Original
ISSN 2521-8492

Utilization of the Feto-Maternal Triage Program in Maternity Hospitals of Baghdad City

Wisam M. Muttaleb*, Ezedeen F. Baha'aldeen

College of Nursing, University of Baghdad, Baghdad, Iraq.
*Correspondence to: Wisam M. Muttaleb (E-mail: wesamm@conursing.uobaghdad.edu.iq)
(Submitted: 23 April 2020 – Revised version received: 11 May 2020 – Accepted: 29 May 2020 – Published online: 26 December 2020)

Abstract

Objectives: To evaluate the impact of fate-maternal triage program upon laboring women's outcomes.

Methods: Quazi-experimental design was conducted upon laboring women seeking for care in Baghdad hospitals. The study was conducted at Baghdad hospitals, which in both sides Al-Kargh (13 hospital) and Al-Resafa (23 hospital). The sample of the study consist of 280 laboring women, 140 women for each control and study group who are attending to the labor room in selected hospitals. Questionnaire format conducted as a flow sheet. It is designed and developed by the researcher depending on the feto-maternal triage index of AWHONN'S and Manchester triage system with some modification done by a researcher.

Results: The mean age for both groups is 29.85 ± 8.64. More than a quarter of participants in the study group are within the age group of (21–25) years-old ($n = 40$; 28.6%), followed by those who are in the age group of (31–35) years-old ($n = 36$; 25.7%). For the control group, more than a third are in the age group of (21–25) years-old ($n = 47$; 33.6%), followed by those who are in the (31–35) years-old ($n = 33$; 23.6%). Concerning participants' BMI, more than two-fifths in the study group are overweight ($n = 61$; 43.6%), for the control group, more than two-fifths in the study group are overweight ($n = 61$; 43.6%). More than a third of participants in the study group reported that the waiting time is (10–20) minutes and (21–30) minutes ($n = 53$; 37.9%) for each of them, for the control group, more than two-fifths reported that the waiting time is (31–60) minutes ($n = 58$; 41.4%). The mean waiting time for the control group is greater than that of the study group (1.68, 1.32) respectively. Also more than a third of participants in the study group reported that the severity of cases are very urgent and emergency cases ($n = 44$; 31.4%), ($n = 23$; 16.4%) respectively for each of them. For the control group, more than half of participants reported that the severity of case is very urgent and emergency cases ($n = 44$; 33.6%), ($n = 20$; 14.3) respectively. There is a statistically significant difference in the mothers' complications between the study and the control groups ($\chi^2 = 13.755$, df = 1, P-value = 0.000). This indicates a positive influence of the program in reducing the mother's complications.

Conclusion: The study shows that the positive influence of the program in triage the cases according to its severity and according to the levels used in the triage.

Keywords: Triage, obstetric triage, labor

Introduction

Two of the most well-known purposes behind the improvement of OB. Care and treatment in maternity units are: (a) decrease load of work in outpatient clinic and emergency units and birthing settings, which have turned out to be loaded by various OB assessments (a considerable lot of these ladies don't go ahead to convey); and (b) assessment of all work protest in a setting outside of work/conveyance, in this manner authorizing basic bed limit inside work and appropriate transportation. The expanded request to assess critically and developing pregnancy Complainant outside the workplace setting was appended to the requirement for a working unit in which all pregnancy protests, including work, can be completely assessed. Numerous pregnant ladies present to OB triage in prodromal inactive or false work. In any case, working ladies can be all the more viably assessed in a setting without using a work bed. This enhances tolerant stream in labor and conveyance, diminishes expenses, and expands bed ability to better oblige ladies in more dynamic work. What's more, numerous triage of obstetric wards with extensive obstetric volume work as a share unit until the patient in unit work beds get to be distinctly accessible. The OB triage unit frequently enhances use bed limit.[1] Sandra Smith & et al., reported that the major characteristics of the triage nurse is to have at least two years of experience in the delivery and labor department and the patient that assess in the labor and delivery are 20 weeks gestational age to 6 weeks after delivery.[2] Dian Angelini 2013 listed a number of errors that occur during the OBG triage or clinical assessment which include the following Errors in judgment such as teamwork breakdowns, medication errors, lack of technical competence, lack of supervision with handoff difficulties, increased errors with trainees, misdiagnosis and decision making, lack of adequate monitoring of the patient or situation, miscommunication and communication breakdowns during intra hospital transfers and lack of communication of critical information.[1]

