

12-17-2021

Implementation of Maternal Fetal Triage Index to Improve Nurse Knowledge and Timeliness in Obstetric Triage: A Pilot Project

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IMPLEMENTATION OF MATERNAL FETAL TRIAGE INDEX

University of Nebraska Medical Center

College of Nursing

DOCTOR OF NURSING PRACTICE (DNP)

FINAL DNP PROJECT

Implementation of Maternal Fetal Triage Index to improve nurse knowledge and timeliness in

obstetric triage: A pilot project

by

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The final DNP Project presented to the

Faculty of the University of Nebraska Medical Center College of Nursing

In Partial Fulfillment of the Requirements for the Degree

DOCTOR OF NURSING PRACTICE

Fall 2021

DNP Program Faculty Academic Advisor

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Abstract

Objective: The objective of this project was to implement an obstetric triage acuity scale in a labor and delivery setting and study the effect on nurse knowledge and timeliness of care.

Design: A quasi-experimental pre and post-test design was used for this pilot project.

Setting: This project was conducted in an obstetric triage unit located within a fourteen-bed labor and delivery unit in the Midwest.

Methods: This pilot project was conducted over a two-month time period. Fifteen registered nurses qualified to care for obstetric triage patients were given education on the chosen triage acuity scale. A pre-test was administered before the education was received. Pre-implementation timeliness of care was calculated over a one-month time period by calculating the time of patient arrival to the first vital sign taken. Over the one-month pilot period, timeliness of care was also calculated. At the completion of the one-month pilot, a post-test was given to the pilot participants to assess knowledge.

Results: For the knowledge component, the pre-test average test score was 50.58%, and the post-test average test score was 61.63% ($p=.55$). Timeliness of care improved from an average of 20.4 minutes to 5.2 minutes from arrival to first vital sign ($p<.001$).

Conclusion: Obstetric triage is a critical part of the care pregnant patients receive, and the use of obstetric triage acuity scales can improve patient outcomes. Data from this project shows that using an obstetric triage acuity scale helped reduce the time from patient arrival to first vital sign taken, improving the timeliness of care. Nurse knowledge was increased, although not at a statistically significant level.

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Recommendation: Based on the results of this project, full implementation of the use of an obstetric triage acuity scale on this Labor and Delivery unit is recommended. If full implementation takes place, it would be recommended to re-educate all staff, including those that participated in the pilot to ensure competency and knowledge on the topic is up to date. It would also be beneficial to collect data on implementation with all of the staff on the unit rather than just a small pilot sample.

Introduction

Obstetric triage has become an integral part of the care of pregnant patients. In the 1980s, obstetric triage became a specialty within perinatal care and grew in the early part of the 21st century (Angelini & Howard, 2014). With the growth of obstetric triage as a specialty, an increase in obstetric patients presenting for care has also occurred. The American College of Obstetricians & Gynecologists (ACOG) estimates that obstetric triage volumes exceed the overall birth volume of a hospital by 20-50% (Macones et al., 2016).

Obstetric triage is defined by the Association of Women's Health, Obstetric, and Neonatal Nurses (AWHONN) as "the brief, thorough, and systematic maternal and fetal assessment performed when a pregnant woman presents to care to determine priority for full evaluation" (AWHONN, 2014, p. 22). Similar to an emergency department, obstetric triage units have unpredictable census with wide varieties of chief complaints ranging from emergent to non-emergent. Determining patient acuity is essential for safe and effective prioritization of patient care and determining appropriate nurse-to-patient ratios (Angelini & Howard, 2014).

The development of triage acuity scales emerged in 2007 in an effort to standardize prioritization of care given to pregnant patients presenting for unscheduled evaluation of pregnancy-related complaints (Angelini & Howard, 2014). In 2016, ACOG released a committee opinion that states a validated triage acuity scale may improve quality and efficiency of care for obstetric triage patients (Macones et al., 2016). However, there is still no universally accepted standardized tool to assign acuity level to patients presenting to obstetric triage.

Problem Statement

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This pilot project was implemented in a busy obstetric triage unit located within a labor and delivery unit that has over 3,000 births annually. The acuity level of presenting patients varies from low to high, including high-risk obstetric patients transferred in from all over the state of Nebraska and from surrounding states. Despite the volume and acuity of patients served on this unit, there is no standardized process to assign acuity or priority of care to patients presenting to labor and delivery for triage.

Obstetric triage is a fast-paced environment that demands rapid and accurate assessments of a wide variety of patient scenarios in order to promote positive clinical outcomes (Angelini & Howard, 2014). Literature supports the use of triage acuity scales in the emergency department (Angelini & Howard, 2014). However, the literature is limited regarding triage acuity scales in obstetric units (Paisley et al., 2011). Prior to 2007, when the first obstetric acuity tool was introduced, obstetric departments relied on emergency room acuity tools or used no tool at all (Angelini & Howard, 2014).

The federally mandated Emergency Medical Treatment and Active Labor Act (EMTALA) is another key component of obstetric triage. EMTALA regulations state that a medical screening exam (MSE) must be completed on every patient presenting to an obstetric triage unit to determine whether an emergency medical condition exists (Angelini & Howard, 2015). EMTALA also requires that necessary stabilizing treatment must be provided when an emergency medical condition exists. If a provider determines the benefits of transfer outweigh the risks, then arranging for proper transfer to another facility is deemed acceptable (Angelini & Mahlmeister, 2005). In pregnant women, the MSE must be conducted on both the mother and her fetus to determine if an emergency medical condition exists (Angelini & Mahlmeister, 2005).

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Registered nurses, certified nurse midwives, and nurse practitioners are all classified as qualified medical personnel able to perform a MSE (Angelini & Mahlmeister, 2005). With a lack of policy and protocol in place, the timeliness and accuracy of a MSE can be put into question.

Prior to onset of this implementation project, patients were seen in order of arrival, not by presenting complaint. Lack of a standardized process has led to inconsistencies in nurse knowledge related to care of obstetric triage patients and the potential for compromised quality of care. A reliable and valid obstetric triage acuity tool is needed to reduce the time to initial nursing assessment and to reduce delays in patient assessment by providers (Angelini & Howard, 2014).

Purpose

The purpose of this project was to determine the effect of implementing an obstetric triage acuity scale compared to no implementation on nurse knowledge of obstetric acuity and timeliness of care. This project took place in a busy obstetric triage unit located within a labor and delivery unit in an urban hospital in the Midwest. This unit sees pregnant patients beginning at 20 weeks gestation for labor and non-labor pregnancy related complaints. The specific aims of the study were as follows:

- **Aim 1:** To provide education on the stakeholder's chosen obstetric triage acuity tool and implementation process to qualified registered nursing staff.
- **Aim 2:** To determine the effect of implementation of an obstetric triage acuity scale on nurse knowledge of acuity in an obstetric triage unit through pre/post-test analysis.

