Original Article

Obstetrics Outcome of Cases Referred to Tertiary Care Hospital after Trial of Labour

Afshan Ambreen,[1] **Samina Khurshid,**[2] **Misbah Khurshid,**[3] **Fareeha Khan,**[4] **Ayesha Intisar**[5]

Abstract

Introduction: Labour is the physiological process with its inherent risk of complications so it requires supervision by skilled birth attendants. Delivery conducted by untrained birth attendants has a 4.67 times higher mortality rate as compared to the one conducted by SBAs. This study was conducted to determine feto-maternal outcome of cases referred to Fatima Memorial Hospital, after a trial of labour by TBA's.

Objectives: To determine feto-maternal outcome and to identify factors associated with adverse obstetric outcome.

Ambreen A.[1]
Department of Obstetrics and Gynecology
Fatima Memorial Hospital, Lahore

Khurshid S.[2]
Department of Obstetrics and Gynecology
Fatima Memorial Hospital, Lahore

Khurshid M.[3]
Department of Obstetrics and Gynecology
Fatima Memorial Hospital, Lahore

Khan F.[4]
Department of Obstetrics and Gynecology
Fatima Memorial Hospital, Lahore

Intisar A.[5]
Department of Obstetrics and Gynecology
Fatima Memorial Hospital, Lahore

Study Design: Case series descriptive study.

Setting: Department of Obstetrics and Gynecology Fatima Memorial Hospital, Lahore.

Duration with Dates: Six months from 1st April 2011 to 30th September 2011.

Subjects and Methods: One hundred patients who were admitted through emergency after a trial of labour by traditional birth attendants (TBAs), lady health visitors (LHVs) or doctors at home or private clinics were managed and followed in the department of gynecology and obstetrics Unit II. Patients were clinically evaluated and relevant investigations were carried out in all patients. Final diagnosis was made on the basis of history, clinical examination and investigations. Data collection too was structured proforma specifically designed for the purpose.

Results: Mean age of the patients was 27.28 ± 5.13 years. Fever was the most common complication found in 69 (69%) patients. Antepartum hemorrhage occurred in 22 (22%) cases. Postpartum hemorrhage complicated 46 (46%) pregnancies leading to shock in 51 (51%) patients. Oligohydramnios was observed in 35 (35%) patients and uterine rupture in 5 (5%) cases. There were 3 (3%) maternal deaths.

Low Apgar score was observed in 36 (36%) babies. Meconium staining was present in 34 (34%) cases and 34 (34%) babies needed hospitalization. (Fetal growth restriction was found in 23 (23%) patients. There were 23 (23%) fetal neonate deaths.

Conclusion: Postpartum hemorrhage led to maternal and fetal complications in majority of the patients whi-

ch was not handled appropriately and immediately.
Key Words: Postpartum hemorrhage (PPH), Oligohydramnios, shock.

Introduction

Labour is the physiological process with its inherent risk of complications so it requires supervision by skilled birth attendants. Delivery conducted by untrained birth attendants has a 4.67 times higher mortality rate as compared to one conducted by SBAs.[1] Recent figures indicate that worldwide 529,000 women die in pregnancy and childbirth each year. In addition to this, maternal death causes one million children to be motherless each year.[2] Three most common reasons for non-use of antenatal care are limited financial resources, husband denial and God's will.[3] Factors like poor antenatal care, medical facilities, family taboos, low socioeconomic status, lack of roads, transport facilities, fear of operations are all associated with increase maternal and fetal morbidity and mortality rates.[4] It has also been demonstrated that 99% of worlds maternal deaths occur in developing countries.[2]

It is seen that 70% of maternal deaths are due to five major complications like haemorrhage, sepsis, unsafe abortions, eclampsia and obstructed labour and the clinical means to prevent either deaths arising from these complications or the complications themselves are well known.[2] In Pakistan, postpartum haemorrhage is the main cause of maternal mortality in public and private sector, and the commonest cause of postpartum hemorrhage (PPH) is uterine atony, which cannot be predicted in the majority, and most of deaths occur within 2 hrs of childbirth. Vigilance in this period in the form of uterine massage every 15 min by the health care attendant, patient attendant or the recently delivered mother herself reduces the blood loss significantly as most of the rural areas lack emergency obstetric care facilities.[5]

