KMC International Workshop, Trieste- Italy 2016

KMC state of the art- Italy

Population Information [1]

Italian population: 60 665 551. Male: 29 456 321 (48.6%); Female: 31 209 230 (51.4%).

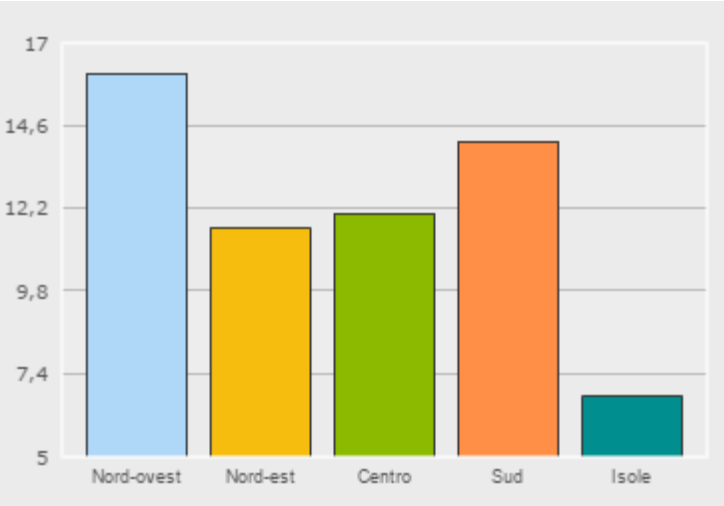
The figure n.1 shows population distribution in the country.

Fertility rate: 1.37 (Italian citizens: 1.29 ; not Italian citizens: 1.97)

Mothers mean age at labour; 31.5 years old

Fathers mean age at labour: 35.2 years old

Figure n. 1 Distribution of the population in different areas in Italy (source Istat[2])



In 2014, in Italy the newborns were 494 550 .
In 2013, out of 510,659 newborn, 1.1% had a birth weight of less than 1500 gr. (Very low birth weight infants- VLBWI) and the 6.2% between 1,500 and 2,500 gr. (Low birth weight infants- LBWI)[3].

Neonatal Intensive Care Units in Italy

Generally, VLBWI are cared in Neonatal Intensive Care Units (NICUs). In Italy, the 105 NICUs are located in Tertiary Hospitals or Academic Hospitals, in Regional Hospitals or in District Hospitals.

In addition, 13 children's hospitals have also NICUs.

National guidelines

[1] Istat data 2014, available at the website http://dati.istat.it/Index.aspx?DataSetCode=DCIS_INDDEMOG1&Lang= (consulted on 6-11-2016)
[2] Istat, available at the website http://www.istat.it/it/popolazione-e-famiglie (consulted on 6-11-2016)
[3] Rapporto Cedap 2013, available at the website: http://www.salute.gov.it/imgs/C_17_pubblicazioni_2431_allegato.pdf (consulted on 6-11-2016)

The Position Statement about breastfeeding and the use of human milk published in 2015 by several Italian Scientific societies (e.g. Neonatal society or paediatric society) has described the KMC for preterm infants as one method to promote breastfeeding and lactation in NICU.

Furthermore, the Italian translation of the WHO document regarding KMC was published in 2006 and it has represented a useful guideline for many healthcare providers of NICUs[4].

Kangaroo Mother Care, an overview of the practice in Italian NICUs

The data available in literature do not offer a whole overview of the KMC practice in Italy.

Thus, a national survey was performed in October 2016.

The items of the survey were developed from literature review, from benchmarking with the Swedish colleagues and through a discussion with a little group of nurses from different hospitals in Italy[5].

The proposal to participate at the survey was sent by email to every Nurse manager of the Italian NICUs (n. 105). The email contained a link to the on-line survey .

Preliminary results

Forty -five NICUs completed the on-line questionnaire (43,6%).

Table n. 1 described the information regarding the organizational features of the NICUs participant.

In twenty - six NICUS (57.7%), infants affected by surgical problems were admitted. In only three NICUs are available separated rooms for them, with a mean of 3.3 beds.

One or two family rooms are present in 11 NICUs (24.4%), with a mean of 1.3 (DS 0.3) beds.

Table n.1 Beds in the NICUs

Beds in the Unit (n.)	**Mean (DS)**
Total beds in the NICU	22 (9.9)
Intensive care beds	8 (DS 0.1)
Sub-Intensive care beds	9.8 (5.8)
Minimal care unit (if present)	7.9 (DS 5.4)
Rooms in the Unit	4.4 (DS 3.3)

Staffing

Generally, the rate nurse/patient is:

[4] A cura di Gruppo di Studio della S.I.N. sulla Care in Neonatologia. Kangaroo mother care, una guida pratica. Acta Neonantologica & Pediatrica, 1, 2006, 5-39

[5] Italian KMC study group

- In intensive care units, 3 patients per nurse (SD 0.8)
- sub-intensive care 4.8 patients per nurse (SD 1.7).

Other health providers helping to perform KMC:

- rehabilitation therapists, mean 1.4 (SD 0.6) (in 24 NICUs; 53%)
- psychologists, mean 1.2 (SD 0.4) (in 31 NICUs; 68.8%)

In six NICUs were present other providers such as NIDCAP professionals, music therapists, or counsellors.