- **Aim 3:** To determine the effect of implementation of an obstetric triage acuity scale on timeliness of care in an obstetric triage unit through analysis of the time of patient arrival to first vital signs taken by the registered nurse.

Review of Literature

Triage is a process of categorizing patients in order to prioritize their need to receive care through the determination of acuity (Ruhl et al., 2020). In obstetrics, women present to labor and delivery with an assortment of medical, obstetrical, or fetal concerns. Timely assessment based on acuity level, resource mobilization, provider notification, and escalation of care is the responsibility of the registered nurse providing care (Ruhl et al., 2020). Research has shown that obstetric triage acuity tools are assets in the triage process, ensuring women receive appropriate care in a timely manner based on presenting complaint (Angelini & Howard, 2014). The American College of Obstetrics and Gynecologists' (ACOG) position statement is that validated obstetric triage acuity tools may improve the quality and efficiency of care in obstetric triage settings (Macones et al., 2016).

There are currently three main triage acuity scales used in obstetric settings in North America along with emergency department acuity scales that are modified to fit the needs of obstetric settings (Ruhl et al., 2020). The three obstetric triage acuity tools are the Florida Hospital OB Triage Tool, the Obstetric Triage Acuity Scale (OTAS), and the Maternal Fetal Triage Index (MFTI) (Ruhl et al., 2020).

The Florida Hospital OB Triage Tool is a five-tiered scale that was developed in a Florida health system by nurses and doctors as a quality improvement project (Paisley et al., 2011). The acuity tiers range from level 1 being emergent to level 5 being procedural or testing.

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An initial obstetric assessment by a triage nurse assigning an acuity level should occur within 10 minutes of arrival (Paisley et al., 2011). The time frame to be evaluated once an initial assessment and acuity level has been assigned ranges from immediate to less than 120 minutes (Paisley et al., 2011). This tool has not been tested for validity or interrater reliability (Ruhl et al., 2020). Once implemented, this tool's use resulted in quicker nurse and provider evaluation in patients with higher acuity levels (Smithson et al., 2016).

The Obstetric Triage Acuity Scale (OTAS) was developed in Ontario, Canada. The OTAS was modeled after the five category Canadian Triage Acuity System that is used in Canadian emergency departments (Quaile, 2018). This tool is also a five-tiered scale ranging from level 1 being resuscitative to level 5 being non-urgent with the addition of color coding for each of the five levels (Smithson et al., 2013). Like the Florida tool, the time frame goal for evaluation after initial assessment and acuity level has been assigned ranges from immediate to less than 120 minutes (Ruhl et al., 2020). Interrater reliability was assessed on this tool by eight triage nurses. These nurses were provided education on the tool and assigned an acuity level to 110 triage patient charts. The Kappa score was then determined to be 0.8, which exceeded the minimum level (Smithson et al., 2013). Validity was also assessed through chart reviews, and this tool was found to be a valid tool in obstetric triage settings (Smithson et al., 2013). The developers of this scale also created a fast-track process for patients with lower acuity levels (4 and 5). Their length of stay in obstetric triage decreased from 105 to 73 minutes (Smithson et al., 2016). There is a lack of research on whether this tool decreases length of stay in higher acuity levels.

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The Maternal Fetal Triage Index (MFTI) was developed by AWHONN in 2015 and is the first obstetric acuity tool designed by a professional organization to be used across the United States (Ruhl et al., 2020). This tool is also a five-tiered scale ranging from level 1 being stat to level 5 being scheduled or requesting a service (Ruhl et al., 2015a). Instead of recommending a time frame for assessment to be completed based on presenting acuity, the MFTI recommends this timing be determined in the local setting (Ruhl et al., 2020). However, AWHONN's quality measure for the care of obstetric triage patients states the initial acuity level be assigned within 10 minutes of patient arrival (Ruhl et al., 2020). This scale is arranged as an algorithm, unlike other triage acuity scales (Ruhl et al., 2020). The RN conducts an initial assessment of chief complaint, vital signs, fetal heart rate, fetal movement, labor assessment, pregnancy history, medical, surgical, gynecologic, and social history. Vital sign parameters are given in the first three acuity levels in order to give proper attention to any abnormal values (Ruhl et al., 2020). This scale uses the coping with labor algorithm to assess labor associated pain and the 0 to 10 pain scale to assess non-labor related pain (Ruhl et al., 2020). A cervical exam is not part of the MFTI. Therefore, this scale can be completed without a woman having to undress and be in an exam room allowing for rapid assessment and acuity level assignment (Ruhl et al., 2020). While the MFTI tool is presented as an algorithm, the triage nurse's clinical judgment is still of critical importance. If the triage nurse disagrees with the algorithm acuity level, sound clinical judgment and consultation with the clinical team can overrule the algorithm assigned acuity level (Ruhl et al., 2020).

MFTI content validity testing was completed by 45 registered nurses, obstetricians, and certified nurse midwives (Ruhl et al., 2015a). There were two rounds of testing, and after the

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second round the overall Scale Content Validity Index score was 0.95, which was greater than the threshold of 0.90 (Ruhl et al., 2015a). Interrater reliability was also tested when MFTI was applied to 211 patient encounters by comparing the research nurse's assessment to the study nurse's assessment on these patient encounters (Ruhl et al., 2015b). The strength of agreement was classified as good based on the weighted kappa score of 0.65 (Ruhl et al., 2015b). Facilities that have implemented MFTI have found a decrease in patients leaving without being seen, decreased wait time, and decreased initial triage time (Ruhl et al., 2015b). An additional study found nurse knowledge on obstetric triage acuity level increased after an educational session on MFTI (Quaile, 2018).

Multiple meetings were held with the nurse manager, clinical nurse educator, director of the women's and children's department, and staff nurses. The need for an obstetric triage acuity scale was discussed, and it was agreed upon that the department would pilot the use of an obstetric triage acuity scale. The options of OTAS, Florida Hospital OB Triage Tool, MFTI, or a customized tool developed by the unit were presented to stakeholders. After discussing the options, benefits, and disadvantages of each, the decision was reached to proceed with a pilot implementation of the MFTI tool for this facility.