Angelini mentioned that the purpose of the design the obstetric triage unit in the obstetric hospital was to utilize beds more efficiently, expedite OB assessments, prevent unneeded admissions to labor and delivery, save time, money and improve patient flow, decrease patient waiting time, to be used as an admission "gatekeeper" and determine assessment and management needs of OB patients.[3]

Obstetric triage have different types include the following: Triage acuity scales such as the Canadian Triage Acuity Scale (CTAS), the Emergency Severity Index (ESI), and the Manchester Triage System have been widely implemented in emergency departments to access to care, wait times, and resource allocation. These acuity scales have been extensively studied to establish their reliability and validity for a wide spectrum of patient presentations. In reviewing these scales, there is limited application to obstetrical triage because the acuity determinants do not reflect the diversity of obstetrical

presentations or the specialized triage needs of obstetrical patients. In CTAS, triage is based on the patient,s presenting complaint (complaint-oriented triage), but there are only seven high-acuity obstetrical presentations. Similarly, the ESI, used in the United States, and the Manchester Triage System from the United Kingdom also were found to have a limited number of obstetrical determinants. At London Health Sciences Centre (LHSC), developed and implemented the Obstetrical Triage. Acuity Scale (OTAS), five-category (1-resusitative, 2-emergent, 3-urgent, 4-less urgent, 5-nonurgent) triage acuity scale with a complete set of obstetrical determinants. In our initial study we demonstrated that OTAS had excellent inter-rater reliability (IRR) in a tertiary care centre. In addition, OTAS acuity level correlated with rates of hospital admission.[4] The Manchester Triage Scale (MTS) was improved by the Royal College of Nursing Accident and Emergency Association and the British Association for Accident and Emergency Medicine. The MTS based on an algorithm-based approach to decision-making so it differs from both the ATS and the CTAS. The MTS engages the use of 52 separate flow chart that depend to be using the decision-maker approach to select the appropriate algorithm on the basis of the presenting or chief complaint, and then congregate and analyze information according to life threat, pain, hemorrhage, consciousness level, temperature, and the duration of signs and symptoms. The MTS demands a standard documentation, and this arranged process is believed to save time as the documentation is simplified. In addition, the process is thought to be particularly beneficial for novice nurses because the decision-making process occurs within very well-defined parameters.[5]

The Australasian Triage Scale ATS contain of five levels, according to the acuity of cases as follows:

- Immediately life-threatening (category 1)
- Imminently life-threatening (category 2)
- Potentially life-threatening or important, time-critical treatment or severe pain (category 3)
- Potentially life-serious or situational urgency or significant complexity (category 4), Less urgent (category 5). The ATS has been endorsed by the Australasian College for Emergency Medicine and adopted in performance indicators by the Australian Council on Healthcare Standards. This scale is very similar to the ATS in terms of time-to-treatment objectives, with the exception of category 2, which is <15 minutes rather <10 minutes as the Australasian Triage Scale ATS.[5]

During labor and birth, different techniques are used to assess the maternal status. These techniques provide a various source of data to determine the woman's response and her progress in labor. This includes: Assess vital signs, including temperature, blood pressure, pulse, respiration, and pain, which are the primary components of the physical examination and ongoing assessment. Also review the prenatal record to identify risk factors that may contribute to a decrease in utero-placental circulation during labor,[6] also do the vaginal examination to assess the cervical dilation, the percentage of cervical effacement, the fetal membrane status and to gather information on presentation, position, station, degree of fetal head flexion, and presence of fetal skull swelling or moulding.[7] If there is no vaginal bleeding on admission, a vaginal examination is performed to assess cervical dilation, after which it is monitored periodically as necessary to identify progress. Evaluate maternal pain and the effectiveness of pain management strategies at regular intervals during labor and birth.[6] Assessment of the contractions includes; the frequency, the duration, the intensity, the uterine resting tone.[8] Pain during labor is a common experience, but the intensity of the pain may vary from woman to another.[9] So the management are many non pharmacological and pharmacological methods for the management of pain during labor and birth that are safe for laboring women.[10]

