



Spiritual care in neonatology: analysis of emergency baptisms in an Irish neonatal unit over 15 years

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Abstract

Background Emergency baptism remains an important emotional and spiritual element for many parents of critically ill infants in the neonatal unit. There is no published data available as to which neonates are baptised and their outcomes.

Objectives To evaluate trends, outcomes and characteristics of newborn infants baptised over a 15-year period in an Irish maternity hospital.

Methods Retrospective study of infants baptised in University Maternity Hospital Limerick (UMHL) over a 15-year period. Patients were identified from the ‘register of baptisms’ for the years 2002–2016.

Results A total of 354 neonates were identified and further information was available for 341. We observed a gradual decline of emergency baptisms over the 15-year period. A total of 114 (32.2%) infants were term and 199 (56.2%) preterm. A total of 288 infants (81.5%) were baptised by Catholic priest, 61 (17.3%) by staff member, 1 (0.3%) by family member and in 3 cases (0.9%) the person baptising was unrecorded. Day of baptism varied from 1 to 88 with a mean age of 4.6 days. A total of 113 (31.9%) neonates died after baptism. Majority of infants baptised were preterm and low birth weight, with predominance of extremely low birth weight (ELBW) who also had proportionately higher mortality 47 (47.5%) following the baptism.

Conclusion Emergency baptism remains an important element in the spiritual care of the critically ill newborn infants and their families. Maternity hospitals and neonatal units should have access to emergency baptism service or other equivalent ‘spiritual blessings’ as appropriate to the faiths followed by the family, especially in an emerging multi-faith population.

Keywords Emergency baptism · End-of-life care · Margins of viability · NICU · Prematurity · Spiritual care

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Introduction

Baptism is the Christian sacrament marked by ritual use of water and admitting the recipient to the Christian community [1]. The origins of the word Baptism come from the Greek word “baptizo” meaning “immerse” and the practice of blessing infants with water can be traced back as far as ancient Egyptian and Babylonian times [2]. Infant baptism originated in the fourth century CE with the concept of original sin [3]. An emergency baptism is a baptism administered to a person in danger of death. This can be done by a person not normally authorised to administer the sacrament, provided they have the intention of baptising the person. It is provided by pouring water over the person while saying the words “I baptise you in the Name of the Father, and of the Son, and of the Holy Spirit” [4]. Practice of emergency baptism originated in twelfth century, following teachings of St Augustine on the ‘rites of passage’, that souls of infants who died without being baptised could not enter heaven and instead entered a state of limbo [3, 5]. Although these teachings have since been reformed [6], emergency baptism remains an important emotional sentiment and rite for some parents of critically ill infants in the neonatal intensive care unit (NICU). Spiritual care is one of the major domains of palliative care [7] and has been shown to help parents in coping with illness and bereavement [8]. Equally important is the often under-recognised value of spiritual support in critical units including NICU. Most maternity hospitals in the Republic of Ireland have access to chaplaincy service to facilitate emergency baptisms; however, there is no published data as to which babies are baptised or their outcomes. With an emerging multi-faith population of Ireland, it is also important that neonatal units also ensure access to other appropriate ‘spiritual blessings’ as suitable to the faiths followed by the family.

Aims

(1) To evaluate the outcomes and characteristics of newborn infants baptised over a 15-year period in an Irish maternity hospital. (2) To analyse the trends over 15 years based on the ‘*register of baptisms*’ maintained. (3) To determine the profession of personnel who offered the emergency baptism and analyse the relationship to the outcome if any. (4) To propose recommendations for an evolving multi-faith Irish population in relation to the need for ‘emergency access to spiritual blessing’ or equivalent for critically ill newborn infants. (5) To propose a re-audit to assess the establishment of a system to support the spiritual needs of an emerging multi-faith Irish population.

Methods

In this retrospective, descriptive, single centre study, all infants baptised in University Maternity Hospital Limerick (UMHL) over a 15-year period from January 2002 until December 2016 were included. Patients were identified from the ‘*register of baptisms*’ for the years 2002–2016. Patient and provider details are manually entered prospectively on to this register maintained by the Catholic parish attached to the hospital. Details of emergency baptisms were entered on to the register ‘*as laid out by the code of the Canon law*’ of the Catholic Church. Patient cohort included all infants baptised from NICU, postnatal wards and labour ward. Additional data on baptisms offered to non-Catholic denominations (Church of Ireland, Orthodox, Presbyterian) and ‘spiritual blessings’ or other forms of faith-specific rituals offered to infants from families of other faiths (Muslim, Hindu, Buddhist, Sikh) were collated from the neonatal admission book, counselling department logs, hospital oratory logs and results were separately analysed considering the small numbers. Further information regarding gestational age, sex, weight, presence of congenital anomalies and outcome (including death) were obtained from the neonatal unit admission books, copies of death certificates, computerised patient administration system (PAS) and data collected for the benchmarking Vermont Oxford Network (VON) database.

