Table15: Complications of labour

~		M	onth		Total
Complication	May	June	July	August	Totai
FSB	2	5	5	12	24
Retained placenta	8	3	7	5	23
Ruptured uterus	-	1	-	-	1
Infected C/S	1	2	1	-	4
VVF	3	1	-	-	4
Puerperal sepsis	-	-	1	2	3
Maternal death	-	2	1	-	3
PPH	2	4	-	3	9
PIH	2	-	2	1	5
Eclampsia	3	2	3	4	12
Total	21	20	20	27	88

Source: Chipata General Hospital (2005)

During the period of study several complications of deliveries were recorded as indicated in table 15 above.

CHAPTER FIVE: DISCUSSION OF FINDINGS

5.1 Introduction

The significance of having a woman in labour monitored by a partograph is to detect deviation from the normal progress of labour, and identify those requiring intervention in order to reduce maternal and infant morbidity and mortality.

5.2 PATOGRAPH IMPLEMENTATION

Having a skilled attendant with midwifery skills present at every delivery has been identified as one of the key strategies for reducing maternal and infant mortality (WHO/FIGO/ICM, 1992). As a provincial referral health facility, Chipata General Hospital has an establishment of an obstetrician and 38 midwives (Table 3, page 33). The hospital however had only fourteen (14) midwives and no obstetrician working in maternity ward. This shows that there was a critical shortage of skilled attendants. The shortage of skilled attendants seems to have adversely affected the use of the partograph in monitoring labour and the provision of midwifery services.

The hospital establishment allows employment of higher number of enrolled midwives than registered midwives. This disparity was of importance in this study because it meant that enrolled midwives whose academic and professional training background is relatively lower than that of registered midwives could have been left on their own most of the time without supervision and guidance from their superior, the registered midwife. The enrolled midwife counts on the registered midwife for leadership and administrative decisions in maternity ward at the hospital. The focus group discussion revealed that several midwives at the hospital were deployed in various departments in the hospital, this contributed to the critical shortage in maternity ward. At the time of the study there were a total of 34 midwives but only 14 were allocated to maternity ward out of which 3 were registered midwives. Had the partograph been used consistently and correctly on every woman in labour as

directed by WHO, maternal morbidity and mortality could have been reduced at the hospital.

5.3 Monitoring of Labour

The purpose of the partograph is to detect complications during labour and reduce maternal and infant morbidity and mortality. Once a woman is in labour the midwife is expected to regularly record observations on the progress of labour as well as maternal and fetal well being.

Partographs of women with different characteristics were studied. Age range was from 14 to 49 years and the vast majority (80.5%) of the women were married (Table 4, page34). Marriage is closely associated with fertility because it is highly linked with probability of conception. The age at which a woman first marries is important because it affects the length of time that she is exposed to the risk of pregnancy during her childbearing years. In Zambia, women start child bearing as early as 12 years of age and give birth to an average of six children during their reproductive period (CSO, 2001-2002).

The study results revealed that there was a highly significant association between age and gravidity. Gravidity was observed to be increasing with age (Table 6, 36). Most (53.3%) of the women in the study sample were primigravidae (Table 6, page 36). It is normal practice in Zambia to refer all primigravidae to hospital for delivery. This is because they are considered to be highly at risk of developing complications during labour and the hospitals are expected to have trained staff and logistics required for managing complications of labour. In this study, 18 of the 79 in the age group 10-19 were delivered by caesarean section (table 5, page 35). Caesarean o peration is serious cause of morbidity and has a potential for u terine rupture during subsequent labours. As pointed out by Bergstrom (2000), age is one of the risk factors in a woman's reproductive life. Complications such as obstetric fistulas are common in this age group. This is because women in this group are too

young and their bodies are not yet fully developed for childbirth. This age group has a risk of developing complications such as VVF due to cephalo-pelvic disproportion (CPD). This study has revealed similar findings as shown in table 15 on page 47. This study revealed that monitoring of labour was not done according to expectations. For instance, Figure 3 shows that there was high (113) monitoring of progress of labour compared to monitoring of fetal and maternal well-being. This could have meant that midwives concentrated on vaginal examination and overlooked the fact that progress of labour, maternal and fetal condition are strongly interlinked. The partographs were reviewed for monitoring of fetal heart rate, moulding, condition of membranes, and characteristics of liquor (fetal well-being). The results of the study in table 12 indicate that majority of babies with severe asphyxia came from mothers whose monitoring of fetal well-being was low. A significant association between low monitoring and poor fetal outcome was found (P-Value = 0.052). Several factors could have contributed to the poor monitoring of the fetal well-being. Some of them include the critical shortage of staff at the hospital. These results are contrary to an evaluative study on the use of the partograph in management of labour by Elleen (1994) that showed that Apgar score of less than 7 at one minute was reduced from 8.7% to 2.35% when the partograph was used. The same study showed a drop in perinatal mortality from 1.81% to 0.94%. This confirms that the partograph can be a useful tool for monitoring women in labour. A study of maternity care in Zambia by Maimbolwa et al (2004) also found that monitoring of labour with the partograph was inconsistent.

