

Safe practice for childbirth in a university hospital

Prática segura para partos em hospital universitário

Práctica segura para partos en un hospital universitario

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Abstract: Objective: to identify the application of the essential practices of the World Health Organization Checklist for Safe Births (CLSB) performed in a University Hospital. **Method:** a descriptive cross-sectional study, carried out from January to October 2018, with 51 professionals who assist in labor, delivery and puerperium. To identify the applied practices, a semi-structured questionnaire and statistical analysis were used. **Results:** practices related to the use of drugs, availability of material resources, identification of abnormal bleeding, skin-to-skin contact, breastfeeding and reproductive planning are as recommended. However, there was no standardization regarding the evaluations in the partogram and the orientations to women and companions about the signs of worsening. **Conclusions:** the CLSB presents itself as an innovative tool in obstetric care. It offers opportunities for improvement and qualification of care, standardizing essential conducts, such as guidelines on clinical signs and registration in the partogram, favoring the safety of the mother-baby binomial.

Descriptors: Checklist; Patient safety; Nursing care; Labor; Obstetrics

Resumo: Objetivo: identificar a aplicação das práticas essenciais da Lista de Verificação para Partos Seguros (LVPS) da Organização Mundial da Saúde realizadas em Hospital Universitário. **Método:** estudo transversal descritivo, realizado no período de janeiro a outubro de 2018, com 51 profissionais que assistem o trabalho de parto, parto e puerpério. Para identificar as práticas aplicadas, utilizou-se um questionário semiestruturado e análise estatística. **Resultados:** práticas relacionadas ao uso de fármacos, disponibilidade de recursos materiais,

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identificação de sangramento anormal, contato pele à pele, amamentação e planejamento reprodutivo estão conforme o preconizado. Contudo, não houve padronização quanto às avaliações no partograma e às orientações às mulheres e acompanhantes sobre os sinais de agravamento. **Conclusões:** a LVPS apresenta-se como uma ferramenta inovadora na assistência obstétrica. Oferece oportunidade de melhorias e qualificação dos cuidados, padronizando condutas essenciais, como as orientações sobre os sinais clínicos e registro no partograma, favorecendo a segurança do binômio mãe-bebê.

Descritores: Lista de checagem; Segurança do paciente; Cuidados de enfermagem; Trabalho de parto; Obstetrícia

Resumen: Objetivo: identificar la aplicación de las prácticas esenciales de la Lista de Verificación para Partos Seguros (LVPS) de la Organización Mundial de la Salud que se realizan en un Hospital Universitario. **Método:** estudio transversal y descriptivo realizado entre los meses de enero y octubre de 2018 con 51 profesionales que asisten en el trabajo de parto, en el parto y durante el puerperio. Para identificar las prácticas aplicadas se utilizaron un cuestionario semiestructurado y análisis estadístico. **Resultados:** las prácticas relacionadas con el uso de fármacos, la disponibilidad de recursos materiales, la identificación de sangrado anormal, el contacto piel a piel, el amamantamiento y la planificación reproductiva se condicen con las recomendaciones. Pese a todo, no hubo estandarización en cuanto a las evaluaciones en el partograma y a las orientaciones ofrecidas a las mujeres y a sus acompañantes sobre las señales de agravamiento del cuadro. **Conclusiones:** la LVPS se presenta como una herramienta innovadora en la asistencia obstétrica. Ofrece la oportunidad de mejorar y calificar los cuidados, estandarizando conductas esenciales como ser las orientaciones sobre las señales clínicas y el registro en el partograma, favoreciendo así la seguridad del binomio madre-bebé.

Descriptores: Lista de verificación; Seguridad del paciente; Cuidados de enfermería; Trabajo de parto; Obstetricia

Introduction

Patient safety is an important pillar of the processes related to the qualification of care in health institutions. Brazil is one of the countries that make up the World Alliance established in 2004 by the World Health Organization (WHO), whose main purpose is to institute measures that increase the quality of these services and, therefore, patient safety.¹

With regard to obstetric care, the qualification of care associated with patient safety is the basis for reducing maternal and child mortality rates.¹ The magnitude of cases stands out, since 830 women die every day in the world, due to problems related to pregnancy and childbirth. It is estimated that better care before and after childbirth would prevent maternal and child deaths,² with a reduction of 1.49 million of these deaths per year worldwide.³

For this, it is indicated that the use of health technologies can qualify maternal and perinatal care, aiming at continuous improvements in the care processes and, consequently, at greater safety for the mother-baby binomial.¹ Among the technologies, the creation stands out of safety protocols recommended by the WHO, which in 2017 launched the guide for the implementation of the Checklist for Safe Births (CLSB). The aim is to reduce avoidable adverse events in maternal and perinatal care, through simple and effective practices.⁴

