
Sudden Cardiac Death Pamphlet

• In 2007, New Jersey Legislature passes a law [P.L.2007, Chapter 125 modifying state regulation (C.18A:40-41)] requiring a parent information pamphlet on sudden cardiac death be prepared

• The New Jersey American Heart Association and New Jersey Chapter of the American Academy of Pediatrics asked to collaborate

• Dr. Rice takes assignment and hopes to get NJ pediatric cardiologists to form a writing group; like herding cats; they work in their own silos

Sudden Cardiac Death Pamphlet

• Dr. Rice and sports medicine fellow, Dr. Sushma Raman Hebbar, write initial drafts in 2009

• Sent out to pediatric cardiologists (and others) for review; many drafts later, initially completed late in 2010, printed in 2011

• AAP/NJ created artistic layout design and printed the pamphlets

• 2nd edition produced in 2014 by NJ Department of Education
In 2009, NJ Senator Fred H. Madden, Jr introduces legislation to form a cardiac screening task force

**Purpose:** To study, evaluate and develop recommendations relating to specific actionable measures to enhance screening of student athletes for hypertrophic cardiomyopathy (HCM) and other life-threatening cardiac conditions.....

Why? Where is this coming from?
Is there a “hidden agenda” or a family seeking a law???

Madden bill passes in 2010 (P.L. 2009, Chapter 260), naming membership from various state organizations:

- American Academy of Pediatrics (NJ AAP)
- American Heart Association (NJ AHA)
- American College of Cardiology (ACC-NJ)
- American Academy of Family Practice (NJ AAFP)
- Interscholastic Activities Association (NJSIAA)
- School Nurses Association (NJSSNA)
- Department of Education (NJ DOE)
- Department of Health and Senior Services (NJ DHSS)
Student Athletic Cardiac Screening Task Force

- Representative members appointed April 2010
- 1st Meeting May 2010
- Final document due June 2011
- Dr. Rice selected as chairman
- Dr. Perry Weinstock (NJ AHA) named as vice-chairman
- Group met monthly
- Various experts & stakeholders invited to attend a meeting and share their views on subject
- Document officially finished in June, but minor edits made with final delivery in July 2011

Task Force Members

- AAP/NJ – Stephen Rice, MD
- AHA/NJ – Perry Weinstock, MD
- ACC/NJ – Louis Teichholz, MD
- NJ/AAFP – Jeffrey Rosenberg, MD
- NJSSNA - Linda Morse, RN, CSN
- NJSIAA – Anthony Maselli
- NJ DOE – Susan Martz
- NJ DOE – Christene Dewitt Parker
- NJ DHSS – Lakota Kruse, MD
- NJ DHSS – Elaine Suehnholz (Task Force “Secretary” and Organizer)

Senator Madden sends his legislative aide, Michael Wallace, to a Task Force meeting in spring 2011

Senator Madden comes to the next meeting; explains that as a retired state trooper who was elected a state senator, he decided to take one health care issue each year and assemble a panel of experts to try to resolve a public health issue – chose sudden cardiac death this year

- No hidden agenda; no one seeking “a law”
New Jersey Student Athlete Cardiac Screening Task Force  
Final Report  
June 15, 2011  
Chairman: Stephen G. Rice, M.D., Ph.D., M.P.H., FAAP  
Vice-Chairman: Perry J. Weinstock, M.D., FACC

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**Task Force Recommendations:**

**PPE Form**

1. **Adopt PPE history and physical examination form from the PPE monograph, 4th edition as the primary screening tool**

   Did not recommend ECG or echocardiogram as a primary screening tool for public and non-public student athletes
Preparticipation Physical Evaluation

History Form

Date: __________

1. Are you current on all immunizations? 
2. Are you using any prescription medications? 
3. Have you ever had a heart murmur? 
4. Have you ever had a seizure? 
5. Do you have any known allergies? 
6. Have you ever had a blood disorder? 
7. Do you have any known medical conditions? 
8. Have you ever had a history of asthma? 
9. Have you ever had a history of diabetes? 
10. Have you ever had a history of high blood pressure? 

This form is to be completed by the parent or guardian of the athlete and should be signed by the athlete and parent(s) or guardian(s) before participation in any athletic activities.
Task Force Recommendations: Designated Providers and Professional Development Module

2. All healthcare professionals responsible for conducting PPEs be appropriately licensed as an MD, DO, APN or PA

3. Healthcare professionals performing or reviewing PPEs be required to complete specific training on cardiac assessment in adolescents
   “The Professional Development Module”
Task Force Recommendations: Payment for 2nd Exam

4. There should be a separate insurance code for a sports PPE for providers to concentrate on cardiac screening and musculoskeletal screening above and beyond the usual annual physical examination.