Table 14 on page 46 shows that low monitoring of maternal and fetal well-being was associated with poor outcome of labour. Monitoring of labour in this manner can have serious consequences on the life of the mother, fetus or both. Partographs were reviewed for monitoring of blood pressure, temperature and pulse as well as testing of urine (maternal well-being). Table 14 shows that monitoring of these vital signs in a woman in labour was low and this was a ssociated with poor maternal outcome. Monitoring of a woman's pulse rate, temperature and blood pressure during labour is mandatory. Steady pulse is an indication that the woman is in good

condition. Bennet (1999) explains that an increase of the pulse rate to more than 100 beats per minute may be indicative of infection, haemorrhage and also a key sign of ruptured uterus.

Temperature is expected to remain within the normal range. Measuring the temperature every two hours, according to the WHO partograph, is important, because any rise in temperature may be a first sign of infection, and thus may lead to early treatment, especially in case of prolonged labour and ruptured membranes. It could have prevented puerperal sepsis and the sepsis that was associated with caesarean operation as indicated in Table 15. According to Sellers (1997), raised temperature is indicative of infection or ketosis (starvation). A woman who develops infection should be commenced on a course of antibiotics to control the infection and prevent puerperal sepsis. Most of the complications that occurred during the study period could have been prevented had the partograph been used efficiently. Taking the blood pressure at the same intervals is an important check on maternal well-being. A sudden rise in blood pressure can also indicate the need to expedite delivery or transfer of the woman to a higher level of care.

5.4 OUTCOME OF LABOUR

Overall, 79.3% of the women in the sample had good outcome of labour (Table 7, page 37). The good out comes of labour could have been due to the fact that many women are able to deliver normally even without being monitored with partograph. However every pregnancy is risky because a seemingly normal labour may suddenly develop a serious obstetric emergency such as cord prolapse or premature separation of placenta, before the birth of the baby; hence the need for every woman in labour to be monitored using the partograph. Furthermore, the same table shows that women in the age group 20-29 had poor outcome of labour accounting for 42.0%. These poor outcomes could have been due to many factors. One of them could have been inadequate use of a partograph to monitor labour and inability to take appropriate intervention. Probably the midwives had considered monitoring of

the primigravidae as a priority and expected the multiparous women to deliver normally. The other factor could have been that the women had delayed in coming to the hospital. Participants in the focus group discussion pointed out that referrals from the health centres were usually delayed. Again this could have been due to non-or poor use of partograph by the rural staff.

During the period of this study; Chipata General Hospital conducted a total of 729 deliveries, 623 were normal deliveries and 126 were C/S (Table 1, page 31). The reviewed records also showed that different complications of labour, were experienced by women and these included 24 Fresh stillbirths, 23 retained placenta, 1 ruptured uterus, 4 vesico-vaginal fistulas, 3 puerperal infections, 9 PPH, Eclampsia 5 and 4 infected C/S (Table 15, page 47). In a similar development, a review of obstetric records by Zulu (1998), revealed that maternal morbidity and mortality was high at the hospital. It was established, during this study, that there was inconsistent use of the partograph at the hospital as not all women in labour were monitored with the partograph. This indicates clearly, why CGH has one of the highest rates of maternal mortality in Zambia. These outcomes do not correlate with partograph use at the hospital and are thus contrary to the many studies that have shown that maternal morbidity and mortality had reduced when the partograph was introduced in clinical practice. For instance, a study conducted by Ellen (1994) in which she evaluated the partograph found that use of the partograph helped to reduce asphyxia and unnecessary operative delivery.

Further more, records of partographs that were collected from the maternity ward at Chipata General Hospital (Appendix 10) demonstrate a skill gap in the use and interpretation of the partograph. Not all partographs were complete; some areas were blank or incomplete. This demonstrates that some midwives were not able to interpret the partograph. This clearly indicates that there is a knowledge and skill gap on the use of partograph despite the fact that all the midwives in the maternity ward had training in the use of the partograph. It also indicates that supervisors may not be aware of how the midwives are using the partograph in maternity ward. It

also suggests that nursing officers and ward in-charges are no longer checking what midwives are doing. It could also imply that the supervisors themselves need orientation on partograph use.