Women often become pregnant without planning in less than ideal nutritional state. Pre pregnancy anemia is common. Lack of empowerment, especially for rural women, results in seeking medical attention often when it is too late. Their lack of nutritional reserve, leaves very little margin of error for the health professsional when faced with a bleeding pregnant or a recently delivered women. Emergency drugs and safe blood transfusion services are unlikely to be available freely across Pakistan in near future.[5] Even the most knowledgeable and skilled doctor is unable to save mothers life if she is bleeding, and he / she has no drug or blood at hand.[5] Antepartum haemorrhage which is vaginal bleeding from 24 weeks till the delivery of the baby is also a major cause of maternal mortality. Two major causes of APH are placenta previa (PP) and placental abruption (PA).[6]

PP is the placenta that is partially or wholly implanted in the lower uterine segment and it cause massive obstetric haemorrhage.[7] Abruption means breaking away and placental abruption is the separation of normally situated placenta from the uterine wall.[7] In this both the mother and the fetus are at risk, because of hypoxia due to placental separation and mother because of hypovolemic shock, clotting disorders and more wide spread organ damage.[6]

Uterine rupture is the life threatening emergency. It can occur before delivery or during delivery. Important causes of uterine rupture before delivery are labour hyper stimulation with over cause prostaglandins or oxytocin, intra-amniotic instillation of saline or prostaglandins and during delivery or breech extraction, vigorous uterine pressure during delivery, fetal anomaly distending lower segment and difficult manual removal of placenta.[8]

Among the pregnant women who had the previous cesarean section (c/s) the chances of major complications like, uterine rupture or operative injury are twice if given a trial of labour.[9] The rate of uterine rupture is 7/1000 in women who had the Vaginal birth after cesarean section (VBAC). Failed VBAC increases the requirement for blood transfusion and endometritis. There is 12 fold increased risk of perinatal death at term among the women attempting VBAC.[10]

Obstructed labor is one of the serious emergencies that may occur after a trial of labour. It endangers the life of the mother and fetus and increases the rate of perinatal and maternal morbidity and mortality. Majority of cases suffer obstructed labour because of the negligence of medical staff at periphery who keep the patient in the hope of normal vaginal delivery.[4]

There are many other birth related disabilities that affect many more women and go untreated, like injuries to pelvic muscles, organs or the spinal cord. Every year 8 million babies die before or during delivery or within first week of life. Many children are tragically left motherless each year. These children are 10 times more likely to die within 2 years of their mother's death. Majority of these deaths and disabilities are preventable being mainly due to insufficient care during pregnancy and delivery.[12]

It is tragic situation that these deaths are not cau-

sed by disease but occur during or after a natural process. Most of maternal and fetal deaths and pregnancy complications are preventable. So, the rationale of present study is that the complications of labor if not timely diagnosed and treated result in adverse feto-maternal outcome. Provision of SBA at doorstep will be an ideal solution. So that they can identify the factors that are associated with adverse obstetric outcome like previous c/s scar, multigravida, short stature, malpresentation, prolonged rupture of membrane (PROM) > 24 hours, fetal growth restriction, oligohydramnios, meconium stained liquor and refer the patients timely to a tertiary care hospital.

Patient's and Methods

Objectives of the study:

- To determine fetal and maternal outcome of cases referred to FMH after trial of labour.
- To identify factors associated with adverse obstetric outcome (i.e. previous caesarean section scar, multigravidity, short stature, malpresentation, prolonged rupture of membranes > 24 hrs, fetal growth restriction, oligohydraminios, meconium stained liquor).

Operational definition:

- **Obstetric Outcome:** Outcome of both mother and baby after delivery.

Maternal Outcome:	Fetal Outcome:
• Primary PPH will be measured in terms of blood loss more than 500 ml after vaginal delivery or more than 1000 ml after cesarean section within 24 hours after delivery. • Secondary PPH will be measure in terms of blood loss more than 1 litre after delivery after 24 hrs till 6 wks postpartum. • Fever ≥ 100 °F after delivery.	• Apgar score at 1 and 5 minutes after delivery. • Meconium staining. • Need for hospitalization.