The development and use of health checklists are practical tools that are easy for health professionals to use. The CLSB is composed of 29 recommended practices worldwide, which summarize the best and most current scientific evidence, thus favoring the reduction of the main causes of maternal and newborn deaths, such as hemorrhage, infections, pre-eclampsia, and eclampsia.^{2, 5-6} The items were grouped into four sections, characterizing the stages in which the professional must perform the verification, these being: at the time of admission, before expulsion (or before cesarean section), right after delivery (in the space of one hour), and before discharge.⁴

Initially, the CLSB was tested in nine countries in Africa and Asia in 2010, and later revised in the state of Karnataka, India. After implementing the list, these studies showed an increase from 10 to 25 of the 29 essential (safe) practices of childbirth care by the professionals.⁷⁻⁹ A research study in southern Africa, evaluating the CLSB, highlights the reduction in perinatal mortality from 22 to 13.8 per 1,000 live births.⁵

In the Brazilian reality, a study adapted and validated the CLSB, emphasizing its importance since it includes good patient safety practices and assesses the woman and the newborn from admission to hospital discharge.¹⁰ The CLSB implementation guide provides for adaptations for the different realities, according to the location and to the geographical specificities.¹¹ It also provides for the participation of the health professionals, mainly nurses

and physicians, for its effective use,⁴ since the adoption of a new patient safety routine requires involvement and professional training.¹²

Considering that the CLSB corresponds to a recent document, which needs more studies in the Brazilian context to characterize its implementation, adherence by the professionals, and impact on the quality of care, the following research question emerges: Which essential practices recommended by the CLSB are applied by nurses and physicians in a University Hospital in southern Brazil? Thus, the study aims to identify the application of the essential practices of the WHO CLSB performed in a University Hospital.

Method

This is a cross-sectional descriptive study with a quantitative approach, carried out at the Maternal-Child Service of a University Hospital, which cares for pregnant women of usual risk, and is also a reference for assisting high-risk pregnancies throughout the state of Rio Grande do Sul. It has an average of 50 daily visits and approximately 10 deliveries a day, which in 2017 totaled 3,415 deliveries, with a cesarean rate of 36.8%.

The Maternal Service consists of the Obstetric Center Unit (OCU) and of the Obstetric Inpatient Unit (OIU). In the OCU there are seven pre-delivery rooms, three observation beds, seven recovery and newborn care beds, two delivery rooms, and two cesarean rooms. The OIU consists of 45 beds, six of which are for high-risk pregnant women, caring for patients from the Unified Health System (*Sistema Único de Saúde*, SUS), health insurance, and private individuals.

The study population was 72 professionals (30 nurses, 20 obstetrical doctors and 22 neonatologists) who work in labor, delivery and puerperium, from admission to hospital discharge. The sample was for convenience. All the professionals with more than six months of experience in the units were included, six professionals were excluded because they were on

vacation, health or maternity leave, three because they were not working in the area during the data collection period, and 12 professionals refused to participate.

Thus, 51 professionals participated in the research. Among them, 26 nurses, 16 of whom were obstetric nurses who worked at the OCU and 10 nurses who worked at the OIU; as well as 25 physicians, nine obstetricians, and 16 neonatologists.

Data collection took place from January to October 2018, conducted by a trained research team. A semi-structured questionnaire was used, applied to the professionals outside their working hours on a day chosen by them. The instrument consisted of the four pause moments provided for in the CLSB, and the questions were directed to the practices developed in the care of the mother-baby binomial from admission to discharge. That is, each professional answered questions related to care, according to their competence.

At the time of **admission**, the questions were related to the verification of the mother's need for transfer, beginning of the partogram, need for medications, availability of material to wash hands and gloves for each vaginal exam, presence of companion, and guidelines for requesting assistance. In the period **before the expulsion** (or before the cesarean section), the questions were related to the verification of the need for medications, confirmation of the material necessary for delivery, and about the identification of the professional responsible for the procedure. In the third moment, **immediately after delivery** (within an hour), the questions were related to checking for abnormal bleeding, professional conduct, use of medications, need to transfer the newborn, newborn medications, special care, breastfeeding, skin-to-skin contact, and guidelines to ask for help in the face of danger signs. In the period **before discharge**, the questions were related to the verification of permanence in the unit for 24 hours, use of medications, presence of bleeding, need for administering antibiotics to the newborn, reasons for postponing discharge, difficulties in breastfeeding, guidance on family planning, scheduling follow-up appointments, and guidance on requesting assistance after hospital discharge.

For the organization and analysis of the data, the *Statistical Package for the Social Sciences* (SPSS) version 20.0 was used. Double entry was performed and the data were analyzed quantitatively, according to absolute and relative frequencies.