The shortage of midwives could have contributed to the poor implementation of the partograph. Table 3 on page shows that there were 29 midwives working at CGH, yet only 14 were allocated to maternity ward. This means that Chipata General Hospital has midwives deployed in other wards. This phenomenon has a dversely affected staffing in labour ward and the implementation of the partograph at the hospital. As a result of the shortage one midwife is expected to work alone in labour ward with a large number of women in labour. Monitoring of a woman in labour requires close observation and recordings by the midwife at very short intervals. When there are so many women to look after at the same time, a midwife becomes overwhelmed with work and may not utilise the partograph as expected. Use of partograph in this manner has serious implications for safe motherhood with regard to intrapartum care at the hospital.

5.5 CONCLUSION

The study has demonstrated that use of the partograph at CGH did not result in reduction of poor labour outcomes, mainly because it was inadequately used, due to shortage of staff, inadequate essential medical and obstetric supplies, lack of education and lack of interest in the use of it among staff. There was low monitoring of labour, which resulted in poor outcomes of labour. If the partograph is not adequately used, good outcomes of labour are not to be expected.

other factors that have to be considered alongside the system. A number of factors have to be considered if required results have to be realised through the use of partograph or any other system or even a new technology. This is important in nursing and midwifery care in particular and health care delivery in general.

6.2 Recommendations

Based on the findings of the study the following recommendations have been made to relevant authorities:

6.2.1 Chipata General Hospital

- There is need to conduct in-service training for obstetric teams on the value of use of partograph.
- There is need for management at Chipata General Hospital to actively show commitment to the implementation of the partograph in the labour ward by ensuring adequate supplies and staffing in the maternity ward.

6.2.2 General Nursing Council of Zambia

- There is need to standardize the type of partograph to be used in all midwifery training schools and health institutions in Zambia as provided by WHO.
- The GNC needs to scale up the monitoring and evaluation of nursing and midwifery training and practice in Zambia.
- There is need to review the midwifery training curriculum to provide more time to learn and acquire skill in partograph use.
- Timely updates to midwives and training institutions on any new developments in nursing and midwifery practice.

6.2.3 Ministry of Health

- There should be a clear policy on partograph use in Zambia developed by the Ministry of Health to compel health care providers to use the partograph on all women in labour.
- There is need to train and retain more midwives in this country.
- Operational guidelines or protocols for all levels of health care should also be developed to accompany partograph use to guide health care providers in decision-making.
- Chipata General Hospital is a provincial hospital to which other districts have to refer patients therefore the vacancy for an obstetrician/gynaecologist should be filled
- Review the curriculum for midwifery training in Zambia to extend the duration of training.

6.2.4 Research

• There is need to conduct research to find out how the partograph is being implemented in the districts that refer women in labour to CGH.

6.4 Utilisation and Dissemination of findings

Findings of this study will be communicated to policy makers as well as colleagues. A copy of the findings will be submitted to MOH, Sida (Institutional Collaboration Training Project) and Chipata School of Nursing Library.

Summaries of the findings will be distributed to the Provincial Health Office of the Eastern Province, and Chipata General Hospital. Meetings will be held with midwives and doctors at CGH where abstracts of the study will be distributed. A dissemination workshop will be held for obstetric staff in the province. This will depend on the availability of funds.

REFERENCES

- Abou- Zahr C. (1994)." WHO Partograph Reduces Complications of Labour and Childbirth." *Lancet*. 343:1399-1404.
- 2 Bennet, V. R. and Brown, L. K. (1999). *Myles Textbook for Midwives*. London. *Churchill Livingstone*. pp 168-182
- Chalwe, J. (1994). Obstetric Problems in Adolescent Zambian Mothers. Lusaka. School of Medicine.
- 4 Chipata General Hospital (2004). Action Plan for 2004. Chipata General Hospital.
- 5 Chipata General Hospital (2004). "Labour Ward Records" (Unpublished) Chipata.
- 6 CSO (1986) Zambia Demographic and Health Survey. Lusaka. CSO.
- 7 CSO (1996). Zambia Demographic and Health Survey. Lusaka. CSO. Pp133-136.
- 8 CSO (2001-2002). Zambia Demographic and Health Survey. Lusaka. CSO, Lusaka. pp 245.
- 9 Elleen, A. H. et al (1992). "Evaluation of the Use of the Partograph in Management of Labour". *Maternal Health and Safe Motherhood. Research Progress Report.* WHO, Geneva. P. 57
- 10 Friedman, E. A. (1930). Labor; Clinical Evaluation and Management. New York. Appleton-Century-Crofts.
- 11 GNC (2003). Enrolled Nursing Curriculum. Lusaka.GNC.
- 12 GNC (2003). Registered Midwifery Curriculum. Lusaka. GNC.
- 13 GNC (2001). Regulatory Frame Work for Nurses and Midwives. Lusaka. GNC.
- 14 Guma, H. (1994) The Partograph: A Compass in Monitoring Labour. Uppsala. 7:26, Editorial Office,
- 15 JHPIEGO (2004). "The Partograph: An Essential tool for Decision Making During Labour." Maternal and Neonatal Health Programme.
- 16 Kambole, G. (1998) A Study To Determine Utilization Of The Partograph By Midwives In Lusaka Health Centres. School of Medicine. Lusaka. UNZA, Pp.77-78

