OPTIMAL IN-HOSPITAL VACCINATION AT FIRST DAYS OF LIFE GUARANTEE BETTER VACCINATION SCHEDULE COMPLIANCE THROUGH FIRST YEAR OF LIFE.

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Background: Mandatory vaccinations significantly reduced the incidence of *poliomyelitis* and eliminated deaths from neonatal tetanus in Poland. Nevertheless, increasing number of vaccination refusals year by year become public health problem and may cause harm to vaccinated as well as not vaccinated infants¹.

Aim: The aim of the study was to assess the impact of early vaccination at first days of life on the vaccination schedule compliance at 12 months of life.

Methods: The study involved healthy, full-term newborns hospitalized in the Department of Neonatology in Wroclaw from January 2011 to December 2014. There were 428 patients enrolled to the study and one year follow-up completed 176 patients. Out of them 133 were in control group - vaccinated with refundable preparations and 43 consisted study group - vaccinated with non-refundable preparation or not vaccinated. Statistical significance set at the values of $p < 0,05$.

Results: Full compliance with vaccination schedule at one year of age applies to children whose parents have consented to refundable vaccination after birth (control group 100%, study group 56%, $p < 0,00001$). (Table 1)

Analysis of contraindications to vaccination revealed that in 87% cases avoiding immunization was not justified.

176 newborns	Study group n=43	Control group n=133	p
Vaccination Schedule Compliance	56%	100%	ns
Avoiding Immunization	60%	14%	ns
Justified Avoiding Immunisation	4%	26%	ns
Timing Performance of Vaccinations	14%	2%	p=0,00283

Table 1. Complementation of the vaccination schedule in the study and control group, timing performance of vaccinations and the validity of avoiding immunisation.

Analysis revealed also that medical personnel was the main source of information on vaccination in both groups ($p = 0.0143$). (Table 2).

Conclusions: Optimal implementation of the vaccination schedule during first year of age depends on the appropriate completion of the vaccination at first day of life. Medical personnel and parental education as well as improved in-hospital communication skills can improve compliance of immunization schedule during first year fo life.

	Study group n=43		p	OR, CI
	They used the source and complemented the vaccination schedule in the 1st year of the	They didn't use the source and didn't complemente the vaccination schedule in the 1st year of the		
Doctor	14%	40%	p=0,024 1	0,19 0,05-0,7
Interent	26%	23%	ns	
Another patient	12%	12%	ns	

Table 2. Influence of sources of information on vaccination on the complementation of the vaccination schedule in the study group in the first year of life.