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ANALYSIS OF REGISTRATION AND CONTENT OF CHECKLIST FOR SAFE SURGERY AND SAFE DEPARTURE AT CESARIANA

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ABSTRACT

The proposal of the present study was born from the need to carry out an investigation about the use of protocols during the process of cesarean delivery by nurses, as well as the recognition of the nursing care models that encompass the theme of patient safety during childbirth cesarean section, in order to analyze how the nurse practitioner proceeds to the application of WHO checklists for safe surgeries and safe deliveries. Thus, this study has as main objective to analyze the records and contents of checklist of safe surgery and safe deliveries. This is an exploratory, descriptive, quantitative-qualitative study that will be performed through data analysis in a hospital in the municipality of Santa Rita-PB. For data collection, the spreadsheet was built in the Microsoft Excel® 2007 program, containing all the verification items of the shecklist model used in the period of this research, and the answers will be recorded using numerical codes previously established by the researchers. This research was approved by the ethics committee under registration nº 93401618.0.0000.5176and the ethical precepts were complied with according to resolution 466/2012 of the CNS.

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INTRODUCTION

Cesarean delivery is a surgical intervention that was initially only performed in the last case in lifeless women to save the life of the fetus or reduce the risk of death or severe maternal and fetal complications during pregnancy and during labor (Silva, 2010). According to Mascarello *et al* (2017), the number of cesarean deliveries in Brazil in 2009 was higher than the number of vaginal births, with a rate of 50.1%. In the US hospitals, this increase was also observed, with cesarean delivery being the most common surgical procedure performed among all patients, with an increase rate of 32.8% in 2011. In international comparisons, cesarean rates in the US exceed those of similar countries and this demand is justified by the economic profile of this population (Kozhimannil *et al*., 2013). Faced with this demand for cesarean deliveries, another study by the World Health Organization (WHO) in 2013 revealed that 289,000 pregnant women died during the period between pregnancy and childbirth, with more than 2.7 million deaths of newborns as a result of adverse events that could have been avoided as a result of unsafe assistance. Therefore, patient safety has been the subject of studies by many researchers, who seek to reduce such alarming statistics (WHO, 2017). With a view to safe delivery during childbirth, a safe delivery checklist was created as a guiding tool for evidence-based care, developed with the assistance of a team of nurses, midwives, obstetricians, pediatricians, general practitioners, specialists in patient and patient safety in all parts of the world (WHO, 2017). The Checklist is a tool that makes up the WHO manual Safe Surgeries Saves Lives, which was created to be used during the surgeries in order to organize the phases of this process and mainly so that its users are oriented as to the tasks that need to be and that safety of the patient is essential, which reinforces safety practices at all stages of the perioperative period. This manual is easy to understand and has been developed to be used anywhere in the world (Martins *et al*., 2014). However it is not enough to make this and other lists available, it is important that a health age and professionals use the list in a way that understands the real

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value of this checklist. Still, it is necessary to adapt the list d to local needs and that s is profissiona be able to handle it correctly (Rocha, 2013). After this manual was developed the WHO identified the need to create a specific tool for the moments of labor. The WHO checklist for childbirth insurance was created as a guiding instrument for the fundamental care of maternal practices developed by health professionals attending to institutional births. It is based on evidence and aims mainly to intervene in the causes of maternal deaths, deaths due to intrapartum factors and neonatal deaths occurring in health units (Praxedes *et al*., 2017). According to the WHO guide, the list should be tailored to the needs of each institution and that every health professional involved in such care should be trained. Many health care providers who have undergone this training have tested, used and defended the checklist around the world and therefore midwives and health care heads must correctly use the checklist for safe deliveries. The list needs to be widely disseminated so that the safety culture during childbirth can be incorporated into related health settings (WHO, 2017).

Studies relating to patient safety and the participation of nurses in the insertion of strategies to improve the quality and safety of nursing care are indispensable for understanding the causes and effects that lead to the occurrence of adverse events during cesarean delivery, in addition to enable appropriate training to prevent new occurrences and implement a safety culture during this process. In view of the problematic presented on patient safety in health institutions, it is inferred that it is necessary to carry out an analysis about the use of these protocols, as well as the recognition of the models of nursing care that encompass the theme of patient safety during the cesarean delivery, in order to analyze how the nurse practitioner proceeds to the application of the WHO Safe Surgery and Safe Delivery checklist. Believing that nurses are the professionals who maintain greater proximity to the patient, in the search for efficient care management, it is justified to carry out this study because of the importance of knowing an efficient, technically qualified care based on the culture of patient safety in the surgery Center. Therefore, this study has as main objective to analyze the records and content of checklists of safe surgery and safe deliveries.

