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	March 2016	September 2016
No. of patients admitted with chest pain	135	120
Troponin assessed	120	104
At least one positive Troponin (>40 ng/L)	5	5
Admitted overnight to:	42	0
- assess 12 hour troponin	42	12
- for further assessment		
Subsequent discharge after post-take ward round	42	12
Inpatient angiography	4	1
Outpatient Rapid Access Chest Pain Clinic referral	9	5
Readmission within 30 days with chest pain	6	13
Readmission within 30 days with NSTEMI	1	0
Mean length of stay (hours)	20	7

the post-take ward round. The 12 hour troponin was never raised if the admitting troponin was negative. In September, 120 patients were assessed for chest pain; 5 had positive troponin, of which 1 was an NSTEMI. No patients were admitted overnight to wait for a 12 hour troponin result. Twelve patients were admitted overnight, despite a negative 3 hour troponin, for further assessment. All were discharged home at the post-take ward round. 6 patients were re-admitted within 30 days of discharge from the March cohort, with one fatality secondary to congestive cardiac failure. In September, there were 13 re-admissions with chest pain, none had a positive Troponin result or missed myocardial infarction. There was no change in rates of referral to the Rapid Access Chest Pain Clinic on discharge (9 in March, 5 in September). Based on a cost of £300 per bed day, changing to the updated pathway generated a cost saving of between £100 000 to £150 000 per year to the trust. Average length of stay for those admitted for the assessment of chest pain, excluding those diagnosed with other medical conditions was 20 hours in March and 7 hours following introduction of the new protocol.

Conclusion Implementation of a 3 hour rule-out troponin protocol improved the quality of care delivered to patients at MCHT. Patients were given a diagnosis more quickly and the practise of admitting patients overnight for a 12 hour troponin has stopped. This has had significant cost and bed savings for a busy district general hospital.

66 COGNITIVE IMPAIRMENT IS NOT ASSOCIATED WITH 30 DAY MAJOR ADVERSE CARDIOVASCULAR EVENTS IN OLDER (75 YEARS) PATIENTS PRESENTING WITH NON-ST ELEVATION ACUTE CORONARY SYNDROME: AN EVALUATION FROM THE ICON1 STUDY

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10.1136/heartjnl-2017-311726.65

Introduction Dementia is leading cause of death in the UK and shares many common risk factors with coronary artery disease. The relationship between cognition and major adverse cardiovascular events (MACE) in older patients presenting with non ST elevation Acute Coronary syndrome (NSTEACS) is not known.

Aim To investigate the association of cognitive impairment with 30 day MACE (mortality, hospital readmission with ACS, unplanned revascularisation, stroke and major bleeding events) in older patients presenting with NSTEACS in the ICON1 study.

Method Over a period of 34 months 277 patients 75 years of age, admitted for invasive management of NSTEACS, were enrolled into a multicentre prospective observational study. Cognitive assessment was performed by Montreal Cognitive Assessment (MoCA) test, where a cut-off of 26 is used to determine cognitive impairment. Frailty was assessed using the Fried criteria, where a score of 0 is robust, 1 or 2 is pre-frail and 3 is frail.

Results 251 patients had a MoCA score calculated at presentation (mean±Standard deviation [SD]=25.1±3.3), nearly half of the patients (n=122, 48.6%) had cognitive impairment. The mean age was 81.2±4.0 years (mean± Standard Deviation [SD]). Patients with cognitive impairment were older compared to normal cognition group (82.2±3.9 vs. 80.2±3.9 years, $p<0.001$), and were frail (36.1% vs. 18.6%, $p=0.002$). Overall 19 (7.6%) patients reached MACE outcome, the rate of composite adverse outcomes were 6.6% vs. 8.5% ($p=0.555$) respectively. No patient died at 30 day in the selected cohort and no one had ST elevation myocardial infarction. There was no difference in the occurrence of non ST elevation myocardial infarction (0.8% vs. 0.8%), unstable angina (0.8% vs. 2.3%, $p=0.808$), unplanned revascularisation (1.6% vs. 1.6%, $p=1.0$), stroke/Transient Ischaemic Attack (0% vs. 0.8%, $p=1.0$), and major bleeding (4.1% vs. 3.9%, $p=1.0$), and readmission with ACS rate (1.6% vs. 3.1%, $p=0.684$) between the impaired and normal cognition groups respectively.

Conclusion Cognitive impairment is common in patients over 75 years of age with NSTEACS managed invasively. Those with significant impairment are older and frail. Short-term 30 day MACE outcomes are not different between cognition groups in this selected cohort of patients.