- 17 Khan, K. S. (1995). "The Partograph In the Management Of Labour Following Caesarean Section." *International Journal of Gynaecology and Obstetrics*. 50(2):151-157.
- 18 Kwast, B. (1987). "Application of WHO Partograph in Management of Labour with Safe Motherhood Initiative." *Maternal Health and Safe Motherhood Programme Research Progress Report*. Geneva. WHO, Pp, 58.
- 19 Luck, M. (2000) "Safe Motherhood Intervention Studies In Africa: A Review. "The East African Medical Journal. 77 (11): 599-607.
- 20 Mackey, M. C. (1989). "Women's Expectations of The Labour and Delivery Nurse." Journal of Obstetric Gynaecological and Neonatal Nursing. 18:505-512.
- 21 Maimbolwa, M. C. et al (2004). Routine Care of women Experiencing Normal Deliveries in Zambian Hospital Maternity Wards: A Pilot Study. Stockholm. IHCAR, Pp 39, 123
- 22 Mati, Y. et al (1994). Human Resource Development and Training Contemporary Issues in Maternal Health in Africa. Luxembourg. Harwood Academic.
- 23 Menihan, C. A. (1999). "The Effect of Uterine Rupture on Fetal Heart Rate Patterns." *Journal of Nursing and Midwifery*. 44 (1): 40-46.
- 24 Mngadi, P. T. et al (2002) "Quality of Maternity Care for Adolescent Mothers in Mbabane, Swaziland." *International Nursing Review*.49: 38-46
- 25 MOH (1997). Family Planning in Reproductive Health: Policy Framework Strategies and Guidelines. Lusaka. MOH,
- 26 MOH (2003). "Reproductive Health Policy. (Draft)." Lusaka. MOH.
- 27 MOH (2004) "Road Map For Accelerating The Attainment Of The Millennium Development Goals Related To Maternal And Newborn Health." Lusaka. MOH.
- 28 Nsemukila, G. et al (1998). A Study of Factors Associated With Maternal Mortality In Zambia. Lusaka. UNFPA, Pp9-12.
- 29 Nsemukila, G. (1994). *Maternal and Childhood Mortality in Zambia*. LUSAKA. UNICEF,
- 30 Oxford University (1999). *English Dictionary*. Oxford. Oxford University Press. P, 142.

- 31 Polit, D. (1995). Nursing Research Principles and Methods. Lippincott, Phildelphia. Pp 139-153; 353-359; 230-231.
- 32 Rahbar, T and Atrkar R. Z. (2003). "Effect of Partograph on the First Stage of Labour." Medical Journal of Guilan University of Medical Sciences. 9: 35-36
- 33 Reed, H. E. et al (2000). "The Consequences of Maternal Morbidity and Mortality." *National Academy Press.* Washington, DC.
- 34 Roswell, T. D. (2004). "Fetal Monitoring". *Journal of Nurse Midwifery*. 44(1): 40-46
- 35 Sellers. P. M. (1997) Midwifery: Volume 1. Cape Town Juta & CO, LTD
- 36 UNICEF (1994). Safe Motherhood: A Situation Analysis. Lusaka. UNICEF.
- 37 UNICEF, UFPA, WHO (2000). Maternal Mortality in 200. UNICEF. Pp3-15
- 38 UNICEF (2003). *Maternal Mortality Reduction Strategy*. East And Southern Africa Regional Office. UNICEF.
- 39 WHO (1991) Maternal Health and Safe Motherhood Programme: Progress report update. Pp19-25
- 40 WHO (1993). Care During Normal Birth. Geneva. WHO.
- 41 WHO (1994). Safe Motherhood Notes for Students. Geneva. WHO. Pp31-34
- 42 WHO (1996). Mother Baby Package: Implementing Safe motherhood In Countries. Geneva. WHO, Pp1-7.
- 43 WHO (2000). Integrated Management of Pregnancy And Childbirth Managing Complications: A Guide For Midwives and Doctors. Geneva WHO.
- 44 WHO (2004). Beyond the Numbers: Reviewing Maternal Deaths and Complications to Make Pregnancy Safer. Geneva. WHO, Pp5-6.
- 45 WHO (2004). Road Map For Accelerating the Attainment of MDGs Related To Maternal And Neonatal Health in Africa. Geneva. WHO.
- 46 Williams, C. D. et al (1994). *Mother and Child Health: Delivering the Services*. Oxford University Press. Oxford.
- 47 Zulu, A. A. (1998). Accessibility of Women to Secondary Obstetric Care in a Rural District of Zambia and the Implications for Safe Motherhood. UNZA, Lusaka

