



## Review Paper

### Foster care as an inherent part of the functioning of Neonatal Units – a single-center retrospective analysis of patients' hospitalizations

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#### ABSTRACT

**Introduction:** The number of children in foster care has been continuously growing. The waiting time for a foster family varies from weeks to months. One of the main factors causing prolongation of the process is the inadequate number of foster families.

**Aim:** The aim of this study is to outline the problem of prolonged hospitalizations of newborns awaiting foster care placement.

**Material and methods:** We performed a retrospective analysis of medical and social data of newborns hospitalized in the Department of Neonatal Diseases of the Independent Public Clinical Hospital No. 2 in Szczecin. No ethics committee approval was required due to the retrospective and anonymized nature of the data.

**Results and discussion:** Out of the 130 newborns requiring intervention, 61.5% were placed in foster care and 35.4% returned to their biological mothers. Nearly half were born preterm (46.2%), and over 60% of mothers did not receive adequate prenatal care. Substance use was noted during pregnancy in 51.5% of cases. In 2023, average hospital stay extended to 63.4 days. Legal delays, contributed to prolonged, non – medically indicated hospital stays.

**Conclusions:** The Polish system requires hospitals to take responsibility for newborns until placement in foster care is available. There is a lack of additional institutions that can adequately care for children. Hospitals cannot be places for newborns to await for their legal status to be regulated and are unable to provide children with proper development and care during the neonatal period. Introduction of systemic changes is necessary to give newborn children a chance for development in a functional family.

## 1. INTRODUCTION

In recent years, Poland has experienced a continuous increase in the number of children entering foster care, with a 3.5% rise reported between 2022 and 2023 according to data from the Central Statistical Office. Many adoption cases begin in Neonatal Units, where newborns are temporarily placed due to various social and legal circumstances. Reasons for such placement include voluntary relinquishment of parental rights by biological mothers – often minors or socially disadvantaged women – or concerns raised by medical staff regarding inadequate maternal care, such as neglect, aggression, or intellectual disabilities.<sup>1–4</sup>

When these cases arise, the Municipal Social Welfare Center (MOPR) evaluates the social environment and the family's readiness for childcare. Based on their assessment, MOPR may issue a positive opinion supporting maternal care or a negative one recommending foster placement. Additionally, if there is suspicion of substance misuse during pregnancy or hospitalization, both mother and child undergo toxicological testing, and the family court is notified to determine the child's legal status.

Legally, children cannot be placed for adoption before six weeks after birth, allowing mothers time to reconsider their decisions.<sup>5</sup> If parental rights remain limited or unresolved after this period, children should be transferred to foster care.<sup>6</sup> However, the scarcity of foster families significantly delays this process, resulting in prolonged hospital stays for newborns. The average duration of the adoption process in Poland is approximately two years from the registration of prospective parents to final court approval.

The COVID-19 pandemic further exposed weaknesses in the foster care and adoption systems, largely due to isolation requirements and operational restrictions.<sup>7,8</sup> Nevertheless,

the crisis also highlighted the need to critically examine systemic challenges.

## 2. AIM

The aim of this study is to outline the problem of prolonged hospitalizations of newborns awaiting foster care placement.

We focus on the growing burden this creates for Neonatal Units, which are often forced to accommodate medically stable infants for weeks or even months beyond medical necessity. These delays mainly result from a shortage of foster families and the absence of transitional care facilities. By analyzing both medical and social determinants of extended hospital stays, we emphasize the urgent need for systemic reforms and closer cooperation between healthcare, social, and judicial institutions.

## 3. MATERIAL AND METHODS

This retrospective single-center study reviewed the medical and social records of 130 newborns hospitalized in the Department of Neonatal Pathology of the Independent Public Clinical Hospital No. 2 of the Pomeranian Medical University in Szczecin from January 2019 to June 2023. Data on social interventions by the Municipal Social Welfare Center (MOPR) and/or the Family Court, neonatal medical conditions, and maternal characteristics were extracted and analyzed.

Due to the retrospective and anonymized nature of the study, no ethics committee approval was required.

Descriptive statistics were used to summarize data. Statistical analyses were performed using appropriate tests to evaluate factors influencing length of hospital stay and outcomes of foster care placement.

**Table 1. The number of newborns hospitalized in the Department of Neonatal Diseases between January 2019 and June 2023 requiring intervention from the Municipal Social Assistance Center and/or the Family Court, including children that were returned to their biological mothers or placed in foster care.**

Year	Children requiring intervention, <i>n</i>	Children placed in foster care, <i>n</i> (%)	Children that were returned to biological mothers, <i>n</i> (%)	No data available, <i>n</i>
2019 <sup>1</sup>	18	12 (66.7%)	5 (27.8%)	1
2020	32	26 (81.3%)	4 (12.5%)	2
2021	37	21 (56.8%)	15 (40.5%)	1
2022	27	12 (44.4%)	15 (55.6%)	0
2023 <sup>1</sup>	16	9 (56.3%)	7 (43.8%)	0
Total	130	80 (61.5%)	46 (35.4%)	4

<sup>1</sup> Data include the period of 6 month between January and June 2023.

