

Verba volant, scripta manent: breastfeeding information and health messages provided to parents in the neonatal discharge summary in the Lazio Region, Italy

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Abstract

Objective. We aimed to evaluate the contents of the neonatal discharge summary (NDS), an important communication tool that should contain evidence-based information.

Methods. A quali-quantitative study of NDSs delivered from 29 hospitals of Lazio (Italy) in 2014 and 2017 was conducted. We used content analysis to assess the written information and logistic regression to estimate the association between outcomes (compliance with the International Code, health messages, and information on neonatal screenings) and some hospital's characteristics.

Results. NDSs conforming to International Code were associated with low rate of C-section ($p < 0.05$). Hospitals belonging to Local Health Authorities ($p < 0.05$) and with a lower prevalence of C-section ($p < 0.05$) had a greater attitude to promote infant health. The year of collection was associated with information on neonatal screenings ($p < 0.05$).

Conclusions. An effort is required by hospitals to reduce their level of medicalization, in clinical practice and prescriptive attitudes, which affects the NDSs delivered to parents.

Key words

- international code of marketing of breast-milk substitutes
- breastfeeding
- qualitative methods
- cesarean section

BACKGROUND

The neonatal discharge summary (NDS) is a clinical and communication tool given to parents during discharge to facilitate the transition of care from the hospital to the family. It's the main tool to orient parents to resources available in the healthcare and community support systems. For this reason, NDSs should contain information that is practical, clear, complete, and correct, as well as based on national and international recommendations and consistent with the care plan that

has been discussed with the mother/parents during the hospital stay.

The Academy of Breastfeeding Medicine (ABM) [1] and the Italian Society of Neonatology (ISN) [2] state that specific information should be given to all new parents in written form as part of the NDS or as an additional attachment.

The importance of the written form of the NDS can be well-expressed by this Latin locution: "*Verba volant, scripta manent*", which means "Spoken words fly away,

written words remain". The idea is that while the verbal information given at hospital discharge might easily be forgotten, written documents are available at any time.

According to the ABM [1] and ISN [2], topics that should be covered include infant feeding, indicators of adequate intake, infant health messages (about vitamins D and K, neonatal screening tests, umbilical cord care, prevention of Sudden Infant Death Syndrome (SIDS), vaccines, and car safety), maternal nutrition, and follow-up and contact information. Furthermore, the information provided must comply with the "International Code of Marketing of Breast-milk Substitutes (International Code)", adopted by the World Health Assembly (WHA) in 1981 [3] and by further WHA resolutions on infant feeding. The purpose of the International Code is "to contribute to the provision of safe and adequate nutrition for infants, by the protection and promotion of breastfeeding, and by ensuring the proper use of Breast Milk Substitutes (BMS), when these are necessary, on the basis of adequate information and through appropriate marketing and distribution." In order to avoid undermining lactating women's confidence in their ability to breastfeed, the International Code prohibits all forms of advertising or promotion of BMS, including formula for children up to the age of 3 years [4], as well as foods and beverages marketed as appropriate for children under 6 months of age, bottles/teats and related equipment. The European Commission Directive [5] only requires adoption of parts of the International Code, as does the Italian version carried over into legislation as Decree n. 82 of 9 April 2009 (IT Decree) [6].

Unlike the International Code, the IT Decree applies only to BMS advertising of products promoted as nutritionally adequate for a child during the first six months of life, when exclusive breastfeeding is recommended, and does not apply to formula for the whole 36-month period. Furthermore, the IT Decree affirms that "NDSs should not present a pre-defined space for the prescription of BMS. In cases where these prescriptions are necessary due to maternal or neonatal causes, the NDS must provide the clinical indication for BMS use as well as appropriate information for its correct use." In Italy, each maternity hospital (MH) develops and uses its own NDS, leading to a wide heterogeneity in terms of contents. Two previous surveys were carried out in Rome on the information contained in NDSs [7, 8]. The more recent study from 2006 concluded that 67% of those NDSs reported incorrect information and 63% had a handwritten or pre-printed prescription of a specific infant formula brand.