Appendix 1: The modified WHO Partograph

Appendix 2 Chipata general hospital maternity ward data for 2004

TOTAL	3295	337	1179	2645	2162	93	148	2	∞	382	253	2295	85
DEC 1	293	35	122	253	182	12	24	t t	1	58	26	236	7
NON NON	271	39	97	214	173	∞	10	t	1	33	20	203	7
OCT	318	26	83	258	216	5	10	ı	1	29	20	237	10
SEPT	343	36	137	275	236	∞	10	1	-	31	16	258	6
AUG	286	28	112	225	185	7	16	1	2	31	21	215	7
nnr	284	23	96	248	206	9	16	1	•	36	24	239	4
NOC	283	24	86	222	173	9	10	ı	1	43	15	210	\$
MAY	231	34	82	176	148	4	∞		1	23	19	168	S
APR	250	18	86	200	158	17	16	1		25	28	181	10
MAR	253	25	83	192	160	3	∞	-		28	20	181	8
FEB	227	27	72	178	145	10	9	1	1	21	18	165	8
JAN	256	22	66	212	180	7	14	1	1	24	26	202	v.
DESCRIPTION	Admissions	Perinatal admissions	Referrals	Deliveries	SVD	Breech	Twin delivery	Forceps delivery	Vacuum delivery	Caesarean sections	Premature delivery	Live births	Fresh still birth

			T	1	T	Γ	T	J	· · · · · ·	1	T	T	
28	6	ı	29	24	12	39	18	ı		29	197	19	27
6	-	,,,,,,	v	2	8	4	2	1	•	1	26	ı	2
4	. 1		7	8	7	1	4	1	ı	3	18	2	1
8	-		1	2	3	9	1	į.	l l	4	16	ı	3
8		3	S	3	-	4	-	1	1	9	24		8
-	1		7	4	•	3	2	ı	1	4	20	1	2
5	1	-	-	2	1	3	1	1	•	7	17	-	3
7	-	2	2		1	5	1	ı		-	16	,	1
2	-	1	-	-	1	-	2	1	1	3	10	4	1
6		1	5	2		6			1	ı	12	3	4
3	-		4	1	1	4	-	1		3	14	3	3
3	1		1	2	•	2	-		ı	1	15	4	2
4	-	1	-	-	-	3	2	1	1	2	6	1	6
Macerated stillbirth	Eclampsia	Pre – eclampsia	APH	PPH Retained placenta	Ruptured uterus	Infected c/s	Puerperal sepsis	Puerperal psychosis	Infected episiotomy	Maternal death	Neonatal conditions	Premature deaths	Neonatal deaths

Appendix 3 Chipata general hospital maternity ward data for 2003

l I													
ESCRIPTION	JAN	FEB	MAR	APR	MAY	NOC	nr	AUG	SEPT	OCT	S S S	DEC	IOIAL
Admissions	232	204	214	248	253	243	282	293	256	240	227	216	2908
Perinatal admissions	27	16	38	21	29	36	28	32	26	38	20	31	332
Referrals	95	88	93	96	109	80	113	92	85	96	64	82	1093
Deliveries	198	147	177	204	189	199	228	243	204	195	178	186	2337
SVD	158	115	144	170	163	165	199	198	177	151	142	154	1936
Breech	8	7	6	10	2	6	7	8	9	5	10	11	92
Twin delivery	12	2	∞	16	1	12	12	8	14	10	9	∞	108
Forceps delivery	1	1	1	1	1	-	1	1	ı	1	1	-	8
Vacuum delivery	1	-	1	1	1	1	1		1	2	ı	•	2
Caesarean sections	20	26	24	23	94	25	22	33	22	36	25	21	301
Premature delivery	31	35	36	40	28	30	30	34	26	24	22	20	356
Live births	184	142	165	190	180	190	216	226	192	179	170	173	2207
Duck etill hirth	6	-	6	∞	9	9	S	11	6	9	S	6	84
Fresh Sum On Ch		-											

