

Surgical safety checklist: An integrative review of the benefits and importance

Lista de verificação de segurança cirúrgica: Uma revisão integrativa sobre benefícios e sua importância

Lista de verificación de seguridad quirúrgica: una revisión integradora de los beneficios y la importancia

Claudia Rodrigues Mafra¹; Maria Cristina Soares Rodrigues²

Como citar este artigo:

Mafra CR, Rodrigues MCS. Surgical safety checklist: An integrative review of the benefits and importance. Rev Fund Care Online. 2018 jan./mar.; 10(1):268-275. DOI: <http://dx.doi.org/10.9789/2175-5361.2018.v10i1.268-275>

ABSTRACT

Objective: To analyze, based on the literature, the benefits of implementing surgical safety checklist. **Method:** Integrative review guided by the question: “What are the benefits of using safe surgical safety checklist to improve the quality of health services?”. The survey of the articles was conducted in Medline via Pub Med, Lilacs, BDEnf via Virtual Health Library, published from 2010 to 2014. **Results:** Through the findings emerged grouping by similarity of results “benefits of using the list surgical safety check” and “importance of surgical safety checklist in reducing iatrogenic morbidity causing undesirable outcomes”. **Conclusion:** The analysis has highlighted that the implementation of the safe surgery checklist is associated with better outcomes and establishes safe procedures in surgical care.

Descriptors: Checklist, Patient Safety, Operating Rooms.

¹ Nurse. Master in Nursing from the University of Brasilia (DF), Brazil. Email: claudiar.mafra@gmail.com.

² Nurse. PhD in Health Sciences and Post-Doctorate from University College London. Associate Professor, Department of Nursing and the Graduate Program in Nursing at the University of Brasilia. Brasilia (DF), Brazil. Email: mcoares@unb.br.

RESUMO

Objetivo: Analisar com base na literatura os benefícios da implantação da lista de verificação de segurança cirúrgica. **Método:** Revisão integrativa norteada pela questão: “Quais os benefícios da utilização da lista de verificação de segurança cirúrgica segura para a melhoria na qualidade em serviços de saúde?”. O levantamento dos artigos foi realizado em base de dados Medline via Pub Med, Lilacs, Bdenf via Biblioteca Virtual em Saúde, publicados no período de 2010 a 2014. **Resultados:** Mediante os achados emergiram o agrupamento por similaridade de resultados “benefícios da utilização da lista de verificação de segurança cirúrgica” e “importância da lista de verificação de segurança cirúrgica na redução da morbidade iatrogênica causando desfechos indesejáveis”. **Conclusão:** A análise permitiu evidenciar que a implementação da lista de verificação da cirurgia segura está associada a melhores resultados e estabelece processos seguros na assistência cirúrgica.

Descritores: Lista de Checagem, Segurança do Paciente, Salas Cirúrgicas.

RESUMEN

Objetivo: Analizar, con base en la literatura, los beneficios de implementar lista de seguridad quirúrgica. **Método:** Revisión integradora guiado por la pregunta: “Cuáles son los beneficios de usar seguro lista de verificación de seguridad quirúrgica para mejorar la calidad de los servicios de salud?”. La encuesta de los artículos se realizó en la base de datos Medline vía PubMed, Lilacs, BDEnf través de la Biblioteca Virtual en Salud, publicada entre 2010 y 2014. **Resultados:** A través de los hallazgos emergieron agrupación por similitud de resultados “beneficios del uso de la lista verificación quirúrgica de seguridad” y “importancia de la lista de verificación de seguridad quirúrgica para reducir la morbilidad iatrogénica provocando resultados indeseables.” **Conclusión:** El análisis ha puesto de manifiesto que la aplicación de la lista de verificación quirúrgica segura se asocia con mejores resultados y establece los procedimientos de seguridad en la atención quirúrgica. Palabras clave: lista de comprobación; la seguridad del paciente; Centro quirúrgico.

Descriptorios: Lista de Comprobación, La Seguridad del Paciente, Centro Quirúrgico.