## 4. RESULTS

A total of 130 newborns required intervention from the Municipal Social Welfare Center and/or the Family Court. Of these, 61.5% were placed in foster care, 35.4% returned to their biological mothers, and 2.3% had incomplete data. The highest number of cases occurred in 2021 (28.4%). In 2022, for the first time, more infants were returned to biological mothers than placed in foster care (55.6% vs 44.4%).

The mothers' average age was 27.5 years (SD 7.6), with 6.2% being adolescents. Primiparas accounted for 27.3% of the cases, while 43.8% of mothers had two or three previous deliveries, and 28.9% had more than three. Most deliveries were vaginal (67.7%). The mean gestational age was 37.3 weeks (SD 2.52), and 46.2% of infants were born preterm. The average birth weight was 2899.6 grams (SD 633.9).

The median Apgar score at both 1 and 5 minutes was 9, with ranges of 0–10 and 4–10, respectively. Although the majority of neonates demonstrated reassuring scores, the presence of minimum values as low as 0 and 4 highlights that a subset of newborns required immediate resuscitative efforts or presented with severe perinatal compromise. These findings align with the high incidence of prematurity, lack of prenatal care (noted in 61.5% of mothers), and the overall burden of medical and social risk factors in this population.

**Table 2. Characteristics of the biological mothers and the newborns.**

Characteristics	
Mother's average age (SD)	27.5 years (7.6)
Adolescent mothers, <i>n</i> (%)	8 (6.2%)
Primiparas, <i>n</i> (%)	35 (27.3%)
2. or 3. labour, <i>n</i> (%)	56 (43.8%)
> 3. labour, <i>n</i> (%)	37 (28.9%)
Vaginal delivery, <i>n</i> (%)	88 (67.7%)
Average GA (SD)	37.3 weeks (2.52)
Preterm infants, <i>n</i> (%)	60 (46.2%)
Average birth weight (SD)	2899.6 grams (633.9)
Average Apgar score at 1 min (min/max)	9 (0/10)
Average Apgar score at 5 min (min/max)	9 (4/10)
Male infants, <i>n</i> (%)	68 (52.3%)

SD – standard deviation; GA – gestational age.

In 2023, average hospital stay was 63.4 days, with the longest lasting 223 days. Delays from court decisions to placement in foster care contributed significantly to extended stays, with an average of 74.8 days (range: 5–217). Preterm infants stayed longer on average than term infants

**Table 3a. The average length of stay in the Department of Neonatal Diseases between 2019 and 2022 with data summary including factors affecting the stay apart from medical indications.**

	Number of newborns included, <i>n</i>	Mean	Standard deviation	Median	Minimum	Maximum
Days between reporting a case <sup>1</sup> and a court ruling	81	5.6	7.6	2	0	31
Days between a court ruling and placement in foster care	69	13.4	12.7	9	0	69
Length of hospital stay in days	114	17.2	15.9	13	2	102
Length of hospital stay in days (excluding preterm infants)	61	14.7	13.2	11	2	62

<sup>1</sup> Filing an official report regarding a newborn to a hospital social worker.

MOPR – Miejski Ośrodek Pomocy Rodzinie/ Municipal Social Welfare Center.

Apart from the number of newborns included, all of the data are expressed in days.

**Table 3b. The average length of stay in the Department of Neonatal Diseases between January and June 2023 with data summary including factors affecting the stay apart from medical indications.**

	Number of newborns included, <i>n</i>	Mean	Standard deviation	Median	Minimum	Maximum
Days between reporting a case <sup>1</sup> and a court ruling	10	8.8	14.5	2	0	39
Days between a court ruling and placement in foster care	8	75.5	60.4	66.5	5	217
Length of hospital stay in days	16	63.4	66.6	33	2	223
Length of hospital stay in days (excluding preterm infants)	9	31.9	37.5	14	2	123

<sup>1</sup> Filing an official report regarding a newborn to a hospital social worker.

MOPR – Miejski Ośrodek Pomocy Rodzinie/ Municipal Social Welfare Center.

Apart from the number of newborns included, all of the data are expressed in days.

Substance use during pregnancy was reported in 51.5% of cases. Nicotine was most common (41.5%), followed by amphetamines (19.2%), other substances (20.8%), and alcohol (7.7%). Neonatal abstinence syndrome was treated with phenobarbital in 7.7% of infants.