Maternity hospital audit committee approval was sought prior to commencement of the study and the data was collected and tabulated between November 2016 and August 2017. Proposal for a re-audit was in-built into the initial audit request. Counts and percentages are presented for categorical data. Numeric data was tested for normality and presented as mean (standard deviation) for normally distributed data and median for skewed data. Means were compared across groups using an independent samples *t* test. IBM Statistical Package for the Social Sciences (SPSS) for Windows Version 22 was used for statistical analysis.

Results

A total of 355 patients were identified from the NICU baptism register maintained by the Catholic parish, one patient was excluded from the study as the infant was baptised in another hospital prior to transfer. Of the 354 remaining patients, further information was available for 341 and complete patient characteristics and baptism details were available for 313. For 13 patients (3.7%), no further information could be obtained beyond that logged in the baptism register. A total of 354 newborn infants reflect 0.5% of the total live births of (71,988) during the study period of 15 years and 2.8% of neonatal unit admissions (12,583). A total of five newborn infants, whose details were not logged in the baptism register

maintained by the Catholic parish, received emergency Christian baptism (3 Church of Ireland, 1 Presbyterian and 1 Orthodox). One each of Hindu and Buddhist infants received ‘religious emergency spiritual last rite ceremony’ offered by religious leaders of their faith. Considering the lack of details available for these seven infants, they were not taken for further analysis.

Trends over time: The number of infants baptised shows a declining trend over the 15-year period (Fig. 1) with 54% of infants in the register baptised in the first 5 years of the study (2002–2006), 28.2% in the next 5 years (2007–2011) and 17.8% in the remaining years (2012–2016) (Table 1).

Infant characteristics: Of the 354 infants, 193 (54.5%) were male and 159 (45.9%) female. A total of 303 (85.6%) infants were singletons, 43 (12.1%) were twins and 8 (2.3%) were triplets. A total of 114 (32.2%) of infants were born at term and 199 (56.2%) were preterm. Of those infants born prematurely, 43 (12.2%) were mild preterm (32–36 weeks), 56 (15.8%) very preterm (28–31 weeks) and 100 (28.2%) were extremely premature (less than 28 weeks). A total of 105 (29.6%) of infants were of normal birth weight, 10 (2.8%) large for gestational age (greater than 4.2 kg) and 208 (58.8%) were low birth weight (less than 2.5 kg). Of these, 57 infants (16.1%) weighed between 1500 and 2499 g, 52 (14.7%) were very low birth weight (VLBW) 1000–1499 g and 99 (28%) were extremely low birth weight (ELBW) < 1000 g (Table 2). A total of 68 (19.2%) of infants were recorded as having a congenital anomaly.

Baptism: As per the baptism register, 288 infants (81.5%) were baptised by a Catholic priest, 60 (17%) by a staff midwife/nurse, 1 (0.3%) by a doctor, 1 (0.3%) by a family member and in 3 cases (0.9%) the person baptising was unrecorded. Day of life of baptism varied from 1 to 88 with the mean age at baptism of 4.6 days (standard deviation 7.6 days) with 44% of infants baptised on the day they were born and 82.5% baptised in the first week of life.

Outcomes: 113 (31.9%) babies died after baptism, including 19 who were transferred to another hospital. A total of 157

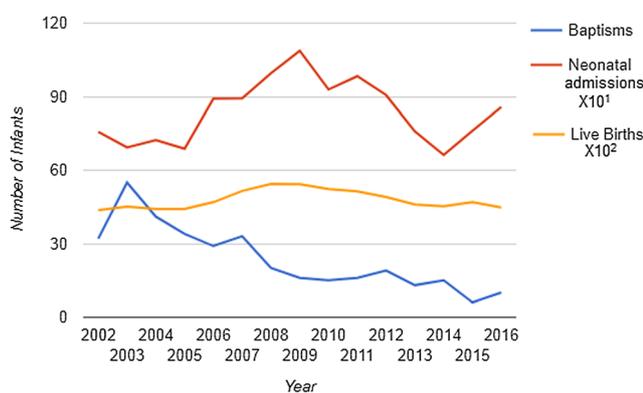


Fig. 1 Trends in baptism, neonatal admissions and live births from 2002-2016

Table 1 Perinatal and neonatal population characteristics over the 15 years and the trend in emergency baptisms at University Maternity Hospital Limerick (UMHL), Ireland

