

Minneapolis Heart Institute Foundation Researchers Encourage Expanded Cardiovascular Screening of Professional Athletes to Prevent Sudden Deaths

Tuesday October 3, 2006

MINNEAPOLIS--(BUSINESS WIRE)--After reviewing the cardiovascular screening practices of every major professional sports team in the United States, researchers at the Minneapolis Heart Institute Foundation at Abbott Northwestern Hospital found that more standardized screening is needed for all 122 teams to guard against the sudden death of athletes.

In what is the first comprehensive analysis of cardiovascular screening of professional athletes, researchers compared league recommendations for screening of athletes on 122 professional teams to screening guidelines from an American Heart Association consensus panel.

Led by Kevin Harris, MD, a cardiologist and director of the echocardiography lab at the Minneapolis Heart Institute at Abbott Northwestern Hospital, the research team worked with Major League Baseball (MLB), the National Basketball Association (NBA), the National Football League (NFL) and the National Hockey League (NHL). Every team contacted by researchers participated in the study, which researchers began after the sudden deaths of several athletes including Daryle Kile of MLB's St. Louis Cardinals, Jason Collier of the NBA's Atlanta Hawks, Thomas Herrion of the NFL's San Francisco 49ers, Korey Stringer of the Minnesota Vikings, and Sergei Zholtok of the NHL's Nashville Predators.

The results of the study, which are published in the Oct. 3 Annals of Internal Medicine, show that all major professional sports teams perform pre-participation screening of athletes, but their strategies, comprehensiveness and practices vary significantly between teams and leagues.

"Professional athletes represent the pinnacle of sports excellence, but recently a number of elite athletes have experienced cardiac events or died suddenly," said Harris. "It's important to define the most effective screening methods for detecting those diseases responsible for sudden death in young athletes so that we can improve the safety of sports and prevent similar deaths."

Harris and his colleagues at the Minneapolis Heart Institute Foundation write that a more standardized screening that includes analyzing the targeted health histories and physical examinations of athletes combined with electrocardiogram and echocardiography at league entry would be a "reasonable aspiration to enhance the safety of professional sports."

The study's key findings include:

- All teams perform pre-participation screening, and league mandated annual screening is in place for the MLB, the NFL and the NHL.
- When compared to the American Heart Association's (AHA) guidelines for pre-participation screening, the annual league mandated screening of MLB and the NHL are generally superior to that of the NFL (containing 83 percent and 75 percent of screening items, respectively, compared with 25 percent).
- A history and an annual physical exam are required by 100 percent of teams. Tests most frequently performed include cholesterol levels (89 percent) and electrocardiograms (92 percent); exercise testing (17 percent), and echocardiography (13 percent) are performed less frequently on a routine basis.
- In the NFL, additional screening (including a chest x-ray and electrocardiogram) is performed at league entry by invitation of the top athletes prior to the draft. These screenings are not required of all athletes and aren't repeated later in their careers.
- While screening practices are superior to those performed in high schools and colleges, strategies vary significantly between teams and leagues, there is potential for gaps in the process, and it is unknown how teams use the diagnostic data collected.
- More standardized pre-participation screening, with close adherence to AHA screening guidelines that include echocardiography and electrocardiograms, is recommended.

For more information about the Minneapolis Heart Institute Foundation, visit www.mplsheartfoundation.org.

Minneapolis-based Abbott Northwestern Hospital is part of Allina Hospitals & Clinics, a non-profit network of hospitals, clinics and other health care services. Abbott Northwestern is found online at www.abbottnorthwestern.com.

Contact:

Allina Hospitals & Clinics
Steve Linders, 612-863-4801
steven.linders@allina.com

Source: Allina Hospitals & Clinics