Materials and Methods

Quazi-experimental design was conducted upon laboring women seeking for care in Baghdad hospitals. The study was conducted at Baghdad hospitals, which in both sides Al-Kargh (13 hospital) and Al-Resafa (23 hospital). Selected 6 hospitals from This hospitals include: Alelweya teaching hospitals, Al Nuaman hospital, Ibn Al balady hospital, Baghdad Teaching hospital, Al Karah hospital and Al Yermook Hosital. The sample of the study consist of 280 laboring women, 140 women for each control and study group who are attending to the labor room in selected hospitals. Questionnaire format conducted as a flow sheet. It is designed and developed by the researcher depending on the feto-maternal triage index of AWHONN'S and Manchester triage system with some modification done by a researcher. The Questionnaire was consisted of five parts, which contain the following variables:

Part 1: this part consisted of demographic information, chief complaint, waiting time, socioeconomic status, and residence.

Part 2: obstetric information includes: last menstrual period, expected date of delivery, gravid, para, abortion. **Part 3:** this part consists of two steps, Clinical history and Physical examination (Maternal Vital signs, Fetal assessment: fetal heart rate, fetal movement. Uterus examination: contraction (frequency, intensity, onset), Vaginal examination: dilatation, effacement, color of vaginal discharge and, Diagnostic test: (Blood group & RH, HB level, GUE, SONAR. **Part 4:** obstetric triage, which include the five criteria that categorize the cases according to their severity as shown in **Part 5:** check list of the complications that occurs during labor and the first two hours after delivery for the mother.

Data collection was conducted through the use of the study instrument, the data were collected by the following techniques:

Process of implementing program of triage:

1. Triage was used to describe initial assessment and determination of required care.
2. The patient initially outraged by the researcher and the health care provider within 5 minutes of presenting to obstetric Evaluation (OBE) Area.
3. Categorizes severity of the patient,s condition based on chief complaint and assessment findings depending on the level of triage.
4. Be re-assessed at prescribed times while in the waiting room.
5. Notifies provider immediately for emergent conditions or upon completion of initial triage for urgent and non urgent conditions.

6. Urgent and Non urgent patients in waiting room are re-assessed every 30–60 minutes (time related to severity category) by a health care provider to follow up by a researcher.
7. Staff with 2 health care providers at all times: 1 dedicated to initial triage, 1 to provide care for patients in evaluation bed.
8. Levels of severity for patient conditions defined.
9. Patient condition will be triaged as red, orange, yellow, green, and blue based on reason for visit and assessment findings.
   a. Red = immediate care
   b. Orange = within 10–15 minutes
   c. Yellow = every 30 minutes
   d. Green = every hour
   e. Blue = cold cases
10. Patients sent to the waiting room will be re-evaluated.
11. Documentation was on the new "OB Evaluation Triage form" Per the new policy, the following patients may go directly to their assigned room on Labor and delivery. Data are analyzed through the use of SPSS (Statistical Process for Social Sciences) version 18 And Excel packages (frequency, percentage, the kruskal-wallis test and Reliability coefficient).

Results

Table 1 reveals that the mean age for both groups is 29.85 ± 8.64. More than a quarter of participants in the study group are within the age group of (21–25) years-old (n = 40; 28.6%), followed by those who are in the age group of (31–35) years-old (n = 36; 25.7%). For the control group, more than a third are in the age group of (21–25) years-old (n = 47; 33.6%), followed by those who are in the (31–35) years-old (n = 33; 23.6%).

Concerning participants, BMI, more than two-fifths in the study group are overweight (n = 61; 43.6%), followed by those who are of normal weight (n = 53; 37.9%). For the control group, more than two-fifths in the study group are overweight (n = 61; 43.6%), followed by those who are of normal weight (n = 53; 37.9%).

Table 2 shows more than a third of participants in the study group reported that the severity of cases are very urgent and emergency cases (n = 44; 31.4%), (n = 23; 16.4%) respectively for each of them. For the control group, more than half of participants reported that the severity of case is very urgent and emergency cases (n = 44; 33.6%), (n = 20; 14.3%) respectively, followed by those who reported that (n = 30; 21.4%) were elective C/S.