The purpose of this study was to evaluate the information contained in NDSs in Lazio's MHs in 2014 and 2017 and compare the evolution of these contents. A secondary purpose was to identify if some contents were associated with MH's characteristics.

METHODS

Design

This was a quali-quantitative study. We used a conventional qualitative content analysis approach to assess informative contents of NDSs, and a quantitative

analysis to evaluate whether compliance with International Code and IT Decree, the presence of infant health promotion messages, and the presence of indications for neonatal screenings were associated with MH's characteristics.

Setting

In Italy, the National Health System (NHS) offers free access for all citizens and residents through a system of public hospitals and Community Health Services (CHS), with some accredited private facilities. The public facilities are university hospitals, hospital corporations or hospitals belonging to a Local Health Authority (LHA). These, together with accredited private facilities, offer services covered by the regional health system. Moreover, there are non-accredited private hospitals, but they represent a low percentage of all facilities [9]. Maternal-infant care is offered in CHSs and MHs with different levels of care. Level I MHs can provide care to healthy women with low-risk pregnancies, while Level II MHs are specialized for high-risk conditions.

About CHSs, they include centres which provide care from pregnancy through the first years of life, and a primary care paediatrician who is provided to every newborn.

Sample

A copy of the NDSs and any other documents given at discharge from the MHs in the Lazio region were collected. For privacy protection, personal information (name, surname, date and hour of birth, ID number) was deleted. Forty-four MHs were open in 2014 in Lazio, 39 in 2017. The study included all public and accredited MHs, while the private clinics were excluded due to the low number of births (< 2%). To obtain paired samples of NDSs, we included only the MHs that were still open in 2017 and the MHs for which the NDS could not be collected by our recruitment procedure (Figure 1).

Data collection

The research group collected NDSs in 2014 and 2017 from mothers who had given birth respectively in 2014 and 2017 in the MHs of Lazio. Women were recruited on a voluntary basis through mother-to-mother support groups and an informed consent form was obtained for their participation. The Institutional Review Board approval was obtained from the University involved in the study.

Data analysis

Content analysis was used to code and classify the pre-printed information on the NDSs. Some categories were pre-defined (e.g. neonatal screening, vaccination and breastfeeding information, pre-printed space for formula prescription, drugs or supplements prescription), other emerged during the analysis (information on maternal nutrition during breastfeeding, specific product for the hygiene of mother and newborn and umbilical cord care). Handwritten contents were excluded because they depend on multiple factors, such

as the health conditions of the newborn and the clinician doing the discharge. The coding process was carried out deductively and inductively, all categories were discussed and agreed by 3 researchers and classified using NVivo v. 10 software.

A multi-year database was developed using binary variables. Considering the official data of the Lazio Region [10, 11], we included some MH's characteristics (level of care provided, prevalence of cesarean section, MH belonging to LHA). Moreover, we considered some qualitative categories, transformed into the following outcomes: 1) "compliance with International Code and IT Decree", i.e. the absence of a pre-defined space for formula prescription on NDS; 2) "infant health promotion messages", i.e. at least one message of the following: importance of vaccinations and/or infant's supine sleeping position; and 3) "information on neonatal screenings", i.e. at least 3 out of 4 neonatal screening tests (hearing, cardiac, ophthalmic, hip) performed during hospital stay or recommended after discharge. Information on metabolic screening has been excluded from the analysis because it's reported in all almost NDSs.

Statistical analysis was conducted using Epi Info statistical software v. 7.2.2.6. Descriptive statistics data are presented as absolute and relative frequencies (Table 1). Bivariate analysis was performed between each outcome and MH's characteristics. Variables with p-values less than $p < 0.10$ were included in multivariate logistic regression models and presented as adjusted odds ratios and 95% confidence intervals. P-values were considered significant at $p < 0.05$.

