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between SARS-CoV-2 and acute coronary syndrome, as literature is beginning to hypothesize.

### P093

#### The effect of thoracic impedance on shock success during public access defibrillation

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Thoracic impedance (TI) is used in defibrillation to alter shock characteristics to ensure patients receive a standard energy dose. Pulse duration, peak voltage and current are dependent on patient TI where increased TI typically results in a longer shock duration and a higher peak voltage. Some reports suggest that higher impedance patients experience lower rates of shock success. The aim of this analysis was to identify the effect of patient TI on shock outcome.

Electronic event data, recorded via HeartSine defibrillators and submitted on a voluntary basis between October 2012 and December 2018 were analysed. Patient TI logged prior to the delivery of the first shock in events with at least one defibrillation attempt were extracted. The first shock was subsequently annotated to determine shock success, defined as the termination of ventricular fibrillation or ventricular tachycardia for at least 5 seconds after shock delivery. Mean TI was compared between successful and unsuccessful defibrillation attempts by a 2-sample t-test.

A total of 467 patient events where defibrillation was attempted and had a determinable first shock outcome were analysed. The first shock success rate was 86.08% (n = 402) and mean (standard deviation) patient TI was 89.78 (22.37)  $\Omega$ , ranging from 37 to 211  $\Omega$ . There was no significant difference (p = 0.989) in patient TI between successful (89.8  $\Omega$ ) and unsuccessful (89.7  $\Omega$ ) defibrillation attempts.

This analysis demonstrates that there is no association between patient TI and shock outcome. Modifying pulse duration and peak voltage based on TI to deliver a set energy to each patient was effective at abolishing shockable rhythms.

### P094

#### Comparison of ER admissions, mortality, and length of stay in a district emergency department during COVID pandemic 2019–2021.

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**Background:** The covid pandemic has severely impacted NHS in Poland. This study aimed to analyze how the number and category of deaths, hospitalizations, and length of stay in ER changed over the last 3 years.

**Methodology:** This is a retrospective observational study, in line with the principles of the Declaration of Helsinki. Data were collected from the electronic system of the hospital in Bochnia. The patients' medical histories and the universal ICD-10 codes determined the primary death cause.

**Results:** The results were as follows:

	2019	2020	2021
hospitalizations	20956	18290	19538
deaths	39	90	94
whereas COVID	0	16	7
long stays (>48 h)	3	141	18

Thus, there was a 265% increase in relative mortality in 2020 vs. 259% in 2021 compared to 2019. In 2020 there was a 4700% increase in long stays compared to 2019. Death causes were classified as below:

cause of death	2019	2020	2021
Cardiac	4	13	23
Neoplasms	10	14	26
Trauma	1	3	4
infectious diseases (incl. COVID)	6	35	15
Hypothermia	0	2	3
Surgical	3	3	3
other (lung, kidney, neurological)	5	6	7
Unknown	10	14	13

**Conclusion:** COVID-19 pandemic considerably influenced the length of stay and subsequent mortality in the ER. The most likely reason was a lack of extra medical staff in other departments. The ratio of health workers to the population in Poland is still one of the lowest in the EU, with a long average working time, not leaving much space for extra hours in case of a pandemic.

Also, there was a horrifying increase in cases of sepsis. Most of them were prescribed antibiotics over the phone, so a referral to ER was often delayed.

We seem to have seen some of the social consequences of social distancing – hypothermias and suicide among lonely people.

### P095

#### Acute coronary syndrome during COVID-19 pandemic: statistical analysis by an Operation Centre in Italy

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**Purpose of the study:** Multiple studies have presented an association between acute coronary syndrome (ACS) and SARS-CoV-2 acute respiratory syndrome. Our study aims to understand how COVID-19 pandemic has influenced the observation of ACS by the Emergency Health Service in the Province of Foggia and the northern Province of Barletta-Andria-Trani, the largest 118 Operation Centre in Italy.

**Materials and methods:** A retrospective observational statistical study was conducted, evaluating all the emergency calls for ACS received by our 118 Operation Centre before and during the pandemic. As time window the second half of 2020 was chosen, corresponding to the second wave of COVID-19, when the pandemic was full-blown throughout Italy; an identical time window in 2019 was chosen as control period. The investigation was limited to STEMI, since it was an electrocardiographic diagnosis already defined at the first intervention. R software was used for data analysis.