- **Un-booked cases:** Cases that never had any antenatal checkup before trial of labour.

It was case series descriptive study. The study was carried out in Labour Ward Department of Obstetrics and Gynaecology, Fatima Memorial Hospital, Lahore which is a tertiary care referral centre.

This was a six months study from 1st April 2011 to 30th September 2011.

One hundred pregnant women after trial of labour were included in the study.

Non probability convenience sampling technique was used.

- Un-booked cases after trial of labour by TBA, LHV or doctors at home or private clinics and Singleton pregnancy at term (37 – 42 weeks) were included pregnant patients with pre-existing medical disorders were excluded from the study.
- **Method:**

Subjects were selected from pregnant ladies diagnosed by history, examination and ultrasonography fulfilling inclusion criteria admitted in labour ward in the department of obstetrics and gynecology unit III FMH. They were informed about the benefits of the study and informed consent was taken. They were included in the study with permission of Ethical Committee. Confounding variables such as age, gravidity antenatal care, bad obstetric history and pregnancy related complications were controlled by careful selection of cases. Patients with pre-existing medical disorders were excluded from the study.

A detailed history regarding her personal data, symptomatology and exact date of LMP was taken. Examination was done to find out any systemic or obstetrical complications. An obstetrical ultrasonography was done to confirm single pregnancy, amount of liquor, presentation and to confirm gestational age. Partogram was maintained, mode of delivery and Apgar score at 1 and 5 minutes was recorded. The patients were followed up to 7 days after delivery. Maternal and fetal morbidity or mortality were recorded.

Subjects were analyzed for fetomaternal outcome. The outcome measures were pregnancy and obstetric details, place of delivery, delivery attendant, reasons given for home delivery, mode of delivery, maternal mortality, perinatal mortality, the incidence of fetal distress determined by abnormal cardiotocography monitoring, fetal blood sampling, and the presence of meconium. PPH was measured by the Kidney Tray method.

All cases were interviewed and managed. Information thus obtained was summarized and recorded using a specifically designed proforma prepared for the study.

Descriptive statistics were applied to calculate mean and standard deviation for age and parity of

mothers. Data was analyzed using computer program SPSS 10 to find out frequencies and percentages of study variables i.e. for factors associated with adverse obstetric outcome (multigravidity, short stature, malpresentation, prolonged rupture of membranes > 24 hrs, fetal growth restriction, oligohydraminios, meconium stained liquor, previous caesarean section scar), maternal outcome (PPH, fever) and fetal outcome (meconium staining, Apgar score, need for hospitalization). Chi-square test was applied to compare significance of proportions of these complications. $P < 0.05$ was taken as level of significance.

Results

Present study comprise of 100 patients who were referred to Fatima Memorial Hospital, Lahore after a trial of labour. Of the total patients, 32 were received delivered.

Mean height of the patients was 5.2 ± 0.2 inches and mean weight was 79.67 ± 9.45 kg. In our study, maximum complications were seen in the age group between 21 – 25 years which is 38% and 26 – 30 years which is 34%. The mean age of the patients in present study was 27.28 ± 5.13 years (Table 1).

Out of hundred patients in study group who were referred after trial of labour 65 (65%) were primigravida P_1 and P_2, 25%, women were para 3 – 5 and 10% patients were grand multiparas (Para 6) shown in Table 2.

In present study, all the patients (100%) were admitted through emergency (Table 3).

Short stature was noted in 13 (13%) patients (Table 4).

In our study, out of 15 patients with the previous scar undergoing a trial of labor, 5 patients had a uterine rupture that is about 0.75%. Remaining 85% patients had no previous scar (Table 5).

68% of the patients presented with labour pains (68%) and leaking per vaginum. Prolonged duration of labour was noted in 68% patients. Thirty nine (39%) patients had fever and previous scar was noted in 15% cases (Table 6).

In 14 (14%) patients, fetal movements were reduced and in 18 (18%) were absent. Thirty six (36%) patients had normal fetal movements (Table 7).

Mode of delivery was vaginal in 38 (38%) patients and abdominal in 62 (62%) patients (Table 8).