INTRODUCTION

The security landscape in global health is worrying and gained notoriety. The medicine was simple, less effective and relatively safe. Currently, it is to be effective, complex, but despite progress still has to be potentially dangerous.¹

Health care has become a process that develops in more dynamic and specialized environments, as this area is evolving. Complex interactions, which often performed in unsafe and risky circumstances that interfere with the recovery of the patients, are observed. Insecure healthcare causes morbidity and significant mortality throughout the world²

The surgical center is configured as a complex sector, where machines and humans live side by side, and the latter require the efficiency of the first. High perfection and absence of errors determine a stressful environment, given that men are not machines and, although thorough and responsible, are liable to error³

Surgical intervention includes health care, and complications in surgical procedures have become major

causes of death and disability, bringing significant public health implications. There is a global estimate of 234 million transactions annually, an intervention for every twenty five people alive, with a rate of major complications from 3% to 17%.⁴ Existing evidence suggests that seven million customers suffered surgical complications annually, 50% of which were preventable.⁵

The surgical procedure is developed by multidisciplinary team, with different functions, but not independent, and research has shown weakness in safety.⁶ The team develops different activities working in an environment dominated by pressure, stress and anxiety resulting from risk situations that may to corroborate the occurrence of incidents.⁷

The World Health Organization (WHO), attentive to the problem of patient safety, published in 2007-2008 the second Global Challenge for Patient Safety, the “Safe Surgery Saves Lives” program. Its aim is to stimulate the perception of professional, supporting public policies and encouraging good care practices.^{8,9}

In order to ensure the safety of surgical patients worldwide, the WHO adopted a checklist before, during and after surgery, in order to reduce the rate of unnecessary major surgical complications.⁸⁻¹⁰

The safe surgery checklist is a tool that was created to help promote teamwork participating in the surgery for the sake of patient safety, training professionals, promoting the improvement and understanding of the actions necessary to strengthen systems patient safety, and contribute to the perception of risk - the first step to effective practice change of preventive measures.^{3,8}

Certain changes need to be implemented and analyzed in health services so that patients receive safe, free and quality care from any kind of damage. Assess the safety culture allows viewing strengths and weaknesses, configured as an intervention that requires organizational management in the operating room to prevent possible failures.¹¹

Considering the relevance of the above theme, the following guiding question for this survey emerged: What are the benefits of using the safe surgery checklist for patient safety and quality improvement in health services?

From the delimited questioning, the aim of the study was traced: it is to analyze, based on the literature, the benefits of the implementation of the checklist for safe surgery patient safety.

METHODS

The integrative review was the method used in this study because it enables and facilitates the search for scientific research involving publications that might be useful and contribute with relevant data on health care, and its objective is to integrate of the health scenario and to support decision-making and improve clinical practice quality.¹²

For the preparation of this review, six stages were covered: the development of the research question; selection and procurement of articles (inclusion and exclusion criteria); and, finally, synthesis of knowledge evidenced in the analyzed items.¹³

In the strategy for the evidence of the articles was conducted an online search of the scientific literature publications widely used for conducting review studies in the Latin American database and Caribbean Health Sciences (LILACS), Medical Literature and Retrieval System on Line (Medline via Pub Med) and Nursing Database (BDENF) via Virtual Health Library (VHL). The period of search was between October and November 2014.

Keywords have been used in consultation with Health Sciences Descriptors (DesCS) indexed from combinations between them using the Boolean operator and “checklist”, “surgical room” and “patient safety”.

The articles were selected by the inclusion and exclusion criteria, and the diagram PRISMA (Preferred Reporting Items for Systematic reviews and Meta-Analyses) of the Cochrane Collaboration was used to describe the phase of selection.¹⁴

In the sample inclusion criteria were considered: articles published between 2010 and 2014 in English, Spanish and Portuguese, with summaries and full texts available in the electronic databases of health literature and free guideline. Regarding exclusion criteria, it was decided not to include other forms of publication not available in these electronic sources that do not answer the central question, did not show any content related to the topic of research, outside the temporal delimitation, type of articles letter, theses and dissertations, expert

opinion, editorials, book chapters and who did not have access in full and free.

