

1.10. Definitions

The terms used in this expert consensus statement that are specific to pregnancy are defined in Table 3.

Table 3 Terms used in this consensus statement that are specific to pregnancy

Term	Definition
Cardio-obstetrics team	A group ideally composed of maternal-fetal medicine subspecialists, cardiologists and/or electrophysiologists (pediatric electrophysiologist when fetal arrhythmias are present), with experience managing pregnant patients. Neonatologists and anesthesiologists may also be involved close to the time of delivery. While the team may vary depending on the resources at a given facility, at a minimum it should include a high-risk obstetrician and a cardiologist with expertise in arrhythmias in pregnancy. ³⁰
Close to term	The term <i>close to term</i> , as used in this document, is purposely vague and not intended to represent a gestational age. The determination of a close-to-term fetus implies viability and considers a number of factors, such as severity and potential consequences of the arrhythmias, biological factors, and the site-specific availability of the medical expertise and technology to support a preterm infant. Close to term could fall within the gestational categories defined by the American College of Obstetricians and Gynecologists (ACOG): “late preterm” as 34 0/7 to 36 6/7 weeks of gestation, “early term” as 37 0/7 to 38 6/7 weeks of gestation, “full term” as 39 0/7 to 40 6/7 weeks of gestation, “late term” as 41 0/7 to 41 6/7 weeks of gestation, and “post term” as 42 0/7 weeks of gestation and beyond. ^{31,32}
Supine hypotensive syndrome	Supine hypotensive syndrome is a condition in which, while lying flat, a pregnant patient may become light-headed or syncope due to compression of the inferior vena cava by the gravid uterus leading to reduction in venous return and resultant hypotension.

Section 2 General concepts for the management of arrhythmias during pregnancy

2.1. Epidemiology of arrhythmias

Apart from sinus tachycardia, the most common rhythm abnormalities in pregnancy are premature ventricular or atrial ectopic beats, seen in 50-60% of pregnant patients presenting with palpitations and generally resolving spontaneously after delivery.³³ Arrhythmias during pregnancy are more prevalent in the setting of structural heart disease (SHD); however, it is not uncommon for patients without an underlying cardiac defect to experience de novo rhythm disorders during pregnancy.³³⁻³⁵ The increased propensity for patients to present with arrhythmias when pregnant is multifactorial and thought to be related to a combination of the hemodynamic, hormonal, and autonomic milieu changes that occur during pregnancy.³⁶

Hospital admissions for arrhythmias are much less frequent than other general causes for admission during pregnancy.^{37,38} The overall prevalence of arrhythmias among pregnancy-related hospitalizations is estimated at 68-166 per 100,000 pregnancy-related admissions, depending on how these are defined.³⁸ In a study of 136,422 pregnancy-related hospitalizations between 1992 and 2000, 0.1% of the admissions were associated with arrhythmia. The most frequent arrhythmia diagnosis was sinus arrhythmia (60% of the diagnoses, 104 per 100,000 pregnancy-related hospitalizations) followed by atrial or ventricular extrasystole (19%) and paroxysmal supraventricular tachycardia (PSVT) (14%). Atrial fibrillation (AF) and atrial flutter (AFL) (1%), ventricular fibrillation (VF) (1%), and high-degree atrioventricular (AV) block (1%) were rarely diagnosed.³⁸ In the nationwide 2000-2012 US study by Vaidya et al³⁷ of more than 57 million

admissions of pregnant patients, the frequency of sustained arrhythmias was estimated at 68 per 100,000 pregnancy-related hospitalizations. Of these, AF occurred in 27 per 100,000, supraventricular tachycardia (SVT) in 22 per 100,000, ventricular tachycardia (VT) in 16 per 100,000, and VF in 2 per 100,000 pregnancy-related hospitalizations. The frequency of arrhythmias (especially AF and VT) increased over the study period and was associated with a greater frequency of in-hospital death (5.9%) and maternal or fetal complications (36.5%) compared with pregnancy-related admissions without arrhythmias (0% and 21.8%, respectively; Figure 1).³⁷ This recent increase in AF and VT frequency in pregnancy might be explained by the increase in maternal age accompanied by increase in risk factors such as obesity, hypertension, and diabetes mellitus, which are also on the rise. Increased survival and more frequent pregnancy of patients with congenital heart disease (CHD) is another contributing factor. Fortunately, the rate of mortality from arrhythmias decreased from 5.7% to 3.7% during the same time period. Arrhythmias during pregnancy are more frequently seen in Black women compared with White women (116 vs 73 per 100,000; *P* < 0.001).³⁷

Pregnancy may aggravate preexisting arrhythmias, especially in older women (199 per 100,000 at 41-50 years of age vs 55 per 100,000 at 18-30 years of age), and in women with CHD.³⁷⁻³⁹ In the 1321 women enrolled in ROPAC (Registry Of Pregnancy And Cardiac disease), 17 (1.3%) had AF or AFL with a higher incidence (2.5%) noted in women with mitral valve disease.³⁹ This is not surprising given that AF/AFL is traditionally associated with mitral valve disease.⁴⁰ Life-threatening arrhythmias (VT, VF), and bradycardia/conduction system disorders are rare in pregnancy.³⁷