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Research Article

**TO ASSESS THE EFFECTIVE USAGE OF PARTOGRAM
FOR LABOURING PATIENTS**Dr Minha Zeeshan¹, Dr Muhammad Zaeem Naem², Dr Muhammad Yaseen³¹Fatima Jinnah Medical University²North China University Of Science and Technology³Mohi.ud.Din Islamic Medical College.

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Abstract:

Introduction: A partogram is one of the valuable appropriate technologies in use for improved monitoring of labour progress, maternal and foetal wellbeing. **Objectives:** The main objective of the study is to analyse the effective usage of partogram for labouring patients. **Material and methods:** This descriptive study was conducted in Fatima Jinnah Medical University during March 2019 to November 2019. It involved review of partograph records and interviewing staff in the public and private not for health facilities. The sample size was all the partographs used for monitoring labour, foetal and maternal wellbeing that were available and had adequate information at the 8 health facilities during the six randomly selected months. **Results:** The record reviews of 1170 partographs out of estimated 1674 partographs (representing the total actual deliveries during the period) that had been used for labour management during the period of this study and were accessible to the study team. This was only 69.9% of the total 1674 expected partographs. It indicates that 52.1% (872/1674) deliveries during the period of study had their blood pressure monitored. Ten percent were monitored to standard. We tested for relationship between foetal Apgar score and quality of monitoring of foetal heart rate, cervical dilatation, uterine contractions and whether action line was crossed or not. **Conclusion:** It is concluded that Use of partograms during labour is affected by input factors like lack of guidelines, training health workers on its use and actual availability of the tools in all health facilities and health workers having a positive attitude on the use of a partogram.

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INTRODUCTION:

A partogram is one of the valuable appropriate technologies in use for improved monitoring of labour progress, maternal and foetal wellbeing. It is an important tool for managing labour. This is through enabling clinicians (midwives and doctors) to plot examination findings from their assessments on the partogram. The belief that its use was applicable in developed and developing settings led to its introduction worldwide [1]. A number of common partogram designs incorporate an alert and action line³. The development of the partogram provided health professionals with a pictorial overview of labour progress, maternal and foetal condition to allow early identification and diagnosis of pathological labour. Its use is critical in preventing maternal and perinatal morbidity and mortality [2].

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 [3]. For this reason, you should always use a partograph while attending a woman in labour, either at her home or in the Health Post [4].

Maternal mortality resulting from prolonged and obstructed labour is preventable, and there are convincing reports that acquisition of adequate knowledge and proper utilization of the partograph would culminate in a remarkable reduction in its incidence, which currently constitutes about 8–10% of maternal deaths [5]. The principle of the partograph is based on the fact that, the rate of cervical dilation should not be slower than 1cm/hour

during the active phase of labour. Proper utilization of the partograph in accordance with standard protocol, with keen attention to the alert and action lines allows for timely identification and diagnosis of pathologic labour and thus aid in guiding timely decision-making regarding the necessary interventions [6].

Objectives

The main objective of the study is to analyse the effective usage of partogram for labouring patients.

MATERIAL AND METHODS:

This descriptive study was conducted in Fatima Jinnah Medical University during March 2019 to November 2019. It involved review of partograph records and interviewing staff in the public and private not for health facilities. The sample size was all the partographs used for monitoring labour, foetal and maternal wellbeing that were available and had adequate information at the 8 health facilities during the six randomly selected months. We used this to establish level and quality of use of partographs during labour. The factors that affected use of a partogram were assessed through key informant interviews. Partographs constituted study units. We also interviewed staff in-charge of HSD, health units and maternity departments (midwives and doctor) after obtaining informed consent from each of them. Quantitative data were analysed using EPI INFO statistical package version 3.3.2 of 2005. Basic statistics were generated. The risk ratios and P-values computed from the StatCal on the utilities menu of the Epi Info so as to determine risk for apgar score <7 for substandard monitoring of parameters on the partographs (cervical dilatation, action line crossed yes/no, foetal heart rate and uterine contractions).

The interest was to generate a relationship between foetal Apgar Score and quality of monitoring specific parameters that are usually plotted on the partogram.

Table 01: Relationship between foetal Apgar Score and the quality of monitoring the parameters during labour

	Births with Apgar score <7/N	% of births with Apgar score < 7	RR	95% CI
<i>Parameter monitored</i>				
<i>Foetal heart rate</i>				
Substandard	29/426	6.8	3.5	(1.84, 6.46)*
Standard	14/744	1.9	1	
<i>Cervical dilatation</i>				
Substandard	35/238	14.7	4.2	(2.54, 7.02)*
Standard	23/735	3.1	1	
<i>Action line crossed</i>				
Yes	05/13	38.5	1.6	(0.76, 3.44)
No	199/960	20.7	1	
<i>Uterine contractions</i>				
Substandard	33/364	9.1	1.7	(0.97, 2.80)
Standard	21/396	5.3		

DISCUSSION:

All the health units had partograms available. The study has shown that most 57.1% (4/7) of the health workers at health centre III facilities never used partograms to monitor any mother in labour. Even in other facilities where partograms were used the partograms were not used according to the recommended standard [7]. Only 2% was used according to the standard for monitoring foetal heart rate. This was similar to the findings in a Benin study. The high frequency of recording of cervical dilatation in this study compared to other parameters such as uterine contractions and foetal heart rate was similar to the findings elsewhere [8].

From this study we found that most health units had partograms but were never used. A few never had them and their health workers could not even tell where to access them. This could be due to gaps in the health system support function or gaps in the health workers knowledge as they don't know their use and where to order for them. All the health units never had guidelines/protocols on the use of the partograms [9]. The study has further revealed that majority of health unit teams never had skills on the use of a partogram as only two parameters were monitored by over 50%. Yet for a partogram to be useful all parameters should be measured and information used for monitoring maternal and foetal wellbeing. This underpins the critical importance of having skilled health workers to deliver a health service that has been reiterated elsewhere [10].

CONCLUSION:

It is concluded that Use of partograms during labour is affected by input factors like lack of guidelines, training health workers on its use and actual availability of the tools in all health facilities and health workers having a positive attitude on the use of a partogram. Training of health workers on partogram use, provision of guidelines and adequate resources is recommended.

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