The COVID-19 pandemic has had a profound impact on healthcare service delivery. Acute cardiovascular care however remains a priority despite the pandemic. Patients presenting with non-ST elevation MI (NSTEMI) have been poorly characterized during the pandemic.

**Methods**

We conducted a retrospective study of patients diagnosed with NSTEMI during the peak of the pandemic between April-May 2020 at our tertiary centre in the UK. Data were collected from electronic patient clinical records including time from admission to angiography, length of stay, mortality, prescription of secondary prevention pharmacotherapy, and referral to cardiac rehabilitation. We compared this data to the same time period in 2019.

**Results**

As can be seen from table 1, in 2020, the mean age, median time to angiography, and length of stay were all significantly lower than the control period of 2019. Prescription of secondary prevention medication (Aspirin, P2Y12 inhibitor, Beta-blocker, Statin, and ACEI/ARB) and referral to cardiac rehabilitation also improved in 2020, however, neither was statistically significant. During the 2020 period, 1 patient died due to late presentation NSTEMI and multi-organ failure. There were 3 deaths in 2019: complications following coronary bypass surgery, upper GI bleed and a subarachnoid haemorrhage. Table 1 Comparison of NSTEMI patients in 2019 and 2020 2019 2020 p-value Age (years) 71.2 ± 12.2 65.0 ± 12.1 p<0.01 NSTEMI patients 56 59 P=NS NSTEMI undergoing angiography 50 53 P=NS Median Time to angiography (hours) 68.6 14 p<0.01 Median length of stay (days) 5 (IQR 2:8) 2 (IQR 1:4) p<0.01 Referral to cardiac rehabilitation 77.4% 84.5% P=NS Prescription of secondary prevention medication 69.8% 72.4% P=NS.

**Conclusion**

Our results show that the mean age of the patients presenting with NSTEMI during the peak of the COVID-19 pandemic was younger suggesting that elderly patients failed to present. Compared to 2019, there was a significant improvement in patient treatment times with a significantly shorter stay in the hospital, probably as a result of the reduction in elective activity allowing un-restrained access to the catheter labs. We also saw improvement in prescription for secondary prevention and referral to cardiac rehabilitation services during this time suggesting that there may have been improved focus on these aspects of care again.

**Conflict of Interest**

No

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**Abstract 71 Figure 1** Box and Whisker Plot for median hospital stay for NSTEMI patients in 2019 and 2020

Median time for Hospital stay 2019 (5, IQR 2:8)

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**Background**

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**Conflict of Interest**

No

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**Abstract 71 Table 1** Comparison of NSTEMI patients in 2019 and 2020

<table>
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<th>2020</th>
<th>p-value</th>
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<td>65.0 ± 12.1</td>
<td>p&lt;0.01</td>
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<td>NSTEMI patients</td>
<td>56</td>
<td>59</td>
<td>P=NS</td>
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<td>NSTEMI undergoing angiography</td>
<td>50</td>
<td>53</td>
<td>P=NS</td>
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<tr>
<td>Median Time to angiography (hours)</td>
<td>68.6</td>
<td>14</td>
<td>p&lt;0.01</td>
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<tr>
<td>Median length of stay (days)</td>
<td>5 (IQR 2:8)</td>
<td>2 (IQR 1:4)</td>
<td>p&lt;0.01</td>
</tr>
<tr>
<td>Referral to cardiac rehabilitation</td>
<td>77.4%</td>
<td>84.5%</td>
<td>P=NS</td>
</tr>
<tr>
<td>Prescription of secondary prevention medication</td>
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<td>P=NS</td>
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Introduction

It is well documented that part-task trainers are highly effective in practical skills training, including pericardiocentesis.1 2 However, the use of immersive simulation to create high-fidelity clinical scenarios for summative assessment of pericardiocentesis is a novel approach. Cardiology trainees in the UK are expected to demonstrate Level 3 competency (perform the procedure unsupervised and deal with complications) in pericardiocentesis in order to meet the curriculum requirements to achieve their Certificate of Completion of Training (CCT). Given the high risk of complications associated with pericardiocentesis, it is now increasingly performed by interventional cardiologists in specialist centres, resulting in fewer opportunities for trainees to observe and practice this procedure during their training. This has become more apparent during the COVID-19 pandemic when normal clinical activities were largely put on hold, resulting in an increase in demand for simulation-based training and assessment of practical procedures.

Methods

Four cardiology trainees attended a series of two teaching sessions held 1 month apart which involved an immersive simulated scenario on the management of a patient with life-threatening cardiac tamponade. This included a period of teaching from a qualified trainer, followed by an observed assessment whereby trainees attended to a simulated patient and initiated relevant treatment, including successfully performing pericardiocentesis whilst interacting with colleagues and the patient. The procedure was performed using an ‘Ultrasound Guided Pericardiocentesis Simulator’ and a patient actor. Trainees were assessed using the Joint Royal Colleges Physician Training Board (JRCPTB) Directly Observed Procedures (DOPS) proforma for pericardiocentesis. The assessment comprised of 9 different domains graded (A-F), and a point score (1-6) was assigned according to their level of competency, generating an overall assessment score out of 54 points and mean score out of 6 points.

Results

Three out of the 4 trainees improved their mean assessment scores by an average of 22% in subsequent sessions (figure 1). Trainee 1 was already fully competent on initial assessment (initial mean score 6/6), demonstrated sustained competency throughout subsequent assessments and consequently fulfilled their training requirements for pericardiocentesis.

Conclusion

Immersive simulation is an effective, low-risk and high-fidelity method of training and assessment of pericardiocentesis for cardiology trainees. Although additional trainee...