Year	Number of infants baptised (% of total)	Live births/year	Neonatal admissions/year	< 1000 g births/year	1000–1500 g births/year	Still births/year
2002	32 (9%)	4371	757	6	25	26
2003	55 (15.6%)	4514	693	16	26	28
2004	41 (11.6%)	4418	723	20	17	27
2005	34 (9.6%)	4411	688	10	31	28
2006	29(8.2%)	4692	891	16	31	16
2007	33 (9.3%)	5153	893	12	43	22
2008	20 (5.7%)	5443	995	12	26	30
2009	16 (4.5%)	5432	1087	13	31	24
2010	15 (4.2%)	5233	929	17	35	32
2011	16 (4.5%)	5137	983	11	16	23
2012	19 (5.4%)	4905	906	17	26	22
2013	13 (3.7%)	4594	758	13	29	18
2014	15 (4.2%)	4522	662	13	23	17
2015	6 (1.7%)	4690	761	12	33	24
2016	10 (2.8%)	4473	857	10	24	16
Total	354 (100%)	71,988	12,583	198	416	353

(44.4%) babies required critical care transfers to tertiary centres and were subsequently discharged home and 60 (16.9%) infants survived to discharge from the hospital of birth. There was no significant change in mortality or transfer rate over the 15-year period for those who were baptised. Timing of death after baptism ranged from 0 to 117 days with a mean of 7.7 days (standard deviation 17.2 days). A total of 37.7% of these infants died on the day of baptism and 75% died in the first week afterwards.

Characteristics of babies dying after baptism: There was a relationship between decreasing gestational age and death with only 25 (21.9%) of term babies baptised dying compared to 47 (45.6%) of those infants born less than 28-week gestation (Table 2). This was reflected for birth weight as well with 17 (16.2%) of infants born at a normal birth weight dying compared to 47 (47.5%) of ELBW. Infants born as LGA were also more likely to die after baptism with 4 (40%) of these babies dying. A total of 19 (16.8%) of infants who died had a congenital anomaly. A total of 31 (50.8%) infants baptised by a staff nurse or doctor died compared with 79 (27.4%) of those baptised by a Catholic priest.

Discussion

Death of a newborn infant could raise the bigger questions about life, death, meaning of life, hope and ethics [9, 10].

Table 2 Baseline characteristics of infants and outcome, including death

	Number (% of total)	Deaths (% of total infants baptised at same gestation)
Gestational age		
Unrecorded	41 (11.6%)	
Term (> 37 weeks)	114 (32.2%)	25 (21.9%)
Preterm		
32–36 weeks	43 (12.2%)	10 (23.3%)
28–31 weeks	56 (15.8%)	19 (33.9%)
< 28 weeks	100 (28.2%)	44 (44%)
Weight		
		Deaths (% total infants baptised at same weight)
Unrecorded	31 (8.8%)	
Normal weight (2500–4199 g)	105 (29.6%)	17 (16.2%)
Large for gestational age (> 4200 g)	10 (2.8%)	4 (40%)
Low Birth Weight (LBW)		
LBW (1500–2499 g)	57 (16.1%)	16 (28%)
Very LBW (1000–1499 g)	52 (14.7%)	17 (32.7%)
Extremely LBW (< 1000 g)	99 (29.6%)	47 (47.5%)

Parents value supportive and caring space both on physical and spiritual dimensions if the death of an infant is believed to be imminent and parents of Christian faith may request emergency baptism or blessing or staff may suggest this be considered [11]. Irish Republic population predominantly follows Catholic faith, and in that case, duty Catholic priest is contacted; however, if the time available is very short, then one of the staff members who follow the faith may volunteer to conduct the baptism [12]. When attempted even during the resuscitation, emergency baptism is of pastoral and spiritual benefit to the family [9, 10]. Normally, baptism is not offered after the death as per Christian beliefs [13]. However, chaplains do exercise flexibility and offer to pray with the family and bless the baby's body [10]. The number of emergency baptisms in our hospital decreased gradually over the 15-year period. There has been a change in the expressed religious beliefs in the Irish Republic population during this time with those identifying as Catholic decreasing from 92% in 1991 census, 88.4% in 2002 census to 78.3% in the last census of 2016 [14]. The decline in baptisms may also be in part reflecting advances in neonatal care resulting in gradual improvement in corrected (corrected for major congenital anomalies) perinatal mortality rate (PMR) over the last two decades in our hospital- (5.8% in 2002 and 2% in 2016). Another reason could be optimisation of home palliative care services whereby some of the newborn infants with life limiting conditions are transferred home earlier, with the baptism possibly happening in the home/church environment. Emergency baptism is performed on infants deemed to be 'in danger of death' and one third of the babies in our study died, with 44% requiring transfer to tertiary centre for further care. The majority of babies baptised in this study were preterm and LBW, with a

predominance of ELBW infants. As would be expected, these babies had a higher mortality rate following baptism than those born at term and of normal birth weight.

