

## ANALYSIS OF INDIRECT COSTS DURING THE TREATMENT OF ACUTE STREPTOCOCCAL PHARYNGITIS IN CHILDREN IN UKRAINE

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### Introduction

Acute streptococcal pharyngitis is the common disease of the upper respiratory tract of children between 5 and 15 years old. Despite having favourable clinical course in the most cases, this pathology remains the pressing social and economic problem. This is due to direct and indirect costs for treating of this disease. Indirect costs – costs connected with patient's disability or nursing.

### The aim

Aim: to determine the amount of indirect costs from the perspective Ukrainian state budget. These expenses concern to the absence on the working place relatives who care for child with acute streptococcal pharyngitis.

### Materials and Methods

Costs connected with payments for the sick leaves and unproduced the gross domestic product for the period of temporary disability of economically active person were estimated during the investigation.. Data were used for analysis from the State Statistics Service of Ukraine.

### Results

The payment for caring for a sick child under 14 years old is determined on the base of 100% compensation for the sick leave. Total payments for the sick leaves were calculated for 8 days (the duration of patient's treatment, which was approved by the Order of the Ministry of Health of Ukraine of March 24, 2009 No. 181). Costs sickness allowances were determined by using the formula:

$$\text{Cost}(\text{STD}) = N \times AV\text{salary} \times 1 = 8 \times 174.57 \times 1 = 1,396.56,$$

where: Cost(STD) – the amount of the short-term disability payment per one person in UAH;

N – number days of disability;

AV salary – the average one-day salary in Ukraine (based on the data of the State Statistics for the period from February 2016 to January 2017);

1 – 100 percent of the payment that is based on length of insurance seniority.

The payment for caring for the sick child was equal to 1,396.56 UAH per one person for 8 days. The employer pays the payment for first five days of disability (872.85 UAH). The Social Insurance Fund of Ukraine pays the payment for remaining three days (523.71 UAH).

Amount of the unproduced gross domestic product (GDP) due to temporary disability was estimated on the base of the data from the State Statistics Service of Ukraine about the GDP per capita for the year 2016 (55,848 UAH). The formula by R.I. Yagudina was used for determining of the unproduced GDP by one economically active person, who cared for the sick child,

$$\text{Cost}(\text{GDP}) = N \times \text{GDP} = 8 \times 152.59 = 1,220.72,$$

where: Costs (GDP) – unproduced the GDP in UAH;

N – number days of disability;

GDP – value of the GDP per capita per day in UAH.

### Conclusions

The amount of indirect costs from the perspective of the Ukrainian state budget is 2,617.28 UAH in terms of 1,000 persons is 2,617,280 UAH (97,044 USD at the rate of NBU on 04.10.2017). These costs were caused by temporary disability economically active person who was caring for the sick child under 14 years old.

**KEY WORDS:** pharyngitis/economics, cost of illness, employer health costs.