Fever was the most common complication found in 69 (69%) patients. Antepartum hemorrhage occurred in 22 (22%) cases. Postpartum hemorrhage complicated 46 (46%) pregnancies leading to shock in 51 (51%) patients. Oligohydramnios was observed in 35 (35%) patients and uterine rupture in 5(5%) cases. There were 3 (3%) maternal deaths (Table 9).

Table 1: According to age Distribution of Patients (n=100).

Age (in years)	No. of Patients	Percentage (%)
16 — 20	8	8.0
21 — 25	38	38.0
26 — 30	34	34.0
31 — 35	14	14.0
36 — 40	6	6.0

Mean age ± SD = 27.28 ± 5.13 years

Table 2: Parity of Patients (n = 100).

Parity	No. of Patients	Percentage (%)
0 — 2	65	65.0
3 — 5	25	25.0
Para 6 or more	10	10.0

Table 3: Mode of Admission (n = 100).

Admitted Through	No. of Patients	Percentage (%)
Outpatient Department	0	0.0
Emergency	100	100.0

Table 4: Short Stature (n = 100).

Short Stature	No. of Patients	Percentage (%)
Yes	13	13.0
No	87	87.0

Table 5: Previous Scar (n = 100).

Previous Scar	No. of Patients	Percentage (%)
Previous scar	15	15.0
*(Rupture)	5	5.0

No scar	85	85.0

Table 6: Presenting Complaints (n = 100).

Complaint	No. of Patients	Percentage (%)
Labor pains	68	68.0
Leaking P/V	68	68.0
Bleeding P/V	52	52.0
Prolong duration of labor	68	68.0
Fever	39	39.0
Previous scar	15	15.0

Table 7: Fetal Movements (n = 100).

Fetal Movement	No. of Patients	Percentage (%)
Normal	36	36.0
Reduced	14	14.0
Absent	18	18.0
Received delivered with PPH	32	32.0

Table 8: Mode of Delivery (n = 100).

Route of Delivery	No. of Patients	Percentage (%)
Vaginal	38	38.0
Abdominal	62	62.0

Table 9: Maternal Complications (n = 100).

Complication	No. of Patients	Percentage (%)
Postpartum hemorrhage	46	46.0
Fever	69	69.0
Uterine rupture	5	5.0
Antepartum hemorrhage	22	22.0
Oligohydramnios	35	35.0
Shock	51	51.0
Maternal death	3	3.0

Regarding the perinatal outcome in our study, low Apgar score at 1 and 5 minutes was observed in 36 (36%) patients. Meconium staining was common in 34 (34%) cases and 34 (34%) patients needed hospitalization. Fetal growth restriction was found in 23 (23%) patients. Twenty three (23%) patients had stillbirths including 18 intrauterine deaths and 5 intrapartum deaths (Table 10).

Table 10: Perinatal Complications (n = 100).

Complication	No. of Patients	Percentage (%)
Low APGAR score	36	36.0
Meconium stained liquor	34	34.0
Fetal growth restriction	23	23.0
Need for hospitalization	34	34.0
Fetal death	23	23.0

Discussion

In present study spanning over 6 months period, a total of 100 cases who were admitted through emergency after a trial of labour by traditional birth attendants (TBAs), lady health visitors (LHVs), or doctors at home or private clinic were managed and followed in the department of gynaecology and obstetrics for analysis of feto-maternal outcome.

Out of hundred patients in study group who were referred after trial of labour 65% were primigravida or Para 1, 25% ladies had 3 – 5 kids and 10% patients had 6 or more kids, which is quite comparable with the study conducted in North America which shows transfers were four times as common among primiparous women (25.1%) as among multiparous women (6.3%).[13]

In our study, maximum complications were seen in the age group between 21 – 25 years which is 38% and 26 – 30 years which is 34%. The mean age of the patients was 27.28 ± 5.13 years which is comparable with age group of the patients in the study conducted in Zurich between 1989 and 1992 where the mean age was 29.2 years.[14]