Conceptual Framework

This project was guided by the framework RE-AIM (Reach, Effectiveness, Adoption, Implementation, and Maintenance). RE-AIM is a framework that is used to translate research into practice, assist with program planning, and improve the chance of the program being successful (Glasgow et al., 2019). It is also used to recognize the strengths and weaknesses of various approaches to health promotion, disease prevention, and disease management (Glasgow

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et al., 2019). The acronym aims to answer the questions “who, what, where, how, and when” and these questions correspond with the components of RE-AIM “reach, effectiveness, adoption, implementation, and maintenance) (Glasgow & Estabrooks, 2018). The component definitions are straightforward, making this framework appealing for both community and clinical organizations (Glasgow & Estabrooks, 2018). Reach is the number, proportion, and representativeness of individuals who participate in an initiative, intervention, or program (Glasgow & Estabrooks, 2018). In this project, individuals would be labor and delivery nurses, and the intervention would be a triage acuity scale. Effectiveness or efficacy refers to the impact an intervention has on outcomes, which would be nurse knowledge and timeliness of care (Glasgow & Estabrooks, 2018). Adoption refers to the number, proportion, and representativeness of individuals, which is labor and delivery nurses, and settings, which would be the labor and delivery unit, to initiate a program or policy change, which would be triage acuity scales. (Glasgow & Estabrooks, 2018). Implementation refers to the degree a setting institutes a program as intended and the relative costs and time associated with putting the program into practice (Glasgow & Estabrooks, 2018). Lastly, maintenance refers to the extent a program or policy becomes an integral part of the setting’s practices and policies, which would be using a triage acuity scale as a routine protocol. Maintenance also is applied at the individual level and refers to the long-term effects an intervention has on outcomes after the program or policy is complete (Glasgow et al., 2019). RE-AIM provides a thorough evaluation of translating evidence into practice through implementation and effectiveness measures. Therefore, this framework model is ideal for implementing and evaluating an obstetric triage acuity tool into an obstetric triage practice setting.

Methodology

Design

A quasi-experimental pre and post-test design was used for this pilot project. Nurses were educated on the MFTI using a predesigned curriculum developed by AWHONN during a 60-minute computerized presentation. The education session's impact was measured using a pre/post-test analysis of nursing knowledge and timeliness of care. Timeliness of care was measured by examining the time between patient arrival to the labor and delivery unit and nurse assessment of first vital signs.

MFTI Education and Implementation

AWHONN designed an educational program which includes a one-hour learning module to educate nurses about obstetric triage principles and acuity tools, obstetric triage, and the MFTI. This learning module introduces the MFTI and describes how it is used to prioritize a woman's urgency for care and provider evaluation (AWHONN, 2020). A test is included in the educational program which was used for the pre/post-testing of subjects. This program is available for hospitals to purchase to aid in implementing the MFTI. The project site purchased this educational program. Because this education is available via the web, sessions were completed by the pilot group at their own convenience prior to beginning the pilot implementation.

MFTI Implementation

Per the unit manager request, once all education was completed, the MFTI was to be utilized on each patient presenting for obstetric triage, as long as the triage patient is being cared for by a nurse participating in the pilot. The MFTI was required to be documented by the

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registered nurse on a paper form by the registered nurse during admission of the patient. Post analyses related to the implementation of the tool took place after the one-month pilot process was completed.

Subjects

The subjects in this study included fifteen labor and delivery nurses trained to care for patients presenting to obstetric triage. To be included in the study, participants were required to be registered nurses with an active Nebraska nursing license, currently practicing in the labor and delivery unit, and qualified per unit standards to care for obstetric triage patients, which includes a minimum of one-year experience in labor and delivery. Registered nurses with less than one year of experience that were not yet trained as an obstetric triage nurse were excluded from this study.

Upon consultation with the University of Nebraska Medical Center's IRB department, it was determined that IRB approval was not required for this pilot project. A letter was forwarded to the unit manager that was then forwarded to all eligible registered nurses in the unit. This letter invited eligible nurses to participate in the project and informed them of the project's details. There were fifteen nurses that volunteered to participate in this pilot project, and all fifteen met inclusion criteria and were accepted into the study. Individual exam scores were kept confidential.

Setting

This study occurred in the labor and delivery unit in the Midwest. This unit has 14 labor and delivery rooms, one designated triage room, three operating rooms, and two recovery room beds. In this unit, the labor and delivery rooms and recovery room beds are used as triage

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overflow if necessary, depending on patient volume. This unit averages over 3,000 births annually. This unit employs 60 registered nurses on average.

Measures

Demographics

A demographic tool was administered to all participants. Demographic information assessed included age, race, highest educational level, number of years as a registered nurse, primary work shift, and number of years as a labor and delivery nurse.

Nurse knowledge

Data on nurse knowledge was collected through pre/post-test scores on nurse knowledge of the MFTI. The pre-test was conducted before the educational session, and the post-test was conducted after the month-long pilot implementation of the MFTI. This test, along with an educational session, is included in the MFTI Educational bundle from AWHONN. The test had a total of 28 multiple choice questions presented in case study format focusing on classification of acuity levels to patient scenarios. The testing had a total score out of 100% with each question being equal worth.

Timeliness of care

Timeliness of care was assessed by measuring the time in minutes from patient arrival to the nurse obtaining the first vital sign. Prior to the intervention being implemented, the number of minutes from arrival to first vital sign was assessed for all obstetric triage visits in the EPIC electronic medical record over a one-month time span. During the one-month implementation pilot, minutes from arrival to first vital sign assessment were recorded by the nurses included in the pilot project.

Findings

The first aim of the project was to provide education on the MFTI tool and MFTI implementation process to qualified registered nursing staff. Fifteen registered nurses volunteered for this project and all fifteen participated in the education process (100%). Demographic data for the participants can be found in Table 1 in Appendix C. These participants participated in a one-hour independent learning module on the MFTI scale and completed a pre- and post-implementation test on the information received in the module.

The second aim was to determine the effect of an educational program on the nurse participant's MFTI knowledge. A pre and post-test was given to all fifteen participants. These pre and post-tests were based on information from AWHONN's educational program on MFTI implementation. A paired t-test was conducted on the pre and post-test scores. Although the increase is not statistically significant [$t(14)=2.1, p=.55$], there was a slight increase in the pre-test average of 50.68% to a post-test average of 61.63%. Figure 1 in Appendix C shows the trend of each participant's pre and post-test scores.

The third aim was to measure the difference in the timeliness of care from pre-implementation to post-implementation. Time from admission to first vital signs taken was calculated on all patients presenting to obstetric triage over a one-month period. The average time pre-implementation was 20.4 minutes. Time from admission to the first vital signs taken was also calculated on all patients cared for by the pilot participants over a one-month time period during the one-month pilot. This average time decreased to 5.2 minutes. An independent sample t-test was conducted on the average time to be seen both pre and post-implementation. The average post-intervention time was significantly lower than pre-intervention [$t(369)= -11.08, p<.001$].