This second exam should be a covered benefit under health insurance plans.

Task Force Recommendations: Pamphlet

5. Student athletes, parents and guardians must certify in writing that they have reviewed the “Sudden Cardiac Death in Young Athletes” pamphlet.

Distribution of the pamphlet should be part of the sports physical exam package distributed to student athletes.

(Pamphlet updated and revised by Task Force in 2014 during the preparation of the professional development educational module)
Sudden Cardiac Death in Young Athletes

The Basic Facts on Sudden Cardiac Death in Young Athletes

Sudden cardiac death is the most common cause of death in young athletes, especially in high school athletes. The American Heart Association estimates that approximately 300-400 teenage athletes die suddenly from cardiac arrest each year in the United States.

What can be done to prevent sudden cardiac death?

1. Physical examination: All athletes should have a preparticipation physical examination (PPE) before participating in sports. This examination should include a thorough history and physical examination, as well as testing for certain risk factors.
2. Electrocardiogram (ECG): A 12-lead ECG is recommended for all athletes, especially those with a family history of sudden cardiac death. Athletes with certain abnormalities on their ECG may be referred for further evaluation.
3. Cardiac imaging: Athletes with certain ECG abnormalities or a family history of sudden cardiac death may be referred for cardiac imaging studies, such as echocardiography or cardiac MRI.
4. Medication management: Athletes with certain medical conditions, such as congenital heart disease or arrhythmias, may require medication management to reduce their risk of sudden cardiac death.

What are the long-term effects of sudden cardiac death?

Sudden cardiac death can have long-term effects on athletes and their families. Survivors may experience long-term physical and emotional consequences, such as depression, anxiety, and reduced quality of life. Families may also experience a range of emotions, such as grief, guilt, and anger.

Conclusion

Sudden cardiac death is a preventable cause of death in young athletes. By implementing effective prevention strategies, we can reduce the risk of sudden cardiac death and improve the lives of athletes and their families.
Pamphlet Sign-Off Sheet

State of New Jersey
DEPARTMENT OF EDUCATION
Sudden Cardiac Death Pamphlet
Sign-Off Sheet

Name of School District: ____________________________________________________________

Name of Local School: _____________________________________________________________

I/We acknowledge that we received and reviewed the Sudden Cardiac Death in Young Athletes pamphlet.

Student Signature: __________________________________________________________________

Parent or Guardian Signature: _______________________________________________________

Date: _______________________________________

New Jersey Department of Education 2014: pursuant to the Scholastic Student-Athlete Safety Act, P.L. 2013, c.71

Task Force Recommendations:
CPR, AED training for students

6. All school children in grades 7-12 be educated on sudden cardiac death, basic CPR and AED use as part of the health curriculum.

Currently required by NJ Core Curriculum Content Standards by State Board of Education in 2009
**Task Force Recommendations: Staff CPR, AEDs and School CEP**

7. All coaches, licensed athletic trainers, athletic directors, building administrators and school nurses be trained in CPR and use of an AED

Every school must have one or more AEDs

Each Board of Education must develop a structured policy to address cardiac emergencies [cardiac emergency plan – CEP]; plan to include an individual responsible for AED maintenance

Goal is to ensure that there is always a trained adult present whenever athletes are participating

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**Task Force Recommendations: AED Locations**

8. Support the AHA guideline to have a lay-rescuer AED program that recommends that AEDs be placed within a brisk 1 to 1.5 minute walk from any site in the school

Given the size of school buildings and multiple campus playing fields, it may be necessary to purchase and place several AEDs on school property
Task Force Recommendations: Statewide Registry

9. New Jersey should establish a state system for analyzing data relating to incidence of sudden cardiac deaths [SCD] or near deaths in youths aged 12 to 19 years of age, in part by measuring and collecting all AED rescues and attempted rescues

Recommend formation of a SCD subcommittee within the Child Fatality and Near Fatality Review Board

Required to report findings to the National Sudden Cardiac Death Registry

Report: Administrative Channels

• Report presented to the Commissioner of Health and Senior Services (who was out on medical leave) – accepted and forwarded to Governor’s office in December 2011 for approval or acceptance

• Governor Christie quietly releases the Task Force Report in April 2012 with no publicity of any kind
Recommendations into Law

- Senator Madden takes the released Task Force Report and quickly submits several bills to the legislature to enact the nine recommendations
- P.L. 2013, Chapter 71 – Scholastic Student Athlete Safety Act; P.L. 2013, Chapter 209 – Sudden Cardiac Arrest Prevention Act and P.L. 2013, Chapter 143 – Children’s Sudden Cardiac Death Reporting Act lay out many provisions of the recommendations
- NJ State Regulations 18A:40-41 specifies in detail what actions must be taken to comply