Many of the normal vaginal deliveries of draining area are done by the TBAs, LHVs and local general practitioners at the clinics. It is, therefore, quite justified to say that the general concept of the public about

the increased frequency of maternal and fetal complications either morbidity or mortality is not true. The complications in any hospital depends upon the number of factors e.g. catchment area, type of obstetric complication, ratio between booked and un-booked cases and the referral role of the hospital.[15]

There are other general factor as well contributing to this like socio-economic conditions, literacy rate, frequency and quality of antenatal care and timely referral by the TBAs. About 80 – 85% cases in FMH Lahore are unbooked and maximum patients (90%) are under the care of TBAs and LHVs which is comparable with another local study in Lahore where about (90%) of patients never had any antenatal check up and maximum patients (94%) were under care of TBAs and LHVs.[16]

TBAs or family members attend as many as 70% of world's births.[17]

In present study, 68% of the patients had the abdominal deliveries after the trial of labour. Five patients had ruptured uterus and underwent labarotomy from which two had obstetrical or cesarean hysterectomy which is consistent with the study conducted in Lahore by Bushra Zahid and colleagues where 5 patients had ruptured uterus, laparotomy was carried out in 4 patients due to ruptured uterus out of which two had hysterectomy.[16]

In our study, 62 patients had emergency cesarean section and the common causes of emergency cesarean section were major degree placenta previa, repeat cesarean section, failed progress of labour, chorioamnionitis, abruptio placentae, fetal growth restriction and meconium stained liquor leading to fetal distress.

A study conducted by Hemminki in 1990 showed that in emergency cesarean deliveries, the procedure is usually done for cases with fetal distress, prolonged and obstructed labour, severe PIH, eclampsia and ruptured uterus.[18]

In a local study at Lahore, the common indications for emergency cesarean section were failure to progress of labour, fetal distress, cephalopelvic disproportion, PIH, eclampsia and malpresentations.[19]

In our study out of 15 patients with the previous scar undergoing a trial of labor, 5 patients had a uterine rupture that is about 0.75% and it is comparable with that shown by another study as 0.5–1%.[20]

In Pakistan that is a developing country with population over 118.8 million (UNICEF report 1990) about 4 million births take place every year.[21] Only 24% of births are attended by trained persons and only 5 – 10% deliveries take place in hospital. About 25000 females die of causes related to pregnancy and child birth every year. Commonest causes of maternal death include hemorrhage, infection, eclampsia and obstructed labour.

In present study postpartum haemorrhage was common and noted in 46% of patients, which if not handled appropriately and immediately can lead to death of the patient, while it occurred in 10 patients in local study at Lahore.[16]

All women lose blood at delivery whether by vaginal or abdominal route. Traditionally, the obstetricians have accepted 500 ml of loss as the upper limit of normal. However, it must be noted that such a volume is almost always an estimate and it is believed that it is usually an underestimate. Moreover, the patient might not be bleeding because she is in shock and her vessels are collapsed.[22]

It is when PPH is in excess of 500 ml, it is taken as significant. Loss of blood between 1000 and 1500 ml is termed massive PPH.[23] In spite of marked improvements in management, early PPH remains a significant contributor to maternal morbidity and mortality both in developing countries and in hospitals. The exact incidence of PPH is difficult to determine. A reasonable consensus is that 1 – 10% of pregnancies are complicated by PPH, with the actual number in the range of 2.4%.[24]

According to Gordon,[25] anaemia must be corrected during pregnancy because anaemic patient tolerates haemorrhage badly. Hemoglobin estimation should be made in every expectant mother early in pregnancy and give every women a good course of iron for at least six weeks during pregnancy.

A patient with a previous history of PPH, patients with multiple pregnancy and grandmultipara should be admitted to hospital for delivery. Manage high risk patient more carefully. PPH should always be anticipated in grandmultipara, multiple pregnancy, polyhydramnios and at least two pints of blood must be available. Vein should be kept open. Never allow labour to be prolonged. Manage third stage of labour properly.[25]

Regarding the perinatal outcome in our study, 23 stillbirths including 18 intrauterine deaths and 5 intrapartum deaths occurred. Twelve babies died in first 12 hours and 36 babies had the Apgar score less than 5 at 5 minutes. All these were consistent with the study conducted by Zahid and colleagues[16] at Lahore where there were 23 stillbirths, 45 had Apgar score below 5 at 5 minutes, ten babies died in first 12 hours.