MATERIALS AND METHODS

The study was characterized by a quantitative-qualitative, documentary approach, carried out in 2018, which analyzed the checklist records of a Hospital and Municipal Maternity located in Santa Rita / PB. Inclusion criteria in this study were the documents that were characterized as a checklist for cesarean surgeries performed in November 2017, during which the checklist of safe surgery was implemented at the referred hospital in July 2018. It should be noted that all completed checklists totally, partially and the records of patients submitted to cesarean section that did not contain the checklist sheet were considered. The medical records of patients with eutocic delivery, abortion and other care were excluded. The variable considered (checklist items) refers to the filling or not of instrument items, patient identification, surgical site marking, blood supply, identification of allergic patients, documentation and communication, among others. Each check item allowed for the registration of the yes, no and, in some cases, not applicable, and the completion of a single alternative is indicated. For the data collection, an analysis was performed in the hospital archives, the records in which the patient underwent cesarean surgery were checked for the presence of the WHO safe surgery checklist. It was found that the WHO safe delivery checklist has not yet been implanted in the hospital. The collected data were grouped through a spreadsheet elaborated in the program Microsoft Excel® version 2007, containing all the items of verification of the shecklist model used in the period of this research, and the answers will be registered by numerical codes previously established by the researchers. Invalid response was assigned in cases where the fill was unreadable or double. The analysis was done using descriptive statistics, using the statistical software R. The results, presented in relative and absolute frequencies, were organized according to the check-up stages and associated with the corresponding objectives of the WHO program. This research was approved under CAEE registration nº 93401618.0.0000.5176 and met the precepts of research ethics.

RESULTS AND DISCUSSION

A total of 173 medical files were consulted, of which approximately 59% (n = 102) did not present the surgical safety checklist and the medical records with the completed checklists corresponded to a total of 41% (n = 71). Among 1420 items analyzed, 16% (n = 229) were not answered. Among the 1191 (84%) items answered, 95.5% (n = 1,184) were comprehensible and 0.5% (n = 7) were invalid. The results were related to the objectives of the WHO Program and are presented in tables according to each stage of verification. The elements that make up the checklist are intended to prevent possible adverse events and promote patient safety and are established on the basis of objectives previously defined by WHO, which guide the discussion of the results presented in this study. The items referring to patient identification and surgical site presented, respectively, 94% and 91% items corresponding to objective 1 of the Safe Surgery protocol, which aims to promote the surgery in the right patient and in the right anatomical site, these results confirm the importance of conferring the identification of the patient, because the non-completeness of this registry demonstrates the risk of error of performing the assistance to the wrong person through the possibility of patient exchange.
In this scenario, the Ministry of Health recommends that all institutions that perform health care should adopt the Patient Identification protocol. The accomplishment of the surgery in a correct anatomical region is a primordial point that aims to avoid the accomplishment of wrong procedures, occurring mainly in surgical specialties in which there is double laterality, such as orthopedics. This factor is evidenced by WHO as one of the challenges to be faced. The study showed that 9% of the surgical sites were not demarcated, and that these patients were submitted to a risk of adverse events.

In addition to confirming the patient's identity, this is related to the correct execution of the surgical procedures as well, it is associated to the safety in the administration of medications, mainly anesthetics. The check item corresponding to the preanesthetic evaluation allows undesirable clinical conditions for surgery to be identified previously, since surgery should not be performed in cases of potential risks to the patient. The results for this research item showed that 0% of the procedures went through this evaluation, because the checklist was elaborated without this component, which shows that a high incidence of anesthetic complications may have occurred.

Table 1. Record of the patient reception items in the surgical center, prior to anesthetic induction and corresponding objectives of the WHO Safe Survival Program. Santa Rita - PB, 2017-2018

Item (Purpose)	Registered n (%)	Not Registered n (%)	Invalid Registration n (%)	Total n
BEFORE ANESTHETIC INDUCTION				
Patient identified (Objective 1)	67 (94%)	2 (3%)	2 (3%)	71
Procedure (objective 1)	69 (97%)	0 (0,0%)	2 (3%)	71
Allergic Patient (Goal 5)	68 (96%)	3 (4.0%)	0 (0,0%)	71
Surgical consent (Goals 9, 10)	68 (96%)	3 (4.0%)	0 (0,0%)	71
Surgical site marked (Objective 1)	65 (91%)	6 (9%)	0 (0,0%)	71
Fasting / Aspiration Risk (Goal 3)	0 (0,0%)	71 (100%)	0 (0,0%)	71
Blood reserve (goal 4)	31 (44%)	40 (56%)	0 (0,0%)	71

Source: survey data, 2018.