		_	_										
Macerated stillbirth	2	m	3	S.	8	က	7	2	4	7	7	4	45
Eclampsia	ı	2	1	1	-	1			•	1		-	∞
Pre – eclampsia	-	•		2	1	-	-			2	1	ı	6
Anaemia	3	3	2	2	3	5	3	56	4	3	3	42	
Malaria	9	2	9	6	10	2	2	2	3	4	4	2	52
АРН		4	8	w	4	6	-	4	2	3	1	2	33
PPH (Retained	-	2			4	2	-	2	4	2	1	3	23
Ruptured uterus	•	•	2	2	1	1	1	-	•	7	-		11
Infected c/s	-	2	3	5	4	5	4	5	5	4	4	3	45
Puerperal sepsis	1	ı	3	1	1	-		1	2	1	-	•	∞
Maternal death	7	7	2	3	3	2	2	3	3	3	-	e	29
Premature babies	10	12	11	30	7	12	8	10	26	8	16	4	154
Light for dates	-	2	2			2	•	1	1				12
Neonatal conditions	21	16	20	13	15	13	18	16	16	26	13	15	186
Premature deaths	4	10	3	7	2	7	-	3	3	2	4	2	47

Neonatal deaths	9	9	v	v	13	က	က	4	7	5	2	2	51
Retained placenta	1	2	1	4	2	-	4	2	5	3	2	ı	27

Sources: Maternity ward data, case records, death certificates (CGH, 2003, 2004)

,

Appendix 4: Checklist for partograph

Para	.Gravida	.Marital status	Age
Tick $()$ in the app	propriate box		

I: Monitoring of Fetal Well being: (Please Tick)

Variable	4	3	2	1	0
Monitored	Consistent	Inconsis tent	Fairy inconsis tent	Very inconsis tent	
1.Fetal heart rate	½ hourly	1 hourly	2 hourly	Irregular	Not done
2.Moulding	4 hourly	5 hourly	6 hourly	Irregular	Not done
3.Character of liquor	4 hourly	5 hourly	6 hourly	Irregular	Not done
SUB- TOTAL					
GRAND TOTAL					

Fetal Monitoring:

1)	Good	9 – 12	
2)	Moderate	5 – 8	<u> </u>
3)	Poor	0 - 4	

II: Monitoring of Progress of labour: (Please Tick in appropriate box)

Variable Monitored	4	3	2	1	0
4. Cervical Dilation	4 hourly	5 hourly	6 hourly	Irregular	Not done
5. Descent of fetal head	4 hourly	5 hourly	6 hourly	Irregular	Not done
6. Uterine contractions	1/4 hourly	1½ hourly	1 hourly	Irregular	Not done
SUB- TOTALS					
GRAND TOTAL					

7. Monitoring of Progress of Labour

1)	High	9 –12	
2)	Moderate	5 - 8	
3)	Low	0 - 4	

III: Monitoring of Maternal Well Being: (Please tick in appropriate space)

Variable monitored	4	3	2	1	0
11. Blood Pressure	4 hourly	5 hourly	6 hourly	Irregular	Not done
12. Pulse	½ hourly	1–2 hourly	3-4 hourly	Irregular	Not done
13. Temperature	4 hourly	5 hourly	6 hourly	Irregular	Not done
14. Emptying of bladder	2-3hourly	4–5 hourly	6–7 hourly	Irregular	Not done
SUB-TOTALS					
GRAND TOTAL					

Monitoring Of Maternal Well Being

1)	High	9 – 16	
2)	Moderate	5 – 8	
3)	Low	0 - 4	

IV: OUTCOME OF LABOUR

A: Infant

SIGN	SCORE		
	0	1	2
Heart rate	Absent	< 100/min	Over 100/min
Respiratory effort	Absent	Weak, irregular	Strong, regular
Muscle tone	Limp	Some flexion	Active movement
Response to stimuli	None	Weak movement	Cry
Colour	Blue or pale	Body pink, but extremities blue	Completely

Apgar score

1.	7 - 10	Mild or no asphyxia	
2.	4 - 6	Moderate asphyxia	
3.	0 - 3	Severe asphyxia	
4	Other (Specify).		

B: Maternal

	2	1	0
Condition	No complic ation	Complication	Death
Type of delivery	SVD	Forceps/vacuum/	C/S

1)	3 - 4	Good
2)	0 - 2	Poor

Other (Specify).....

