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Research Article

Is obstetric triage necessary?

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ABSTRACT

Background: The aim was to determine the number and type of patients admitted in the labour and delivery unit and whether a formal triage would improve efficiency.

Methods: All patients entering the unit were analyzed for a period of two months: July and August 2013.

Results: The 990 patients during the study period were from three areas, the OPD, the ward and emergency visits to the labour unit. The reason for the visit and the number of cases seen was analyzed. This was correlated with the number of deliveries. Most patients were generally seen within 5 to 10 minutes, however in a few cases there was a delay of up to half an hour when the nurses were held up by a delivery or another emergency.

Conclusions: Obstetric triage would improve efficiency of care and reduce waiting time. The suggestions for improvement were also discussed. There should be clear guidelines and protocols for the initial assessment and action for each level of severity.

Keywords: Triage, Labour

INTRODUCTION

An efficient obstetric unit has to provide care not only to women admitted in labour but also to patients admitted in various emergency situations. These may be simple like vomiting or urinary infection or serious conditions like eclampsia or antepartum haemorrhage. In addition there are unscheduled visits of obstetric patients with problems like abdominal pain, ruptured membranes and diminished or absent fetal movements. Some of these problems are urgent and need immediate attention while others may not be harmed by waiting for a while.

RCOG recommends that every pregnant woman attending emergency should be seen by a midwife or Obstetrician.¹ In most hospitals these personnel are available round the clock only in the labour and delivery unit. Hence most units provide care to patients in labour as well as act as the emergency department for obstetric patients.

Triage is the term used for the initial or primary assessment to determine the urgency of care the patient needs. Compared to the “first come first served” basis, triage focuses on maximising benefits for each individual patient by giving treatment priority to patients whose needs are most urgent.²

With this background this study was carried out in the Labour and Delivery (L & D) unit of PSG Hospitals. This is a teaching hospital with a moderately busy unit with about 2500 to 3000 deliveries per year. We also have referrals of high risk patients from smaller nursing homes in the district. We are also involved in the training of undergraduate and postgraduate students as well as nursing students.

Aim: To determine the number and type of patients entering the unit and whether a formal triage would improve efficiency of care.

METHODS

All patients entering the labour and delivery unit were analyzed for a period of two months July and August 2013. These patients were analyzed regarding the reason for the visit, whether planned (e.g. for elective induction) or emergency, how long before they were seen, who saw them first and how long they stayed in the unit.

RESULTS

On analyzing the patients seen in the labour & Delivery unit for July and August 2013 we found that total number of patients entering the unit was 990 while the number of deliveries was 447.

The comparison between the number of patients and the number of deliveries per week is shown in Figure 1.

The reasons for admission to the labour and delivery unit are shown in Table 1.

In addition there were patients seen for miscellaneous conditions like Urinary tract infection, missing copper T, encirclage stitch removal episiotomy resuturing Bartholin's abscess and hyper emesis.

Table 1: Reasons for admission.

Sr. No.	Reason for admission	From	Number of cases
1	Term patient in labour	OPD	68
		Ward	153
		Emergency	89
2	Term patient for induction of labour	OPD	12
		Ward	100
3	False labour / Early labour	-	109
4	Preterm labour / PPROM	OPD	14
		Ward	06
		Emergency	22
5	Diagnostic curettage	OPD	55
6	CTG monitoring	OPD / Ward	88
7	Iron sucrose infusion	OPD	93
8	Early pregnancy bleeding PV/Pain abdomen	OPD	25
		Ward	09
		Emergency	17
9	Ectopic pregnancy	OPD/Emergency	07
10	Suspected torsion of ovarian cyst	OPD/Emergency	07
11	For MTP	OPD	16
12	Post-op observation	Ward	15

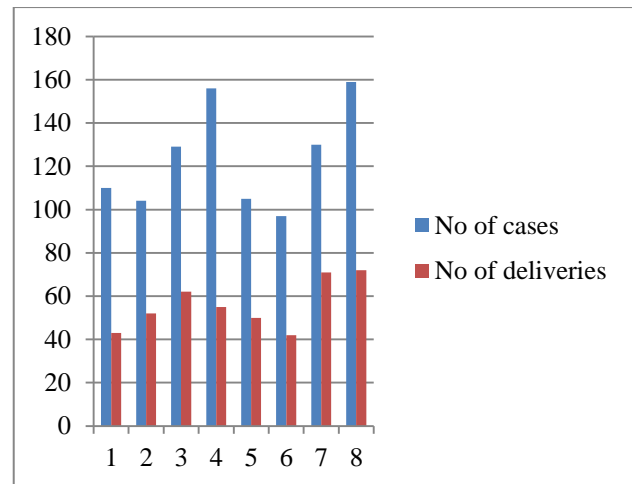


Figure 1: Number of cases vs. number of deliveries per week.