Discussion

While the increase in pre and post-test scores was not statistically significant, there was an increase overall in the average of nurse participant's knowledge of the MFTI tool. This average went from 50.68% to 61.63%. There are several factors that could have impacted this change in average. These include the method of education provided being all online. Some people learn better in a face-to-face environment where they can ask questions and receive clarification. Another factor is some nurses were assigned to the triage role less frequently than others who participated in the project. There was one triage nurse assigned for each twelve-hour shift. While each person had an even amount of triage shift assigned to them, the nursing manager did not allow for participation in this pilot project to make them exempt from being home on call due to low census. Therefore, some staff were put on call during their assigned triage shift and did not get the opportunity to use the scale as much as others. Another factor is that the implementation took place in the middle of a pandemic and this unit was going through a period of being short staffed. This combined with many other policy changes going on in the unit made learning a stressful environment and not the priority for many.

The decrease in average time from patient arrival to first vital sign taken was a significant improvement and is considered statistically significant. AWHONN's quality standard is for triage patients to be seen within 10 minutes. Prior to the pilot, the unit was not meeting this quality standard. After the pilot, the participant's average time to vital signs of 5.2 minutes exceeds this quality standard. People tend to perform better when they know they are being observed, so it would be important to implement this on a larger scale to see if the success and practice changes continued (Sedgwick & Greenwood, 2015).

Conclusion

Obstetric triage is a large aspect in the care of pregnant patients and has become a specialty of its own within prenatal care (Angelini & Howard, 2014). Obstetric triage acuity scales assist in the standardization of care given to obstetric triage patients. ACOG supports the use of obstetric triage acuity scales because they may improve quality and efficiency of care (Macones et al., 2016).

The data from this project shows that the use of the MFTI, an obstetric triage acuity scale, helped to standardize care and reduce the time of patient arrival to the first vital sign measurement from 20.4 minutes to 5.2 minutes, a significant improvement in care that exceeds the quality standard set by AWHONN. While knowledge did not increase significantly, there was an overall increase in nurse knowledge on the MFTI and the improvement in timeliness care can be directly tied to patient care outcomes.

Significance and Implications

There are many implications for future use related to this project. By implementing the MFTI by all registered nurses at this project site, the care of patients presenting for obstetric triage is standardized, leading to potentially improved maternal and fetal outcomes (Angelini & Howard, 2014). Since there is no current standardized policy in place for the assessment of triage patients at the current project site, there are inconsistencies in nurse knowledge and a possibility for quality of care to be compromised. Patient care is standardized and consistent by implementing the MFTI and educating registered nurses on the use of the MFTI to determine obstetric acuity. Standardizing care can improve the quality of care provided, and ultimately enhance patient experience. When registered nurses are given the knowledge and tools to successfully recognize

obstetric emergencies, they are prepared to give prompt care that can save a mother or baby's life (Ruhl et al., 2015a, 2015b). Having an increase in knowledge of obstetric triage can increase the confidence and satisfaction level of nurses providing care.

Recommendations

Based on the results of this project, full implementation of the use of the MFTI on this Labor and Delivery unit is recommended. After implementing the MFTI, there was a significant improvement in timeliness of care, where admission to the first vital sign measurement was an average of 5.2 minutes from 20.4 minutes. This significant improvement in timeliness exceeds AWHONN's quality standard of 10 minutes. If full implementation takes place, it would be recommended to re-educate all staff, including those that participated in the pilot on the MFTI in order for the education up to date.

References

- Angelini, D., & Howard, E. (2014). Obstetric triage. *MCN, The American Journal of Maternal/Child Nursing*, 39(5), 284-297. doi:10.1097/nmc.0000000000000069
- Angelini, D. J., & Mahlmeister, L. R. (2005). Liability in triage: Management of EMTALA regulations and common obstetric risks. *Journal of Midwifery & Women's Health*, 50, 472-478. doi.org/10.1016/j.jmwh.2005.07.006
- Association of Women's Health, Obstetric and Neonatal Nurses. (2014). Women's health and perinatal nursing care quality refined draft measures specifications. Retrieved from <https://pqncdocuments.s3.amazonaws.com/aimrpc/PQCNC AIMRPCExpertTeamResourcesAWHONNPerinatalNursingCareQualMeasures2014.pdf>
- Association of Women's Health, Obstetric, and Neonatal Nurses. (2020, September 23). Maternal fetal triage index (MFTI). Retrieved November 08, 2021, from <https://awhonn.org/education/hospital-products/maternal-fetal-triage-index-mfti/>
- Glasgow, R. E., & Estabrooks, P. E. (2018). Pragmatic applications of RE-AIM for health care initiatives in community and clinical settings. *Preventing Chronic Disease*, 15. doi:10.5888/pcd15.170271
- Glasgow, R. E., Harden, S. M., Gaglio, B., Rabin, B., Smith, M. L., Porter, G. C., Ory, M. G., & Estabrooks, P. A. (2019). RE-AIM planning and evaluation framework: Adapting to new science and practice with a 20-year review. *Frontiers in public health*, 7, 64. <https://doi.org/10.3389/fpubh.2019.00064>

IMPLEMENTATION OF MATERNAL FETAL TRIAGE INDEX

Macones, G. A., Pettker, C. M., Mascola, M. A., & Heine, R. (2016). Committee opinion no. 667 summary. *Obstetrics & Gynecology*, *128*(1), 228. doi:10.1097/aog.0000000000001522

Paisley, K. S., Wallace, R., & DuRant, P. G. (2011). The development of an obstetric triage acuity tool. *The American Journal of Maternal/Child Nursing*, *36*, 290–296.

<https://doi.org/10.1097/NMC.0b013e318226609c>

Ruhl, C., Garpiel, S. J., Priddy, P., & Bozeman, L. L. (2020). Obstetric and fetal triage. *Seminars in Perinatology*, *44*(4), 151240. doi:10.1016/j.semperi.2020.151240

Ruhl, C., Scheich, B., Onokpise, B., & Bingham, D. (2015). Content validity testing of the maternal fetal triage index. *Journal of Obstetric, Gynecologic & Neonatal Nursing*, *44*(6), 701-709. doi:10.1111/1552-6909.12763

Ruhl, C., Scheich, B., Onokpise, B., & Bingham, D. (2015). Interrater reliability testing of the maternal fetal triage index. *Journal of Obstetric, Gynecologic & Neonatal Nursing*, *44*(6), 710-716. doi:10.1111/1552-6909.12762

Sedgwick, P., & Greenwood, N. (2015). Understanding the Hawthorne effect. *BMJ*, *351*, 1-2. doi: 10.1136/bmj.h4672

Smithson, D. S., Twohey, R., Watts, N., & Gratton, R. J. (2016). The impact of standardized acuity assessment and a fast-track on length of stay in obstetric triage: a quality improvement study. *Journal of Perinatal & Neonatal Nursing*, *30*, 310-318.

<https://doi.org/10.1097/JPN.0000000000000193>

Smithson, D. S., Twohey, R., Rice, T., Watts, N., Fernandes, C. M., & Gratton, R. J. (2013).

