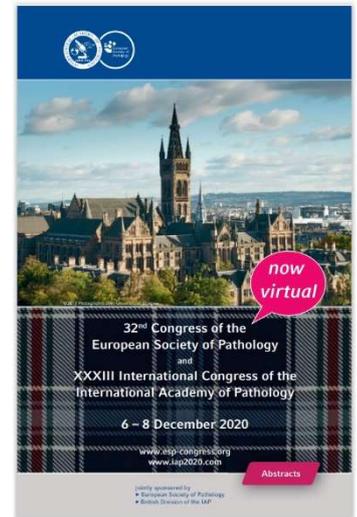# Prevalence of Sars-Cov-2 infection in Lower Silesia (Poland) based on molecular testing

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Background & objectives

On March 11, 2020, WHO declared a pandemic state of COVID-19 (coronavirus disease- 2019), caused by SARS-CoV 2 (severe acute respiratory syndrome coronavirus 2). In this study we present the statistics on the incidence of COVID-19 in Lower Silesia population.

Methods

The data comes from Molecular Pathology Centre Cellgen in Wroclaw. The clients were private patients from drive-thru points, employees of companies, medical staff and patients from private clinics and public hospital in Wrocław. Isolation of genetic material was performed manually or automatically, following the manufacturer's recommendations. RT-qPCR reaction was performed using commercial CE-IVD tests, detecting viral ORF1ab and N genes.

Results

Between May 1, 2020 and October 7, 2020, 8076 patients were analyzed, of which an overall 3% (216) were positive. Among the patients tested at the drive-thru points, 6% (57 out of 978) were positive. The same percentage found in the employees, but incidence varied from 1 to 11%, depending on company. Small percentage (2%, 10 out of 590) was found positive among hospital medical staff and patients. When analyzing the dynamics of infection, their progressive increase was noted - in May 2020 the percentage of positive tests was 1,2%, in June 0.3%, in July 0.5%, in August 1.1%, in September 5.1% and In the first week of October 5.2%.

Conclusion

From the above data, conclusions can be drawn about the dynamics of the epidemic development in Lower Silesia region. As expected, an increase in the incidence is seen in the cold and flu season, while in the summer there has been a significant decline in the number of positive results. The results indicate that in environments such as large companies, despite orders to use mask-type protection measures, the percentage of infected people may exceed 10%.