The study is linked to the matrix project entitled “Implementation process of the safe birth checklist: cycle of improvement of quality and patient safety in Obstetrics”, which was approved on August 21st, 2017 by the Research Ethics Committee of the University Hospital under opinion No. 2,230,927, complying with Resolution 466/2012. The objectives of the research were disclosed and the participants who agreed to participate signed the Free and Informed Consent Form.

Results

Regarding the characterization of the participants, it was observed that 48 (94.1%) were female, three (5.9%) were male, and 51 (100%) declared themselves white-skinned. The age group was between 29 and 67 years old, with a mean of 43.27. The mean training time was 17.2 years, with a mean performance time in the OCU/OIU of 10.59 years. Regarding complementary training, 37 (72.5%) have some specialization, being in Obstetric Nursing, Obstetrics and Gynecology, Neonatology, Public Health, auditing, immunizations, and urgency and emergency. With regard to *stricto sensu* training, 18 (35.3%) have a Master's degree and six (11.8%) are PhDs.

The actions developed (or not) by the professionals are presented in tables, according to the moments recommended by the CLSB and by the professionals involved in the care in each item. Table 1 shows the practices developed by 25 professionals (nine obstetricians and 16 nurses) at the OCU in the first three moments. Among these, it was identified that the verification of allergies, beginning of the partogram in the active phase, availability of materials, indication for the use of medications, identification of the responsible professional, encouragement of the presence of the companion, administration of oxytocin, and care with

bleeding are practices which are performed. On the contrary, practices such as the periodicity of recording in the partogram are not performed as recommended by the CLSB.

Table 1 - CLSB items performed by obstetricians and nurses in the OCU. Porto Alegre - RS, 2019.

Variable	n = 25	%
At admission		
1. The need for transfer is verified	18 Yes	72
2. It is verified that the pregnant woman has an allergy	24 Yes	96
3. Indication for beginning of the Partogram	24 Active phase	96
Periodicity of contraction assessment	12 30 minutes	48
Frequency of FHB assessment	14 30 minutes	56
Frequency of HR assessment	20 6 hours	80
Periodicity of AXT assessment	19 6 hours	76
Periodicity of BP assessment	19 6 hours	76
4. Indication to administer an antibiotic to the pregnant woman	23 Infection	92
	15 Water breaking	60
	13 Prophylaxis	52
5. Indication to administer magnesium sulfate to the pregnant woman	24 Gestational AH	96
	16 Prematurity	64
6. Indication to administer anti-hypertensive medications to the pregnant woman	22 Hypertensive crisis	88
	13 Chronic AH	52
	07 Gestational AH	28
7. Availability of materials to wash hands and gloves for each vaginal exam	25 Yes	100
8. Presence of companion allowed	25 Yes	100
Moment before expulsion (or before cesarean section)		
9. Identification of the professional in charge	22 Yes	88
10. Indication to administer an antibiotic to the pregnant woman	19 Infections	76
	14 Surgical prophylaxis	56
11. Indication to administrate magnesium sulfate	24 Hypertensive Syndrome	96
	5 Convulsion	20
12. Indication to administer anti-hypertensive medications	20 Hypertensive crises	80
13. Availability of hygiene materials and gloves for delivery	25 Yes	100
14. Oxytocin availability	24 Yes	96
Administration of Oxytocin after delivery	25 Immediately	100
15. Care provided to the mother after placental delivery/delivery	21 Route review	84
	14 Sutures	56
	08 Vital Signs	32
Immediately after delivery		
16. Management if there is bleeding	19 Uterine massage	76

	18	Medication	72
	13	Communicate Team	52
17. Indication to administer antibiotics	22	Infections	88
	07	Fever	28
18. Indication to administer magnesium sulfate	24	Gestational AH	96
	05	Convulsion	20
19. Indication to administer an anti-hypertensive	17	Hypertensive crisis	68

Caption: FHB: Fetal Heart Beats; min: minutes; HR: Heart Rate; AXT: Axillary Temperature; BP: Blood Pressure; AH: Arterial Hypertension; PVA: Peripheral Venous Access.

Table 2 shows the items verified in the second stage of the list by 41 professionals, them being 16 nurses from the OCU, nine obstetricians and 16 neonatology doctors. The practices carried out were checking the availability of materials for the newborn, beginning of breastfeeding, and skin-to-skin contact.

Table 2 - CLSB items performed by obstetricians, neonatologists and nurses in the OCU. Porto Alegre - RS, 2019.