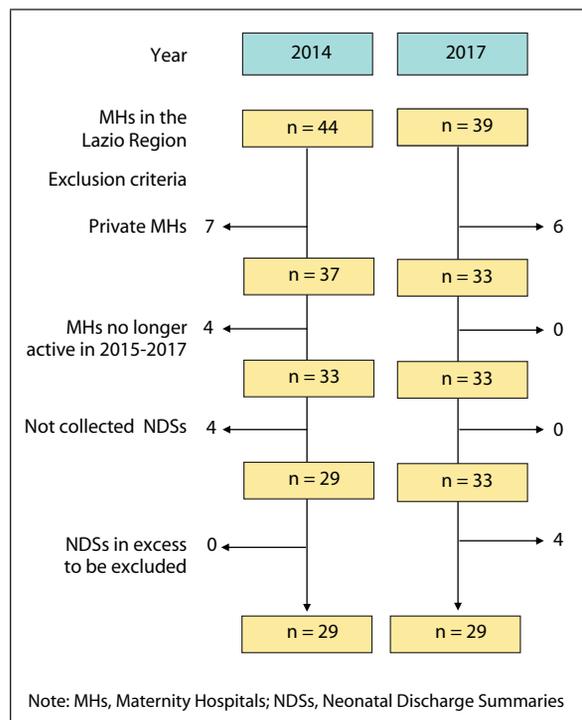


Figure 1
Paired samples of neonatal discharge summaries (NDSs) collected in 2014 and 2017.

Table 1

Identification, birth, anthropometric and clinical data reported in neonatal discharge summaries (NDSs) collected in 2014 and 2017 (N = 29 per year)

Selected contents	2014 n (%)	2017 n (%)
Main identification and birth data		
Surname and name	29 (100)	29 (100)
Date of birth	29 (100)	29 (100)
Time of birth	18 (62)	20 (70)
Type of delivery	28 (97)	28 (97)
Gestational age	28 (97)	28 (97)
Sex	7 (24)	7 (24)
Apgar score	27 (93)	28 (97)
Anthropometric data		
Birth weight	29 (100)	29 (100)
Discharge weight	29 (100)	29 (100)
Length	29 (100)	29 (100)
Head circumference	29 (100)	29 (100)
Chest circumference	6 (20)	1 (3)
Blood tests		
Blood group	27 (93)	28 (97)
Direct Coombs test	20 (70)	22 (76)
Bilirubin test	24 (83)	26 (90)
Haematocrit test	18 (62)	19 (65)
Glucose test	4 (14)	7 (24)
Discharge data		
Discharge diagnosis	15 (52)	15 (52)
Outpatient follow-up	27 (93)	28 (97)
Discharge date	25 (86)	29 (100)
Maternal data		
Blood group	19 (65)	18 (62)
HBsAg status	4 (14)	5 (17)
Family history	6 (20)	4 (14)
Obstetrical history	6 (20)	6 (20)

RESULTS

We collected the NDSs of 29 MHs in 2014 and 2017 with a coverage of births in the region of 89.9% and 93.0% respectively.

In the MHs included, one third provided Level 2 care and the mean overall cesarean section rate was 41.8% in 2014 and 39.6% in 2017. One of the MHs had been certified as a Baby-Friendly Hospital by Unicef in 2014, and in 2017 was undergoing re-certification, while 2 other MHs were in the area served by a certified Baby-Friendly Community Health Service since 2014.

Information in the NDSs was summarized into the following categories: infant feeding practices, indicators of adequate intake, infant health promotion messages, maternal nutrition and follow-up information (Figure 2, available on line as Supplementary Material).

Information on infant feeding practices was reported in 27 (93%) in 2014 and 28 (97%) in 2017. The main

contents described human milk as “the ideal food” (22 vs 25) and discussed breastfeeding on-demand (25 vs 24) and not limiting the length of a feed (5 vs 9). Some MHs proposed outdated breastfeeding practices such as scheduling feeds (5 vs 4), limiting time at the breast (4 vs 1) and information on breast care and hygiene (2 vs 1).