The mean triage level for the study group is greater than that of the control group (1.51, 1.49) respectively. There is no statistically significant difference in triage level between the study and the control group (χ^2 = 3.000, df = 1, P-value = 0.083) (Table 3).

Table 4 reveals that (n = 9; 6.4%) of the study group have signs of active vaginal bleeding and active bearing down effort followed by those who are Heart rate less 40 or more than 130 b/m (n = 7; 5%). For the control group (n = 9; 6.4%) has active vaginal bleeding and (n = 10; 7.9%) have active bearing down effort followed by those who are their Heart rate less 40 or more than 130 b/m and have preeclampsia (n = 7; 5%).

Table 5 shows that (n = 5; 3.6%) of the study group have premature rupture of membrane less than 34 weeks, placenta previa, twin pregnancy and failure of home delivery. For the control group (n = 5; 3.6%) of participants have greenish amniotic fluid and failure of home delivery.

Table 6 shows that (n = 9; 6.4%) of participants in the study group have more than 34 wks with rythmic contraction followed by those who have signe of maternal infection and induce labor (n = 6; 4.3%). For the control group (n = 9; 6.4%) has signe of maternal infection and (n = 8; 5.7%) have more than 34 wks with rythmic contraction followed by those who have premature labor with rupture membrane (43–36) (n = 6; 4.3%).

Table 1. **Participants' sociodemographic characteristics**

List	Variables	Study group (n = 140)		Control group (n = 140)	
		Frequency	Percent	Frequency	Percent
1.	Age Mean (SD): *29.85 ± 8.64				
	15–20	15	10.7	19	13.6
	21–25	40	28.6	47	33.6
	26–30	11	7.9	11	7.9
	31–35	36	25.7	33	23.6
	36–40	19	13.6	18	12.9
	41–45	19	13.6	12	8.6
2.	BMI				
	Under weight	10	7.1	17	12.1
	Normal weight	53	37.9	53	37.9
	Over weight	61	43.6	61	43.6
	Obesity	16	11.4	9	6.4

*The mean age is the same for both groups.

Table 2. **The differences between study and control groups in terms of level of triage**

Variables levels of triage	Severity of cases	Study group (n = 140)		Control group (n = 140)	
		Frequency	Percent	Frequency	Percent
Level 1	Very urgent	44	31.4	47	33.6
Level 2	Emergency	23	16.4	20	14.3
Level 3	Need for following	33	23.6	33	23.6
Level 4	Not urgent	10	7.1	10	7.1
Level 5	Elective C/S	30	21.4	30	21.4

Table 3. **The differences between study and control groups in terms of level of triage**

Ranks			Chi-square	df	Asymp. Sig.
Level of triage	N	Mean rank			
Study group	140	1.51	3.000	1	0.083
Control group	140	1.49			

Table 4. **The differences between study and control groups in terms of triage level 1**

	Rank	Study group (*N* = 44)		Control group (*N* = 47)	
No	Triage level 1	Frequency	Percentage	Frequency	Percentage
1.	Severe vaginal bleeding	2	1.4	2	1.4
2.	Cord prolapsed	4	2.9	2	1.4
3.	Preeclampsia	5	3.5	7	5
4.	Heart rate less 40 or more than 130 B/M	7	5.0	7	5
5.	FH more than 110/Sec	4	2.9	4	6.4
6.	Active vaginal bleeding	9	6.4	9	6.4
7.	Active bearing down effort	9	6.4	10	7.9
8.	Absences of fetal movement	4	2.9	4	7.9
9.	Bp more than 110 or less than 60	0	0.0	1	0.7
10.	Precipitous labour	0	0.0	1	0.7

Table 5. **The differences between study and control groups in terms of triage**

	Rank	Study group (*N* = 23)		Control group (*N* = 20)	
No	Triage level 2	Frequency	Percentage	Frequency	Percentage
1.	Greenish aminiotic fluid	3	2.1	5	3.6
2.	Premature rupture of membran Less than 34 weeks	5	3.6	2	1.4
3.	Placenta previa	5	3.6	4	2.8
4.	Twin pregnancy	5	3.6	1	0.7
5.	Failure of home delivery	5	3.6	5	3.6
6.	Active labor with hx. of stillbirth	0	0	2	1.4
7.	Labor dystocia with using piton	0	0	1	0.7