Variable	n = 41		%
Moment before expulsion (or before cesarean section)			
20. Availability of clean compresses for the NB	41	Yes	100
21. Sterile scissors available to cut the umbilical cord	41	Yes	100
22. Beginning of breastfeeding	41	Yes	100
23. Skin-to-skin contact	41	Yes	100
24. Guidance to the woman and her companion on signs and dangers to request assistance after delivery	15	Breastfeeding	36.6
	09	Pain	22.0
	08	Bleeding	19.5
	05	Feeding	12.2
	05	Eliminations	12.2

Reference: NB: Newborn.

Table 3, referring to the second and third moments of the list, identified the actions performed by 32 professionals (16 nurses from the OCU and 16 neonatologists), related to newborn care. Of these, the availability of materials and the drying care are practices which are performed. However, practices such as special care and use of antibiotics are not carried out as recommended by the CLSB.

Table 3 - CLSB items performed by neonatologists and nurses in the OCU. Porto Alegre - RS, 2019.

Variable	n = 32		%
Moment before expulsion (or cesarean section)			
25. Suction device availability	32	Yes	100
26. Balloon and mask availability	32	Yes	100
27. Care performed with the NB immediately after birth	22	Dry	68.8
	13	Clamp	40.6
28. Need of special care for the NB	13	Physical examination	40.6
	11	Temperature	34.4
	11	Weight	34.4
	09	Identification	28.1
	27	RF changed	84.4
	21	O ₂ saturation below 90%	65.6
	16	Hypoglycemia	50
	14	Prematurity	43.8
	12	Alteration in HR	37.5
	08	Malformations	25
29. Indication to administer antibiotics to the NB	08	Alteration in AXT	25
	05	Infection	15.6
	15	Infection in the NB	46.9
	09	Infection in the mother	28.1
	02	Fever	6.3

Reference: NB: Newborn; HR: Heart Rate; AXT: Axillary Temperature; RF: Respiratory Frequency.

Therefore, in Tables 4 and 5, the actions performed in the OIU are described at the moment before discharge, being answered by 19 and 26 professionals respectively. It was evidenced that the use of medications, situations of postponement of hospital discharge, and conduct when there is abnormal bleeding are practices performed by the professionals.

Table 4 - CLSB items performed by obstetricians and nurses in the OIU. Porto Alegre - RS, 2019.

Variable	n = 19	%
Before Discharge		
30. Indication to administer antibiotics to the pregnant woman	13	Infections 68.4
	02	Surgical procedures 10.5
31. Indication to administer magnesium sulfate	19	Hypertensive Syndrome 36.8
	05	Not performed in the OIU 26.3
32. Indication to administer anti-hypertensive medications	19	Hypertensive crises 57.9
	07	Chronic AH 36.8
33. Clinical situations that postpone discharge of the puerperal woman	06	Bleeding 31.6
	06	Infection 31.6
	04	NB without discharge 21.1
34. Hemorrhage before discharge	09	Communicate medical team 47.4
	08	Venous Access 42.1
	05	Uterine Massage 26.3
	02	Monitoring 10.5
35. Appointment for puerperal women	10	Yes 52.6
36. Guidance on reproductive planning	12	Yes 63.2
37. Guidance to ask for help after hospital discharge	05	Bleeding 26.3
	04	Pain 21.0
	07	Alterations in the SW 36.8

Reference: NB: Newborn; OIU: Obstetric Inpatient unit; AH: Arterial Hypertension; SW: Surgical Wound.

Table 5 - CLSB items performed by neonatologists and nurses in the OIU. Porto Alegre - RS, 2019.

Variable	n = 26	%
Before Discharge		
38. Indication to administer antibiotics to the NB	09	Mother with Syphilis 34.6
	04	Infection 15.4
	03	Prophylaxis for renal dysfunction 11.5
	02	Infectious hemogram 07.7
39. Discharge suspended if breastfeeding difficulties	23	Yes 88.5
40. Appointment to NB	18	Yes 69.2
41. Guidance to ask for help after hospital discharge	14	NB does not breastfeed 53.8
	03	Alterations of the umbilical stump
	03	Sensory changes 11.5
42. Other relevant practices for care and which involve patient safety	12	NB kept in the crib 46.1
	11	Prevention of falls 42.3
	10	Identification bracelet 38.4

Reference: NB: Newborn.

Some guidelines on risk situations such as changes in maternal blood pressure, indication for the administration of antibiotics to the newborn, and scheduling of follow-up appointments are not carried out as recommended by the CLSB. This fact indicates the need for improvements to ensure the implementation of these practices.

