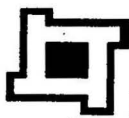




Quality of clinical care in Bangladesh: Skilled attendance index

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Abstract

The study was conducted to assess the quality of clinical care regarding skilled attendance in Bangladesh. The information was extracted from the delivery records in the facility with the aim of establishing a baseline regarding the situation at the facility and track progress towards achieving skilled attendance. In the study data was mainly collected from the last 6 month's case reports of District Hospital and Govt. MCWC of Kurigram district. Thus the study mainly dealt with 300 case reports of the facilities, but information was also taken from the delivery book, admission book and operation book of the facility. Among the cases 43% were complicated and 57% were uncomplicated. The delivery records clearly reflected poor record keeping system in the facilities. Study results revealed that at the facility level most of the key information was not recorded. No record was found about discharge diagnosis, duration of gestation at admission, presentation of foetus, time between delivery of baby and placenta, urine albumin and sugar. In some cases it was found that information regarding clinical status of woman at start of labour i.e. pulse, temperature, most recent haemoglobin level was recorded but was not compatible with the condition of the women. The limited availability of environmental factor like manpower were likely responsible for poor care records in the facility. Situation at Govt. MCWC, the obstetric service focused facility was found as better.

1. INTRODUCTION

SAFE study aimed to provide new knowledge on the identification, implementation and evaluation of effective, affordable and equitable strategies to increase Skilled Attendance at delivery in developing countries. It was a multi country research and five countries including Bangladesh were involved in this study. The main purpose of SAFE study was to develop a Strategy Development Tool (SDT), which would enable the policy makers and programme planners to systematically gather and interpret information on skilled attendance at delivery. The SDT contained five components, which revealed the collection, analysis and synthesis of existing and new data on skilled attendance. The five modules were: problem identification, situation analysis, needs assessment, quality of clinical care and synthesis. This report based on quality of clinical care module which provides information regarding skilled attendance at facility level. The information was extracted from the delivery records in the facility with the aim of establishing a baseline regarding the situation at the facility and track progress towards achieving skilled attendance. The information could be used for monitoring purposes to fulfil all the different components of skilled attendance i.e. equipments, drugs, health professional.

2. Methodology:

2.1 Data Source

Data collection carried out in April 2002. Data were mainly collected from the last 6 month's case reports (October 2001 to March 2002) of District Hospital (DH) and Govt. MCWC of Kurigram district. Thus the study dealt with 300 case reports of the facilities. At DH cases were extracted from case notes of the patients but in Govt. MCWC cases were extracted from the case notes and from the delivery book, admission book and operation book of the facility.

2.2 Description of the study facilities

Kurigram DH was a 100 beds hospital. It comprised of Outdoor, Emergency services, ANC services, Immunisation services, Operation Theatre, Department of Medicine, Surgery and Gynae and Obstetrics, Eye, ENT and Paediatrics. The service providers were Specialists, Medical Officers, FWVs, Ayas (attendants), Brothers and Sweepers. Female

patients of all departments were found to stay in one room. There was no privacy, for the patients who were in labour. A small space in the ward covered by the curtain, was considered as the labour room. Informal discussion with the staff in DH revealed that there was shortage of manpower in proportion to number of patients. However, two FWVs were found to look after 60 to 70 patients of all departments. There was no special arrangement for critical patients. The FWVs in DH were found overburdened. Often they had to work more than eight hours in a day. They were found to conduct deliveries and cleaning also as often the Ayas (Attendants) were not available. It was noted that sometimes the FWV who was on duty at night, had to continue their work next morning.

The doctors in DH were found to come to the hospital in the morning and remained in their work up to two pm. Usually they were not found to come for their evening round unless there was any emergency. The FWVs were considered to be skilled enough to take care of the patients. One upon a time there was an ambulance in DH but for many years it was out of order. Therefore the referred patients had to arrange transport on their own.

