In the last decade the rate of Caesarean section has markedly increased in comparison to vaginal birth. Computer based FHR (fetal heart rate) analysis and fetal blood sampling can help in the management decision when reviewing suspicious, non-reassuring or pathological fetal heart rate. This additional information can therefore influence the decision for or against Caesarean section. This study examines the impact of these management tools on the Caesarean section rate.

Method a national survey of all maternity units in Germany was undertaken using a self-reported questionnaire via crowd sourcing. All variables were categorized and statistical analysis carried out to evaluate their influence on the Caesarean section rate.

Results 97 questionnaires were analyzed. There were several strong correlations between variables in the data set.

93% of clinic responses are using fetal blood sampling in the management of patients. The results of fetal blood sampling were available in 60 seconds in all clinics which are using fetal blood samples.

More than 60% of obstetricians are using the FIGO classification and over 20% apply the Hammacher-score. The normal FHR range of 110 and 160 bpm were applied by over 60% of obstetricians.

Hospitals that assessed the fetal heart rate in the normal range (110–160 bpm) had lower section rates. Similarly, hospitals, that applied a computer analyzing system based on the FIGO guidelines, had a lower section rate.

There was no correlation between the Caesarean section rate and the level of specialization, however there was a strong correlation of number of births per year and level of perinatal specialization.

Conclusion Computer assisted fetal heart rate assessment, based on the FIGO guidelines clearly correlated with a lower Caesarean section rate. The use and development of computer based cardiocograph assessment analysis should be continued.

This condensed content relates to a full article published in „Zeitschrift für Geburtshilfe und Neonatologie“. Please quote the original publication as follows: Z Geburtshilfe Neonatol DOI: 10.1055/s-0044-102227.