Other types of appropriate content were found only in a small number of NDSs: information for effective latch-on technique (5 vs 5); explaining the mechanism of “the more you breastfeed, the more milk you make” (5 vs 4) and hand expression of human milk (2 in both years); avoiding pacifier use before breastfeeding is well established (2 vs 1), and following World Health Organization (WHO) recommendations (6 vs 7 for exclusive breastfeeding for six months, 0 vs 1 for continued breastfeeding with complementary foods after 6 months). Information about the type of infant feeding adopted during the hospital stay was available in 9 (31%) NDSs in 2014 and 5 (17%) in 2017, but all the WHO feeding definitions (exclusive or predominant breastfeeding, complementary feeding or formula feeding) were included in only 3 and 2 NDSs, respectively.

About the BMS, the most frequent indications concerned instructions on how to prepare formula (10 vs 7) and how to determine the correct amount to prepare (9 vs 7). A pre-defined space for formula prescription was pre-printed in 14 NDSs in 2014 and 7 in 2017. This signifies that 54% of children born in the selected MHs in 2014 and 23% in 2017 received an NDS that violates not only the International Code, but Italian law as well.

The main indicators of adequate intake were the infant’s weekly’s weight gain (19 vs 18) and the number of wet diapers (14 vs 17). Test weighing before/after breastfeeding was recommended in just 1 and 3 NDSs, respectively.

All of the NDSs included at least some infant health promotion messages. Pre-defined spaces for prophylaxis and screenings regarded mainly vitamin K (21 vs 27) and ocular prophylaxis (11 vs 18), as well as metabolic (29 vs 28), hearing (9 vs 23) and cardiological screening (7 vs 17), hip ultrasound (15 vs 18) and examination of the eyes and vision (7 vs 16). Prescriptions of supplements mainly regarded vitamin D (13 vs 12) and in fewer cases fluorine (6 vs 5). Information on umbilical cord

care was frequently provided (21 vs 24) suggesting a specific brand for umbilical cord disinfection (or an empty space to prescribe it) (9 vs 11) or dry cord care (9 vs 11).

In 2014, 15 NDSs (52%) contained at least one indication for SIDS prevention, while the number increased to 22 NDSs (76%) in 2017. The most frequent recommendations were to place newborns to sleep on their back (13 vs 18) and in a cot (7 vs 9), to avoid excessively warm environments (9 vs 13), to avoid smoking (7 vs 11), while breastfeeding (3 vs 4) and room-sharing (1 vs 5) are less frequently mentioned. Information about the importance of vaccines was rare (4 vs 2) and information on car safety was reported only in two NDSs in 2017.

There was a marked increase in information on maternal nutrition: 48% of NDSs in 2014 and 72% in 2017. The main advice concerned the importance of following a well-balanced diet (11 vs 19) and foods to avoid during breastfeeding (5 vs 4). Hard alcohol was explicitly contraindicated in 3 NDSs in 2014 and 6 in 2017. Two NDSs in 2014 and 4 in 2017 provided information on the use of medications during lactation. Several supplements for the mother [vitamins/multiminerals (3 vs 4), galactogogues (2 vs 1)] are prescribed, with no clinical indication.

Follow-up information in NDSs often included phone numbers of hospital paediatric services (14 vs 13) and main switchboards (8 vs 10), while rarely providing information on community breastfeeding support services (4 vs 5), mother-child community health centres (2 vs 1), and local peer support groups (1 vs 1).

Further content regarding information on the main maternal-neonatal blood tests, newborn’s identification and other data are summarized in *Table 1*.

The quantitative analysis revealed that NDSs compliant with the International Code and IT Decree were associated with MHs with a lower prevalence of cesarean section ($p < 0.01$). Infant health promotion messages were more frequent in NDSs of MHs belonging to the LHA ($p < 0.001$) and those having a lower prevalence of cesarean section ($p < 0.001$). Information on neonatal screening tests had a higher probability of being reported in the NDSs collected in 2017 than 2014 ($p < 0.003$) and were more frequent in MHs with lower prevalence of cesarean section ($p = 0.10$) (*Table 2*).