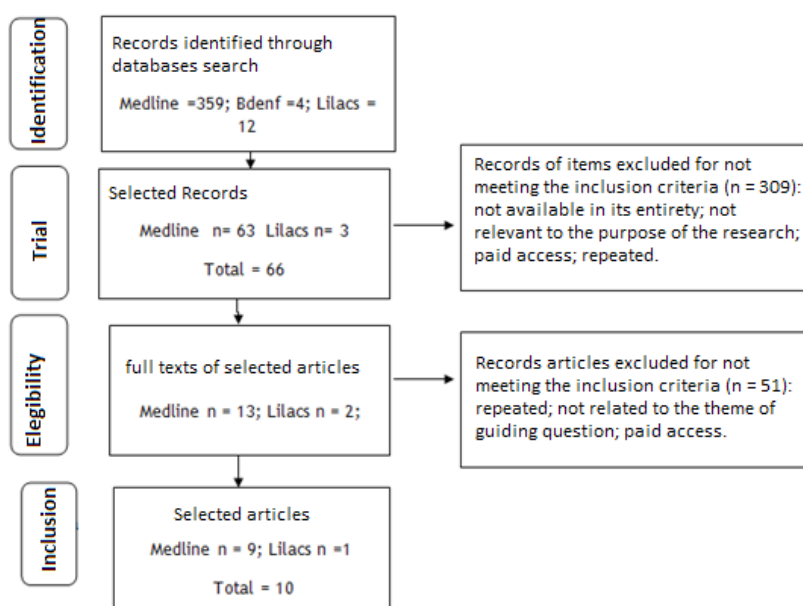
To support the analysis, it was initially proceeded to the examination of the titles and abstracts of articles in order to refine the sample highlighting those who responded to the purpose of this review. Subsequently, it was proceeded to the exhaustive reading in full each publication selected by subsidizing reflections on the health scenario, seeking to identify relevant aspects that were repeated or stood out.

After reading, the articles were organized in order to collect data for the construction of integrative review. The analysis was critically identifying the issues relating to each article.

To assist in the evaluation of articles, it was proposed the classification of levels of evidence of the hierarchy according to the following categorization: Level I: Evidence from systematic review or meta-analysis of randomized controlled clinical trials relevant; Level II: clinical trial evidence randomized controlled, well-designed; Level III clinical trial evidence without randomization, well-designed; Level IV: Study of evidence case-control or cohort, well-designed; Level V: evidence from systematic review of descriptive and qualitative studies; Level VI: evidence only descriptive or qualitative studies; and VII Level: evidence of opinions of the authors and / or reports of commissions of experts.¹⁵

For analysis and subsequent synthesis of the selected articles, it was created a database using the computer program Word for Windows version 2010 for the registration of the following variables of interest in a table: article title, authors, development of research site, database, publication year and result.

Figure 1 – Flowchart representation of eligibility and inclusion of articles in the the integrative review



Source: Originated from the research, based on the Prism model.

RESULTS AND DISCUSSION

In the integrative review and as shown in the result flowchart of the search in information sources, selection and inclusion of original articles according to the PRISMA protocol (Figure 1), it was identified initially a total of 375 studies in the three data bases. Applied the inclusion and exclusion criteria for this study, a sample of 10 studies for analysis and synthesis was used.

Following is the overview of the results and discussion of articles evaluated to provide the reader better applicability

of the integrative review is presented in order to achieve the goal of this method.

The highest frequency of selected publications made in the Medline/Pubmed database with 90%, followed by 10% in the LILACS, resulted in the total number of 10 selected studies. It could be observed that 90% were published in foreign journals, predominantly in English, and 10% in national periodical, published in Portuguese. This leads us to the assumption of a better relevance to the membership of the surgical safety checklist in industrialized countries ⁹ and also the initiatives in our

Figure 2 – Summary of studies, according to title, database authors, year, place of study, design, level of evidence and objective. Brasília – DF, 2015