The care women receive during labor and delivery determines whether they live or die. Proper care can

virtually eliminate postpartum infection and prevent many deaths and illness from labor and delivery complications by some estimates, better care during labor and delivery could prevent 50 – 80% of maternal deaths. Even in a developed country, care makes a great difference e.g. in a US religious group that refuses prenatal and delivery care, the maternal mortality rate in 1975 – 1982 was over 800 per 100,000 live births, a rate higher than in many developing countries.[17]

The traditional birth attendants in Pakistan (Dais) are untrained and sometimes unaware of the problems encountered during pregnancy and labour. So they bring the patient in hospital very late and usually in serious condition. Illiteracy, poor nutrition, improper referral system and lack of transport are all contributory factors to high maternal mortality.

It is hoped that with better nutrition of pregnant female, reduced parity, better awareness of the importance of antenatal care, hospital delivery and increase in the facilities for maternal care, maternal morbidity and mortality due to postpartum complications may be reduced.

Conclusion

It is concluded that patients who came after the trial of labour by LHVs, TBAs and local doctors have very high rate of both maternal and fetal complications as the results of present study show that PPH occurred in 40%, APH in 22%, fever in 69%, shock in 51%, uterine rupture in 5% cases. There were 3 maternal deaths and 23 stillbirths. 34% babies required hospitalization, 36 babies had low APGAR score and 34% had meconium staining.

Complications of labour and postpartum period if not timely diagnosed and rectified result in adverse feto-maternal outcome. This may be reduced by:

1. Improving the quality and availability of antenatal care for masses.
2. Provision of skilled birth attendants at the doorstep.
3. Proper and update training of TBAs, LHVs and local doctors for better management and timely referral of difficulty cases.
4. Launching public health programmes for general public to make them aware of pregnancy related risk factors and to avoid the existing health facilities.
5. Establishment of well equipped emergency obstetrical department at periphery.
6. Provision of senior staff cover and telephone facilities to deal with emergency and post emergency problems.
7. Blood banks need to be developed in more areas.
8. Blood donations should be encouraged as a personal "Zakat" or charity and transfusion only reserved for life threatening situations like massive PPH.
9. All obstetricians especially those in teaching hospitals, need to introduce partogram in their labour wards, if not already in use and train both medical and paramedical staff in maintaining this record. This allows the prevention of not just PPH but also ruptured uterus, neonatal morbidity and mortality and future potential for vesico-vaginal fistula, with its socio-economic implications.

References

1. Joshi R. Perinatal and neonatal mortality in rural Punjab. Working Paper. Thiruvananthapuram: Achutha Menon Centre for Health Science Studies; 2003 July. Report No.: 3.
2. Please understand when I cry out in pain: women's accounts of maternity services during labour & delivery in Ghana.
3. Adamu YM, Salihu HM. Barriers to the use of antenatal and obstetric care services in rural Kano, Nigeria. J Obstet Gynecol 2002; 22: 600-3.
4. Azim P. Factors delaying the management leads to obstructed labor 100 cases survey in Khyber teaching hospital, Peshawar. J Med Sci 2006; 14: 60-5.
5. Pal SA. Haemorrhage and maternal morbidity & mortality in Pakistan. J Postgrad Med Assoc 2007; 57: 516-8.
6. Edmonds K, Gebbie AE, Hay P, Ingamells S, Stones RW, Norman T, et al, editors. Gynaecology by ten teachers. 18th ed. London: Hodder Arnold, 2006: 276.
7. Crowley P. Prolonged pregnancy. In: Chamberlain G, Steer PJ, eds. Turnbull's obstetrics. 3rd ed. London: Churchill Livingstone, 2001: 521-32.
8. Cunningham FG, Leveno KJ, Gilstrap LC, Hauth JC, Wenstrom KD, editors. William's obstetrics. 22nd ed. New York: McGraw Hill; 2005: 809-54.
9. Trial of labour complications. Women Clinic of Seattle.
10. Hanoch J, Mcluoloc A. Improving the prognosis of ovarian cancer. In: Studd J, ed. Progress in obstetrics and gynaecology. No. 16, London: Churchill Livingstone, 2005: 357-70.
11. Renay W. Labour complications remain the most important risk factors for perinatal mortality in rural Kenya. Bull World Health Organ 2003; 81: 561-6.
12. Khan KS, Wojdyla D, Say L, Gülmezoglu AM, Look PFV. WHO analysis of causes of maternal death: a sys-