Table 6. **The differences between study and control groups in terms of triage level 3**

	Rank	Study group (*N* = 33)		Control group (*N* = 33)	
No	Triage level 3	Frequency	Percentage	Frequency	Percentage
1.	Signe of maternal infection	6	4.3	9	6.4
2.	Induce labor	6	4.3	3	2.1
3.	More than 34 wks with rhythmic contraction	9	6.4	8	5.7
4.	Premature labor with rupture membrane (43–36)	5	3.6	6	4.3
5.	34 Gestation with history of 3rd C/S + contraction	2	1.4	2	1.4
6.	Twin pregnancy less than 34 + irregular contraction	5	3.6	5	3.6

Table 7. **The differences between study and control groups in terms of triage 4**

	Rank	Study group (*N* = 10)		Control group (*N* = 10)	
No	Triage level 4	Frequency	Percentage	Frequency	Percentage
1.	Premature labor (0–4 cm) with or without RM	8	5.7	2	1.4
2.	Vaginal secretion + constipation pelvic pain + confused mother	2	1.4	8	5.7

Table 8. **The differences between study and control groups in terms of triage 5**

No	Rank	Study group (*N* = 30)		Control group (*N* = 30)	
	Triage level 5	Frequency	Percentage	Frequency	Percentage
1.	Primi + cephalic presentation + more than 37 wks + Hx of C/S	6	4.3	6	4.3
2.	Multi + Hx of C/S + cephalic presentation 37 and having normal labor	6	4.3	6	4.3
3.	Primi + Hx of C/S + 37 Wks + transvers position	4	2.9	4	2.9
4.	Breech presentation + single pregnancy + Hx of C/S	8	5.7	8	5.7
5.	Single preg. + breech presentation	2	1.4	2	1.4
6.	Less than 36 wks + Hx of C/S	4	2.9	4	2.9

Table 7 shows that more than half of participants of the study group (n = 8; 5.7%) have Premature Labor (0–4 cm) with or without RM. For control group more than half of participants (n = 8; 5.7%) have vaginal secretion + constipation + pelvic pain + confused mother.

Table 8 shows that (n = 8; 5.7%) have breech presentation + single pregnancy + Hx of C/S and (n = 6; 4.3%) have (primi + cephalic presentation + more than 37 wks + Hx of C/S) and (multi + Hx. of C/S + cephalic presentation 37 and having normal labor).

Table 9 shows that the mean triage 1 for the study group is greater than that of the control group (1.61, 1.39) respectively. There is a statistically significant difference in the

Table 9. **The differences between study and control groups in term levels of triage**

	Rank		Chi-square	df	Asymp. Sig.
	N	Mean rank			
Level 1 triage					
Study group	140	1.61	29.121	1	0.000
Control group	140	1.39			
Level 2 triage					
Study group	140	1.62	34.000	1	0.000
Control group	140	1.38			
Level 3 triage					
Study group	140	1.50	45.000	1	0.000
Control group	140	1.50			
Level 4 triage					
Study group	140	1.55	14.000	1	0.000
Control group	140	1.45			
Level 5 triage					
Study group	140	1.54	2.273	1	0.132
Control group	140	1.46			

triage 1 between the study and the control groups (χ^2 = 29.121, df = 1, *P*-value = 0.000). This indicates a positive influence of the triage program in classification of cases according to severity. The mean triage 2 for the study group is greater than that of the control group (1.61, 1.39) respectively. There is a statistically significant difference in the triage 2 between the study and the control groups (χ^2 = 45.000, df = 1, *P*-value = 0.000). This indicates a positive influence of the program in classification of cases according to severity. The mean triage 3 for the control group is equal to of the study group (1.50, 1.50) respectively. There is a statistically significant difference in the triage 3 between the study and the control groups (χ^2 = 45.000, df = 1, *P*-value = 0.000). This indicates a positive influence of the program in classification of cases according to severity. The mean triage 4 for the study group is greater than that of the control group (1.55, 1.45) respectively. There is a statistically significant difference in the triage 4 between the study and the control groups (χ^2 = 14.000, df = 1, *P*-value = 0.000). This indicates that the feto-maternal triage program a poor influence in managing cases who can wait for hours than regular hospital protocol. The mean triage 5 for the study group is greater than that of the control group (1.54, 1.46) respectively. There is no statistically significant difference in the triage 5 between the study and the control groups (χ^2 = 2.273, df = 1, *P*-value = 0.132). This indicates that the program has no influence of in detection of cases that need to be referred for cesarean section.