The situation in Govt. MCWC situation was somewhat different from DH. Govt. MCWC provided only obstetric services and it included out-door, emergency, ANC, immunisation and MR services. Additionally counselling was given to the women about nutrition, family planning, breast-feeding, immunisation, and ANC. In Govt. MCWC the service provides were a medical officer (MO), an anaesthetist and three FWVs. Other service staff were Ayas (Attendants) and guards. However shortage of manpower also existed in this facility. The normal deliveries were mainly conducted by the FWVs. The MO dealt with the complicated deliveries only.

The condition of post-operative room was not satisfactory. As some of the patients, who had undergone C/S, suffered from wound infection, sterilisation was not proper in the facility.

2.3 Field operations and lesson learnt

Data collection was started after taking a written permission from the Civil Surgeon (CS) of Kurigram District. The researchers were introduced with the doctors and other officials in the facilities. While going through the cases considering the reality the patients were categorised into four groups. These were: I. Discharged with advice (D and A), II. Discharged on request (DOR), III. Discharged on request and bond (DORB), and IV. Absconded. In the study it was found that in DH D with A was 65% whereas it was 80% at MCWC. DOR was 4% at DH but in MCWC there was none. In DH DORB was 14% and it was 20% at MCWC. Absconded was 17% at DH on the contrary there was none in MCWC.

During data collection no record of death was found in the last six months case reports. Through informal discussion with the staff members the fact revealed that the both of the facilities usually did not receive severe complicated delivery cases and referred them to Rangpur Medical College Hospital. Sometimes the death cases were recorded as absconded cases as well.

However, the study revealed that recording of information the facilities was poor and most of the relevant information regarding delivery was not recorded at all. In this regard the providers informed that due to shortage of manpower they were not able to record all the measures, which had been taken to deal with the cases.

3 Results

3.1 Woman's characteristics

Table 1 presents the characteristics of the women of the case reports. The study revealed that majority of the women (37%) from age group of 20 to 24 years went to the facilities. Number of previous deliveries was not recorded in 87% cases at DH and data showed that 5% of the primi mothers went to DH for delivery whereas 61% of the primi mothers delivered at Govt. MCWC. In both facilities no record was found about maternal complication in previous pregnancy and history of complication prior to admission.

However, gestation at admission was 32% recorded at DH on the contrary it was 97% at Govt. MCWC.

Although there was record about presenting complaints in both facilities, but only 7% cases had record regarding presentation of foetus at DH and at Govt. MCWC it was 41%. Actually condition of woman on admission was recorded in both facilities except 2% found unconscious at DH and 1% found good at MCWC. However, admission diagnosis was recorded in both facilities.

Table1. Characteristics of women in the case notes.

| Background characteristics | District Hospital (DH) % | Govt. MCWC % |
|--|---------------------------------|---------------------|
| Age | | |
| 15 - 19 | 19 | 19 |
| 20 - 24 | 37 | 37 |
| 25 - 29 | 24 | 24 |
| 30 - 34 | 13 | 13 |
| 35 - 39 | 7 | 7 |
| No. of previous deliveries excluding current delivery | | |
| 0 | 5 | 61 |
| 1 - 3 | 6 | 31 |
| 4 - 10 | 3 | 4 |
| Not recorded | 87 | 4 |
| Maternal complication in previous pregnancies | 100% not recorded | 100% not recorded |
| History of complication prior to admission | 100% not recorded | 100% not recorded |
| Gestation at admission | | |
| Recorded | 32 | 97 |
| Not recorded | 68 | 3 |
| Presentation of foetus | | |
| Recorded | 7 | 59 |
| Not recorded | 93 | 41 |
| Presenting complaint | 100% recorded | 100% recorded |
| Condition of woman on admission | | |
| Good | - | 1 |
| Unconscious | 2 | - |
| Not recorded | 98 | 99 |
| Admission diagnosis/impression | 100% recorded | 100% recorded |

3.2 Information about index delivery

In Govt. MCWC 80% of the patients of term pregnancy were admitted. Data showed that NVD (Normal Vaginal Delivery) was 69% at MCWC and was only 1% at DH. It indicated that DH dealt mainly with the complicated patients.

