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QUESTIONS

1. USE OF PARTOGRAPH IN THE MANAGEMENT OF FIRST STAGE OF LABOUR

2. MANAGEMENT OF 2ND AND 3RD STAGES OF LABOUR

A partogram or partograph is a composite graphical record of key data (maternal and fetal) during labour entered against time on a single sheet of paper. Relevant measurements might include statistics such as cervical dilation, fetal heart rate, duration of labour and vital signs.

It is intended to provide an accurate record of the progress in labour, so that any delay or deviation from normal may be detected quickly and treated accordingly.

The partograph is a graphical presentation of the progress of labour, and of fetal and maternal condition during labour. It is the best tool to help you detect whether labour is progressing normally or abnormally, and to warn you as soon as possible if there are signs of fetal distress or if the mother’s vital signs deviate from the normal range. Research studies have shown that maternal and fetal complications due to prolonged labour were less common when the progress of labour was monitored by the birth attendant using a partograph. For this reason, you should always use a partograph while attending a woman in labour, either at her home or in the Health Post.

Partography is a method of graphically recording the progress of labour. It may be used purely to record observations, but, management guidelines to indicate the appropriate timing of certain interventions can be incorporated. Recognizing the potentially important role for such a tool in labour management, an Informal Working Group was convened by WHO in Geneva in 1988 to develop a partograph suitable for universal application. All available partograph designs were reviewed and an agreed model developed. The final version closely resembles that promoted by Philpott in Africa in the 1970s.The essential features and the rationale are, however, summarized below.

The central feature is the cervicograph, where cervical dilatation is plotted against time. While accepting that the transition from the latent to the active phase of labour may take place at differing cervical dilatations in individual cases, 3 cm dilatation is believed to be the most frequent dilatation at which the transition takes place and the cervicograph is marked accordingly. It was thought that the observed length of the latent phase should not be more than 8 hours, and a heavy vertical line from O to 3 cm dilatation after 8 hours of observed latent phase indicates this.

In the active phase of labour, a rate of dilatation of 1 cm per hour represents the mean dilatation rate of the slowest 10% of Zimbabwe primigravida. All partographs designed accept 1 cm per hour or faster as an acceptable level of dilatation. This rate is designated the alert line on the partograph. The action line on the partograph is drawn parallel to, but 4 hours to the right, of the alert line. The "four hour action line" was found by Philpott and Bird to be the most efficient means of identifying particularly slow labours and avoiding unnecessarily early or dangerously late intervention.

The cervicographic features are incorporated into the WHO partograph together with the facility to record all other essential observations in labour on an hourly or half hourly

basis. Experience with partography has shown that fewer recording errors are made when the action, alert and latent phase lines are pre-printed on to the partograph rather than being drawn on by the observer.'16> When admitted in labour in the latent phase (cervix <3 cm dilated with 2 contractions or more in 10 minutes, lasting 20 seconds or more), cervical dilatation is plotted at 'O' hours at the beginning of the partograph. When labour subsequently reaches the active phase (cervix ~3 cm dilated) within 8 hours of admission, plotting is transferred to the alert line (see Figure 1.1). If admission occurs already in the active phase, the cervical dilatation is plotted directly on to the alert line but contractions must be 1 or more in 10 minutes, lasting 20 seconds or more. Vaginal examinations are recommended at 4 hourly intervals, though more frequently if indicated by complications or advanced labour.

The level of the fetal head and the duration and frequency of contractions are also recorded in the central part of the partograph. All routine observations of maternal and fetal condition are also recorded on the partograph. Additional writing is rarely needed.

**MANAGEMENT OF LABOUR USING THE WHO PARTOGRAPH**

The partograph with associated management guidelines is designed to improve the timing of critical management decisions in labour. These are:

a. Transfer of a woman in labour from a peripheral unit (health centre) to a central unit (hospital with facilities for caesarean section delivery).

b. Augmentation of labour with oxytocin infusion.

c. Termination of labour by operative delivery (usually caesarean section).

Poor timing of, or failure to perform, these actions may lead to problems of iatrogenesis or neglect. Without management guidelines, these decisions may be made on the basis of intuition or experience which probably contributes to the widely varying rate of, for example, caesarean section delivery.

Based on the experiences of Philpott and Bird, the WHO Working Group considered that the actions appropriate at different points on the partograph should be as follows:

a. If cervical dilatation remains on or to the left of the alert line in the active phase - no action is indicated.

b. If cervical dilatation moves between the alert and action lines (but not to the action line):

if in a peripheral unit, transfer to a central unit

If in a central unit, no specific action indicated.

c. If cervical dilatation reaches or crosses the action line:

review by medical staff with a view to augmentation, termination of labour, or supportive therapy.

d. Prolonged latent phase (8 hours of observed latent phase): review by medical staff.

The WHO manuals for use with the partograph give little detail on the suggested

managements. The manuals advise the development of local protocols.

**CRITERIA FOR COMMENCING PARTOGRAPH**

In latent phase (cervix 0-2 cm)

Contractions must be 2 or more in 10 minutes lasting 20 seconds or more In active phase (cervix ~3 cm)

Contractions must be 1 or more in 10 minutes lasting 20 seconds or more.

It was also agreed that a partograph should not be completed for the following cases:

a. Pregnancy gestation less than 34 weeks (for the purpose of the trial)

b. Cervix 9 or 10 cm dilated on admission

c. Elective caesarean section

d. Emergency caesarean section (on or within one hour of admission).

A partograph was to be commenced in all other cases of labour including inductions,

malpresentations and multiple pregnancies.

Although the introduction of the partograph was expected to influence the timing of management decisions in labour, no other changes were imposed on each centre. In particular, no alterations were made to the local oxytocin regime or to local policies on the diagnosis and management of additional problems in labour, such as fetal distress or hypertension.