Abstract 44 Table 2 Baseline characteristics of risers and non-risers

	Riser pattern (N = 30)	Non-riser patterns (dippers, extreme dippers and non-dippers) (N=216)	P value
Age (years)	72±7.68	71.83±7.68	0.909
LVEF –%	65±7.67%	67.2±6.87%	0.107
Mean 24 hour systolic BP – mmHg	133±11	128±11	0.016
Mean daytime systolic BP – mmHg	130±10	132±12	0.368
Mean nocturnal systolic BP – mmHg	138±13	120±12	<0.0001
Female sex – No (%)	12/30 (40%)	81/216 (37.5%)	0.791
Diabetes mellitus – No (%)	8/30 (26.7%)	51/216 (23.6%)	0.713
Coronary artery disease – No (%)	13/30 (43.3%)	91/216 (42.1%)	0.900
Atrial fibrillation – No (%)	3/30 (10%)	21/216 (9.72%)	1.000
Chronic kidney disease – No (%)	2/30 (6.67%)	44/216 (20.37%)	0.082
ACE inhibitor use	11/30 (36.67%)	85/216 (39.35%)	0.778
ARB use	11/30 (36.67%)	87/216 (40.28%)	0.705
CCB use	10/30 (33.33%)	97/216 (44.91%)	0.231
Thiazide use	9/30 (30%)	64/216 (29.63%)	0.967
Loop diuretic use	2/30 (6.67%)	10/216 (4.63%)	0.645

Abstract 44 Figure 1 NT-proBNP data across dipping groups

have higher daytime systolic BP (137 ± 10 vs 125 ± 10 mmHg; $p < 0.001$) and rates of atrial fibrillation (13.2% vs 4.9% ; $p = 0.031$) compared to those with normal nocturnal BP, which could have confounded the analysis. There was a significant difference in median NT-proBNP across all dipping groups ($p = 0.043$). Risers had the highest plasma NT-proBNP in comparison to other dipping groups combined: 198pg/mL (IQR: 119-198) vs 135 pg/mL (IQR: 82.25-234.75) ($p = 0.02$). (See figure 1).

Conclusion Patients with NH had higher plasma NT-proBNP levels than those without nocturnal hypertension. Risers had the highest NT-proBNP data and therefore may be at increased risk of heart failure compared to other subgroups. This study provides evidence that nocturnal hypertension and abnormal dipping, pattern is associated with adverse cardiac physiological changes. This observation lends support for initiating the use of 24-hour-ABPM to identify those with sub-clinical target organ damage for risk stratification and individualized treatment strategies.

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EVALUATING THE IMPACT OF COVID-19 ON REGIONAL PRIMARY PERCUTANEOUS CORONARY INTERVENTION SERVICE DURING THE FIRST WAVE OF COVID-19

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Aims Primary Percutaneous Coronary Intervention (pPCI) remains the preferred reperfusion strategy for patients with ST-segment elevation myocardial infarction (STEMI). We evaluated the impact of first wave of COVID-19 on our pPCI service; was there a reduction in the number of pPCIs performed? Were referrals to the pPCI service inappropriately turned down?

Methods Retrospective observational study of all referrals to the Belfast pPCI service between 23rd March 2020 and 9th June 2020. All electrocardiograms (ECGs) were reviewed with corresponding referral history logged on a Microsoft Access

Abstract 45 Figure 1 Showing detail of all pPCI referrals received within the period of study **Abstract 45 Figure 2** Comparison between the numbers of pPCIs performed between 2019 and 2020

Abstract 45 Table 1 Showing baseline characteristics and source of patient referrals from the turned down cohort

Characteristics	n=235 (%)
Median Age (IQR)	69 (24, 94)
Male gender	172 (73)
<u>Referral source</u>	
Northern Ireland Ambulance Service (NIAS)	146 (62)
Emergency Department	68 (29)
In-patient	21 (9)
<u>Was the referral appropriately rejected?</u>	
No	9 (4)
Yes	226 (96)
<u>pPCI done?</u>	
No	224 (95)
Yes	11 (5)
<u>Patients re-referred for PCI?</u>	
No	182 (77)
Yes	53 (23)
<u>Number of patients who had intervention</u>	
PCI	35 (15)
CABG	2 (1)
Diabetes mellitus	70 (30)
Hypertension	133 (57)
Dyslipidaemia	184 (78)
<u>Smoking history</u>	
Never smoked	73 (31)
Current smoker	48 (20)
Ex-smoker	86 (37)
Unknown	28 (12)
Chronic kidney disease	68 (29)
Prior ischaemic heart disease	100 (43)
BMI (mean, SD)	24.05 ± 12.02 kg/m ²
Troponin T (median, IQR)	35 (0, 10,000) ng/L
Clinical COVID-19 diagnosis	16 (7)
Covid-19 swab positive	4 (2)
Mortality	38 (16)
- Days before death (median, 1QR)	10 (0, 157)