Titulo	Base de dados	Autores/ano de publicação/Pais	Delineamento/nível de evidência /Objetivo
Towards better patient safety: Who Surgical -Safety Checklist in Otorhinolaryngology. ¹⁷	Medline	Helmiö P et al. 2011 Finlândia	Transversal/IV. Verificar a implantação e o impacto da lista de verificação de segurança cirúrgica segura no processo da cirurgia otorrinolaringologia.
Changes in safety attitude and relationship to decreased postoperative morbidity and mortality following implementation of a checklist - based surgical safety intervention. ¹⁸	Medline	Haynes AB et al., 2011. Estados Unidos	Retrospectivo/IV. Avaliar a relação de mudança de atitude clínica e resultados pós - operatórios numa intervenção cirúrgica utilizando como base o checklist.
The effect of the WHO surgical safety checklist on complication rate and communication. ¹⁹	Medline	Fudickar A et al., 2012 Alemanha	Revisão retrospectiva/IV. Avaliar a cultura de segurança na execução da lista de verificação.
Thirty-day outcomes support implementation of a surgical safety checklist. ²⁰	Medline	Bliss LA et al. 2012 Estados Unidos	Coorte/IV. Avaliar a aplicação da lista de verificação de segurança cirúrgica, no intraoperatório e prováveis eventos que possam comprometer a segurança.
EACTS Guidelines for use of patient safety checklist. ⁴¹	Medline	Clark SC et al. 2012. Estudo Europeu - European Journal of Cardio Thoracic Surgery	Prospectivo longitudinal/IV. Apresentar diretriz sobre a evidencia para o uso da lista de verificação cirúrgica para na cirurgia cardíaca e cirurgia torácica.
Acceptance of the WHO surgical safety checklist among surgical personnel in hospitals in Guatemala city. ⁴²	Medline	Hurtado JJD et al., 2012. Guatemala	Prospectivo descritivo/IV. Avaliar o conhecimento e a aceitação da equipe da sala de operação da lista de verificação cirúrgica após um ano de sua implantação.
What are the effects of introducing the WHO" surgical safety checklist" On in-hospital mortality? ⁴³	Medline	Mastracci TM et al. 2013 Holanda	Coorte Retrospectivo/IV. Avaliar o efeito da introdução da lista de verificação cirúrgica da OMS, sobre a mortalidade no hospital e o impacto.
Impact of the World Health Organization's Surgical Safety Checklist on safety culture in the operating theatre: a controlled intervention study. ⁴⁴	Medline	Haugen AS et al., 2013. Noruega	Prospectivo longitudinal/IV. Estudar os efeitos da lista de verificação sobre a percepção de cultura de segurança na sala de operação da equipe cirúrgica.
Safe surgery checklist: analysis of the safety and communication of teams from a teaching hospital. ⁴⁵	Lilacs	Pancieri AP et al., 2013 Brasil	Prospectivo/IV. Aplicar e verificar a influência da aplicação da lista de verificação cirúrgica da OMS no processo cirúrgico.
Surgical safety checklist in developing countries. ⁴⁶	Medline	Vivekanantham S et al. 2014 Reino Unido	Revisão. Avaliar os benefícios e desafios da implementação da lista de verificação de segurança cirúrgica nos países em desenvolvimento.

Source: Originated from the research.

country, in the development stage, are incipient. This scenario may be related to the theme, which recently gained notoriety after the Ministry of Health set up the National Patient Safety Program (PNSP).¹⁶

Figure 2 shows variables extracted data from the studies reviewed, ie, title, database, authors, year, study site, design,

level of evidence and objective. It was found a large number of publications in predominantly 2012 (40%), followed by the year 2013 (30%) 2011 (20%) and 2014 (10%). In 2010 we were not found articles relevant to the proposed study.

After reading and analyzing the articles, it was possible to perform grouping similar results in two thematic categories,

Figure 3 – Summary and main results of studies related to the benefits of using the safe surgery checklist. Brasília – DF, 2015

