The number of patients with cardiac problems during pregnancy is increasing

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Pre-existing heart disease is rarely a contraindication to pregnancy - indeed, many women with heart disorders tolerate pregnancy well - but it remains a "major concern" that complications are frequent and in some cases may be life-threatening for both the mother and her child. In Europe maternal heart disease has now become the major cause of maternal death during pregnancy.

New ESC Guidelines on the management of cardiovascular disease in pregnancy are published today in the European Heart Journal.(1) Their publication, say the authors, comes at a time when the risk of cardiovascular disease in pregnancy continues to rise in developed countries, mainly because of today's older age at first pregnancy and with it a concomitant increase in risks of diabetes, hypertension and obesity. In addition, the treatment of congenital heart disease has improved, resulting in a greater number of women with heart disease reaching childbearing age. Nevertheless, congenital heart disease remains the most frequent cardiovascular disease in pregnancy (75-83%), with hypertensive disorders the most frequent cardiovascular events.

It is because of their increasing prevalence and potential severity that the Guidelines describe careful screening for heart disease, appropriate risk assessment and counseling as "crucial". Their importance, of course, take on added value when considered in the context of fetal as well as maternal health.

The Guidelines make clear that much of the screening, risk assessment and counseling can be effectively performed in primary care, but, once a cardiovascular disease is suspected or even confirmed, its management is best undertaken by interdisciplinary teams. High risk patients are recommended for treatment in specialised centres. Thus, diagnostic procedures and interventions should be performed by specialists with expertise in the techniques and experience in treating pregnant patients.

The general recommendations of the Guidelines are supported by eight sections on specific disease groups: congenital heart disease, aortic disease, valvular heart disease, coronary artery disease, cardiomyopathies, arrhythmias, hypertensive disorders and venous thromboembolism. A separate section is devoted to cardiovascular drugs during pregnancy. Management recommendations include follow-up during pregnancy, medical therapy and intervention where appropriate, as well as recommendations for delivery and postpartum care.

However, the Guidelines also note that evidence from prospective or randomised studies in this field are sparse, with recommendations mostly corresponding to evidence level C. Thus, with so many recommendations largely based on retrospective data and broad expert consensus, the authors concede that registries and prospective studies are urgently needed to improve the state of knowledge.

It is this lack of evidence, they say, which still leaves some issues inconclusively resolved. Thus, while there is agreement that severe pulmonary hypertension, for example, is a contraindication for pregnancy, there is no clear guidance when that risk becomes acceptable in the presence of less severe pulmonary hypertension. Unfortunately, say the authors, conclusive data with this regard are still lacking and make precise recommendations impossible. Anticoagulation therapy during pregnancy in patients with artificial valves or other indications (for anticoagulation) is another controversial area in which prospective

studies are urgently needed.

Nevertheless, despite such lack of solid evidence, the authors conclude: "We are convinced that this guideline document is an important contribution and will be considered very helpful for the management of cardiovascular disease during pregnancy in clinical practice."

More information: The Task Force on the Management of Cardiovascular Diseases during Pregnancy of the European Society of Cardiology (ESC). ESC Guidelines on the management of cardiovascular disease during pregnancy. Eur Heart J 2011; doi:10.1093/eurheartj/ehr218

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