Parental presence in NICUs

Parental presence near the infants is permitted 24/24 h. In less than half of the NICUs (44.4%; n. 20). In 42.2% of NICUs (n°19), the parents were allowed to stay during the daylight (e.g. h. 8-20). The other NICUs permitted parental presence only for a few hours during the day.

Facilities for the family near the bed

Generally an armchair or a reclining chair near the infant bed are available for the parents (respectively 57.7%; n. 26 and 46.6%; n. 21), but in ten NICUs they are not available for all the infants. Only 8 (17.7%) NICUs had a bed for the parent near the infant.

Moreover 50% of NICUs have chairs without armrests (53.3%; n°24) and generally one chair is available for every infant.

KMC practice

Regarding the practice of KMC, some information are described as follows :

- a written protocol regarding KMC of the NICU is present in 25 NICUs (45.5%)
- written information regarding KMC are available for the parents in 22 NICUs (48.8%)

The practice of beginning KMC in preterm infants, if opportune, in the delivery room or the operating room is not widespread: it is present respectively in 16 NICUs (37.7%) and in 8 NICUs (17.7%).
Only in six hospitals, KMC is continued during the transport to NICU, generally by the mother.

The device for KMC (e.g. the sash), is available in most of NICUs (n. 29; 64.4%).

KMC is usually started in accordance with the following criteria:

- hours/days of life (n°22; 48.8%)
- gestational age (n. 6; 13.3%)
- a certain weight (n. 10; 22.2%).

Moreover, KMC is started after the end of a specific treatment:

- ✓ umbilical catheter (57.7% ;n°26)
- ✓ central venous catheter (22.2% ;n°10)
- ✓ peripheric venous catheter (17.7%; n°8)
- ✓ invasive mechanical ventilation (55.5% (N°25);
- ✓ non-invasive mechanical ventilation (22.2% ; n°10) ;
- ✓ supplementary oxygen treatment (e.g. hood or nasal cannula) (4.4%; n.°2)
- ✓ infusion (parental nutrition or other infusion) (11%; n°5) .

35.5 % (n°16) of Italian NICUs claims to start KMC when clinical conditions of the newborn are considered stable.

Who performs KMC?

Both mothers and fathers have the possibility to perform KMC in 82,2% of NICUs (n. 37). In seven NICUs (15,5%) KMC is permitted for mothers only.

Parents are encouraged to perform KMC:

- ✓ continuously, for as long as they want, without undue restrictions in half of the Italian NICUs (53,3%; n. 24)
- ✓ intermittently (e.g all the days but not continuously) in 37,7% of NICUs (n. 17)
- ✓ occasionally (e.g. a few days a week) in 6,6% of NICUs (n.3)

The restrictions on KMC are:

- ✓ the duration of the KMC session (40%; n°18). The mean duration of the sessions is 73.8 min. (39.9 DS).
- ✓ The number of KMC sessions/die (24.4%; n°11). The mean of maximum number of session/die is two (DS 0.8).
- ✓ The time in which parents could perform KMC (51%; n°23). Generally it is possible during the morning (40% ; n°18), or in the afternoon (64.4%; n.°29), or in the evening (40%; n. °18), or the night (13.3%;n°6).

Several NICUs (33.3%; n. °15) describe other types of reasons: logistical, organizational, insufficient space, the presence of infections, parents unwillingness .

What about KMC and twins?

In the most of the NICUs (60%; n. 27) KMC is performed by the same caregiver, simultaneously for both the twins. KMC is performed simultaneously for the twins but by two different caregivers (53.3%; n. 24); one only twin at a time (60%; n. 27).

KMC and discharge

Most of the NICUs (64.4%; n. 29) suggest to continue KMC after infant's discharge. It is suggested especially when the infant has difficulties in breastfeeding, for preterm infants, for hyperactive infants.

In the case of a program of early discharge, the parents continue KMC as long as possible in the half of the NICUs (53,3%; n. 24).

Moreover KMC is suggested when the infants need to maintain regular temperature (37.7%; n. 17).

At least, only nine NICUs (20%) claim that parents can borrow the band or other support for the KMC at home, until the infant needs of it.

Conclusion

We can affirm that on overall KMC is performed in Italian NICUs, but not continuously and it is often restricted for several medical or organizational reasons previous described.

What should we do in future to improve KMC?

Here is some proposals:

- developing a policy statement about KMC in high risk infants that describes general criteria to perform it
- Health provider education, theoretical and practice training, in order to become more familiar with KMC in high-risk infants too.
- Monitoring KMC practice by rigorous recording on infants clinical documentation
- exploring the difficulties experienced in performing KMC in NICUs by the health providers and the parents in the Italian cultural setting.
- Improving facilities for the parents to permit them to stay as long as they desire beside the infant.
- improving the proposal of KMC at home, after NICU discharge
- developing educational materials, also on-line, for parents regarding KMC.

This survey about the KMC, and the state of the art in Italy has been coordinated by Bambino Gesù Children's Hospital-Italy.

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