Authors	Main Results
Hemio P, et al. ¹⁷	Communication increases and improvement among the members of the surgical team, including in the question of the discussions
Haynes AL, e al ¹⁸	Improved communication in the operating room. The implementation of the WHO checklist was associated with positive changes in the perception of teamwork and safety climate.
Fudickar A, et al. ¹⁹	Tool for improving communication working as a team to the safety culture in the operating room. The most intensive communication helped improve the results, benefiting the discussion of critical incidents more often. The observable effects of the WHO checklist are better. The verification of important information and better communication of such information paa entire team. The list also helps eliminate the hierarchical barriers to communication, allowing the transfer of more frequent information. The team cooperation is immeasurably better.
Bliss LA, et al. ²⁰	The checklist is a low-cost tool that can change the hierarchical culture in the operating room. Use the checklist facilitates and improves communication. The checklist and strategies involved team members, helping to improve the results by the care plan is completed to ensure adequate results throughout the perioperative process.
Clarck SC, et al. ²¹	The surgical checklist improves teamwork and communication, and strategic to start a surgery sharing any concerns or expectations regarding the procedure.
Hurtado JJD, et al. ²²	The surgical checklist improved the security of the operating room and communication after its implementation. Increased teamwork and sense of security climate following the implementation of the surgical checklist of WHO.
Mastracci TM, et al. ²³	The study showed that the adoption of the WHO checklist has been successful. Communication became still and is central to the process of change getting positive feedback.
Haugen AS, et al. ²⁴	The strategy used for successful surgical checklist was training and education. Ascertained positive changes in safety culture, a factor that has brought positive effect raising a perception of improvement in the suitability of the team members.
Pancieri, et al. ²⁵	The checklist is a communication tool that provides the opportunity to improve it among professionals operating room. perceived factors were the positive changes in the perception of the work environment among the team members. The surgical checklist aims to reduce friction caused by unexpected situations.

Source: Originated from the research.

ie benefits of using the safe surgery checklist and importance of surgical safety checklist in reducing iatrogenic morbidity causing outcomes undesirable.

Category 1 - Benefits of the use of safe procedure checklist

Figure 3 shows the summary of the main results of studies related to this subject category.

In 90% of the articles analyzed, a larger listening was appointed as a result due to improved communication, and 30% described on changing the hierarchical culture which consequently resulted in an evolution in teamwork and in 50% of the publications resulted in upgrade the quality of care to the patient.^{17-9,20-6}

One of the requirements to provide quality care and safe is to have an open communication culture, allowing teams an equal relationship where hierarchical rivalries become irrelevant.^{19,20,23-5}

In this sense, evidence communication as relevant factors to patient safety culture in health institutions is critical to the development of the work. The use of surgical safety checklist provides an opportunity for effective communication, allowing members of the surgical team to share expectations and clear and correct information reducing threats and complications.^{18-9,20-5}

Using communication is critical to the development of the work with the team, generating behavioural changes, making possible the externalization and the exchange of experiences to discuss a variety of issues in order to avoid conflicts in the operating room.^{17-9,20-3}

The team work is complex and is considered as transformations booster. Workers should feel as active subjects in the process. Involvement can stimulate changes with the objective of quality, which should be understood by all staff in order to address conflicts and effect change projects.²⁷

Still, as the use of the surgical checklist described in a study, almost all participants expressed that they would like the list to be used if they were to undergo surgery.¹⁷

Currently, having quality and positive results in the health sector becomes a requirement of a collective work and not just an individual.²⁹ The care of good quality is what gives the best health outcomes, providing the best and most complete well-being.²⁹

Category 2- Importance of surgical safety checklist in reducing iatrogenic morbidity causing undesirable outcomes

In this thematic category, the articles analyzed are related to the relevance of implementing a checklist in the operating

Figure 4 – Summary of studies reviewed related. Importance of surgical safety checklist in reducing iatrogenic morbidity causing undesirable outcomes and main results - Brasília - DF, 2015

Authors	Main Results
Haynes AL, e al ¹⁸	Improvements in results observed that the complication rate decreased. With the perception of the safety climate was associated with improvement in morbidity and postoperative mortality. Lower rates of adverse events.
Fudickar A, et al. ¹⁹	The beneficial effect of WHO safe surgery checklist showed a significant improvement in reducing the mortality and morbidity complication rate. He benefited in changing culture bringing positive effect and discussion of critical incidents, providing a reduction in the frequency of events.
Bliss LA, et al. ²⁰	The general conclusion is that there was a statistically significant reduction in rates of adverse events and complications.
Clarck SC, et al. ²¹	The surgical checklist showed a reduction in mortality, morbidity and complication rate.
Hurtado JJD, et al. ²²	The checklist helps prevent errors in the operating room.
Mastracci TM, et al. ²³	Significant breakthroughs in reducing complications and death.
Haugen AS, et al. ²⁴	The surgical checklist showed that the relative risk of mortality, complications, surgical site infections and mortality fell.
Pancieri, et al. ²⁵	The surgical safety checklist makes the chances of risks decrease, thus ensuring safety. The decrease in morbidity and mortality. The use of surgical safety checklist aims to reduce friction caused by unexpected situations.
Vivekanantham S, et al ²⁶	The checklist is proving to be an effective mechanism in reducing errors and complications.

