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Title: Severe RHD from Antenatal Echocardiographic Screening

Authors: Sukafa Matanaicake

Background & Aims: Acute rheumatic fever (ARF) and Rheumatic heart disease (RHD) are important global health problems. Women of reproductive age with RHD are at risk of life threatening complications during and pregnancy and immediately after delivery. Maternal death due to undetected severe RHD is still significant in Fiji. Echocardiographic RHD screening at booking clinic will identify asymptomatic pregnant women with undetected severe RHD. Co-management between obstetricians and cardiologists provide a holistic approach for the safe separation of baby and mother.

Methods: A cross sectional description of confirmatory echocardiograms of pregnant women who were found to be RHD positive at screening. The antenatal echocardiographic screening was performed at booking clinic by trained obstetric doctors and nurses. The confirmatory echocardiogram was done by an adult cardiologist or senior echo sonographer. The demographic information and description of the severity of RHD and secondary complications were documented in the register, echocardiogram report and obstetric folder.

Results: In previous studies done locally, the prevalence of RHD in pregnant women was 1.8 per 1000. A total of two thousand, three hundred and sixty eight pregnant women were screened at booking through the Fiji Antenatal Screening study (FANS) and one hundred and twenty one were found to be RHD positive on confirmation echocardiogram (5.1% RHD prevalence). Six (5%) of the RHD positive pregnant women had severe RHD with significant secondary compensatory effects on their cardiac function.

Conclusions: A significant number of pregnant women have undetected severe RHD in Fiji. Antenatal echocardiographic RHD screening at booking will identify this high risk group of women and initiate a multi-disciplinary approach for the safe separation of baby and mother to reduce the risk of maternal death in Fiji.