# GLOBAL INFLUENZA HOSPITAL SURVEILLANCE NETWORK (GIHSN) 2020-21 SEASON PROJECT IN TURKEY: UTILIZATION OF INFLUENZA SURVEILLANCE FOR TACKLING SARS-COV-2

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## Background and Aims:

GIHSN project has been utilized to quantify the distribution of respiratory viruses and define the clinical burden of SARS-CoV-2 among hospitalized cases

## Methods:

- Prospective epidemiological active surveillance using a standard protocol*
- Patients with an acute process due to a predefined condition and hospitalized in the previous 72 hours approached
- Those who comply with influenza-like illness criteria were swabbed
- Samples tested for 13 different viruses (including influenza A, influenza B, RSV, coronavirus and ORV) for 41 strains on Illumina Respiratory Virus Oligo Panel V2

## Results:

- 143 patients swabbed between December 22, 2020- May 29, 2021
- Mean age among ≥5 years old 52.4 (18.7 SD)
- 65% male, 66.4% had at least one chronic condition (cardiovascular disease in 34.3%)
- Influenza vaccination coverage rate 13.3%
- ICU admission more frequent among SARS-CoV-2 + patients compared to negative ones in the adult cohort (25% vs 10.5%, p=0.03)
- Worse outcomes noted for those ≥65 years old compared to younger adults patients
  - Admission to ICU (28.6% vs 13.3%, p=0.03)
  - Death (14% vs 2.4%, p=0.01)
- Alpha (n=24) and beta (n=1) VOCs detected among 55 sequenced specimens

| | #included | #Influenza | #SARS-CoV-2 | #ORV |
|---|---|---|---|---|
| Patients < 5 yrs | 13 | 0 | 0 | 0 |
| Patients 5+ yrs | 130 | 0 | 70 | 0 |
| Total | 143 | 0 | 70 | 0 |

ORV, other respiratory viruses

## Conclusions:

- Surveillance systems can easily be adapted to tackle emerging pathogens
- The 2020-21 season was dominated exclusively by SARS-CoV-2
- The project revealed valuable results:
  - The lack of circulation of influenza and ORV in a time when the sentinel and SARI surveillance were totally disrupted in Turkey
  - The clinical and genomic characterization of hospitalized COVID-19 cases

* https://www.gihsn.org/the-network/protocol-and-questionnaires



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