Appendix 5: FOCUS GROUP DISCUSSION GUIDE

The objectives of the focus group

- 1. To asses the knowledge, attitudes and practices of midwives in relation to implementation of the partograph.
- 2. To establish whether midwives had training on the use of the partograph.
- 3. To determine the factors affecting implementation of the partograph at the hospital.
- 4. To obtain suggestions from midwives on the improvements on the use of partograph in order to achieve good outcomes of labour

Location	
Date	
Time	
Number of participants	
Time started	
Time finished	

INSTRUCTIONS

Introductions

- 1. Explain purpose of the discussion
- 2. Get verbal consent
- 3. Obtain attendance list
- 4. Assure the group of confidentiality
- 5. Thank the group for their participation

QUESTIONS

- 1. What do you know about partograph?
- 2. What in-service training on use of partograph have you had?
- 3. What is your opinion on use of partograph in monitoring women in labour?
- 4. What are the advantages of using partograph?
- 5. What are the disadvantages of using partograph?
- 6. What problems do you face in using partograph?
- 7. What supervision do you have on the use of the partograph?
- 8. What suggestions do you have on how best the partograph can be utilized in determining good outcomes of labour?

THANK YOU ALL FOR YOUR PARTICIPATION



THE UNIVERSITY OF ZAMBIA

RESEARCH ETHICS COMMITTEE

Telephone: 200-1-256067 Telephone: UNEALLUMAKA Teles: UNEALLI ZA 44770 Fax: + 260-1-259733 E-mail: manner (har E-mil: Manna Bunntal.m.
Assurantes No. FWA60484236
ENB00001128 of SQR G0600774 Ridgemay Camp P.C. Hon S0116 Landon, Zorda

20 May, 2005 Ref.: 010-04-05

Mrs Regis Miyobs Square, BSc Nur., Dip. PHC, ENE, RM, RN Department of Fact Basic Narring P.D. Box 50119 LUSAKA

Dunc Mes Square,

RE: SUBMITTED RESEARCH PROPOSAL

The following research proposes was presented to the Resourch tables, Consulting meeting back on 9 March, 2005 where changes were recommended. We would like to unknowledge receipt of the occurated various with chalifications. The proposal has now been approved. Congressalational

Title of proposal:

"Implementation of the Puriograph in Relation to outcome of Labour at Chipata Consul Hospital"

CONDITIONS:

- This approval is based strictly on your substitud proposal. Should there he used for you to modify or though the study design or methodology, you will must be seak clearance from the Research Bibles Committee.
- If you have each for further circification plans consult this office. Please note that it is madeletary that you submit a detailed program capact of your study to this Committee every six months and a final copy of your separat the end of the study.
- Any socious adverse events must be reported at once to this Committee.

 Home note that when your approval explore you may need to request for numeral. The request should be accompanied by a Pengreus Report (Progress Report Forms can be obtained from the Sacretariat).

Yours sincers of

EMB, CAR, MID Prof. J. T. K

CHAIRMAN

RESEARCH UTHECH COMMITTEE

Date of approvat 20 May, 2005

Date of explry:

19 May, 2006

Appendix 7: Request to undertake the study

University of Zambia School of Medicine Department Post Nursing P.O. Box 50110 Lusaka.

13th May, 2005

The Executive Director Chipata General Hospital P.O.Box 510019

Chipata.

Ufs

The Head AT (Basic Nursing,

P,O,Box 50110

Lusaka.

Dear Sir,

PERMISSION TO CONDUCT A RESEARCH PROJECT

I am a student at the School of Medicine, Department of Post Basic Nursing pursuing a Master of Science Degree in Nursing.

In partial fulfilment for the degree stated above, I am required to conduct a research project. I am hereby requesting for permission to carry out the study in your hospital. The title of the research is 'Implementation of the Partograph In Relation To Outcome of Labour at Chipata General Hospital'. I intend to collect data from midwives case records and mothers.

Thanking you in anticipation.

Yours faithfully,

Regis Miyoba Squarre

Appendix 8: Authority to undertake the study



CHIPATA GENERAL HOSPITAL BOARD

P.O.Box 510119 Tel: 22411 - 13 Fax: 22731 Chipata Zembis

MH/CGH/RN/4708

20th May 2005

Mrs Regis Miyoba Square University of Zambia School of Medicine Department of Post Nursing P O Box 510110 LUSAKA

Dear Madam

PERMISSION TO CONDUCT RESEARCH PROJECT

Reference is made to the above captioned subject.

I am pleased to inform you that Management of this Institution has no objection to your request as stated above. Our Staff in all respective areas have been requested to cooperate with you as you carry out your research. Hope the same will help us improve our weak areas and that confidentiality on patients' information will be observed.

Yours faithfully

Dr M Ng'ambi

ACTING EXECUTIVE DIRECTOR

Appendix 9: Letter of authority to proceed conducting the research by Assistant Dean, Postgraduate



THE UNIVERSITY OF ZAMBIA SCHOOL OF MEDICINE

St August, 2005

Hin. Ragis Mhydba Squarre Capartment of Post Basic Musing School of Medicine

Dear Mrs. Squarre,

Re: MAETER OF SCIENCE IN NUVELING RESEARCH PROPOSAL

Your research proposed for the Pleater of Science in Hursing entitled: "Implementation of the Pertograph in Relation to Outcome of Labour at Chipata Sensed Pleatist von presented at the Guidant Stadies Committee of the School held on 9th June, 2005.

