To the Editor:

Because influenza is the leading cause of vaccine-preventable morbidity and mortality, the recently published AHA/ACC Science Advisory on influenza vaccination is an important resource for the cardiology community.[1] However, there is one significant error in the Advisory that needs correcting. The Advisory inaccurately states that "***individuals with CVD should not receive the live, attenuated influenza vaccine [LAIV] because it can cause influenza illness in this high-risk population***" and cites the Centers for Disease Control and Prevention (CDC) Advisory Committee on Immunization Practices (ACIP) as the reference for this statement.[2] While it is true that the CDC-ACIP recommends that persons with chronic disorders of the pulmonary or cardiovascular system not be vaccinated with LAIV [FluMist®/ MedImmune], the basis for this conclusion is not because LAIV causes influenza illness in this high risk population. In fact, the CDC's website (http://www.cdc.gov/flu/symptoms.htm), states that LAIV is ***"a vaccine made with live, weakened flu viruses that do not cause the flu."***

A fundamental principle of the FluMist design is that it contains attenuated, cold-adapted, temperature-sensitive phenotypes of the approved virus strains, which helps confer immunity but does not cause influenza illness.[3] Pre-licensure clinical trials involving more than 20,000 human subjects supported the safety of the vaccine for licensure in healthy people 5 to 49 years of age. Furthermore, a recent CDC/FDA report of the first two years of post-marketing clinical experience with FluMist (August 1, 2003 to July 31, 2005 involving an estimated 2.5 million FluMist recipients) concluded "***[we] did not identify any unexpected serious risk with this vaccine when used according to approved indications***" based upon the 460 adverse events reported to the CDC/FDA Vaccine Adverse Event Reporting System (VAERS) database.[4]

It is important for healthcare providers and patients to understand that the lack of data for FluMist in the CVD population is not a suggestion that the product is unsafe, just that it has not been appropriately evaluated in these patients. Indeed, others have noted that this new AHA/ACC recommendation is misleading and not based on any evidence.[5] Thus, it is important that the Science Advisory correct its erroneous statement about LAIV in order to accurately reflect the current situation with the live, attenuated vaccine and to avoid unnecessary confusion in the medical and lay communities.

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References

1. Davis MM, Taubert K, Benim AL, Brown DW, Mensah GA, Baddour LM, Dunbar S, Krumholz HM. Influenza vaccination as secondary prevention for cardiovascular diseased. A science advisory from the American Heart Association/American College of Cardiology. *Circulation*. 2006;114:1549-1553.

2. Centers for Disease Control and Prevention (CDC) Advisory Committee on Immunization Practices; Smith NM, Bresse JS, Shay DK, Uyeki TM, Cox NJ, Strikas RA. Prevention and control of influenza: recommendations of the Advisory Committee on Immunization Practices (ACIP). [published correction appears in *MMWR Morb Mortal Wkly Rep* 2006;55:800]. *MMWR Recomm Rep* 2006;55:1-41.

3. Murphy BR, Coelingh K. Principles underlying the development and use of live attenuated cold-adapted influenza A and B virus vaccines. *Viral Immunol.* 2002;15(2):295-323.

4. Izurieta HS, Haber P, Wise RP, Iskander J, Pratt D, Mink C, Chang S, Braun MM, Ball R. Adverse events reported following live, cold-adapted, intranasal influenza vaccine. *JAMA.* 2005;294:2720-2725.

5. Anon. AHA/ACC: Docs overlooking flu shots miss opportunity to save lives. www.medscape.com/viewarticles/544873. Accessed September 27, 2006.

Dr. Eggleston,

We did indeed have an error in the paper, as you correctly pointed out. We have already submitted an errata and it should be posted any day now. It will state that: "It is currently recommended that individuals with CVD should not receive the live, attenuated influenza vaccine, because it has not been approved for use in persons with CVD or other conditions that increase the risk of influenza-related complications."

Thank you very much for your correspondence, and we regret the error.

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Editorial Note-this correction is available now.
http://circ.ahajournals.org/cgi/content/full/114/14/1549