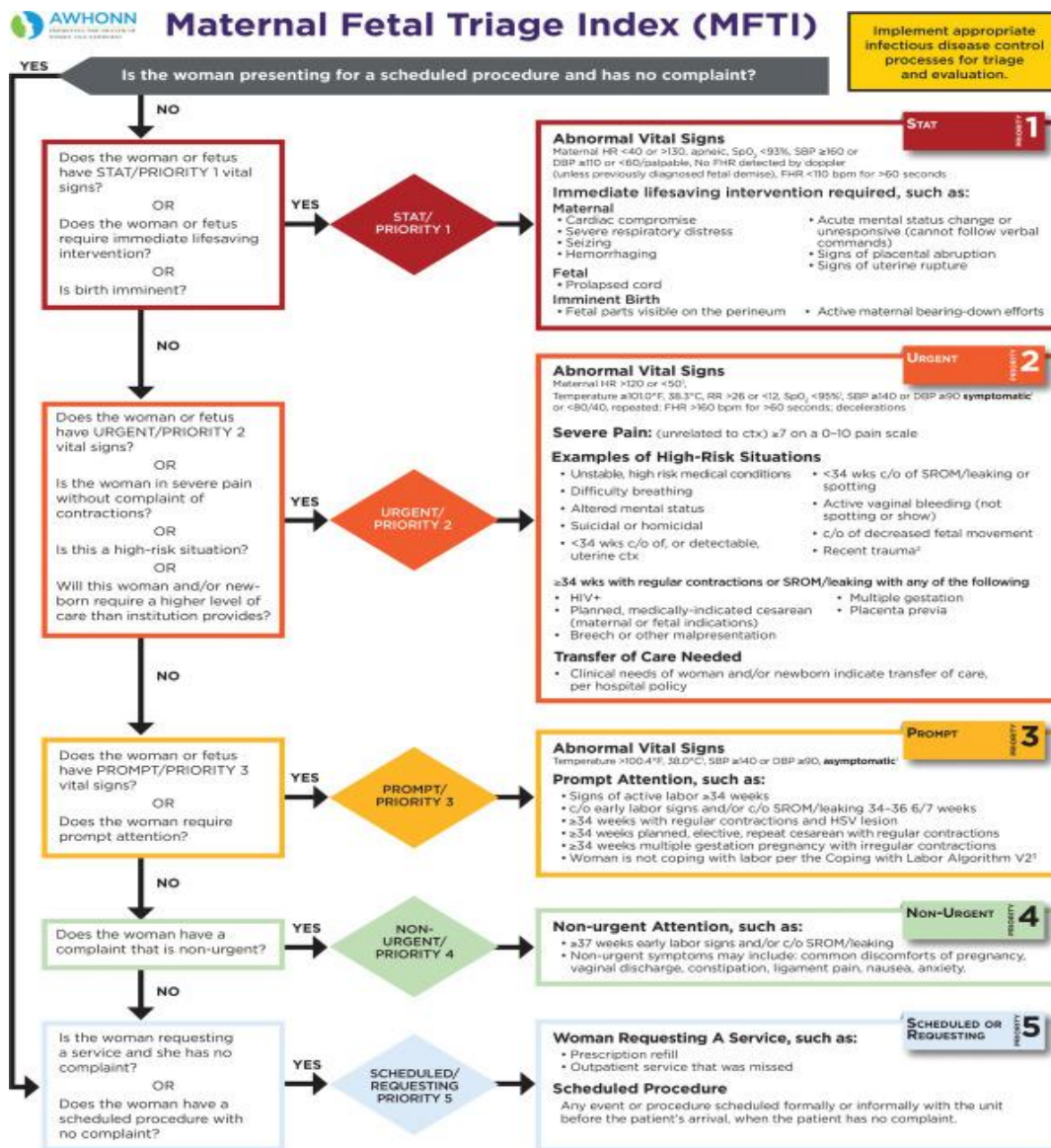
Implementing an obstetric triage acuity scale: interrater reliability and patient flow analysis. *American Journal of Obstetrics and Gynecology*, 209(4), 287-293.

doi:10.1016/j.ajog.2013.03.031

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Appendix A

Maternal Feta Triage Index (MFTI)




^aHigh Risk and Critical Care Obstetrics, 2013
^bTrauma may or may not include a direct assault on the abdomen. Examples are trauma from motor vehicle accidents, falls, and intimate partner violence.
^cCoping with Labor Algorithm V2 used with permission.
 The MFTI is exemplary and does not include all possible patient complaints or conditions. The MFTI is designed to guide clinical decision-making but does not replace clinical judgement. Vital signs in the MFTI are suggested values. Values appropriate for the population and geographic region should be determined by each clinical team, taking into account variables such as altitude.
 ©2015 Association of Women's Health, Obstetric and Neonatal Nurses. For permission to use MFTI or integrate the MFTI into the Electronic Medical Record contact permissions@awhonn.org.

Appendix B

Pre and Post Implementation Testing

Association of Women's Health, Obstetric and Neonatal Nurses



AWHONN Pre and Post Implementation Test

Case #1 Name: Ms. A **Age:** 29 **Parity:** G2 P1001 **Gestational Weeks:** 31.5 **Chief Complaint:** Ms. A says she has had a headache and blurry vision since this morning and presents to the family birth center at midday after turning in her 24-hour urine collection. Denies uterine contractions, leaking fluid or vaginal bleeding. She says she feels active fetal movement. **Relevant History:** Ms. A was diagnosed with preeclampsia without severe features approximately 2 weeks ago. Her 24-hour urine protein at that time was 571 mg. She was seen two days ago by the perinatologist and asked to repeat a 24-hour urine. Past OB history: one term vaginal birth. **Vital Signs:** T 98.9°F (37.2°C), BP 158/93, P 96, R 20, FHR 155 bpm, no decreases heard. **Pain:** 3/10

Coping/Not coping with labor: N/A **Mental Status:** Alert and oriented x 3

Question 1: What MFTI priority is Ms. A?

- A. Stat- Priority 1
- B. Urgent- Priority 2
- C. Prompt – Priority 3
- D. Non-Urgent- Priority 4
- E. Scheduled/ Requesting- Priority 5

Question 2: Please select one rationale for Ms. A's MFTI priority.