The most frequent medical conditions included infections (30%), respiratory disorders (20%), muscle tone abnormalities (11.5%), hypotrophy (11.5%), and congenital heart defects (8.5%). Only 9.2% of infants were born without significant health issues.

**Table 4. The most common substances misused during pregnancy as well as the number of newborns with withdrawal symptoms requiring treatment with Luminal (Phenobarbital).**

Substances	n (%)
Nicotine	54 (41.5%)
Alcohol	10 (7.7%)
Amphetamine	25 (19.2%)
Other <sup>1</sup>	27 (20.8%)
Luminal	10 (7.7%)
Total <sup>2</sup>	67 (51.5%)

<sup>1</sup> Opioids, hashish, benzodiazepines, novel psychoactive substances, tetrahydrocannabinol.

<sup>2</sup> Total number of biological mothers that were found to have misused various substances.

**Table 5. Medical diseases and conditions in newborns observed throughout hospitalization in the Department of Neonatal Diseases between January 2019 and June 2023.**

Medical conditions	n (%)
Hypotrophy	15 (11.5%)
Anaemia	12 (9.2%)
Muscle tone disorders	15 (11.5%)
Dysfunctional Breathing	26 (20%)
Respiratory tract infections	6 (4.6%)
Gastrointestinal infections	4 (3.1%)
Urinary tract infections	3 (2.3%)
CNS infections	6 (4.6%)
Other infections <sup>1</sup>	11 (8.5%)
FAS	11 (8.5%)
Congenital heart defects	9 (6.9%)
CNS congenital anomalies	6 (4.6%)
Congenital anomalies <sup>2</sup>	12 (9.2%)
Insufficient prenatal care	80 (61.5%)
Sufficient prenatal care and absence of health problems	12 (9.2%)

<sup>1</sup> Skin infections, syphilis, undetermined infections.

<sup>2</sup> Craniofacial malformations, congenital urogenital anomalies, syndactyly. CNS – central nervous system; FAS – fetal alcohol syndrome.

## 5. DISCUSSION

This single-center retrospective study reveals key medical and social determinants contributing to foster care referrals among newborns hospitalized in a tertiary neonatal unit in northwestern Poland. The findings underscore that systemic inefficiencies – particularly delays in legal and social services – are a major cause of prolonged neonatal hospitalizations beyond medical necessity.

As a result, Neonatal Units are increasingly assuming the unintended role of holding facilities for newborns who are medically stable but cannot be discharged due to a lack of suitable care arrangements. This highlights a critical gap in the Polish healthcare and social protection systems: the absence of transitional care institutions that could accommodate infants awaiting foster placement.

Over 60% of the 130 neonates analyzed were placed in foster care, a proportion consistent with previous Polish reports highlighting the strain on the foster system.<sup>12</sup> Notably, in 2022, more infants were returned to their biological mothers than placed in foster care for the first time, possibly indicating a shift in court practices or improved maternal circumstances.

Maternal characteristics reflect established risk factors: young maternal age (including 6.2% underage mothers), high parity, and a lack of prenatal care in 61.5% of cases. Inadequate antenatal care is known to be associated with poor neonatal outcomes and increased social intervention.<sup>13,14</sup> Our findings align with this, as 46.2% of the infants were born preterm, and 11.5% had hypotrophy – rates higher than in the general population.

Substance use during pregnancy was confirmed in over half of the cases, particularly nicotine and amphetamines. This supports previous reports of a high incidence of maternal drug use in socially vulnerable groups and confirms the clinical burden of neonatal abstinence syndrome (NAS).<sup>15,16</sup> NAS requiring pharmacologic treatment occurred in 7.7% of newborns, consistent with prior studies.<sup>17</sup>

From an organizational standpoint, delays in legal decision-making and limited availability of foster families significantly extended hospital stays. In 2023, the average time from court ruling to foster care placement was 74.8 days, with total hospitalizations reaching up to 223 days. These delays occurred despite the fact that many infants no longer required hospital-level care, leading to unnecessary occupation of neonatal beds and increased institutional costs. In contrast, countries like Sweden and Germany manage similar cases within days, using well-integrated medical, legal, and social systems.<sup>9–11,18,19</sup>

Additionally, the spectrum of neonatal health conditions – including infections (30%), respiratory disorders (20%), and congenital abnormalities – emphasizes the medical vulnerability of this population. Only 9.2% of infants were free from health complications, which underscores the need for both perinatal screening and comprehensive postnatal care planning.

Our findings support the development and wider implementation of transitional preadoption centers, as piloted in

cities like Otwock, Częstochowa, and Łódź.<sup>19</sup> These facilities provide multidisciplinary care and can serve as a bridge between hospital discharge and permanent family placement. Establishing such centers nationwide, and improving intersectoral coordination, would reduce unnecessary hospital stays and better serve the developmental and emotional needs of affected newborns.