Source: Originated from the research.

room to reduce iatrogenic complications that can cause undesirable outcomes. In Figure 4, the main results are presented.

Among the selected studies it was possible to verify that 70% of the articles said the surgical safety checklist was associated with reduced complications, some in unexpected situations.¹⁸⁻²⁶

It was observed real reduction of adverse events or near misses. The presence of events compromises security and causes poor results in surgical care. The checklist involves the team, helping to improve the results, allowing for greater preparation, anticipation and intercepting unwanted damage to the surgical patient.^{19,20,22-6}

The communication failure was identified as the main contributory factor to the incident which results in harm to the patient because of the large amount of information. With the implementation and use of the checklist, it is clear the benefit of discussion incidents with changing the culture of security, making the chances of critical risks decrease.^{19,20,25}

It is noteworthy that the surgical safety checklist provided a better patient identification, increasing the knowledge of the procedure to be performed by all members of the surgical team.^{17,20}

Related articles demonstrated that the benefit and the checklist efficacy showed significant improvement in reducing morbidity and is considered a security process to prevent errors and harm. The effectiveness of the checklist is linked to the correct performance orientation.^{18,20-1,26}

Authors show that another important aspect found is that the checklist is proving to be an effective method if implemented correctly in reducing mortality. Mortality decreased and improvements were positively associated with better adherence.^{18,20-1,26}

Some studies have shown also on the role and involvement of the nurse as a leader in the actions of promotion and patient safety. The presence and competence of the nurse in the operating room may be a strategy by encouraging the participation of all contributing to the reduction of adverse events. It is assigned to the nurse possess the wealth of information with great opportunity to support the completion of the checklist, which will benefit professionals and patients, improving surgical safety.^{20,24}

CONCLUSION

The studies analyzed in this review show the benefits of using the surgical safety checklist, notably on improving interprofessional communication. Moreover, highlights the importance of the list of application in patient care in the operating room, the decrease of potential complications and mortality.

WHO has developed the surgical safety checklist, with the objective of promoting teamwork. This instrument was

introduced as an efficient tool to improve patient safety and to give teams a simple verification system, easy to use and applicability, with the intention of promoting an effective work in order to contribute to a participatory communication and performance an important role in the safety of surgical care.

The use of surgical safety checklist contributes to patient safety standards, as it favors the effective teamwork in reducing the incidence of adverse events, reducing morbidity and mortality in surgery. Furthermore, the beneficial effect of the WHO checklist on surgical complication rates indicates that the more intense communication with the help of surgical safety checklists can improve results. Thus, it is important to note that the impact of the implementation of the surgical safety check list is associated with better results, contributing and influencing positively to the security of the surgical patient.

It is believed that on the evidence and results presented in this review are necessary to carry out more studies on the subject, it shows great potential applicability in Surgical Centers, in order to not only make a recommendation, but a reality in health services parents.

Finally, it is emphasized that the incentive to develop new research has as its main objective the benefits and the importance of the implementation of a surgical safety checklist to support new practices involve the surgical team to strengthen confidence and increase membership team in favor of safe care focused on surgical patient.