Recommendations into Law

1) PPE Form - *PL 2013, Chapter 71*
2) Providers: MD, DO, APN, PA - *PL 2013, Chapter 71*
3) Module - *PL 2013, Chapter 71*
4) Payment 2nd PPE/year – *2016 S148 introduced/no action*
5) Pamphlet - *PL 2013, Chapters 71 & 209*
6) Student training in CPR, AED – *already in law*
7) Coaches, administrators, ATC, RN, School MD – CPR/AED training; AED presence, location, maintenance; Emergency Action Plan; *PL 2012, Chapter 51, PL 2013, Chapter 209 and Janet’s Law 2012*
9) Registry – *PL 2013, Chapter 143 [C26:2H-141]*
Task Force Recommendations: Designated Providers and Professional Development Module

- 2. All healthcare professionals responsible for conducting PPEs be appropriately licensed as an MD, DO, APN or PA.
- 3. Healthcare professionals performing or reviewing PPEs be required to complete specific training on cardiac assessment in adolescents.

“The Professional Development Module”

Creating the Module

- Once the bill is passed to create the cardiac education module, who is going to accomplish the task?
- Christene Dewitt Parker, School Health Services Coordinator [chief school nurse] at the NJ Department of Education, convinces her superiors to allow the Task Force members to reconvene to create the module (minus the NJSIAA member [a high school athletic director] plus members from state nurse practitioner and physician assistant organizations)
Creating the Module

- Task Force met bimonthly in 2013-2014 to develop the visual content and text, incorporate visual aids [charts, photos, drawings, graphs, videos] and write a narrative script
- Contractual arrangements were made with a professional educational module design company to narrate and improve the visual appearance of the content
- Final release was in February 2015
- A grant from the NJ ACC paid for the professional design company’s work – about $10,000

Creating the Module

- Module is available on-line and is free
- Healthcare providers can print a certificate of completion using their NPI number
- Rather than having NJ keep a registry of all who completed the module or require that a copy of the certificate be sent to each school, a line was added to the PPE form where the provider attests to having viewed the module along with the date of completion
Module Completion Attestation

I have examined the above-named student and completed the pre-participation physical evaluation. The athlete does not present apparent clinical contraindications to practice and participate in the sport(s) as outlined above. A copy of the physical exam is on record in my office and can be made available to the school at the request of the parents. If conditions arise after the athlete has been cleared for participation, the physician may rescind the clearance until the problem is resolved and the potential consequences are completely explained to the athlete (and parents/guardians).

Name of physician, advanced practice nurse (APN), physician assistant (PA) ____________________________________________

Date ________________ Address _____________________________________________________________________________________

Phone __________________________

Signature of physician, APN, PA __________________________________________________________________________________________

Completed Cardiac Assessment Professional Development Module

Date __________________________

Signature __________________________________________________________________________________________________________


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New Jersey Department of Education 2014; Pursuant to P.L. 2011, c. 71

The Module

• While no one likes a MANDATE to take yet another professional development educational module, there have been no complaints about the content or its educational value
• Initial learning tool for medical students
• Refresher for providers who completed training many years ago
• Required to complete module only once
• Viewed over 30,000 times from Mar-Dec 2015
Why the Module?

• Quality of screening for sudden cardiac death among adolescent athletes is not ideal
  - Gloss over the cardiac exam
  - Can’t remember details of a thorough quality exam
• Can the History and Physical Exam as part of the current PPE process be done better than it has been done in the past – or must we concede that only an EKG can give us appropriate specificity and sensitivity in uncovering risk for SCD?

Why the Module?

• Our country is not ready for universal ECG for all high school and middle school student athletes
• Can better screening – via special attention and an educational module on sudden cardiac death – help to improve identifying those who need further evaluation?
• If providers can receive payment for a second annual physical exam focused on preventing sudden cardiac death, would they be better able to focus attention to those who need referral?
Link to Professional Development Educational Module

Official NJ State Department of Education introductory statement:
As a follow-up to an April 29, 2014 broadcast memo, the New Jersey Department of Education (NJDOE) is pleased to announce the availability of the Student-Athlete Cardiac Assessment professional development module (PD module) required by the Scholastic Student-Athlete Safety Act (SS-ASA) (N.J.S.A. 18A:40-41.7). The PD module can be found at:

www.state.nj.gov/education; click on letter P at alphabet listing at top of page; last item under P's is the Professional Development Module

http://www.nj.gov/education/students/safety/health/services/athlete/PDModule.shtml

Thank You!

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