Development of a perinatal electronic health record model

Dra Mañas Uxó, María Isabel (1), Dr Leante Castellanos, José Luis (2)

(1) Health Sciences PhD Program, Universidad Católica de Murcia (UCAM), Campus de los Jerónimos, nº 135, Guadalupe, 30107 Murcia, Spain (2) Healthcare General Management, Murcian Health Service, Central Street 7, Habitamia Building, 30100 Espinardo. Murcia, Spain

Introduction

Although it is usual to establish a series of minimum fundamental data for admission to the neonatal unit, when newborns remain in the maternity ward with their parents, access to information on their care is usually very limited. Often, this data is not documented electronically and sometimes only appears in the mother's medical record.

It would be desirable for all this information to be collected in a report that would facilitate continuity of care.

Despite the expressed interest of scientific associations linked to perinatology, there is little evidence on the implementation of perinatal health records that encompass all births in a region.

Methods

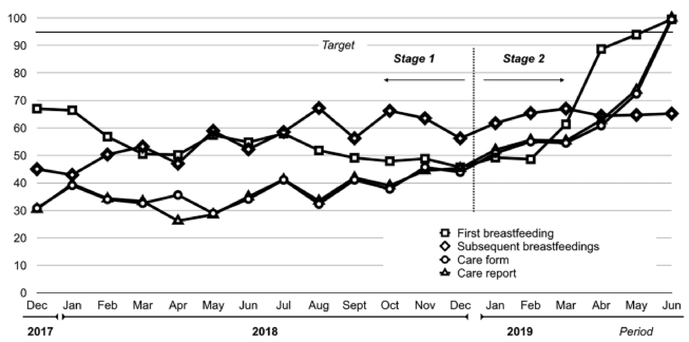
We describe the creation and implementation of an electronic record model that integrates information on medical care provided to both mother and baby, standardized for six medical centers in a regional health system.

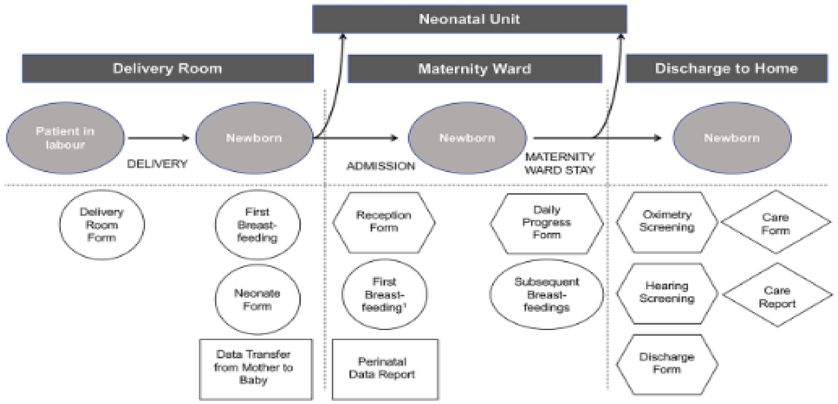
This novel perinatal clinical records integrates data from the mother's medical record, along with all assessments, examinations and procedures performed on infants during their stay in the maternity ward.

The implementation procedure was formulated in two phases. During the initial phase, the tool was introduced in medical centers to initiate first interaction with the medical staff. The next phase consisted of devising a new approach to stabilize the project. Technical flaws were rectified and a new edition was formulated based on interdisciplinary consensus.

Indicators to monitor implementation were measured in both phases and analyzed using the chi-square test.

Results





In the primary phase, almost all newborns obtained their electronic medical records with an adequate connection to the mother's data. However, certain forms completed by staff were frequently not completed (completion rates: 36.7%-55.3%). In the secondary phase, there was a statistically remarkable growth in the completion rates of all these forms. Consequently, a standardised discharge report was provided to every newborn at the end of stage two.

For the completion of a standardized and unique newborn discharge report, the newborn care team, consisting of nurses, midwives, assistants and pediatricians, fill out several forms from birth to discharge where all obstetric and perinatal data are recorded.

Discussion

There is little published evidence on the existence of standardized models of electronic perinatal medical record keeping at regional, national and international levels. In addition, there are no adequate systems for monitoring and standardizing different perinatal indicators related to such important areas as skin-to-skin contact and breastfeeding.

This electronic record model serves as an innovative illustration of how the digitization and standardization of data linked to the care of healthy newborns in maternity units can be implemented throughout a network of medical centers. This model contributes to improved health outcomes for both mothers and newborns and promotes more equitable and coordinated healthcare across different health areas. This is vital in regions such as ours, where language barriers are common.

The implementation experience described here has given rise to errors and useful lessons that can be used for future projects. Among them, we highlight the collaborative and integrative approach with healthcare professionals. Some of the most innovative developments arose from the input of professionals.

References

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mabeluxo@gmail.com