



**American
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EXECUTIVE COMMITTEE SUMMARY

Pharmacological Management of Cardiac Arrhythmias in the Fetal and Neonatal Periods A Scientific Statement from the American Heart Association

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- What is this advocacy or science position statement and why is it important to AHA, the scientific community or the general public?

Disorders of the cardiac rhythm may occur in both the fetus and neonate. Due to the immature myocardium, the hemodynamic consequences of either brady or tachyarrhythmias may be far more significant than in mature physiologic states. Treatment options are limited in the fetus and neonate due to limited vascular access, patient size and the significant risk / benefit ratio of any intervention. Additionally, exposure of the fetus or neonate to either persistent arrhythmias or anti-arrhythmic medications may have yet to be determined long term developmental consequences. This scientific statement discusses the mechanism of arrhythmias, pharmacologic treatment options and distinct aspects of pharmacokinetics for the fetus and neonate. Based on the available current data, subjects of apparent consistency / consensus are presented as well as future directions for research regarding aspects of care where evidence has not been established.

- How does this position align with AHA's mission and strategic goals?

The mission of the American Heart Association is to be a relentless force for a world of longer, healthier lives. Appropriate, evidence-based treatment of arrhythmias in the fetus and neonate has the potential to improve clinical outcomes in this population, thus the guidance offered in this paper will contribute to the fulfillment of the AHA mission and is well aligned with AHA's strategic goals.

- Is this position consistent with other AHA positions? If not, what are the implications for AHA, the scientific community or the general public?

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Although other AHA statements have been published on the treatment of arrhythmias, this is the first statement on the topic of fetal arrhythmias. The guidance and evidence-based treatments discussed will be a useful clinical resource for specialists who manage this unique patient population.

What are the risks and benefits to the AHA?

The benefit of this statement is that it supports AHA's position of leadership and authority in providing evidence, consensus, and expert clinical guidance. It is anticipated this paper will be an important resource to clinicians and researchers and this will lead to an improvement in patient care and outcomes. The risks are related to aspects of care where evidence has not been established. In these cases, the guidance offered is based on expert opinion, clinical experience, and best practices.

- What is the timing and manner of publication?

The anticipated journal of publication is *Circulation*. The timing of this publication will be dependent on the journal publishing schedule. It will be published online.

- Who is the audience?

This scientific statement is intended for all healthcare professionals (physicians, nurses, pharmacists, etc.) directly or indirectly managing patients with arrhythmias in the fetal and neonatal period. This includes professionals in neonatology, pediatric cardiology, electrophysiology, obstetrics, and perinatology. Finally, since consumers are increasingly becoming advocates for themselves and their children, it becomes important to educate the public on the evidence and considerations regarding pharmacological management of arrhythmias in this population.

- How will impact be evaluated or measured?

Impact will be measured by tracking citations and media mentions as well as number of downloads. Short-term impact will be tracked by news release pickups, science news webpage clicks and social media shares.