REFERENCES

1. Chantler C. The role and education of doctors in the delivery of healthcare. *Lancet*. 1999 Apr 3; 353(9159): 1178-. Disponível em: www.ncbi.nlm.nih.gov/pubmed/10209997
2. Jka AK, Prasopa-paizer N, Larizgoitia I, Bates DW. Patient safety research: an overview of the global evidence. *Qual Saf Health Care*. 2010; 19: 42-47. Disponível em: www.ncbi.nlm.nih.gov/pubmed/20172882
3. Souza LP, Bezerrall ALQ, Silva AEBC, Carneiro FS, Paranaquá TTB, Lemos LF. Eventos adversos: instrumento de avaliação do desempenho em centro cirúrgico de um hospital universitário. *Rev. Enferm*. 2011; 19(1):127:33.
4. Haynes AB, Weiser TG, Berry WR, Lipsitz SR, Breizat AH, Dellinger EP, et al. A surgical safety checklist to reduce morbidity and mortality in a global population. *The N Engl J Med*. 2009; 360: 491-99. Disponível em: <http://www.nejm.org/doi/full/10.1056/NEJMsa0810119>
5. Weiser TG, Regenbogen SE, Thompson KD, Haynes AB, Lipsitz SR, Berry WR. An estimation of the global volume of surgery: a modelling strategy based on available data. *Lancet*. 2008; 372(9633): 139-44. Disponível em: www.ncbi.nlm.nih.gov/pubmed/18582931
6. Fragata JIG. Erros e acidentes no bloco operatório: revisão do estado da arte. *Rev.Port.Sau.Pub*. [periódico na internet]. 2010 [acesso em 27 jul 2014]; 10: 17-26. Disponível em: <http://pesquisa.proqualis.net/resources/000001133>
7. Carvalho, D. V.; Lima, E. D. R. P. Sintomas físicos de estresse na equipe de enfermagem de um centro cirúrgico. *Rev. Nursing*. 2001; 4(34): 31-4. Disponível em: <http://bases.bireme.br/cgi-bin/wxislind.exe/iah/online/?IsisScript=iah/iah.xis&src=google&base=BDENF&lang=p&nextAction=lnk&exprSearch=1109&indexSearch=ID>
8. World Alliance for Patient Safety. Implementation manual: who surgical safety checklist [periódico na internet]. 2009 [acesso em