- A. Abnormal vital signs priority 1
- B. Requires immediate lifesaving intervention
- C. Birth is imminent
- D. Abnormal vital signs priority 2
- E. Severe pain (unrelated to contractions)
- F. High-risk situation priority 2
- G. Transfer of care needed
- H. abnormal vital signs priority 3
- I. Prompt attention indicated
- J. Non-urgent attention indicated
- K. Requesting a service
- L. Scheduled procedure

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Case #2 Name: Ms. B **Age:** 21 **Parity:** G1 P0000 **Gestational Weeks:** 38.0 **Chief Complaint:** Ms. B presents to the family birth center at 0700 saying she had a gush of clear fluid at 0300 this morning. Ms. B states she has contractions about every 10 minutes which last about 60 seconds. Denies bleeding. Feels active fetal movement. **Relevant History:** Non-contributory **Vital Signs:** T 98.0°F (36.7°C), BP 123/76, P 75, R 16 FHR is 120 bpm, auscultated before, during and after a contraction. **Pain:** N/A **Coping/Not coping with labor:** She is coping, using well-controlled breathing techniques with her husband's encouragement. **Mental Status:** Alert and oriented x 3

Question 3: What MFTI priority is Ms. B?

- A. Stat- Priority 1
- B. Urgent- Priority 2
- C. Prompt – Priority 3
- D. Non-Urgent- Priority 4
- E. Scheduled/ Requesting- Priority 5

Question 4: Please select one rationale for Ms. B's MFTI priority.

- A. Abnormal vital signs priority 1
- B. Requires immediate lifesaving intervention
- C. Birth is imminent
- D. Abnormal vital signs priority 2
- E. Severe pain (unrelated to contractions)
- F. High-risk situation priority 2
- G. Transfer of care needed
- H. abnormal vital signs priority 3
- I. Prompt attention indicated
- J. Non-urgent attention indicated
- K. Requesting a service
- L. Scheduled procedure

Case #3 Name: Ms. C **Age:** 40 **Parity:** G2 P0010 **Gestational Weeks:** 37.3 **Chief Complaint:** Ms. C presents to the family birth center complaining of constant aching in her groin on both sides and a headache. She denies abdominal cramping or leaking. She says the baby has moved less than usual today. **Relevant History:** Ms. C states that she is a gestational diabetic being followed by the perinatologist; however, she did not bring her tracking record with her blood sugar information. **Vital Signs:** T 98.0°F (36.7°C), BP 137/71, P 75, R 16, FHR 155 bpm, no audible decreases. **Pain:** 4/10 **Coping/Not coping with labor:** N/A **Mental Status:** Alert and oriented x 3

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Question 5: What MFTI priority is Ms. C?

- A. Stat- Priority 1
- B. Urgent- Priority 2
- C. Prompt – Priority 3
- D. Non-Urgent- Priority 4
- E. Scheduled/ Requesting- Priority 5

Question 6: Please select one rationale for Ms. C's MFTI priority.

- A. Abnormal vital signs priority 1
- B. Requires immediate lifesaving intervention
- C. Birth is imminent
- D. Abnormal vital signs priority 2
- E. Severe pain (unrelated to contractions)
- F. High-risk situation priority 2
- G. Transfer of care needed
- H. abnormal vital signs priority 3
- I. Prompt attention indicated
- J. Non-urgent attention indicated
- K. Requesting a service
- L. Scheduled procedure

Case #4 Name: Ms. D **Age:** 35 **Parity:** G2 P1001 **Gestational Weeks:** 27.0 **Chief Complaint:** Ms. D was in an automobile accident 2 hours ago and arrives in your triage with complaints of severe abdominal pain. She states she has vaginal bleeding that has increased in volume since she began cramping shortly after the accident. She has soaked 3 regular pads. She denies leaking of vaginal fluid besides the bleeding. Her abdomen feels hard and rigid on palpation. **Relevant History:** She has no significant medical history, takes no medications and has no known allergies. **Vital Signs:** T 98.6°F (37.0°C), BP 142/90, P 103, R 25, FHR 90 bpm, auscultated for 80 seconds upon arrival to unit. **Pain:** 10/10 **Coping/Not coping with labor:** Not coping. **Mental Status:** Alert and oriented x 3

Question 7: What MFTI priority is Ms. D?

- A. Stat- Priority 1
- B. Urgent- Priority 2
- C. Prompt – Priority 3
- D. Non-Urgent- Priority 4
- E. Scheduled/ Requesting- Priority 5

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Question 8: Please select one rationale for Ms. D's MFTI priority.

- A. Abnormal vital signs priority 1
- B. Requires immediate lifesaving intervention
- C. Birth is imminent
- D. Abnormal vital signs priority 2
- E. Severe pain (unrelated to contractions)
- F. High-risk situation priority 2
- G. Transfer of care needed
- H. abnormal vital signs priority 3
- I. Prompt attention indicated
- J. Non-urgent attention indicated
- K. Requesting a service
- L. Scheduled procedure

Case #5 Name: Ms. E **Age:** 18 **Parity:** G1 P0 **Gestational Weeks:** 39.3

Chief Complaint: Ms. E presents for saying she has painful contractions, which started 4 hours ago, and feels pressure. She is breathing rapidly and can barely give you her history between contractions which you note are occurring every 3 minutes and lasting 40-50 seconds. She states that she thinks her water may have broken but is unsure because this is her first baby. **Relevant History:** She has no significant medical history, takes no medications and has no known allergies. She started prenatal care at 24 weeks and missed her last visit. **Vital**

Signs: T 98.7°F (37.1°C), BP 132/76, P 94, R 22, FHR is 135 bpm and after contractions, no decreases heard. **Pain:** N/A **Coping/Not coping with labor:** Not coping. **Mental Status:** Alert and oriented x 3

Question 9: What MFTI priority is Ms. E?

- A. Stat- Priority 1
- B. Urgent- Priority 2
- C. Prompt – Priority 3
- D. Non-Urgent- Priority 4
- E. Scheduled/ Requesting- Priority 5

Question 10: Please select one rationale for Ms. E's MFTI priority.

- A. Abnormal vital signs priority 1
- B. Requires immediate lifesaving intervention

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- C. Birth is imminent
- D. Abnormal vital signs priority 2
- E. Severe pain (unrelated to contractions)
- F. High-risk situation priority 2
- G. Transfer of care needed
- H. abnormal vital signs priority 3
- I. Prompt attention indicated
- J. Non-urgent attention indicated
- K. Requesting a service
- L. Scheduled procedure

Case #6 Name: Ms. F **Age:** 32 **Parity:** G3 P0202 **Gestational Weeks:** 31.6 **Chief Complaint:** Ms. F arrives in your triage area stating her contractions started at 0200 this morning and are now coming every 3 to 5 minutes for the past hour and a half. She states that her water has not broken, denies bleeding and that she is feeling the baby move normally. She denies headache, visual changes or epigastric pain. **Relevant History:** Ms. F has a history of two preterm vaginal births- one at 27 weeks and the other at 34 weeks. She says she takes a medication for high blood pressure but is unsure of the name or dose and isn't sure when she last took it. **Vital Signs:** T 98.4°F (36.9°C), BP 158/112, P 87, R 20, FHR is 142 bpm with no audible decreases. **Pain:** N/A **Coping/Not coping with labor:** Coping. **Mental Status:** Alert and oriented x 3

Question 11: What MFTI priority is Ms. F?