I are pleased to inform you that your proposal was approved by the Committee. You can proceed to Part II of the programme and your Supervisor to Ms. P. Myssenba and your Co-supervisor is Dr. C. Kaseba.

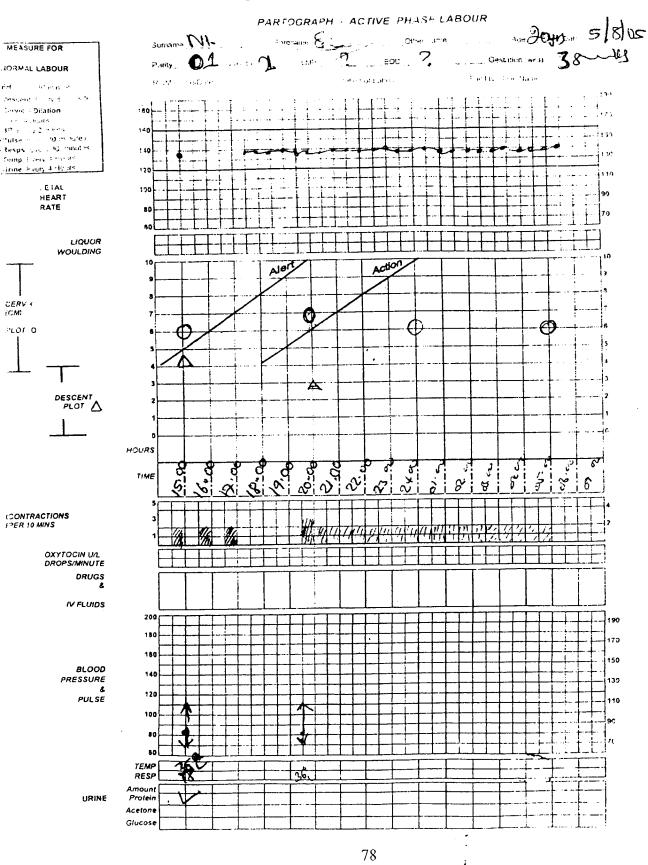
I wish you every success in your studies.

Yours shicerely,

TANT DEAM, POSTERABUATE

-

Appendix 10: Sample of Partograph showing monitoring of labour at Chipata General Hospital.



Appendix 11: INFORMED CONSENT

Introduction

You are being requested to take part in the research study mentioned above because it is important that every woman in labour should be monitored properly. Before your decide whether or not to take part in this study, I would like to explain to you the purpose of this study, any risks to you and what is expected of you. If you agree to take part, you will be asked to sign this consent or make thumb print in front on someone. You will then be given a copy to keep. Your participation in this study is entirely voluntary; you are under no obligation to participate. You should be aware that the Research Ethics Committee of the University of Zambia has approved this study, which is there to protect you.

Purpose of the study

The study will assist to get more information on the implementation of the partograph at Chipata General Hospital, a tool that is used by midwives to monitor women in labour.

Procedure

After you sign the consent form and have had a chance to ask questions, I will also ask you to give advice to health authorities on the care of pregnant women during labour.

79

Risks and Discomforts

No risk or discomfort is involved apart from the use of your time in answering

the questions that you will be asked by the interviewer. The discussion will take

approximately one hour.

Benefits

By taking part in the study, you will be able to provide us with the information

that will help relevant authorities and policy makers to come up with strategies

to try and improve the implementation of the partograph so that outcomes of

labour may be improved.

Confidentiality

Your research records will be confidential to the extent permitted by law. You

will be identified by code and personal information will not be released without

your written permission, except when required by law. The Ministry of Health,

Central Board of Health, Chipata General Hospital Board and the University of

Zambia Research Ethics Committee or School of Medicine may review your

records, but again this will be done confidentially.

Please note

Your participation in this study is entirely voluntary.

You may decide not to take part or to withdraw from the study at any time.

Persons to contact for problems or questions:

Regis M. Squarre, UNZA, Department of Post Basic Nursing, P.O.Box 0110,

Lusaka Cell: 097 836 786

Chairperson, Research Ethics Committee, UNZA, School of Medicine, P.O.Box

50110, Lusaka

80

CONSENT TO JOIN THE STUDY

Name: I			having	beer
fully informed of what this study is all about,	the benefits	, discon	nforts, risks	and
confidentiality, agree to participate willingly.				
Sign/Thumb Print:	Date	/	/	-
Name of witness:				
Sign				