Table 2. Record of the items related to the step before the surgical incision and corresponding objectives of the WHO Safe Survival Program. Santa Rita - PB, 2017-2018

Item (Purpose)	Registered (%)	Did not register (%)	Record Invalid (%)	Total
BEFORE THE SURGICAL INCISION				
Team presents by name and function (Goal 9)	65 (91%)	4 (6%)	2 (3%)	71
Confirm identity and patient (Goal 1)	69 (97%)	2 (3%)	0 (0,0%)	71
Surgical site marked (Objective 1)	69 (97%)	2 (3%)	0 (0,0%)	71
Surgical procedure / description (Objective 10)	68 (96%)	2 (3%)	1 (1%)	71
Antibioticoprofilaxia	68 (96%)	3 (4%)	0 (0,0%)	71
Available image examinations	68 (96%)	3 (4%)	0 (0,0%)	71
Counting instruments (Goal 7)	68 (96%)	3 (4,%)	0 (0,0%)	71

Source: survey data, 2018.

Table 3. Record of the items related to the step before the patient leaves the operating room and corresponding objectives of the Safe Survival Program Saves WHO. Santa Rita - PB, 2017-2018

Item (Purpose)	Registered (%)	Did not register (%)	Record Invalid (%)	Total (%)
AFTER THE END OF SURGERY				
Surgical procedure / description (Objective 10)	64 (90%)	7 (10%)	0	71
Anesthetic sheet (Objective 10)	0	71 (100%)	0	71
Counting instruments, gases, compresses (Goal 7)	67 (94%)	4 (6%)	0	71
Transfer to URPA / surgical clinic / ICU / maternity	68 (96%)	3 (4,%)	0	71

Source: survey data, 2018.

The item of verification of preoperative fasting is associated with objective 3, which defines that the surgical team is prepared for loss of airway or loss of respiratory function. Fasting was not confirmed in the checklists although it is a surgical safety item that guarantees gastric emptying and is fundamental to avoid bronco aspiration and intercurrences that cause airway obstruction. The reserve of blood and the guarantee of intravenous access, with planning of the fluids to be infused, are items that compose objective 4, which aims at preparing the team for the risk of the occurrence of large blood losses. According to the national protocol of safe surgery before beginning the surgical act the team must meet to examine and discuss the existence of risks of critical events during the procedure recommending also the check of the surgical planning, which includes the reserve of fluids and blood components. In this study the data show that only in 56.3% of the procedures were blood reserves. Recent studies emphasize the importance of blood transfusion to maintain hemoglobin levels, blood volume and coagulation factors favorable to a safe surgical procedure, is an item that should be guaranteed preoperatively whenever there is a risk of loss of greater than 500 ml in adults (Brazil, 2015). In the case of cesarean section, it is possible to have adverse events such as bleeding, which demonstrates the need to ensure that this item is more effectively reviewed, as a rate of 56% is more than half of the pregnant women who were exposed to this risk. In objective 5 it is predicted that the team should avoid the induction of adverse reaction to drugs or allergic reaction known to risk to the patient, the results of this study showed that 96% of the checklists passed through this evaluation demonstrating a high percentage of filling, however it did not reach the full fill. An international study found that almost half of the adverse events in inpatients who underwent surgical procedures were preventable, most of them related to the use of medications. A 5% share of the checklist sample showed that possibly pregnant women who underwent cesarean surgery were exposed to the risk of an anaphylactic process for drug allergy and other related adverse events (Turrini, 2012). From this perspective, investigating the clinical conditions and whether the patient is allergic, through an effective evaluation and surgical planning, is paramount to promoting patient safety. Objective 6 adopts measures to reduce the risk of infection at the surgical site. For this, the team must perform and confirm the use of antimicrobial prophylaxis that according to the national protocol of safe surgery occurs within 60 minutes before the surgical incision, time in which coincides with the higher therapeutic level of the antibiotic with the time of greater exposure of the tissue to the microorganisms. This research evidenced that the check of this item was confirmed in 96% of the surgeries. It is also important to emphasize the importance of the protocols being instituted through a correct training with the teams, since the incorrect use can induce the resistance of the microorganisms, instead of promoting protection. The conference item of the instruments gases and compresses is related to objective 7 that aims to check these items before the beginning of surgery and after the patient of the operating room, to ensure that all materials used are not retained in the operating field, thus

avoiding complications to the patient (WHO, 2009). The checklist of the institution covers the counting of surgical instruments, needles, compresses and gauzes, this verification check had an index that varied between 94% and 96%, but despite a considerable amount of filling it still demonstrates the need to encourage the checking of this item , because a single carelessness in the retention of materials results in hospitalizations, new surgical intervention which generates more hospital expenses or something irreparable and worse as the death of a patient.