Discussion

The WHO CLSB was developed to assist the health professionals in performing essential practices aimed at the safety of women and newborns in labor, delivery, and puerperium. For its elaboration, the routine sequence of events from admission to hospital discharge was considered, with essential practices grouped into four crucial moments of care during delivery and birth, promoting good practices and preventing the main causes of maternal and neonatal mortality.⁴

When pregnant women enter the hospital setting, they are welcomed by the OCU health team, and the availability of resources for comprehensive care is verified (72%), favoring access to the health services, which is a pillar for preventing perinatal mortality along with the qualification of the care offered.¹¹ It is also verified if the pregnant woman is allergic (96%), in case the use of drugs is necessary. Thus, from their insertion into the hospital setting, these conducts have been recommended, favoring the safety and care levels needed by the women, and preventing adverse events related to medications.¹³⁻¹⁴

Another important tool is the partogram, an essential practice and widely used by the health team of the study institution (96%). The partogram assists the health professionals in monitoring the progress of childbirth, avoiding prolonged labor and unnecessary surgical procedures, thus reducing neonatal mortality.¹⁵

The periodicity of the records of uterine contractions, cardiofetal beats, and maternal heart rate on the partogram, according to the WHO recommendation, should be checked every

30 minutes.⁴ Thus, as indicated, it is considered that there is an opportunity for improvement in terms of the frequency of these practices, since the records of uterine contractions (48%) and of cardiofetal beats (56%) are performed every 30 minutes, and the maternal heart rate is recorded every six hours (80%), since there was no standardization as to the frequency of these evaluations. Regarding the measurement of body temperature, the indication is that it is recorded every two hours, and the systemic blood pressure every four hours,⁴ however, it is noticed that the professionals perform this measurement every six hours (76%).

Regarding the use of medications, the CLSB suggests analyzing the use of antibiotics, antihypertensives, and magnesium sulfate indicated respectively for clinical signs of infections, hypertension, and pre-eclampsia. These physiological changes are among the main causes of maternal death in Brazil.¹⁶ The use of antibiotics is indicated in the presence of clinical signs of infection, such as fever, fetid vaginal discharge, and ruptured pouch for more than 18 hours, and administration should occur as soon as possible.⁴ This care practice in the studied institution is in compliance, since 92% of the professionals indicated its use for situations of infection and 60% in situations of ruptured pouch.

Also, related to the use of drugs, an international guideline stands out which recommends the administration of magnesium sulfate if diastolic blood pressure is ≥ 110 mmHg and proteinuria is greater than three, or diastolic blood pressure is ≥ 90 mmHg, or if proteinuria is greater than two and there are clinical signs of hypertension, such as headache and visual disturbance.⁴ A study demonstrates the effectiveness of this drug in comparison with other treatments for hypertension, and it is also used for neuroprotection in premature babies.¹⁷

The findings of the present study also indicated the indication of this drug for cases of prematurity, since its blocking effect of the N-methyl D-Aspartate (NMDA) receptor gives it analgesic and sedative characteristics.¹⁸ Regarding the prescription of antihypertensives, it was indicated for hypertensive syndromes (88%) and for chronic arterial hypertension (52%), which

deserves a warning, since it was not reported by all the professionals and are important drugs for controlling blood pressure levels and preventing worsening both for women and the fetus.⁴ The use of these drugs as recommended by the WHO was reported by a significant number of professionals; however, some situations such as seizure (20%) were little reported; and the performance of tests, such as proteinuria, was not mentioned by the professionals.

In addition to caring for the mother, attention should also be paid to the newborn in the first hours of life. If it needs antibiotics, this is prescribed by the medical team, taking into account the maternal history and the clinical findings, such as changes in respiratory frequency, chest retraction, groans, hypothermia, fever, and slow reaction to stimuli.⁴ If the newborn need antibiotics, it is transferred to the neonatology unit to be monitored.

The nursing team checks the materials needed to perform the delivery, which is essential to ensure patient safety. The early preparation of oxytocin is recommended, which allows the health professional to perform resuscitation maneuvers to the newborn, since they must be started in the first minute of life.¹⁹ The study findings related to these practices are in accordance to those suggested by the CLSB, since a check (100%) is made of all the materials needed for delivery and care for the puerperal woman and the newborn.

Another checking practice refers to the health professionals washing their hands, which may contain agents that transmit infections to pregnant women.²⁰ Thus, availing material resources for performing vaginal exams and hand hygiene is necessary for the care to be provided, and this practice is essential according to the CLSB.

Regarding the practices performed with the mothers after birth, first, the obstetrician should check that they have no more fetuses to be born, then the administration of oxytocin in the first minute is recommended, clamping the umbilical cord between 1-3 minutes of the newborn's life, and uterine massage after the placenta expulsion, a technique that ensures that the uterus is contracted, avoiding postpartum hemorrhage.⁴ The professionals report the review of the path,

sutures, verification of vital signs, hygiene, and cleaning and checking the security globe, with the possibility of adding some items and making them standard, as indicated by the CLSB.