- A. Stat- Priority 1
- B. Urgent- Priority 2
- C. Prompt – Priority 3
- D. Non-Urgent- Priority 4
- E. Scheduled/ Requesting- Priority 5

Question 12: Please select one rationale for Ms. F's MFTI priority.

- A. Abnormal vital signs priority 1
- B. Requires immediate lifesaving intervention
- C. Birth is imminent
- D. Abnormal vital signs priority 2
- E. Severe pain (unrelated to contractions)
- F. High-risk situation priority 2

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- G. Transfer of care needed
- H. abnormal vital signs priority 3
- I. Prompt attention indicated
- J. Non-urgent attention indicated
- K. Requesting a service
- L. Scheduled procedure

Case #7 Name: Ms. G **Age:** 30 **Parity:** G2 P1001 **Gestational Weeks:** 18.3

Chief Complaint: Ms. G presents to your triage and reports nausea without vomiting and overall achiness. She denies dizziness, abdominal cramping, vaginal bleeding or leaking fluid. She has not yet felt fetal movement during this pregnancy. **Relevant History:** She states that she did have hyperemesis with her prior pregnancy. She takes Zofran as needed; last dose was 6 hours ago. She has no known allergies. **Vital Signs:** T 99.1°F (37.3°C), BP 135/80, P 87, R 22, FHR is 135 bpm on auscultation. **Pain:** 2/10 **Coping/Not coping with labor:** N/A **Mental Status:** Alert and oriented x 3

Question 13: What MFTI priority is Ms. G?

- A. Stat- Priority 1
- B. Urgent- Priority 2
- C. Prompt – Priority 3
- D. Non-Urgent- Priority 4
- E. Scheduled/ Requesting- Priority 5

Question 14: Please select one rationale for Ms. G's MFTI priority.

- A. Abnormal vital signs priority 1
- B. Requires immediate lifesaving intervention
- C. Birth is imminent
- D. Abnormal vital signs priority 2
- E. Severe pain (unrelated to contractions)
- F. High-risk situation priority 2
- G. Transfer of care needed
- H. Abnormal vital signs priority 3
- I. Prompt attention indicated
- J. Non-urgent attention indicated
- K. Requesting a service
- L. Scheduled procedure

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Case #8 Name: Ms. H **Age:** 36 **Parity:** G2 P1001 **Gestational Weeks:** 28.2

Chief Complaint: Ms. H presents to your triage for her second dose of betamethasone several hours later than she was asked to arrive. She denies pain, contractions, vaginal bleeding or leaking of fluid at this time. **Relevant**

History: Ms. H received her first dose of betamethasone yesterday while being treated in the Perinatal Evaluation Center for contractions. She was discharged when the contractions subsided and it was determined that no significant cervical change had occurred. **Vital Signs:** Stable T 98.6°F (37.0°C), BP 121/73, P 74, R 18, FHR is 125 bpm with no noted decreases. **Pain:** 0/10 **Coping/Not coping with labor:** N/A **Mental Status:** Alert and oriented x 3

Question 15: What MFTI priority is Ms. H?

- A. Stat- Priority 1
- B. Urgent- Priority 2
- C. Prompt – Priority 3
- D. Non-Urgent- Priority 4
- E. Scheduled/ Requesting- Priority 5

Question 16: Please select one rationale for Ms. H's MFTI priority.

- A. Abnormal vital signs priority 1
- B. Requires immediate lifesaving intervention
- C. Birth is imminent
- D. Abnormal vital signs priority 2
- E. Severe pain (unrelated to contractions)
- F. High-risk situation priority 2
- G. Transfer of care needed
- H. Abnormal vital signs priority 3
- I. Prompt attention indicated
- J. Non-urgent attention indicated
- K. Requesting a service
- L. Scheduled procedure

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Case #9 Name: Ms. I **Age:** 19 **Parity:** G1 P000 **Gestational Weeks:** 26.0 **Chief Complaint:** Ms. I presents to the emergency room because she says she has burning on urination and lower back pain. She denies contractions or vaginal bleeding or leaking fluid. She has felt the baby move normally today. **Relevant History:** Her prenatal records are available and she has had no problems thus far in her pregnancy. **Vital Signs:** T 100.5°F (38.1°C), BP 120/78, P 70, R 20 FHR's 150 bpm and no decreases heard. **Pain:** She rates her lower back pain a 3/10. **Coping/Not coping with labor:** N/A **Mental Status:** Alert and oriented x 3

Question 17: What MFTI priority is Ms. I?

- A. Stat- Priority 1
- B. Urgent- Priority 2
- C. Prompt – Priority 3
- D. Non-Urgent- Priority 4
- E. Scheduled/ Requesting- Priority 5

Question 18: Please select one rationale for Ms. I's MFTI priority.

- A. Abnormal vital signs priority 1
- B. Requires immediate lifesaving intervention
- C. Birth is imminent
- D. Abnormal vital signs priority 2
- E. Severe pain (unrelated to contractions)
- F. High-risk situation priority 2
- G. Transfer of care needed
- H. Abnormal vital signs priority 3
- I. Prompt attention indicated
- J. Non-urgent attention indicated
- K. Requesting a service
- L. Scheduled procedure

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Case #10 Name: Ms. J **Age:** 27 **Parity:** G2 P1001 **Gestational Weeks:** 28.0 **Chief Complaint:** Ms. J states she fell down her front steps a few hours ago and bumped the side of her abdomen on the way down. She denies rupture of membranes, leaking fluid, or vaginal bleeding. She is feeling the baby move a lot. She says her groin is sore on the side she fell on. **Relevant History:** Pregnancy confirmed by a 1st trimester ultrasound.

Vital Signs: T 98.6°F (37.0°C), BP 98/62, P 96, R 22 FHR is 150 bpm, no decreases heard. **Pain:** 4/10 **Coping/Not coping with labor:** N/A **Mental Status:** Alert and oriented x 3

Question 19: What MFTI priority is Ms. J?

- A. Stat- Priority 1
- B. Urgent- Priority 2
- C. Prompt – Priority 3
- D. Non-Urgent- Priority 4
- E. Scheduled/ Requesting- Priority 5

Question 20: Please select one rationale for Ms. J's MFTI priority.

