

A Picture is Worth a Thousand Words

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The ability of a visual image to make an impact is proverbial. Large corporations invest heavily in their corporate logo, aware of the value that instant visual recognition can give. The ability of a graphic to convey complex information in an impactful and rapidly understood manner has long been appreciated. One of the best know graphics is that of the London underground, a design attributed to Henry Beck in 1931. His original map is still in use incorporating modifications and new lines. The pinnacle of graphic representation of data is considered to be the map compiled by a French engineer Charles Minard in 1869. This depicts the advance and retreat of Napoleon's army during the disastrous Russian invasion of 1812 – 1813. In Minard's own words a good graphic is designed "to speak to the eyes"

The ability of a graphic to "speak to the eyes" is part of the reason that a partogram is a useful tool in understanding a woman's progress in labour. The first partogram was produced by Friedman in 1954 and he based his observations on the spontaneous labours of women¹. From a historical point of view, it interesting to note that one the motivations that led to plotting the course of labour was to answer a question posed to him by another famous medic, Virginia Apgar². Other practitioners who are associated with early use of the partogram were Philpott and Studd^{3,4}. In Ireland the partogram is synonymous with the names of O'Driscoll, Holles Street, and the active management of labour⁵. The use of the partogram was endorsed initially by the WHO in the early 1990s and more recently in 2021⁶.

Despite acknowledgment that the partogram conveys information in a manner easy to assimilate, its acceptance is not universal. One criticism is that it does not recognise the different rates at which individuals will progress and therefore encourages a regimented approach to management. It is important to bear in mind the difference between having the information and considering what use is made of that information.

Another question associated with the partogram is when in labour it should be started – when the woman presents in labour, when the woman is diagnosed to be in labour or when she is four or five centimetres dilated. In keeping with the minimalist, and possible absolutist approach of O'Driscoll, the partogram is kept as simple as possible. It is started when labour is diagnosed and does not distinguish between the latent phase of labour and later active labour. O'Driscoll did however insist that Nulliparous and Parous women would be plotted on different coloured partogram.

The NWIHP (National Women and Infants Health Programme) have become involved in the reviews of intrapartum adverse events. We have seen that in some of these cases there has been no partogram to record the progress, or more significantly, the lack of progress in labour. A written labour record, irrespective of how detailed it may be, does not make the lack of progress immediately evident in these cases. Sometimes a reassuring foetal heart trace has been used as a substitute for taking action on delay. The partogram and foetal heart trace are complimentary, both recording entirely different parameters. A foetal heart trace – who's ability to fulfil its objectives has disappointed – cannot measure failure to progress or predict an impending mechanical problem.

Foetal heart rate measurement and the partogram are complimentary tools in assessing foetal wellbeing and one is not a substitute for the other. Intrapartum death of a term baby is a relatively rare event now but therapeutic cooling for hypoxic brain injury followings labours is much more common. The adverse outcome for many of these compromised babies is unavoidable but some are avoidable. In Ireland, the cost of providing compensation for avoidably (and negligently) injured babies is now double the cost of providing maternity care ⁷. Given that there is significant room for improving outcomes it makes sense to use all the tools at our disposal – the least expensive of which, and the easiest to interpret, is the labour partogram.

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References:

- 1. Friedman, E., 1959. Graphic Analysis of Labor. Bulletin of the American College of Nurse-Midwifery, 4(3-4), pp.94-105.
- 2. Romero R. A profile of Emanuel A. Friedman, MD, DMedSci. American Journal of Obstetrics and Gynecology. 2016;215(4):413-414.
- 3. Philpott R, Castle W. CERVICOGRAPHS IN THE MANAGEMENT OF LABOUR IN PRIMIGRAVIDAE. II. The Action Line and Treatment of Abnormal Labour. BJOG: An International Journal of Obstetrics and Gynaecology. 1972;79(7):599-602.
- 4. Studd J. Partograms and Nomograms of Cervical Dilatation in Management of Primigravid Labour. BMJ. 1973;4(5890):451-455.
- 5. O'Driscoll K. Active management of labour. BMJ. 1972;4(5837):425-425.
- 6. Hofmeyr G, Bernitz S, Bonet M, Bucagu M, Dao B, Downe S et al. WHO next-generation partograph: revolutionary steps towards individualised labour care. BJOG: An International Journal of Obstetrics & Gynaecology. 2021;128(10):1658-1662.
- 7. Whelan S, Hally M, Gaughan C. The true cost to the State of maternity services in Ireland. Irish Medical Journal. 2021: 114 (1): 241