If there is abnormal bleeding, uterine massages and medications are started, and the medical team is notified; when not present, monitoring and infusion of serums and volumes are performed. The List adds practices, such as keeping the mother warm.⁴ It is noteworthy that postpartum hemorrhage is the second leading cause of maternal death in Brazil¹⁶ and can happen due to different situations, requiring the attention of the team and the performance of interventions according to the woman's clinical signs. Due to the importance of this situation, the application of institutional protocols that organize the assistance of the multidisciplinary team is essential.

Among the care actions carried out with the newborn, first of all, drying is included to maintain adequate body temperature; with this process, the newborn is already stimulated to cry and breathe. The cord should be lacquered and cut with sterile scissors to prevent infections.⁴ If the newborn does not breathe immediately after birth, the suction device, mask, and all the necessary support to reanimate it must be used.

In situations where the newborn has good vitality conditions, skin-to-skin contact is encouraged and breastfeeding begins. It is noteworthy that the recommendation for successful breastfeeding, suggested by the Baby Friendly Hospital Initiative, is skin-to-skin contact for one hour. This is an important moment to stimulate and encourage breastfeeding.²¹ Thus, it is considered that these actions are in accordance with what is recommended, since 96.9% of the professionals provide skin-to-skin contact and encourage breastfeeding when possible. the CLSB has proved to be an instrument that maintains these practices, strengthening the culture and patient safety.⁷

The WHO recommends that, in the immediate moment before the expulsion (or before the cesarean section), characterized by being a peak time for possible complications to the pregnant

woman and the newborn, the health team must ensure that the assistant responsible for the delivery is identified since, in the presence of complications during the care at that moment, this professional may be called. In the care protocol of the studied institution, this practice is in line with the recommended, that is, human resources are available for this purpose.⁴

The presence of a companion has been guaranteed by law since 2011, being an essential practice of the health professionals, as it stimulates several benefits for pregnant women and newborns, such as greater tranquility for women, less use of analgesics, favoring the evolution of normal birth, and strengthening family bonds.⁴ This practice contributes to the safety of the mother-baby binomial and is configured as an important continuous support during labor and delivery, extending care in the immediate postpartum period and in rooming-in.²²

The positive participation of the companion, and the physical and emotional support he provides are consistent with the humanization of this process. In addition, a study relates his importance to the reduction of pain at this moment.²² The guidelines offered by the health team provide support to the woman and those who accompany her, providing comfort and calm so that they can identify clinical changes that need help. These guidelines are opportunities for the health team to provide holistic and comprehensive care.²²

The health professional should guide the woman and the companion to request immediate assistance in case of any danger sign, such as visual disturbance, headache, abdominal pain, hemorrhage, difficulty in urinating or breathing, and in cases where the baby has difficulties in breastfeeding, effort to breathe, and is not reactive to stimuli.²³ This guidance action was not adequate to the WHO parameters, since the guidelines listed by the professionals did not contemplate all the danger signs that deserve attention at this time of the CLSB.

At discharge, guidance is also given on reproductive planning and on the approach to the different types and indications of contraceptive methods (considering the eligibility criteria), so that women can choose the method that best suits their needs. Health education is essential for

the continuity of care that will be performed with women and newborns, with reference to the primary health care network being important.⁴ Nurses report that such guidelines and scheduling for follow-up care basic services in the municipality are carried out due to communication with the municipal network provided by the SUS. However, a pilot study in India highlights the lack of referrals and of this interconnected network.⁷

Discharge is indicated when it is verified that the puerperal woman and the newborn are well and will be able to meet their needs outside the hospital setting. If the newborn is not feeding, it should be suspended.⁴ Most of the professionals report that, for newborns who do not have established breastfeeding or do so with great difficulty, the stay in the hospital is maintained, so that breastfeeding is strengthened, which corroborates the WHO international recommendations.

Other practices reported by the professionals, which reinforce patient safety, are the following: keeping the newborn in the crib and using an identification bracelet. These practices are consistent with international protocols and recommendations regarding patient safety and should be added to the CLSB. Keeping the newborn in the cradle is related to preventing the risk of falls and the research studies suggest that this is included in the institutions' protocols and nursing prescriptions.²⁴ A study²⁵ that evaluated the implementation of the CLSB in several countries highlights the need for the participation of professionals and managers of the health services for adaptation and acceptance, aiming at its correct use as an instrument that favors the maintenance of the practices already carried out in the institution and the implementation of new ones for the safety of the mother-baby binomial.

Conclusion

Employing the CLSB can be useful to maintain the actions already taken, which are recommended, and for the inclusion of new items recommended by the WHO, in order to

enhance them, favoring patient safety with the standardization of conducts in the care process to the mother-baby binomial.