In terms of attendants at delivery Table 2 showed that most of the deliveries were attended by the FWVs. In most cases they conducted the delivery as well. However, no record was found at DH regarding the issue.

Table 2. Information about index delivery.

| Background characteristics | District Hospital (DH) % | Govt. MCWC % |
|--|---------------------------------|---------------------|
| Attendants at delivery | | |
| FWV | - | 79 |
| Specialist Obstetrician | 1 | - |
| Not recorded | 99 | 21 |
| Person who conducted delivery of baby | | |
| FWV | - | 69 |
| Medical Officer | - | 7 |
| Specialist Obstetrician | 1 | - |
| Not recorded | 99 | 24 |

3.3 Clinical status of woman at start of labour

Table 3 in the following shows that most of the information regarding clinical status of woman at start of labour i.e. pulse, temperature, most recent haemoglobin level was recorded in the case reports at DH. However, MCWC had some records but to some extent it was not compatible with the condition of the women. For e.g. in the case notes temperature was recorded 98°F, which was not consistent with the diagnosis like Puerperal Sepsis or Puerperal Ptrexia.

3.4 Information about progress of labour

Per-vaginal examination was recorded only 3% at DH and 36% at MCWC. Cervical dilatation was found to be recorded in fingers. One finger was equal to 1.5 cm. However, it was 100% recorded at DH and 92% recorded at MCWC. Presenting part was not at all recorded at DH whereas it was recorded 26% at MCWC. Partogram was not available at DH and was available but not filled up at MCWC. Oxytocin was administered when necessary in both facilities.

Table 3. Clinical status of woman at start of labour.

| Background characteristics | District Hospital (DH) % | Govt. MCWC % |
|---|---------------------------------|---------------------|
| Temperature | | |
| Recorded | - | 79 |
| Not recorded | 100 | 21 |
| Pulse | | |
| Recorded | 1 | 92 |
| Not recorded | 99 | 8 |
| Blood Pressure | | |
| Recorded | 96 | 6 |
| Not recorded | 4 | 95 |
| Most recent haemoglobin level | | |
| Recorded | 1 | 1 |
| Not recorded | 99 | 99 |
| Date most recent haemoglobin level | | |
| Recorded | - | - |
| Not recorded | 100 | 100 |

3.5 Information about just after delivery

Table 4 presents that most of the essential information about just after delivery was not recorded in DH. For instance, information regarding APGAR score of baby at 1 minute, total estimated blood loss, person who conducted delivery of placenta was 100% not recorded in the case reports of DH. However case reports in MCWC had some information regarding the issues. Nevertheless, time between delivery of baby and Placenta were not recorded in both facilities, which are very important to diagnose Retained Placenta.

3.6 Information about immediate postpartum period

Lack of information about immediate postpartum period in DH (Table 5) indicated that either no proper follow up was given or just after delivery patients were absconded or

discharged on request and bond. However some case reports in MCWC contained the information about immediate postpartum period (Table 5).

Table 4. Information about just after delivery.

| Background characteristics | District Hospital (DH) % | Govt. MCWC % |
|---|---------------------------------|---------------------|
| APGAR score of baby at 1 minute | | |
| Recorded | - | 70 |
| Not recorded | 100 | 30 |
| Time between delivery of baby and Placenta | | |
| | - | - |
| Person who conducted delivery of Placenta | | |
| Recorded | - | 74 |
| Not recorded | 100 | 26 |
| Total estimated blood loss | | |
| Recorded | - | 72 |
| Not recorded | 100 | 28 |

Table 5. Information about immediate postpartum period.

