FIGO CONSENSUS GUIDELINES ON INTRAPARTUM FETAL MONITORING

Safe Motherhood and Newborn Health Committee
Co-ordinator for guideline development: Diogo Ayres-de-Campos

INTRODUCTION

Diogo Ayres-de-Campos, Sabaratnam Arulkumaran, for the FIGO intrapartum fetal monitoring expert consensus panel

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* nominated by FIGO associated national society; ** invited by FIGO based on literature search

Auscultation of the fetal heart rate (FHR) became part of routine intrapartum care in many countries during the 19th century [1], and remains an important form of fetal surveillance, particularly in low-risk pregnancies and in low-resource countries. Several technical breakthroughs that occurred in the 20th century led to the development of different forms of continuous electronic monitoring of the FHR and uterine contractions in the 1950s and early 1960s, and to the commercialisation of the technology known as cardiotocography (CTG) in the late 1960s [2]. Cardiotocography (kardia=heart, tokos=labour, childbirth) is the term that best describes the continuous monitoring of the FHR and uterine contractions, but other designations such as electronic fetal monitoring are used in some countries. Fetal scalp blood sampling (FSBS) was introduced into clinical practice at around the same time as CTG [3], and other methods for intrapartum fetal surveillance were subsequently developed, including continuous fetal pH monitoring, fetal lactate measurement, fetal pulse oximetry, and ST waveform analysis, and some of these were successfully established. This guideline will focus on the clinical application of currently available methods for intrapartum fetal monitoring.

In 1985, the FIGO Subcommittee on Standards in Perinatal Medicine convened an expert consensus meeting in Switzerland to produce the “Guidelines for the use of Fetal Monitoring”, approved by FIGO's Executive Board in 1986, and published in 1987 [3]. These

guidelines were an important landmark in the history of FHR monitoring, because they constituted the first wide-scale agreement on essential aspects of CTG monitoring, such as terminology, indications, acquisition techniques, and interpretation. Notwithstanding their decisive contribution to the field of fetal monitoring, with the passage of time some shortcomings have become evident [4], and the document has naturally become outdated.

The present guidelines were developed under FIGO's Safe Motherhood and Newborn Health committee. In February 2013, all national member societies of FIGO were contacted by email and asked to appoint one subject matter expert with a wide knowledge of the fetal monitoring scientific literature, good written and spoken English, and available to provide written feedback by email in less than 15 days. By May 2013, 33 experts had been nominated by national scientific societies. A literature search was then conducted to identify a further list of experts who had published major clinical research in the field. Thirteen additional experts were invited according to this criterion. A geographical representation of the members of the consensus panel is presented in Figure 1.

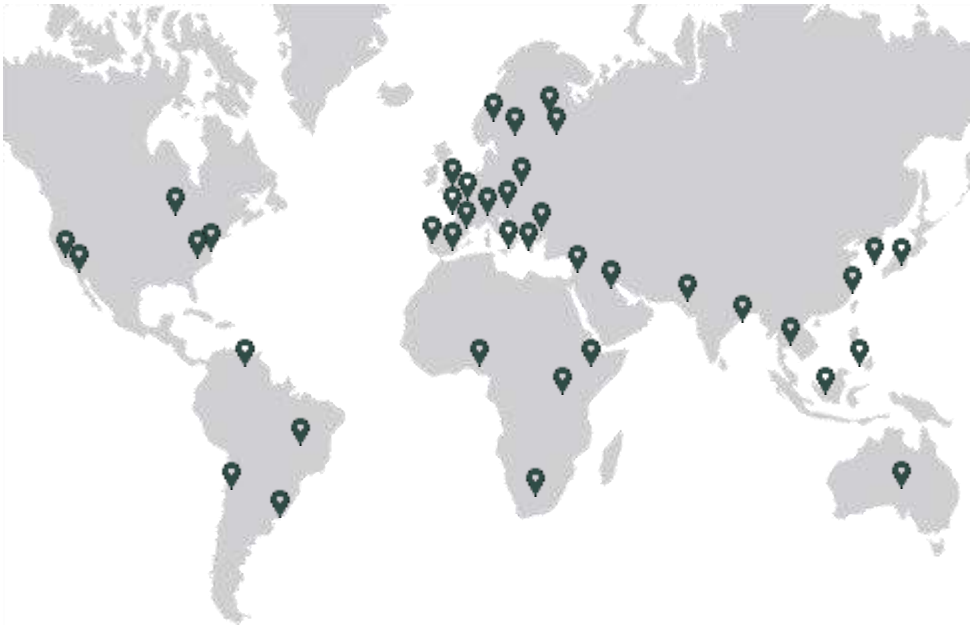

Figure 1. Geographical representation of the members of the consensus panel.

The American College of Obstetricians and Gynecologists and the Royal College of Obstetricians and Gynaecologists were contacted in December 2012 for each to appoint one member of the writing committee for the "Cardiotocography" chapter, and the International Confederation of Midwives was contacted in July 2013 to nominate the authors of the "Intermittent auscultation" chapter.

The consensus process started in October 2013, and included three rounds for each chapter. Each round started with a draft version being sent by email to the panel members,

followed by written feedback from the panel within a time frame of three weeks. The received comments were considered by the authors and a revised manuscript was produced for the next round. After the three-round process was complete, the members of the panel were asked to read the final version and to give written consent for their name to be included in the panel list for that chapter. The consensus process for the four chapters was concluded in March 2015.

The purpose of these revised consensus guidelines is to update the existing ones, expanding their scope in order to include all currently available methods of intrapartum fetal monitoring, and using a language that is accessible to all healthcare professionals, independently of their previous expertise in the subject. The ultimate goal is to contribute to the improvement of intrapartum fetal monitoring throughout the world, thus reducing the burden of perinatal mortality and long-term sequelae, while at the same time avoiding unnecessary obstetrical intervention.

References

1. Gultekin-Zootzmann B. The history of monitoring the human fetus. J Perinat Med. 1975;3(3):135-44.

2. Freeman RK, Garite TJ. History of fetal monitoring. In: Fetal heart rate monitoring (Eds: Freeman RK, Garite TJ). William & Wilkins, Baltimore 1981:1-6.

3. FIGO subcommittee on Standards in Perinatal Medicine. Guidelines for the use of fetal monitoring. Int J Gynecol Obstet 1987;25(3):159–67.

4. Ayres-de-Campos D, Bernardes J. Twenty-five years after the FIGO guidelines for the use of fetal monitoring: time for a simplified approach? Int J Gynaecol Obstet 2010:110(1):1-6.