Actions such as indication for the start of the partogram, use of medications, verification if the pregnant woman has allergies, care for the newborn, initiation of breastfeeding, encouragement of the companion's participation, administration of oxytocin, availability of sterile materials for consultation and childbirth, availability of materials for hand washing and breastfeeding are essential practices of the WHO CLSB. In the present study, it was verified that they are already implemented in the work process of the health team in the Obstetrics area of the University Hospital in question.

It was concluded that the CLSB is an innovative tool in obstetric care, and that its implementation adds opportunities for improvements and qualification to the essential practices, which are partially being carried out in the studied institution, with emphasis on the guidelines on clinical signs of worsening of the health condition and the periodicity of measurement and recording of parameters in the partogram. In order to ensure the maintenance and improvement of the essential practices, with a view to qualifying obstetric care, it is recommended to use strategies and technologies that strengthen the patient's safety culture in the institution.

As study limitations, medical professionals and nurses were included; however, nursing technicians and intern students have an active participation in the care of pregnant women and newborns and their inclusion in later studies could strengthen patient safety in these health settings.

References

1. Marcolin AC. Qualidade e segurança: caminhos para o sucesso do redesenho do modelo de cuidado obstétrico. *Rev Bras Ginecol Obstet.* 2015;37(10):441-5. doi: 10.1590/SO100-720320150005472
2. Organización Mundial de la Salud. Mortalidad materna [Internet]. 2015 [acceso en 2019 mayo 05]. Disponible en: <http://www.who.int/mediacentre/factsheets/fs348/es/>

3. Mason E, McDougall L, Lawn JE, Gupta A, Claeson M, Pillay Y, et al. From evidence to action to deliver a healthy start for the next generation. *Lancet*. 2014;384(9941):455-67. doi: 10.1016/S0140-6736(14)60750-9
4. Organização Mundial da Saúde. Guia de implementação da Lista de Verificação da OMS para partos seguros: melhorar a qualidade dos partos realizados em unidades de saúde para as mães e os recém-nascidos [Internet]. Genebra: Organização Mundial da Saúde; 2017 [acesso em 2019 abr 20]. Disponível em: <http://apps.who.int/iris/bitstream/10665/199177/5/9789248549458-por.pdf?ua=1>
5. Kabongo L, Gass J, Kivondo B, Kara N, Semrau K, Hirschhorn LR. Implementing the WHO Safe Childbirth Checklist: lessons learnt on a quality improvement initiative to improve mother and newborn care at Gobabis District Hospital, Namibia. *BMJ Open Qual*. 2017;6(2). doi: 10.1136/bmjoq-2017-000145
6. Semrau EAK, Hirschhorn LR, Delaney MM, Singh VP, Saurastri R, Sharma N, et al. Outcomes of a coaching-based WHO Safe Childbirth Checklist Program in India. *N Engl J Med*. 2017;377(24):2387-8. doi: 10.1056/NEJMoa1701075
7. Spector MJ, Agrawal P, Kodkany B, Lipsitz S, Lashoher A, Dziekan G, et al. Improving quality of care for maternal and newborn health: prospective pilot study of the WHO Safe Childbirth Checklist Program. *PLoS One*. 2012;7(5). doi: 10.1371/journal.pone.0035151
8. Semrau KEA, Hirschhorn LR, Kodkany B, Spector JM, Tuller DE, King G, et al. Effectiveness of the WHO Safe Childbirth Checklist program in reducing severe maternal, fetal, and newborn harm in Uttar Pradesh, India: study protocol for a matched-pair, cluster-randomized controlled trial. *Trials*. 2016;17:576. doi: <https://doi.org/10.1186/s13063-016-1673-x>
9. Kumar S, Yadav V, Balasubramaniam S, Jain Y, Shekhar C, Saran K, et al. Effectiveness of the WHO SCC on improving adherence to essential practices during childbirth, in resource constrained settings. *BMC Pregnancy Childbirth*. 2016;16(345). doi:10.1186/s12884-016-1139-x
10. Carvalho ICBM, Rosendo TMSS, Freitas MR, Silva EMM, Medeiros WR, Moutinho NF, et al. Adaptação e validação da Lista de Verificação do Parto Seguro da Organização Mundial da Saúde para o contexto brasileiro. *Rev Bras Saúde Mater Infant* [Online]. 2018;18(2):401-18. doi: 10.1590/1806-93042018000200009
11. Koblinsky M, Moyer CA, Calvert C, Campbell J, Campbell OM, Feigl AB, et al. Quality maternity care for every woman, everywhere: a call to action. *Lancet*. 2016;388(10057):2307-20. doi: 10.1016/S0140-6736(16)31333-2
12. Praxedes AO, Arrais L, Araújo MAA, Silva EMM, Gama ZAS, Freitas MR. Avaliação da adesão à Lista de Verificação de Segurança no Parto em uma maternidade pública no Nordeste do Brasil. *Cad Saúde Pública* [Online]. 2017;33(10):e00034516. doi: 10.1590/0102-311x00034516
13. Ministério da Saúde (BR), Secretaria de Atenção à Saúde, Departamento de Ações Programáticas