| Background characteristics | District Hospital (DH) % | Govt. MCWC % |
|-----------------------------------|---------------------------------|---------------------|
| Temperature | | |
| Recorded | - | 44 |
| Not recorded | 100 | 56 |
| Pulse | | |
| Recorded | - | 43 |
| Not recorded | 100 | 57 |
| Blood Pressure | | |
| Recorded | 1 | 43 |
| Not recorded | 99 | 57 |

3.7 Complications and referral

According to the case reports in both facilities documents related to complication and referral status were maintained. Nevertheless, in most cases no order was found for doing investigation during complication. In some cases where investigations were done inconsistency was found in some issues. For instance, in case of Per-vaginal (P/V) bleeding, haemoglobin percentage (Hb%) was done rarely, blood group was done but cross match was not done in some cases. Urine albumin and sugar were not done also in both facilities for the patients of eclampsia and of diabetes respectively.

3.8 Information during complication

A) General Intervention:

The case reports revealed that management plan was good in both facilities especially for the patients of eclampsia. Intravenous Fluid (I/V) was infused when needed and blood was transfused in some cases. Urinary catheter, Antihypertensives, Magnesium sulphate were used when needed. Antibiotics were used routinely in both facilities. Other interventions were also given.

B) Operative Intervention:

It was found that MCWC maintained operation notes and an operation register but no operation note was maintained at DH. In cases of removal of placenta, no note was found regarding the place at DH.

C) Monitoring: First two hours

Table 6 shows that case reports in DH did not contained information regarding monitoring first two hours after complication whereas in some cases MCWC has records regarding the issue. However, clearly in the Table tendon reflexes was also not recorded in both facilities, which was very important for the patients of Eclampsia. No urine output chart was maintained. Fluid balance/input-output chart was 100% not recorded at DH and 74% not recorded at MCWC.

Table 6. Monitoring: First two hours.

| Background characteristics | District Hospital (DH) % | Govt. MCWC % |
|-----------------------------------|---------------------------------|---------------------|
| Temperature | | |
| Recorded | - | 68 |
| Not recorded | 100 | 32 |
| Pulse | | |
| Recorded | 4 | 91 |
| Not recorded | 96 | 9 |
| Blood Pressure | | |
| Recorded | 25 | 97 |
| Not recorded | 75 | 3 |
| Respiratory rate | | |
| Recorded | - | 94 |
| Not recorded | 100 | 6 |
| Tendon reflexes | | |
| Recorded | - | - |
| Not recorded | 100 | 100 |

3.9 Discharge diagnosis

The study found that discharge diagnosis was not recorded at all in both facilities. It was mention earlier that no record of death was in both facilities.

3.10 Condition of the baby

The study revealed that baby note was well maintained at MCWC, on the contrary DH did not have proper baby note in most of the cases. Condition of baby on discharge of mother was mostly recorded as good (67% at DH and 50% at MCWC). Stillbirth was 7% at DH and was 5% at MCWC. Neonatal death was 1% at DH and was none at MCWC. Abnormal baby was 1% at DH.

4. Conclusion

This component of the SDT made an attempt to assess the quality of clinical care at the facilities. Two facilities were selected for this purpose in Kurigram District where the need assessment study was done. In the study information were extracted from 300 case reports of DH and Govt. MCWC. 155 cases were dealt with in DH and 145 cases in MCWC. Among the cases 43% were complicated and 57% were uncomplicated. The delivery records clearly reflected poor record keeping system in the facility. The limited availability of environmental factor like manpower were likely responsible for poor care records in the facility. Nevertheless, situation at Govt. MCWC, the obstetric service focused facility was found as better. The study design did not allow for crosschecking of data for further validation of the actual care provided in the facilities. In the study, the care that was not recorded in the delivery records was considered as not done in case of respective patient. Therefore, skilled attendance at facility level was fully measured on the basis of the information provided by the delivery records of the facilities. Study results indicated that situation regarding skilled attendance was not satisfactory during labour, delivery and postpartum period at the facility level. Nevertheless, it was found that management plan was good in DH in dealing with complicated cases like eclampsia.

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