Table 2

Bivariate associations between each outcome (Compliance with International Code and IT Decree, Infant health promotion messages, Information on Neonatal Screening Tests) and MH’s characteristics (Year of collection, Level II MHs, MHs belonging to LHA, cesarean section) (N = 58)

	Compliance with International Code and IT Decree			Infant health promotion messages			Information on Neonatal Screening Tests		
	OR	95% CI	p-value	OR	95% CI	p-value	OR	95% CI	p-value
Year of collection (2017/2014)	2.9	(0.9-9.3)	0.06*	1.5	(0.5-4.5)	0.45	5.3	(1.7-18.1)	<0.003*
Level II MHs (Yes/No)	0.6	(0.2-2.0)	0.38	0.8	(0.2-2.4)	0.62	2.6	(0.8-8.3)	0.17
MHs belonging to LHA (Yes/No)	1.3	(0.4-4.0)	0.60	6.4	(2.0-21.9)	<0.001*	0.7	(0.2-2.2)	0.56
Cesarean section (<40%/≥40%)	5.1	(1.6-17.5)	<0.01*	6.6	(2.0-24.6)	<0.001*	1.7	(0.6-5.1)	0.10*

OR: odds ratio; CI: confidence interval; * $p \leq 0.10$; MH: maternity hospital; LHA: Local Health Authority.

Variables with p-value less than or equal to 0.10 in the bivariate analyses were selected for logistic regression (Table 3). Compliance with International Code and IT Decree was significantly associated with a low prevalence of cesarean section (CI, 1.4-15.9) but not with the year of collection. Infant health promotion messages were significantly associated with MHs belonging to the LHAs (CI, 1.2-14.7) and with a low prevalence of cesarean section (CI, 1.2-16.0). Information on neonatal screenings was significantly associated with the year of data collection (CI, 1.6-16.8) but not with the prevalence of cesarean section.

DISCUSSION

In Italy, Government Guidelines do not exist relatively NDSs' contents, causing a wide heterogeneity in terms of written information provided by the various hospitals.

Considering that the primal period, from pregnancy to 2 years of life, is critical to lifelong health, good communication aimed at health promotion and parents' empowerment assumes a key role. An NDS is often the only official document given to the parents during discharge to facilitate the transition of care from the hospital to the family. It can be used as a mere information tool or can be part of a communication process, actively engaging the parents and the professionals along the care pathway.

Taking account of the information provided by International Code, IT Decree, the ABM [1] and ISN [2], our study shows a relevant improvement in written informative delivered to parents over the years, albeit with some persistent critical issues.

Written clinical information is necessary for the healthcare providers, such as mother-child CHS and family paediatricians, who will take care of the newborn after discharge, while infant health promotion messages are important for the new parents, especially for those who didn't attend childbirth education classes. In fact, a national survey published in 2012 showed that about 41% of Italian and 62% of foreign primiparous women didn't attend childbirth education classes [12]. For these families, the NDS may represent their only opportunity to receive information about their children and healthcare options.

Almost all the MHs mention infant feeding, including the superiority and importance of human milk. However, some information is contradictory. For ex-

ample, responsive breastfeeding is often encouraged in the opening sentence but a preset length and/or frequency of feedings is suggested in the following paragraphs. This discrepancy may be attributed to a dual approach to breastfeeding by healthcare professionals deriving from the conflict between formal knowledge and practice-based situations [13].

Moreover, the recommended duration of exclusive breastfeeding is explicitly discussed in a fair number of NDSs, while continued breastfeeding after the introduction of solids is rarely mentioned, although MHs should encourage responsive exclusive breastfeeding for the first 6 months and continued breastfeeding up to 2 years of life and beyond [1].

From 2014 to 2017, the quality of information on breastfeeding seems to be improved. However, it's surprising that there are still NDSs providing a pre-defined space for formula prescription even though the International Code and the 2009 IT Decree prohibits it and economic sanctions have been established since 2011.