- 07 maio 2012]. Disponível em: http://www.who.int/patientsafety/safesurgery/ss_checklist/en/index.html
9. Organização Mundial da Saúde (OMS). Segundo Desafio Global para a Segurança do Paciente: cirurgias seguras salvam vidas (Orientações para cirurgias seguras da OMS) [periódico na internet]. Rio de Janeiro: Organização Pan-Americana de Saúde; Ministério da Saúde (MS); Agência Nacional de Vigilância Sanitária (ANVISA), 2009 [Acesso em 25 jun 2014]. Disponível em: http://bvms.saude.gov.br/bvs/publicacoes/seguranca_paciente_cirurgia_salva_manual.pdf
10. Brasil. Ministério da Saúde. Documento de referência para o Programa Nacional de Segurança do Paciente/Ministério da Saúde. Fundação Oswaldo Cruz. Agência Nacional de Vigilância Sanitária. Brasília: 2014.
11. Wachter RMA. Compreendendo a segurança do paciente. Porto Alegre: Artmed; 2010.
12. Mendes KDS, Silveira RCCP, Galvão CM. Integrative Literature Review: A Research method to incorporate evidence in health care and nursing. Texto e Contexto - Enferm. [periódico na internet]. 2008 out-dez [acesso em 15 set 2014]; 17(4): 758-64. Disponível em: http://www.scielo.br/scielo.php?script=sci_arttext&pid=S0104-07072008000400018
13. Ganong LH. Integrative reviews of nursing research. Res Nurs Health. 1987; 10(1):1-11
14. Moher D, Liberati A, Tetzlaff J, Altman DG. Preferred reporting items for systematic reviews and meta-analyses: The PRISMA Statement. BMJ [periódico na internet]. 2009 Jul 21 [acesso em 21 fev 2015]; 339: 332-36 Disponível em. Disponível em: <http://www.bmj.com/highwire/section-pdf/8988/9/1>
15. Melnyk BM, Fineout-Overholt E. Making the case for evidence-based practice. In: Melnyk BM, Fineout-Overholt E. Evidencebased practice in nursing & healthcare. A guide to best practice. Philadelphia: Lippincot Williams & Wilkins; 2005. p. 3-24.
16. Brasil. Ministério da Saúde. Portaria nº 529, de 01 de abril de 2013. Institui o Programa Nacional de Segurança do Paciente (PNSP). Diário Oficial da União. [acesso em 11 nov 2014] Disponível em: http://www.cvs.saude.sp.gov.br/up/U_PT-MS-GM-529_010413.pdf
17. Helmiö P, Blomgren K, Takala A, Pauniah SL, Takala RS, Ikonen TS. Towards better patient safety: Who Surgical Safety Checklist in Otorhinolaryngology. Clin Otolaryngol. 2011 jun; 36(3): 242-7. Disponível em: <http://www.ncbi.nlm.nih.gov/pubmed/21481197>
18. Haynes AB, Weiser TG, Berry WR, Lipsitz SR, Breizat AH, Dellinger EP, et al A. Changes in safety attitude and relationship to decreased postoperative morbidity and mortality following implementation of a checklist – based surgical safety intervention. BMJ Quality & Safety 2011; 20:102-7. Disponível em: <http://doi:10.1136/bmjqs.2009.040022>
19. Fudickar A, Hörle K, Wiltfang J, Bein B. The effect of the WHO surgical safety checklist on complication rate and communication. Dtsch Arztebl Int. 2012 out; 109(42): 695-701. Disponível em: <http://www.ncbi.nlm.nih.gov/pubmed/23489074/>
20. Bliss LA, Ross-Richardson CB, Sanzari LJ, Shapiro DS, Lukianoff AE, Bernstein BA, et al. Thirty-day outcomes support implementation of a surgical safety checklist. J Am Coll Surg. 2012 dec; 215(6): 766-76. Disponível em: <http://www.ncbi.nlm.nih.gov/pubmed/22951032>
21. Clark SC, Dunning J, Alfieri OR, Elia S, Hamilton LR, Kappetein AP, Lockowandt U, Sarris GE, Kolh PH. EACTS Guidelines for the use of patient safety checklists. Eur J Cardiothorac Surg. 2012 may; 41(5): 993-1004. Disponível em: <http://www.ncbi.nlm.nih.gov/pubmed/22411264>
22. Hurtado JJD, Jimenez X, Penälonso MA, Villatoro C, Izquierdo S, Cifuentes M. Acceptance of the WHO surgical safety checklist among surgical personnel in hospitals in Guatemala city. BMC – Health Services Research 2012 Jun 21;12:169. doi: 10.1186/1472-6963-12-169. Disponível em: <http://www.ncbi.nlm.nih.gov/pubmed/22721269>
23. Mastracci TM, Greenberg CC, Kortbeek JB. What are the effects of introducing the WHO “surgical safety checklist” on in-hospital mortality? J Am Coll Surg. 2013 dec; 217(6): 1151-3. Disponível em: <http://www.ncbi.nlm.nih.gov/pubmed/24246626>
24. Haugen AS, Søfteland E, Eide GE, Sevdalis N, Vincent CA, Nortvedt MW, et al. Impact of the World Health Organization’s Surgical Safety Checklist on safety culture in the operating theatre: a controlled intervention study. Brit J Anaesth. 2013 may; 110(5): 807-815. Disponível em: <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3630285/pubmed>
25. Pancieri AP, Santos BP, Avila MAGB, Eliana M. - Safe surgery checklist: analysis of the safety and communication of teams from a teaching hospital. Rev Gaúcha Enferm. 2013 mar; 34(1): 71-78. Disponível em: <http://dx.doi.org/10.1590/S1983-14472013000100009>
26. Vivekanantham S, Ravindran RP, Shanmugarajah K, Maruthappu M, Shalhoub J. Surgical safety checklists in developing countries. Int J Surg. 2014; 12(1): 2-6. Disponível em: <http://www.ncbi.nlm.nih.gov/pubmed/24239705>
27. Fortuna CM, Mishima SM, Matumoto S, Pereira MJB. O trabalho de equipe no programa de saúde da família: Reflexões a partir de conceitos do processo grupal e de grupos operativos. Ribeirão Preto: Rev. Latino - Am. Enfermagem. Vol 13 nº 2- Ribeirão Preto / Mar/Apr.2005 2005; 13 (2):262-268.
28. Barros CDC. Sensibilizando para a Qualidade. Rio de Janeiro: Qualitymark. 1996; 112 p.
29. Donabedian A. Explorations in quality assessment and monitoring. Vol. 1. The definition of quality and approaches to its assessment. Ann Arbor, MI: Health Administration Press; 1980

Received on: 06/02/2015
Reviews required: 10/09/2016
Approved on: 08/29/2016
Published on: 01/08/2018

Author responsible for correspondence:

Cláudia Rodrigues Mafra
Campus Universitário Darcy Ribeiro, Asa Norte
Brasília/DF, Brazil
ZIP-code: 70910-900