Estratégicas, Coordenação Geral de Saúde das Mulheres - DAPES/SAS/MS. ApiceOn - Aprimoramento e inovação no cuidado e ensino em obstetrícia e neonatologia [Internet]. 2017 [acesso em 2019 maio 18]. Disponível em: <http://portalarquivos.saude.gov.br/images/pdf/2017/agosto/18/Apice-On-2017-08-11.pdf>

14. Giannattasio MB, Taniguchi FP. Avaliação da segurança do paciente em cirurgia cardíaca de um hospital público. *Rev SOBECC*. 2016;21(3):125-31. doi:10.5327/Z1414-4425201600030002

15. World Health Organization partograph in management of labour. World Health Organization Maternal Health and Safe Motherhood Programme. *Lancet* [Internet]. 1994 [cited 2019 Jul 08]; 343(8910):1404-399. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/7910888>

16. Dias JMG, Oliveira APS, Cipolotti R, Monteiro BKSM, Pereira RO. Mortalidade materna. *Rev Méd Minas Gerais* [Internet]. 2015 Apr [cited 2019 Aug 15];25(2):168-74. Available from: <http://www.rmmg.org/artigo/detalhes/1771>

17. Rodríguez-Hernández PA, Beltrán-Avenidaño MA. Aproximación a la farmacología del sulfato de magnesio desde la perspectiva obstétrica. *MedUNAB*. 2016;19(1):25-32. doi:10.29375/01237047.2327

18. Pinheiro ACB, Santos ALT, Campos AN, Duarte LM, Oliveira MBG, Silva SAB, et al. Efeito neuroprotetor do sulfato de magnésio em recém-nascidos abaixo de 32 semanas admitidos em Unidade de Terapia Intensiva Neonatal. *Rev Méd Minas Gerais* [Internet]. 2018 [acesso em 2019 set 20];28(4):63-71. Disponível em: <http://www.rmmg.org/artigo/detalhes/2309>

19. Schardosim JM, Rodrigues NLA, Rattner D. Parâmetros utilizados na avaliação do bem-estar do bebê no nascimento. *Av Enferm*. 2018;36(2):197-208. doi: 10.15446/av.enferm.v36n2.67809

20. World Health Organization (WHO). Pregnancy, childbirth, postpartum and newborn Care: a guide for essential practice. 3rd. ed. [Internet]. 2015 [cited 2019 Sept 18]; Available from: https://www.who.int/maternal_child_adolescent/documents/imca-essential-practice-guide/en/

21. Silva CM, Pereira SCL, Passos IR, Santos LC. Fatores associados ao contato pele a pele entre mãe/filho e amamentação na sala de parto. *Rev Nutr (Online)*. 2016;29(4):457-71. doi: 10.1590/1678-98652016000400002

22. Santos ALS, Oliveira ARS, Amorim T, Silva UL. O acompanhante no trabalho de parto sob a perspectiva da puérpera. *Rev Enferm UFSM*. 2015;5(3):531-40. doi: 10.5902/2179769217337

23. Colli M, Zani AV. Validação de um plano de alta de enfermagem para gestantes e puérperas de alto risco. *REME Rev Min Enferm*. 2016;20(e934):1-7. doi: 10.5935/1415-2762.20160004

24. Silva RSS, Rocha SS, Gouveia MTO, Dantas ALB, Santos JDM, Carvalho NAR. Wearing identification wristbands: implications for newborn safety in maternity hospitals. *Esc Anna Nery Rev Enferm*. 2019;23(2):e20180222. doi: 10.1590/2177-9465-EAN-2018-0222

25 Perry WRG, Nejad SB, Tuomisto K, Kara N, Ross N, Dilip TR, et al. Implementing the WHO Safe Childbirth Checklist: lessons from a global collaboration. *BMJ Glob Health*. 2017;2:e000241. doi: 10.1136/bmjgh-2016-000241

Chief Scientific Editor: Cristiane Cardoso de Paula

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How to cite this article

Santos MC, Pedroni VS, Carlotto FD, Silva SC, Gouveia HG, Vieira LB. Safe practice for childbirth in a university hospital. *Rev. Enferm. UFSM*. 2020 [Accessed on: Year Month Day]; vol.10 e80: 1-20. DOI: <https://doi.org/10.5902/2179769241489>