Abstract 45 Table 2 Showing the final diagnosis of patients and the proportion of patients who died during study period from the turned down cohort

Final Diagnosis	Number (%)	Mortality (%)
STEMI	12 (5)	2 (5)
Late STEMI	8 (3)	5 (13)
NSTEMI	41 (17)	4 (11)
Unstable angina	3 (1)	0
Spontaneous coronary artery dissection	1 (0.5)	0
Angina	13 (6)	0
Takotsubo syndrome	6 (3)	2 (5)
Pericarditis	3 (1)	0
Myocarditis	1 (0.5)	0
Congestive cardiac failure	10 (4)	3 (8)
Arrhythmia	29 (12)	5 (13)
Non-cardiac chest pain	25 (11)	0
Miscellaneous	67 (29)	12 (32)
COVID	16 (7)	5 (13)
TOTAL	235	38

database and call log sheets. Supplementary clinical data was collected using the Northern Ireland Electronic Care Record (NIECR). A turn down was deemed inappropriate if retrospective review of history and ECG demonstrated that the pPCI pathway entry criteria had been met. The number of pPCIs performed was compared with the same time period in 2019.

Results A total of 388 referrals were made to the Belfast pPCI service over a period of 78 days [figure 1]. 19 invalid referrals were excluded, 15 with missing ECGs and 4 duplicate referrals. 134 patients were accepted for pPCI and 235 referrals were turned down, of which 9 (4%) were deemed inappropriate. No referrals were turned down due to COVID-19. Of the inappropriate turned downs 6 were re-referred and had pPCI to a culprit coronary artery, 2 had routine PCI to a culprit coronary artery and 1 had Takotsubo syndrome. From the accepted cohort, 114 (85%) had pPCI to a culprit coronary artery and 20 (15%) had no intervention (3 Takotsubo syndrome, 1 coronary spasm, 4 pericarditis, 3 chronic total occlusion of coronary artery, 8 non-obstructive coronary artery disease and 1 stroke). In the appropriately turned down cohort, the final diagnosis was cardiac in 127 (53%) patients, non-cardiac chest pain in 25 (11%), miscellaneous in 67 (29%) and COVID-19 in 16 (7%) [table 2]. One-year mortality rate of the turned down cohort was 16% (38/235) of which 55% (21/38) was in the cohort with a final cardiac diagnosis, 13% (5/38) was due to COVID-19 and the remaining 32% (12/38) from the miscellaneous cohort [table 1 and 2]. In 2020 there was a 29% (130 vs 182) reduction in the number of pPCIs performed in the 3 months from March to May in comparison with the previous year [figure 2].

Conclusions During the first wave of COVID-19 there was a significant reduction in the number of pPCIs performed. This was not due to an increase in inappropriate turn down of referrals. No patient was turned down because of COVID-19. Of the turned down patients the majority (53%) had a final cardiac diagnosis. One year mortality in this group was significant.

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ACUTE MYOCARDIAL INFARCTION AND LIPID LEVELS PRE AND POST PRIMARY ± SECONDARY TREATMENT: A ONE-YEAR LIPID OUTCOME STUDY

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ESC guidelines recommend a target LDL cholesterol (LDL-C) of <1.8mmol/l following myocardial infarction (MI). Early assessment of lipids post MI is confounded by acute phase response requiring convalescent re-testing to guide need or otherwise for up-titration ± additional treatment.

Methods We studied consecutive patients admitted with acute myocardial infarction over one year (April 2016 – April 2017). Baseline diagnosis, cardiovascular (CV) risk factors, CV history, lipid treatment before admission (if any), lipid levels pre or within 24 hours of admission, lipid treatment on discharge, lipid levels at >3 months follow up, and changes to lipid treatment during follow up were recorded.

Results Of 293 patients admitted with acute MI, 108 (36.8%) had ST elevation MI and 185 (63.2%) non-ST elevation MI or unstable angina. Gender split was approximately 2:1 male: female. Baseline CV risk factors included family history 63