Discussions

The present study shows that the mean age for study & control groups were 29.85 ± 8.64. More than a quarter of participants in the study group are within the age group of (21–25) years-old followed by those who are in the age group of (31–35) years-old. For the control group, more than a third are in the age group of (21–25) years-old, followed by those who are in the (31–35) years-old. The mean age was 29.85 ± 8.64 for both groups. This finding agrees with the publications of WHO and the ministry of health which indicate that the peak is the reproductive age in Iraq 15–45 yrs. we are dealing with pregnant women so the age categories the peak of reproductive age groups. I didn't find in the review a similar study national and international hospitals deals with same variable or study the demographic characteristic of women when they comes to hospitals. In the study group, 27.9% are elementary school graduates and middle school graduates. For the control group, less than a third are elementary school graduates followed by those who are middle school graduates. My own explanation that early marriage age is preferable in Iraqi society. Concerning participants, BMI, more than two-fifths in the study group were overweight (43.6%), for the control group, more than two-fifths in the study group are overweight (43.6%). According to the WHO classification of pregnant women BMI the study participant suffers from increase in weight during pregnancy, which is lead to expose to many complications during pregnancy (gestational diabetes, pre-eclampsia, heavy bleeding after delivery, and wound infection, increase weight of the fetus, increase the risk of stillbirth).[11] The study reported that more than a third of participants in the study group reported that the severity of cases are very urgent and emergency cases (31.4%), (16.4%) respectively for each of them. For the control group, more than half of participants reported that the severity of the case is very urgent and emergency cases (33.6%), (14.3) respectively, followed by those who reported that (21.4%) were elective C/S. There is no statistically significant difference in triage level between the study and the control group, this mean that the triage program success in decision making in assessing the patient according to acuity level. Triage is a complex process including unreliable decision-making in an ebullient environment due to the urgency and pressure in the workplace. Placing the patient in an inappropriate triage acuity level leads to the increased mortality significantly affecting the patient's health care outcomes. Although it may be difficult in busy parts of the emergency department, it is necessary to properly evaluate the patients and classify them based on the acuity of the illness, so that it precisely reflects the severity of the illness and the patient receives safe and timely care.[12] In 2009, the American Hospital Association reported the following survey data in which hospitals reported which triage system they used ESI (57%), 3-level (25%), 4-level (10%), 5-level systems other than ESI (6%), 2-level or other triage system (1%), no triage (1%). The Centers for Disease Control and Prevention, National Center for Health Statistics reports national level data regarding ED visits,[13] The report now categorizes arrival acuity as five levels based on how urgently patients need to be seen by the physician or health care provider and includes the following categories: "immediate (immediately), emergent (1–14 minutes), urgent (15–60 minutes), semi-urgent (1–2 hours), and non urgent (2–24 hours)".[14] The study & control group reported that more than half of participants 75% have a healthy maternal status. At triage level 1, 2, 3, 4 and 5 of The study shows that The mean triage (1.61, 1.39), (1.61, 1.39), (1.50, 1.50), (1.55, 1.45) and (1.54, 1.46) for the study group is greater than that of the control group respectively.

This means that the program success with ranking laboring women, according to the severity of the case than the regular hospital protocol. Because the program does assessment for women when she come to the hospital early, systematically without leaving her to wait for her number in the waiting hole for a long time. Follow up the cases in the program and try to take the medical and nursing management, also doing the medical screening examination that need without waiting and not according to hospital protocol also I,m not forgetting the endless help of some medical staff for application the program in at least at the best benefits.

Dain Anjlini reported that most of the provider of obstetric triage were midwife, nurse practitioners, private midwife that indicated the nurse can be provide the triage services in the hospital in between 10 triage beds that design to obstetric triage screening.[11]

Bazm 2015 reported that the 85% of physician was satisfied towards the triage diagnosed by the nurses, according to the triage form (ESI triage). This results agree with the study that the researcher (as a nurse) can use the triage technique in our hospitals.[12]

Conclusion

The study shows that the positive influence of the program in triage the cases according to its severity and according to the levels used in the triage.

