e-Cardiology / Digital Health, Public Health, Health Economics, Research Methodology -- Research Methodology -- Cardiovascular Epidemiology

## Impact of the COVID-19 pandemic on cardiology services in the second year at a South Asian cardiac centre

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**Background:** Little has been reported on the impact of the COVID-19 pandemic and the new delta variant, on cardiology services and catheterization volumes in South Asia, during the second year of the pandemic.

**Purpose:** We aimed to assess this impact during the second year of the pandemic on cardiology services, procedures and catheterization volumes at a tertiary cardiac centre in Bangladesh.

**Methods:** Data on patient visits (outpatient and emergency), admissions, procedures and catheterization volumes were collected for January to June 2020 and 2021 via hospital electronic records. Comparisons for each corresponding month were made between 2021 and 2020. The differences were expressed as a percentage (%Δ).

**Results:** Trends showed that admissions in cardiology and cardiac surgery units, outpatient visits, procedures and cardiac catheterization volumes had reached almost pre-pandemic levels in the first quarter of 2021, as compared to 2020. However, ER visits showed >50% reductions in February ( $\Delta$ -58.7%) and March ( $\Delta$  -51.9%) 2021, compared to 2020. Admissions and procedures showed a steep decline from March to April 2021, coinciding with the COVID19 surge owing to the Delta variant. A gradual increase in numbers of admissions, patient visits, and procedures were seen in May and June 2021, as compared with corresponding months in 2020. In terms of catheterization volumes, a sharp decline was seen in angiographies and percutaneous coronary intervention (PCI) from March to April 2021, similar to 2020. Cath lab procedures showed an increasing trend in May-June 2021, and were greater in numbers, compared to corresponding volumes in 2020 [May:  $\Delta$ +36.9%; June:  $\Delta$ +33.2% in 2021]. A greater increase was seen for PCI (May  $\Delta$ + 46.8%; June  $\Delta$ +367%) than angiographies (May  $\Delta$ +32.5%; June  $\Delta$ +32.5%).

**Conclusion:** Cardiology services and cath lab volumes had reached almost pre-pandemic levels in January and February 2021. The surge caused by the delta variant resulted in reduced admissions, outpatient and cath lab volumes beginning from April 2021, however numbers remained greater in 2021 than corresponding months in March-June 2020, possibly indicating an adaptation of the healthcare system to the prevailing pandemic.