

11.1. SCOPE

SCOPE	
1. Matters concerning the contents included in the clinical practice guidelines	
(1) Title	Fetal echocardiography guidelines
(2) Purpose	Summary of scientific evidence for fetal and neonatal congenital heart disease (CHD) examinations and care
(3) Topic	CHD is one of the most common congenital abnormalities occurring in 1/100 live births and approximately 10,000 individuals in Japan annually. One-third of patients with CHD require therapeutic intervention immediately after birth. Perinatal interventions may improve the prognosis immediately after birth; therefore, prenatal care based on an accurate diagnoses is important. The first edition of the Fetal Echocardiography Guidelines was published in 2006 and presented a method of conducting more efficient examinations by classifying fetal echocardiography into “screening” and “work-up.” The ethical considerations of prenatal diagnoses were also explained. In 2010, national health insurance coverage of fetal echocardiography was approved in Japan, and fetal echocardiography became a widely accepted medical practice. In 2018, the annual number of CHD cases exceeded 10,000. During that time, the imaging quality improved due to advancements in echocardiographic equipment, changes in the thinking process of the medical personnel, and changes in the field of reproductive medicine. Several guidelines for the diagnosis and treatment of FHD have been published worldwide. Fetal echography technology has significantly improved. Still, a perfect diagnosis is not feasible in every patient. Severe CHD are increasingly diagnosed in recent years. The precise diagnosis and the optimal treatment of patients with severe CHD are often challenging due to various maternal and fetal factors involved. In 2017, the examination guidelines were revised in response to a request from the Japanese Society of Pediatric Cardiology and Cardiac Surgery to provide updated fetal echocardiography examination guidelines. In this edition of the guidelines, we present updates based on new evidence, guidelines for managing FHD based on accumulated experience, and logical procedures based on CQs.
(4) Expected users/facilities	Users: healthcare workers engaged in perinatal care and families of fetal/neonatal CHD patients Facilities: obstetric medical facilities, facilities certified by the Japanese Society of Pediatric Cardiology and Cardiac Surgery, perinatal medical facilities, general perinatal-maternal-pediatric medical centers, regional perinatal-maternal-pediatric medical centers, Japan Society of Perinatal and Neonatal Medicine training facilities, Japan Pediatric Society accredited facilities, and educational facilities
(5) Relationship with existing guidelines	In 2006, the first fetal echocardiography guidelines were published in Japan. In Europe and the United States, fetal heart guidelines were released by the International Society of Ultrasound in Obstetrics (ISUOG) in 2013, by the American Heart Association in 2014, and by the American Institute of Ultrasound in Medicine in 2018.
(6) Important clinical issues	Accurate diagnoses based on new evidence, accumulated experience, and the relevant techniques Guidelines and ethical considerations for FHD in society New recommendations presented using the CQ
(7) Scope covered and not covered by the guidelines	Scope covered by the guidelines: CHD medical care in Japan Clinical management covered by the guidelines: prenatal CHD diagnosis, perinatal treatment, and surgery Scope not covered by the guidelines: first-trimester fetuses Clinical management not covered by the guidelines: maternal management, complications, and management of specific chromosomal abnormalities
(8) CQ	CQ1: Is color Doppler echocardiography effective for screening/diagnosing FHD? CQ2: Is the three-vessel trachea view (3VT) effective for screening/diagnosing FHD? CQ3: Are three-dimensional (3D) and/or four-dimensional (4D) images effective for screening/diagnosing FHD? CQ4: Is pulsed Doppler echocardiography effective for diagnosing fetal arrhythmias?