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ORIGINAL ARTICLE

Improving patient safety: Usefulness of safety checklists in a neonatal unit☆,☆☆

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Checklist;
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Abstract
Introduction: Due to the complexity and characteristics of their patients, neonatal units are risk areas for the development of adverse events (AE). For this reason, there is a need to introduce and implement some tools and strategies that will help to improve the safety of the neonatal patient. Safety check-lists have shown to be a useful tool in other health areas but they are not sufficiently developed in Neonatal Units.
Material and methods: A quasi-experimental prospective study was conducted on the design and implementation of the use of a checklist and evaluation of its usefulness for detecting incidents. The satisfaction of the health professionals on using the checklist tool was also assessed.
Results: The compliance rate in the neonatal intensive care unit (NICU) was 56.5%, with 4.03 incidents per patient being detected. One incident was detected for every 5.3 checklists used. The most frequent detected incidents were those related to medication, followed by inadequate alarm thresholds, adjustments of the monitors, and medication pumps.

The large majority (75%) of the NICU health professionals considered the checklist useful or very useful, and 68.75% considered that its use had managed to avoid an AE. The overall satisfaction was 83.33% for the professionals with less than 5 years working experience, and 44.4% of the professionals with more than 5 years of experience were pleased or very pleased.

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Conclusion: The checklists have shown to be a useful tool for the detection of incidents, especially in NICU, with a positive assessment from the health professionals of the unit.

PALABRAS CLAVE
Lista de verificación;
Seguridad del paciente;
Neonatología;
Neonato;
Unidad de cuidados intensivos neonatales

Mejorando la seguridad del paciente: utilidad de las listas de verificación de seguridad en una unidad neonatal

Resumen
Introducción: Las unidades neonatales, por su complejidad y las características de los pacientes, son áreas de riesgo para el desarrollo de eventos adversos (EA); de ahí surge la necesidad de implantar e implementar herramientas y estrategias que permitan mejorar la seguridad del paciente neonatal. Las listas de verificación de seguridad (LVS) han demostrado ser una herramienta útil en otras áreas sanitarias, pero están poco estudiadas en neonatología.
Material y métodos: Estudio prospectivo cuasiexperimental. Diseño e implantación del uso de LVS y valoración de su utilidad para la detección de incidentes, así como valoración de la satisfacción con el uso de esta herramienta por parte del personal sanitario.
Resultados: En la unidad de cuidados intensivos neonatales (UCIN) el cumplimiento fue del 56,5%. Se detectaron 4,03 incidentes por cada paciente ingresado. Para detectar un incidente fue necesario realizar 5,3 LVS. Los incidentes más frecuentes fueron los relacionados con medicación, seguidos por los ajustes inadecuados de las alarmas de monitores y bombas de infusión.

El 75% del personal consideró la LVS útil o muy útil y el 68,75%, que la LVS había conseguido evitar algún EA. En cuanto al grado de satisfacción global, se sentían satisfechos o muy satisfechos con la LVS el 83,33% de las personas con menos de 5 años de experiencia frente al 44,4% del personal con más de 5 años de experiencia.
Conclusiones: Las LVS han demostrado ser una herramienta útil para la detección de incidentes, especialmente en la UCIN, con una valoración positiva por parte del personal de la unidad.

Introduction

In the past 25 years, following the publication of the study *To err is human: Building a safer health system*,[1] national and international health authorities have made considerable efforts to improve patient safety.

There have been advances in safety in the field of paediatrics, too,[2–4] but the safety of neonatal patients has not been adequately studied, despite the high incidence of adverse events (AEs) in this group.[5,6] Neonatal units, and especially those devoted to intensive care, are risk areas for the development of AEs on account of their complexity and the characteristics of their patients.[5–8] Thus, it is necessary to introduce and implement tools and strategies that allow the detection of incidents and that protect against and help reduce AEs. Voluntary AE reporting systems underestimate the prevalence of these incidents, so the use of other tools for the active search of AEs, such as safety checklists (SCLs) can complement reporting and improve detection, which allows us to learn more from our mistakes. The WHO has promoted the use of SCLs both in surgery[9] and childbirth.[10] Within the framework of a plan for improving patient safety in the department of neonatology of our hospital, we decided to assess the potential usefulness of SCLs for the detection and correction of incidents and the prevention of AEs.

Materials and methods

We conducted a prospective, quasiexperimental study in the Department of Neonatology of the Hospital General Universitario Gregorio Marañón between March and September of 2015. The study was approved by the Ethics and Research Committee of the hospital, and received no funding.

The neonatal department offers care at the IIIC level and serves patients with any type of neonatal disease. It has two separate inpatient areas—an intermediate care unit with 34 beds, and a neonatal intensive care unit (NICU) with 16 beds—and a staff comprising 91 nurses, 55 nursing assistants, 19 physicians and a department chief, in addition to staff in training. The department has electronic health records and prescription systems, although physicians occasionally make adjustments to treatments by means of hand-written prescriptions.

Two SCLs were created, one for each unit (Appendices A and B). They were developed by a working group consisting of neonatologists and preventive medicine physicians based on the AEs and incidents described in the literature and the