In some cases, the prescription of a specific infant formula brand was written on a separate piece of hospital letterhead that was not part of the NDS and no clinical indication for the use of formula was given. In other NDSs, there is no pre-defined space for formula prescription to be used after discharge, but one in which to write the brand of formula used during the hospital stay. In total, 3 NDSs with a pre-defined space for formula prescription provided the printed indication "in case of hypogalactia", supporting what has nowadays become more of a cultural construct than a real clinical condition. While no data are available on the prevalence of clinically-diagnosed hypogalactia, it's very rare, even though it's the first reason given by Italian women for abandoning breastfeeding in the first 3 months [12]. The BMS prescription at hospital discharge is left to the paediatrician's discretion, according to her/his clinical judgment. As is done for medications, the prescription should be written and provide complete and personalized information to parents on the safe and correct use of formula. When prescribing BMS, the AFAAS criteria (Acceptable, Feasible, Affordable, Sustainable and Safe) should be applied [14].

In our study, an improvement in compliance with the International Code and IT Decree was found over the years. In fact, in 2017 the number of MHs that use non-compliant NDSs is half of what it had been three

Table 3
Logistic regression models. Adjusted odds ratios are presented (N = 58)

	Compliance with International Code and IT Decree			Infant health promotion messages			Information on Neonatal Screening Tests		
	aOR	95% CI	p-value	aOR	95% CI	p-value	aOR	95% CI	p-value
Year of collection (2017/2014)	2.4	(0.7-7.9)	0.15	-	-	-	5.2	(1.6-16.8)	<0.006*
MHs belonging to LHA (Yes/No)	-	-	-	4.2	(1.2-14.)	<0.03*	-	-	-
Cesarean section (<40%/≥40%)	4.7	(1.4-15.9)	0.01*	4.4	(1.2-16.0)	<0.03*	1.3	(0.4-4.2)	0.65

AOR: adjusted odds ratio; CI: confidence interval; *p < 0.05; MH: maternity hospital; LHA: Local Health Authority.

years earlier. However, the quantitative analysis showed that MHs with lower rates of cesarean sections have a greater proportion of NDSs conforming to the International Code and IT Decree, while the year of collection is not significantly associated. Cesarean section rate is a good indicator for assessing the over-medicalization of childbirth. We assume that this “medicalized attitude” extends to the design of written communication given to new parents, which is more focused on clinical and prescriptive aspects (e.g. drugs, supplements, infant formula) than on practices for health promotion.

According to ABM [1] and ISN [2], NDSs should include some essential infant health messages. The ISN recommends vitamins K and D to all newborns [2]. Most of the NDSs collected contain written information on the vitamin K prophylaxis performed in hospital. In our study there is less emphasis on vitamin D supplementation, as the prescription is often handwritten in the generic space dedicated to post-discharge medications. Some NDSs recommend fluoride supplements, although their effectiveness in preventing tooth decay is not demonstrated in children younger than 6 months [2].

Information on umbilical cord care denotes a prescriptive attitude, e.g. providing a field to be filled in with indications of disinfectant or brand products for cord care. This advice is more conservative than the 1998 WHO recommendations for high-income countries [15] (World Health Organization, 1998) for “dry care”, i.e. using soap and sterile water if umbilical stump is dirty, while chlorhexidine is indicated only in case of low sanitary conditions and/or when the risk of infections is high [16].

Information on neonatal screening has increased significantly in 2017, probably as a result of the implementation of the Italian National Plan of Prevention (INPP) [17]. Ultrasound screening for hip dysplasia and hearing screening are often mentioned in pre-printed messages. Although the INPP [17] recommends that all MHs offer both neonatal hearing and ophthalmic screening, information on eye examination is less frequent than the other.

Information on infant’s safe sleeping is important for SIDS prevention. Some behaviours and conditions are considered risk factors [18], while supine position of the infant, breastfeeding and a high-quality prenatal care [19] are positive protective factors. In our study, recommendation for using the supine position is the most common message for SIDS prevention while room-/bed-sharing [20-22] and pacifier use [23, 24] are rarely mentioned, possibly because the scientific debate is still underway.