Emergency baptism could be time critical and in these cases a staff midwife/nurse or doctor may carry out an emergency baptism at the request of parents if they feel an infant is at risk of dying before the arrival of priest/pastor. This is reflected with over half of infants baptised by a staff member in our series dying compared to one quarter baptised by a priest. Significant number of infants died on the day of emergency baptism, with most babies dying in the first week afterwards. Spiritual care of parents when their newborn infant is perceived to be near death is a sensitive component of critical care and senior members of the medical and nursing teams should be involved in caring for and communicating with them. New mothers and fathers are often unaware of the parental tasks they can perform for their dying baby. They often look to and depend on their infant's nurses to encourage them [15]. There is evidence of the benefit of religious rituals in the bereavement process with sensitivity and compassion predominantly guiding the right steps [16]. Professionals dealing with end-of-life care in NICU should resort to healthy coping strategies and encourage use of reflective practice to facilitate professional growth [17]. With the boundaries for 'margins of viability' becoming earlier as the decades pass by, emergency baptisms and spiritual care offered to this sub-population of ELBW infants could pose additional emotional and ethical challenges to clinicians [18, 19].

With the emerging multi-faith Irish population, we recommend that each maternity hospital and NICU should make an effort to have a list of religious and pastoral personnel from non-Catholic Christian and non-Christian faiths who have

agreed to offer support to families in case of need for emergency baptism or other appropriate spiritual ceremonies, rites or rituals specific to the religious affiliations [20, 21]. This would be of considerable importance to the holistic care offered to families at the time of extreme stress and anxiety such as the critical period of illness or impending death of their baby.

A recent systematic review examined the religious/spiritual beliefs of the five major world religions about frequently encountered situations at the end-of-life (EoL) [22]. A wide degree of heterogeneity was observed within religions, depending on country of origin, level of education and degree of intrinsic religiosity reflecting the variations in EoL decision making by clinicians and patients. A recent Spiritual Needs Questionnaire (SNQ) survey of mothers of sick newborn infants elicited specific unmet inner peace needs of strongest relevance [23]. Candid and compassionate communication is paramount as well as creation of an environment that fosters meaningful family interaction. Spiritual care in neonatology has challenging and ethical facets of which clinicians must maintain a sound and working understanding [24].

Elizabeth Kubler-Ross in her book in 1969 described the five stages of grief, (1) Denial, (2) Anger, (3) Bargaining, (4) Depression and (5) Acceptance (subsequently two more stages were proposed to the list as Shock at the start and Guilt midway through) [25]. Bereaved parents may rely on spiritual beliefs in their grief and one recent study describing mothers using more spiritual and religious coping practices than fathers [26]. Provision of bereavement support would assist the grieving process. Social, cultural, spiritual and religious events after the death hold importance for the families in the intensive care units [16].

All names entered to the ‘*register of baptisms*’ who died subsequently were added to the ‘*book of annual remembrance*’ towards an annual ceremony conducted by our maternity hospital offering families prayers, a collective space to revisit memories, support in their bereavement process and act as a catalyst in their closure which is often difficult [27]. We are developing a ‘*multi-faith neonatal spiritual support information*’ for the families facing an impending death of newborn infants and a re-audit is proposed to assess the implementation in 1 year.

Authors wish to acknowledge the following limitations. (1) Retrospective nature of the data and the limited patient information on non-Christian rituals or ceremonies conducted. (2) Whether or not clinical staff discussed the option of emergency baptism with parents could influence the parental uptake for the service. (3) It is plausible that other ways of seeking spiritual support, other than the route of emergency baptism, could be adopted by parents. Emergency baptism or blessing is only one component of the holistic neonatal spiritual care.

Conclusion

Spirituality is an important human belief and attribute, yet often undervalued by health professionals. Less is known about the spiritual needs of parents of a sick newborn infant facing the possible death. Emergency baptism remains an important element in the spiritual care of the critically ill infants admitted to neonatal units. Significant number of infants deemed ‘in danger of death’ who received baptism died soon afterwards with those at earlier gestation and lower birth weight most at risk. Over the last 15 years, there is a gradual reduction in the number of registered neonatal emergency Catholic baptisms. In addition to the well-established access to emergency Christian baptisms, it would be important for Western neonatal units to offer timely information to families who follow other faiths as well, in order to support their spiritual needs.

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RKP recognised the significance of the theme, designed and supervised the study and edited the manuscript. FMC collected the patient outcome data, analysed the results and prepared the first draft of the manuscript. OAI compiled the initial data from the baptism register. MC, MD and MH collated the supporting information. RKP collected and tabulated the perinatal and neonatal population details for the hospital. DMA has overseen entry of information to the primary register of baptisms and contributed to the pastoral and chaplaincy sections. All authors critically revised the manuscript for important academic content, agreed on the final draft and approved its submission for publication.

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Compliance with ethical standards

Conflict of interest The authors declare that they have no conflicts of interest.

Informed consent Not applicable. Anonymous data source access was authorised after University Maternity Hospital Audit Committee approval.

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