DISCUSSION

Obstetric triage should have the same standards as the emergency room where triage is an accepted method to improve the efficiency of care.

The term "TRIAGE" is derived from the French word "trier" meaning to sort.³ It was initially used in battlefield settings by the chief surgeon of Napoleon's army.⁴ So basically triage is the sorting of patients for treatment in situations of at least moderate resource scarcity. This is done according to an assessment of the patient's medical condition and the application of an established system. The most common types of triage in medicine include Emergency department triage, ICU triage, incident (multi casualty) triage, military (battlefield) triage and disaster (mass casualty) triage. Application of this principal to obstetric patients is ideal as keeping a pregnant woman sitting in a waiting area without being evaluated is a prescription for disaster. In hospitals that lack an efficient triage system it is very difficult to regulate patient flow and waiting times.⁵

In our analysis of 990 patients over a period of 2 months we found there are three categories of patients entering the labour and delivery unit.

- from the out-patient Department
- from the ward-both as emergency as well as for elective induction
- emergency visit to the labour unit

Most patients were seen within 5 to 10 minutes by the midwife or junior resident on duty. However in a few cases there was a delay of up to half an hour due to the staff being held up by a delivery or another emergency. This was because the staff nurses manning the labour ward and receiving new patients are the same.

In addition there were 109 patients who were seen with false labour pains or in early labour and 88 patients who required a CTG. There were also a significant number of patients who required iron sucrose infusion and observation. These patients who required only observation for one to two hours were taking up valuable beds in the labour and delivery unit. There has been a considerable change in early labour services in the UK driven by a need to reduce the number of women attending labour ward who are not in labour. These services include contact and subsequent assessment at a maternity unit, home assessment, triage services and telephonic triage.^{6,7}

Hence our plan for the improvement of the OB triage process would include the following.

- **Space:** There should be an area close to labour & Delivery exclusively for triage. It should have a reception area and at least 5 observation beds.
- **Staffing:** Adequate staffing is crucial to the provision of quality maternity care.⁸ The process of triage has often been considered the sole function of the labour and delivery nurse.⁹ The staffing would be one resident and two staff nurses per shift. One of the nurses can be assigned to receive new patients and the other for the patients in the observation beds. It is recommended that these nurses have at least two years experience of working in labour ward.¹⁰
- **Functioning:** The OB triage would have to follow the Emergency Department (ED) guidelines for standard of care. Patients are to be seen within 2 to 5 minutes of arrival (ED standard).
- **Levels of severity:** The patient's condition will be triaged as red, yellow or green based on the reason for visit and assessment findings.¹¹ The conditions included in each category are as follows:

Red

- Cardio-respiratory distress
- Eclampsia
- Active hemorrhage/ heavy bleeding
- Urge to push
- Objects protruding from vagina
- No fetal movement
- Diabetic coma/DKA
- Other life-threatening conditions to mother or fetus

Yellow

- Contractions every 2 minutes & appears uncomfortable
- Multipara in active labor
- Decreased fetal movement
- Abdominal pain
- Preterm labor or preterm rupture of membranes

- Actual or potential Pre-eclampsia or HELLP syndrome
- Rule out ROM

Green

- Nausea/vomiting/ diarrhea
- Urinary complaints
- Stable gestational hypertension
- Wound infection
- Upper respiratory infection
- Vaginal discharge/ vaginitis
- Wound checks
- Staple or suture removal
- Injections, lab draws

▪ **Action for levels of Severity**

- **Red (Emergent):** Notify Duty Obstetrician immediately. Shift patient directly to L& D or HDU (High Dependency unit) or OT as indicated.
- **Yellow (Urgent):** notify resident in labour ward as soon as triage assessment is complete. Patient is to be seen every 30 minutes if in the triage area for observation.
- **Green:** Notify resident in labour ward as soon as triage assessment is complete. Patient is to be seen every hour if in the triage area for observation.

The entire process has to be audited based on standards laid down. The measurable outcomes can be the decreased patient waiting time as well as the number of patients being rushed to the delivery room or OT. The inter observer agreement has to be high and this has important implications for the quality of the service.¹²

CONCLUSIONS

Triage is a system of risk management employed in emergency departments worldwide.¹³ Extending this to the obstetric service would improve efficiency by prioritizing patients whose needs are most urgent. The backbone of this service should be efficient labour trained midwives who can also serve as clinical teachers primarily for 1st year obstetric residents.¹⁴ There should be clear guidelines and protocols for the initial assessment of maternal and fetal wellbeing as well action for each level of severity. The quality of service should be audited providing scope for continuous improvement.

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