As for other messages, content on vaccines is rare although providing information to parents on importance of immunization is recommended [2, 25]. Since 2015, the ISN has recommended that a standard message be inserted in NDSs, describing the importance of vaccines currently available, the increase in their efficacy, the decreased risk of adverse reactions, and the advice to contact the paediatrician or the ISN website for further information [2]. In spite of this, few NDSs offer this kind of information.

Information about car safety is lacking in almost all NDSs, although motor vehicle accidents are still one of the main causes of death and injuries for children [26].

The MHs belonging to LHAs and with a lower prevalence of cesarean sections provide more written infant health promoting messages about safe sleeping and vaccines compared to the other types of MHs. This could reflect a greater integration between public hospitals and CHSs as they fall under the same management and pay more attention to health promotion and disease prevention at the level of the community they serve.

Although NDSs suggest that the appropriate maternal diet should be well balanced and varied during lactation, some food restrictions are still advised (e.g. spicy foods, shellfish, beans, dairy products). This result confirms that health professionals can convey some “food taboos” [27] to the mothers although no dietetic restrictions should be routinely recommended during breastfeeding [28]. Few NDSs provide information on the use of maternal medications during lactation, limiting their content to the recommendation “do not take drugs without a medical prescription”. Mothers, as well as health professionals, should be supported by official and evidence-based information on medications, breastfeeding management, and pharmacovigilance [29, 30]. Therefore, the NDSs could be enriched by providing references to the main institutional websites dealing with the topic and/or phone numbers of the drug information services.

In our NDSs, phone numbers of hospital paediatric wards are often provided, while contacts of CHSs and breastfeeding peer support groups are rare. This confirms the concern about the gaps in communication between hospital and resources in the community.

Space limit is a challenge when health professionals want to design a clinical record or an information document for patients or their caregivers. Our study shows that some important health information is frequently omitted (e.g. car safety, practical advice for breastfeeding technique, regaining birth weight). Other contents that are less relevant or not evidence-based (e.g. products or techniques for breast hygiene and care, fluoride supplements, test weighing before/after feeding) should be omitted.

After hospital discharge, the Italian NHS requires mandatory, free registration for all newborns to a paediatrician. As the system is not proactive, the time between the hospital discharge and the first contact with the paediatrician or mother-child CHSs can vary significantly. During this period, parents will rely on information acquired from health professionals during pregnancy and hospital stay. Thus, the information contained in NDSs can play a key role in orienting the parents during the first days of life and within the health system. As emphasized by the ABM [1] and ISN [2], information should be provided verbally during pregnancy and hospital stay and be reinforced in the form of short and simple written messages on the NDSs. A survey similar to ours was recently published but limited to the city of Rome and the year 2017 [31]. These results, in line with ours in terms of emerged contents and great variability between the different hospitals, led to the publication

of an official document from the Region of Lazio recommending that MH directors standardize NDSs.

LIMITATIONS

Our study has limitations. Some missing information (e.g. recommended neonatal screenings, prescription of vitamin D) may be handwritten in the white spaces by the paediatrician. Some health messages may be missing in the NDSs but, in a few cases, be written in other information booklets given to parents. Moreover, there could be an underestimation of the number of letterhead sheets that are systematically attached to the NDSs and used for formula prescription but are not compliant with the current Italian legislation and the International Code, as compared to those collected during the study. For the purposes of statistical analysis, the number of MHs, as well as NDSs, is small and this could have affected the statistical significance.

CONCLUSIONS

This study contributes to a better understanding of the information included in NDSs in Lazio (Italy). Compared to previous years, relevant improvements emerge in terms of greater compliance with International Code and IT Decree and attention to health messages. Further progress needs to be made by MHs to reduce their level of medicalization in both clinical practice and prescriptive attitudes, which also affects the written information content delivered to parents. Additional improvements can be achieved in the com-

ing years, such as deleting the pre-defined space for formula prescription from all NDSs and giving priority to information and health promotion messages useful to all children and parents. Clear, complete, correct and evidence-based information to promote infant health contributes to giving every child the best start.

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