The item referring to the identification of surgical specimens corresponds to WHO objective 8, it was not computed because the checklist instrument did not have the option to fill in "YES" "NO", as in all the samples evaluated neither one of the checklist was filled is not possible to state if the item was not filled or if there was really no surgical piece to be identified. This demonstrates the need for adequacy of the recording instrument, since it is important that there is a correct control of all the procedures performed in the patient. The effective presentation of the team and the exchange of information for operative safety related to objective 9, in this study presented 97% almost the total of filling, demonstrating a good adhesion of the team. This communication at the time immediately before the surgical incision together with the review of the surgical plan identifies possible intercurrences, in addition to promoting greater interaction between the professionals, the feeling of self-confidence and confirmation of the attributions of each one, which in an unexpected situation is imperative to perform an intervention with greater agility (Dessotte *et al*, 2015). The last objective of the WHO program recommends that hospitals and public health systems should establish routine surveillance for capacity, volume and operative results. For this to occur, documents such as the preoperative nursing and pre-anesthesia, surgical description form and anesthesia card are duly filled in, as well as subsidizing this control are important for patient safety, as well as for the care and quality of service provided.

Of these items were confirmed only the item surgical description that presented a total of 90% of filling, which demonstrated that it is necessary greater commitment of the team with the nursing records, since they are also documents used in auditing and investigation of injuries and postoperative death, the item of preoperative nursing evaluation as well as the pre-anesthetic check and anesthetic record were items that were not included in the checklist implanted in the hospital unit, this shows that a better fit of the checklist is required needs of the surgical environment. All records of health care institutions in Brazil feed a database where this information will be relevant for investigation of adverse events related to surgical procedures, infections and occupational exposure to biological materials.

These data can usually be assessed by the patient's safety nucleus and subsequently used as assessment indicators, thus the records will support studies that can assess the conditions under which health services are provided, redirecting to safer practices increasing the quality of care (Souza, 2010). And iff s result s m demonstrates the difficulty to achieve full membership by nursing professionals to scan tool and record of elements that are essential to ensure the safety of the patient undergoing a surgical process. Failure to correctly complete the records corroborates the development of actions that encourage this fulfillment in an integral and correct manner, which include permanent education and motivation of the teams to seek to understand the factors that interfere in the integral verification of the items, as well as the understanding of the aspects ethical and legal aspects that involve a good professional performance in this sense. The study presents limitations, due to the approach include a single hospital institution and for being evaluated a surgical specialty, in the case cesarean surgeries. However, considering the initiatives of WHO and the Brazilian Ministry of Health with the results presented and associated with other national and international studies, it is possible to collaborate with the knowledge about the Brazilian reality in the researched topic.

Conclusion

The results of this research made it possible to analyze how the nurse proceeds to fill the contents of the checklist related to surgical safety in the obstetric specialty. It was verified that there was a regularity in the frequency of answered items demonstrating team adherence to the patient safety instrument. However, the non-completeness of the records indicated that safe behaviors, according to analysis of the documents and compared to the WHO program, were neglected by the surgery team. The content of the checklits analyzed showed that the surgical team did not guarantee the complete safety of the patient undergoing cesarean section surgery, mainly in relation to the objectives established by the WHO, concerning the surgical site (objective 1), preanesthetic evaluation (objectives 2, 10), Fasting / risk of aspiration (Objective 3), preparation for major blood loss (objective 4), prevention of allergic reaction (objective 5) and retention of instruments or compresses (objective 7), besides the identification of surgical specimens 8). The results of this research can help hospital institutions to plan actions with a view to correcting existing flaws in the process of elaborating, verifying and recording all items of the checklist based on the Safe Surgeries Saves Lives Program, so that this can happen to the effective implantation and of patient safety protocols. It may also serve as a parameter in relation to completing the checklist for other scientific investigations. And mainly develop the professional look and practice with focus on patient safety.

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