tematic review. Lancet 2006; 367: 1066-74.
13. Johnson KC, Daviss BA. Outcomes of planned home births with certified professional midwives: large prospective study in North America. BMJ 2005; 330: 1416-8.
14. Ackermann-Liebrich U, Voegeli T, Gunter-Witt K, Kunz I, Zullig M, Schindler C. Home versus hospital deliveries: follow up study of matched pairs for procedures and outcome. BMJ 1996; 313: 1288-90.
15. Taffel SM, Placek L. Trends in the United States cesarean section rate for the 1980 – 85 rise. Am J Pub health 1985; 77: 955.
16. Zahid B, Khawaja N, Tayyab R. Obstetric outcome of cases referred to tertiary care hospital after trial of labor. Ann King Edward Med Coll 2005; 11: 289-91.
17. Lettenmaier C, Liskin L, Church CA, Harris JA. Care during labor and delivery. [online] 2006 [cited 15 February, 2008] Available from: URL: http://findarticles.com/articles/mi_m0856/is_n7_v50/ai_7353925.
18. Hemminki E. Comparability of reasons for cesarean section. Birth 1990; 17: 207-9.
19. Rahshan SN, Fauqira B. Indication/complication and fetal outcome. A comparison between emergency and elective cesarean section. Pak J Med Sci 1995; 11: 277-82.
20. Smith GCS. Delivery after caesarean section. In: Studd J, Tan SL, Chervenak FA. eds. Progress in obstetrics and gynaecology. No. 17. London: Churchill Livingstone, 2006: 245-63.
21. UNICEF. The state of world's children. UNICEF report 1991.
22. Bishop BB. Severe postpartum haemorrhage after caesarean section. S Afr Med J 1987; 13: 203-7.
23. von Dongen PW. Oxytocics for prevention of PPH. A review. Pharma Week 1991; 13: 238-43.
24. Berg CJ. Pregnancy related mortality in the United States 1987-90. Obstet Gynaecol 1996; 88: 161-7.
25. Gorden C. Postpartum hemorrhage. Am J Surg 1950; 80: 587-93.

ANNEXURE

Department of Obstetrics and Gynecology, Nishtar Hospital, Multan

PROFORMA

Obstetric Outcome of Cases Referred to Nishtar Hospital Multan after Trial of Labour

Date _____ Hosp. Reg. No. _____

Patient's Name _____ Wife of _____

Age _____ Address _____

Admitted through: ☐ OPD ☐ Emergency

Gravida _____ Para _____

Gestational Age _____

Presenting Complaints

Complaint	Yes	No	Duration
Labour pains			
Leaking per vagina			
Bleeding per vagina			
Duration of labour			
Fever			
Previous scar			

Fetal movements: ☐ Normal ☐ Reduced ☐ Absent

Examination

Blood pressure _____ Pulse rate _____

Temperature _____ Respiratory rate _____

Pallor _____

Abdominal Examination

Fundal height _____ Lie _____

Fetal heart rate _____ Presentation _____

Uterine contraction _____ Scar tenderness _____

Speculum Examination

OS _____ Bleeding _____

Discharge: _____

Per Vaginal Examination

Cervix dilatation _____ Station _____

Cervix effacement _____ Membranes _____

Cervix Length _____ Caput _____

USG Findings

Mode of Delivery: ☐ Vaginal ☐ Abdominal

Diagnosis _____

Follow up

Maternal Outcome	**Fetal Outcome**
• Postpartum hemorrhage:_____ • Fever_____ • Uterine rupture _____ • Antepartum hemorrhage_____ • Shock _____ • Death _____	- Apgar score: at 1 min_____ at 5 min _____ - Meconium staining:_____ - Need for hospitalization _____ - Death _____