Recommendations

Advice to establish an educational program for the medical staff (physician, nurse, midwives and even biologist who work in hospitals) to raise awareness about the triage in OB department and how to implicate in this area. To specify a special room for OB triage in the delivery also in the outpatient counseling room and supply by all instruments and devices that required for assessment and evaluation of women. Attend an efficient nursing staff and efficient number of nurses for doing the assessment whiles the patient waiting for counseling from the obstetrician.

Conflicts of Interest

None.

References

1. Angelini D, Lafontaine D. "Obstetric triage and emergency care protocol." 2013. Springer Publishing Company, LLC lghttp.48653.nexcesscdn.net/80223CF/springer-static/media/samplechapters/9780826108906/9780826108906_chapter.pdf.
2. Smith S, Sputnik, B, Mutz R. "Guidelines for triage of obstetric patients." Vanderbilt University Medical Center, a policy manual 2/6/2011.
3. Angelini D, (2000). Obstetric triage and advanced practice nursing. Journal of Perinatal and Neonatal Nursing 13(4), 1–12.
4. Gratton R, Bazaracai N, Watts N, Brayman B, Hancock C. "Acuity assessment in obstetrical triage." JOGC – 2016.
5. Emergency triage educational kit, triage work book. Australian Government/Department of Health and Ageing, 2009. https://www.health.gov.au/internet/main/publishing.../Triage%20Workbook%20s.doc.
6. Borders N, Lawton R, Martin SR. A clinical audit of the number of vaginal examinations in labor: A novel idea. Journal of Midwifery & Women's Health, 2012;57(2):139–144.
7. Davis J. Midwives and normalcy in childbirth: A phenomeno-logic concept development study. Journal of Midwifery & Women's Health, 2010; 55(3): 206–215.
8. Gilbert ES. Manual of high-risk pregnancy and delivery (5th ed.). St. Louis: Mosby Inc. 2011; pp. 123–146.
9. Leonard P. Childbirth education: A handbook for nurses. Nursing Spectrum. 2012; Retrieved from http://ce.nurse.com/60057/childbirth-education-a-handbook-for-nurses.
10. Ismail S, Shahzad K, Shafiq F. Observational study to assess the effectiveness of postoperative pain management of patients undergoing elective cesarean section. Journal of Anesthesiology, Clinical Pharmacology, 2012; 28 (1): 36–40.
11. Angelini D. "Obstetric triage: management of acute nonobstetric abdominal pain in pregnancy." Journal of Nurse-midwifery Vol. 44, No. 6, 1999.
12. Bazm A, khoranasi E, Etemad M, Nadeal H. "Improving five-level triage form according to the experts viewpoint; a qualitative study." Bull Emerg Trauma 2015;3(1):16–21.
13. Niska R, Bhuiya F, Xu J. National hospital ambulatory medical care survey: 2007 emergency depatrtement summary. (National health statistics reports: No. 26). Hyattsville, Md: National center for health statistics.
14. Gilboy N, Tanabe P, Travers D, Rosenau A. Emergency Severity Index (ESI) a triage tool for emergency department care 2012. Version 4 Implementation Handbook.
15. Jancin, B. (2011). OB/GYN hospitalists hold inaugural. Ob Gyn News, 46(11), p. 1, 7.
16. Jones K, Marsden J, Windle J. Emergency triage, manchester triage group, 2nd Blackwell Publishing. BMJ BOOKS 2006.
17. Pennsylvania Patient Safety Reporting System training Manual And Users' Guide 2015 PA-PSRS. https://www.papsrs.state.pa.us/PSA/_pdf/PAPSRS%20User%20Manual.pdf.
18. The Pennsylvania Patient Safety Advisory 2008 Vol. 5, No. 3 http://patientsafety.pa.gov/ADVISORIES/Documents/200809_home.pdf.
19. Macarones G, Pettker C, Mascola M, Hein R. "Hospital based triage of obstetric patients." Amercan College of Obestatrician And Gynecologist No. 667 July 2016.