- A. Abnormal vital signs priority 1
- B. Requires immediate lifesaving intervention
- C. Birth is imminent
- D. Abnormal vital signs priority 2
- E. Severe pain (unrelated to contractions)
- F. High-risk situation priority 2
- G. Transfer of care needed
- H. Abnormal vital signs priority 3
- I. Prompt attention indicated
- J. Non-urgent attention indicated
- K. Requesting a service
- L. Scheduled procedure

Case #11 Name: Ms. K **Age:** 32 **Parity:** G4 P3003 **Gestational Weeks:** 37.0

Chief Complaint: Ms. K arrives to the hospital's labor and delivery unit stating she has contractions every 3 to 5 minutes. She denies leaking fluid or vaginal bleeding. She has felt the baby move normally today. She denies headache, visual changes or epigastric pain. **Relevant History:** Normal prenatal course reported and no significant medical, surgical, or obstetric history **Vital Signs:** T 99.0°F (37.2°C), BP 144/83, P 88, R 24, FHR 157 bpm, no audible decreases. **Pain:** N/A **Coping/Not coping with labor:** Coping **Mental Status:** Alert and oriented x 3

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Question 21: What MFTI priority is Ms. K?

- A. Stat- Priority 1
- B. Urgent- Priority 2
- C. Prompt – Priority 3
- D. Non-Urgent- Priority 4
- E. Scheduled/ Requesting- Priority 5

Question 22: Please select one rationale for Ms. K's MFTI priority.

- A. Abnormal vital signs priority 1
- B. Requires immediate lifesaving intervention
- C. Birth is imminent
- D. Abnormal vital signs priority 2
- E. Severe pain (unrelated to contractions)
- F. High-risk situation priority 2
- G. Transfer of care needed
- H. Abnormal vital signs priority 3
- I. Prompt attention indicated
- J. Non-urgent attention indicated
- K. Requesting a service
- L. Scheduled procedure

Case #12 Name: Ms. L **Age:** 34 **Parity:** G3 P2002 **Gestational Weeks:** 38.5 **Chief Complaint:** Ms. L presents to triage with complaints of contractions every 4 to 6 minutes. She denies vaginal bleeding or leaking fluid and says the baby is active. **Relevant History:** She has a history of a cesarean with her first baby for breech and a successful VBAC with the second pregnancy but is planning an elective repeat cesarean with this baby. The cesarean is scheduled in 3 days. She states she had “low fluid” on an ultrasound done yesterday when she came to triage to rule out rupture of membranes. A review of her medical record reveals her last cervical exam two days ago was 2cm/50%/ballotable; last AFI yesterday: 6 cm. **Vital Signs:** T 98.9°F (37.2°C), BP 124/76, P 86, R 16, FHR 130 bpm, no audible decreases in FHR before, during, or after a palpable contraction. **Pain:** N/A **Coping/Not coping with labor:** Coping **Mental Status:** Alert and oriented x 3

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**Question 23: What MFTI priority is Ms. L?**

- A. Stat- Priority 1
- B. Urgent- Priority 2
- C. Prompt – Priority 3
- D. Non-Urgent- Priority 4
- E. Scheduled/ Requesting- Priority 5

Question 24: Please select one rationale for Ms. L's MFTI priority.

- A. Abnormal vital signs priority 1
- B. Requires immediate lifesaving intervention
- C. Birth is imminent
- D. Abnormal vital signs priority 2
- E. Severe pain (unrelated to contractions)
- F. High-risk situation priority 2
- G. Transfer of care needed
- H. Abnormal vital signs priority 3
- I. Prompt attention indicated
- J. Non-urgent attention indicated
- K. Requesting a service
- L. Scheduled procedure

Case #13 Name: Ms. M Age: 28 Parity: G1 P0000 Gestational Weeks: 27.2

Chief Complaint: Ms. M presents to triage with complaints of back pain and burning when she urinates. She states she feels abdominal cramps every 5 to 10 minutes. Last time she went to the bathroom, she wiped and saw a little dark red blood on the toilet tissue. She says her baby is moving a lot. **Relevant History:** Ms. M says she had a kidney infection a few years ago and also has had several bladder infections before this pregnancy. **Vital Signs:** T 98.3°F (36.8°C), BP 122/76, P 62, R 14, FHR 120 bpm, no decreases heard. **Pain:** Back pain is 5/10 **Coping/Not coping with labor:** Coping **Mental Status:** Alert and oriented x 3

Question 25: What MFTI priority is Ms. M?

- A. Stat- Priority 1
- B. Urgent- Priority 2
- C. Prompt – Priority 3
- D. Non-Urgent- Priority 4
- E. Scheduled/ Requesting- Priority 5

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Question 26: Please select one rationale for Ms. M's MFTI priority.

- A. Abnormal vital signs priority 1
- B. Requires immediate lifesaving intervention
- C. Birth is imminent
- D. Abnormal vital signs priority 2
- E. Severe pain (unrelated to contractions)
- F. High-risk situation priority 2
- G. Transfer of care needed
- H. Abnormal vital signs priority 3
- I. Prompt attention indicated
- J. Non-urgent attention indicated
- K. Requesting a service
- L. Scheduled procedure

Case #14 Name: Ms. N **Age:** 36 **Parity:** G3 P2002 **Gestational Weeks:** 37.4 **Chief Complaint:** Ms. O arrives for a scheduled version. She states the baby is moving a lot today and kicking her bladder so she has had some leaking of fluid vaginally, but not constant. She denies any bleeding or contractions. **Relevant History:** 2 prior vaginal births at term **Vital Signs:** T 97.9°F (36.6°C), BP 132/76, P 86, R 16, FHR 130 bpm and no decreases heard. **Pain:** 0/10 **Coping/Not coping with labor:** N/A **Mental Status:** Alert and oriented x 3

Question 27: What MFTI priority is Ms. N?

- A. Stat- Priority 1
- B. Urgent- Priority 2
- C. Prompt – Priority 3
- D. Non-Urgent- Priority 4
- E. Scheduled/ Requesting- Priority 5

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Question 28: Please select one rationale for Ms. N's MFTI priority.

- A. Abnormal vital signs priority 1
- B. Requires immediate lifesaving intervention
- C. Birth is imminent
- D. Abnormal vital signs priority 2
- E. Severe pain (unrelated to contractions)
- F. High-risk situation priority 2
- G. Transfer of care needed
- H. Abnormal vital signs priority 3
- I. Prompt attention indicated
- J. Non-urgent attention indicated
- K. Requesting a service
- L. Scheduled procedure

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Appendix C

Table 1 Demographic Data of Participants

Demographic Description	Number of participants	Percentage
Race		
Caucasian	15	100%
Highest level of education		
Diploma	1	6.67%
Associates Degree	3	20%
Bachelor's Degree	9	60%
Master's Degree	2	13.33
Years as a labor and delivery nurse		
0-10	13	86.67%
11-20	0	0%
21-30	2	13.33%
Years as a registered nurse		
0-10	10	66.67%
11-20	3	20%`1
21-30	2	13.33%
Primary shift worked		
Day	9	60%
Rotate	3	20%
Night	3	20%

Figure 1 Participants Pre and Post-test Scores