While our study is limited to a single institution and retrospective in design, its conclusions are consistent with national and international literature, indicating potential relevance for broader health and social policy reforms.

## 6. CONCLUSIONS

- (1) A significant number of newborns were hospitalized beyond medical necessity due to delays in social and legal proceedings.
- (2) Most infants requiring intervention were born to mothers with insufficient prenatal care or substance use during pregnancy.
- (3) There is an urgent need for transitional care facilities for newborns awaiting placement.
- (4) Earlier case identification and coordination between medical and social systems may improve outcomes and reduce hospitalization times.

### Ethics approval

None declared.

### Conflict of interest

None declared.

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### Author Contributions

Study design: BL

Data collection: NT, ZB, DS

Manuscript preparation: ADJ, NT

Literature search: NT, ZB, DS

### References

- <sup>1</sup> Lichtenberg-Kokoszka E. Adoptive and foster parenting in the context of prenatal and perinatal life. *Semin Sci Investig.* 2019;40:145–155.
- <sup>2</sup> Clutter L. Adult birth mothers who made open infant adoption placements after adolescent unplanned pregnancy. *J Obstet Gynecol Neonatal Nurs.* 2014;43:190–199.
- <sup>3</sup> Skalec-Ruczyńska A. The Scale of Violence as a Reason for Placing Children in Foster Care and the Role of Foster Carers in Overcoming Its Consequences. *Abus Child Theory Res Pract.* 2023;22:75–100.
- <sup>4</sup> Sisson G. Who are the women who relinquish infants for adoption? Domestic adoption and contemporary birth motherhood in the United States. *Perspect Sex Reprod Health.* 2022;54:46–53.
- <sup>5</sup> Department of Labour, Social Affairs and Family of the Supreme Audit Office (NIK). *Information on the Results of the Audit – Implementation of Tasks by Adoption Centres.* Warsaw: Supreme Audit Office; KPS.430.007.2017. Nr ewid. 21/2018/P/17/044/KPS.
- <sup>6</sup> Prusinowska-Marek A. Judicial Practice Regarding the Implementation of the Principle of Temporariness in Foster Care. *Law in Action.* 2019;40:43–78.
- <sup>7</sup> Gajewska G. Caring for the Child Means Caring for the Caregivers. Foster Care and Adoption in the Context of the COVID-19 Pandemic. A Comparison of Survey Results from 2021 and 2019. *Pedagogical Yearbook.* 2021;13:119–136.
- <sup>8</sup> Whitt-Woosley A, Sprang G, Eslinger J. Foster care during the COVID-19 pandemic: A qualitative analysis of caregiver and professional experiences. *Child Abuse Negl.* 2022;124:105444.
- <sup>9</sup> Bundesministerium für Familie, Senioren, Frauen und Jugend. Available from: <https://familienportal.de/familienportal/lebenslagen/kinderwunsch-adoption/adoption>. Accessed: March 22, 2026.
- <sup>10</sup> Danecka M. Child safety above all: Foster care system in Germany. *J Soc Policy.* 2019;539:39–43.
- <sup>11</sup> Hestbæk A-D, Höjer I, Pösö T, et al. Child welfare removal of infants: Exploring policies and principles for decision-making in Nordic countries. *Child Youth Serv Rev.* 2020;108:104572.
- <sup>12</sup> Świątek M. Abandoned Children – Medical and Social Aspects. *Gen Med Health Sci.* 2020;26(2):174–179.
- <sup>13</sup> Rao RP, et al. Impact of prenatal care on neonatal outcomes: A systematic review. *BMC Pregnancy Childbirth.* 2021;21:482.
- <sup>14</sup> Partridge S, Balayla J, Holcroft CA, Abenheim HA. Inadequate prenatal care utilization and risks of infant mortality and poor birth outcomes: A retrospective analysis. *BMC Pregnancy Childbirth.* 2009;9:51.
- <sup>15</sup> Kocherlakota P. Neonatal abstinence syndrome. *Pediatrics.* 2014;134(2):547–561.
- <sup>16</sup> Hudak ML, Tan RC. Neonatal drug withdrawal. *Pediatrics.* 2012;129(2):540–560.
- <sup>17</sup> Olsson TM, Sundell K. Foster care research in Sweden: A review. *Psychosoc Interv.* 2017;26(1):57–66.
- <sup>18</sup> Zimmermann P. Child protection in Germany: Structures, processes and developments. *Child Youth Serv Rev.* 2019;98:327–336.
- <sup>19</sup> Kowalska M, Nowak A, Szymańska K. Emergency Pre-Adoption Centers in Poland – Needs and Possibilities. *Pediatr Rev.* 2021;50(1):22–28.

