RAPID DIAGNOSTICS AND TREATMENT OF SEASONAL FLU IN MOSCOW CHILDREN

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Background: In 2017 the annual incidence of flu in children was estimated at 93,75 cases per 100,000 population with 26892 cases registered in the Russian Federation¹. The objective of the study was to describe clinical and epidemiological features of seasonal flu, to determine its response to oseltamivir and to show usefulness of rapid influenza diagnostic tests.

Methods: 393 children with flu were enrolled in the study in Moscow in 2016-2018. The diagnosis was confirmed by SD Bioline rapid flu antigen test kit.

Results: Seasonal flu in 2017/2018 started one month later than a year before. Medium age of the patients was $6,13 \pm 3,98$ years. 2,04% of the children were previously vaccinated against flu. Type A flu was detected in 54,98% of the cases (Fig.1). In 3 patients (0,9%) we found both flu A and B types.

Clinical manifestations were headache (86%), high fever (100%), respiratory (100%) and gastrointestinal symptoms (11%). 10,92% required hospitalization. Complications developed in 5,09% of the cases (Table 1).

Only 3,56% of flu diagnostic tests initially false-negative (Fig. 2).

95,93% of the patients took oseltamivir and 69% of them turned afebrile within first 3 days of the treatment and developed no complications except for 2 cases (0,81%) of myositis in flu B type. When flu diagnostics was not available, 62% of the patients received antibacterial therapy due to unexplained high prolonged fever.

Conclusions: Seasonal flu is common in children unvaccinated against it. Rapid flu diagnostic test has a low level of false-negative answers and together with targeted treatment allows preventing complications and misuse of antibiotics.

Table 1

Complications and antibacterial treatment

	Out-patient 350 (89,08%)		Hospitalized 43 (10,92%)		Total 393 (100%)
	Age, years		Age, years		
	< 1	1-16	< 1	1-16	
N cases	34	316	16	27	
Pneumonia	0	2	2	4	8
Sinusitis	0	0	0	4	4
Otitis	0	0	4	0	4
GIT problems	11	18	9	5	43
Other	0	0	3	1	4
Antibiotics	5	20	7	10	42

Figure 1

Figure 2