67 REDUCING CHEST PAIN ADMISSIONS USING A 1 HOUR HIGH-SENSITIVITY TROPONIN-T PATHWAY

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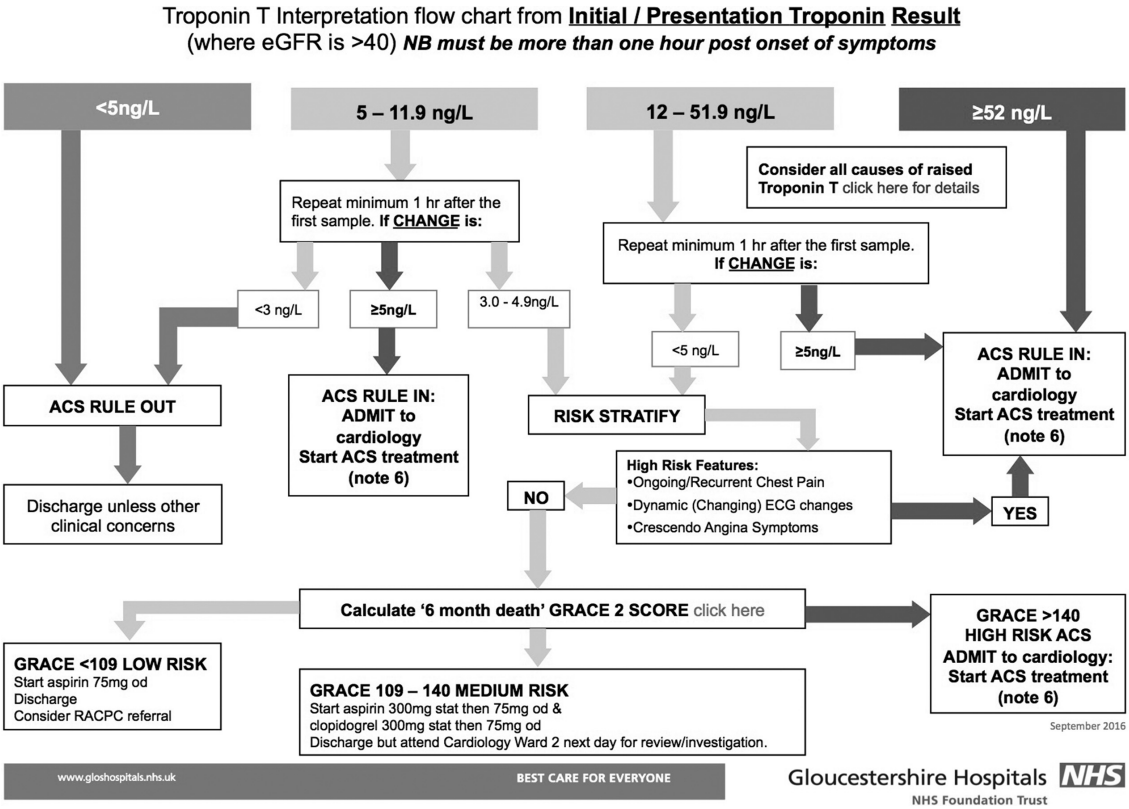
10.1136/heartjnl-2017-311726.66

Introduction Chest pain is the most common presenting complaint to emergency departments in the United Kingdom. Existing management pathways for suspected Acute Coronary Syndrome utilise serial cardiac troponin measurement, typically at admission and again at 6 or 12 hours, often necessitating inpatient admission. Recent work has validated the use of a high sensitivity Troponin assay to enable risk stratification using presentation and 1 hour Troponin concentrations, with a view to reducing admissions and facilitating safe, early discharge.

Methods A 1 hour troponin pathway was implemented in a District General Hospital (DGH) at Gloucestershire Royal Hospital, using a High Sensitivity Troponin-T assay (hs-cTnT, Elecsys assay, *Roche Diagnostics*®). This was trialled in the Emergency Department for 56 consecutive hours. Patients with suspected ACS had a plasma hs-cTnT concentration



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measured at presentation, and if necessary a repeat test was performed at 1 hour. Patients were then stratified using the 1 hour Troponin pathway into low, medium and high risk groups.

All instances of hs-cTnT performed for 112 consecutive hours were included in analysis, 56 hours of the trial period and 56 hours of control data for comparison. We reviewed the cases to assess the performance and safety of the 1 hour troponin pathway using primary outcome data of discharge rates and subsequent myocardial infarction or death within 30 days.

Results 140 patients had a hs-cTnT performed. 51 cases did not present with chest pain or were admitted with a non-ACS diagnosis and were excluded from further analysis. During the trial period 21 (54%) of patients were discharged directly home from the Emergency Department, compared with 15 (30%) during the control period (p=0.02; *n-1 two-proportion (Ã□â€ ¡²) analysis*). There were no documented cases of subsequent myocardial infarction or death within 30 days follow up.

Conclusions There was a substantial increase in the percentage of patients discharged home from the Emergency Department during the 1 hour Troponin trial compared with the control period, demonstrating that this pathway facilitates rapid decision making and early discharge. Our estimate is that a further 3 admissions could have been avoided during the trial period if the pathway had been strictly implemented, and we predict that further education and familiarity for the Emergency Department staff will improve this. There were no cases of acute myocardial infarction or death in our cohort at 30 days, meaning that patient safety does not appear to be comprised.

To our knowledge this is the first trial of a 1 hour Troponin pathway in a UK DGH, and demonstrates that a 1 hour model can be applied to an unselected population and can safely reduce acute hospital admissions.

68 THE IMPACT OF THE WEEKEND ADMISSION ON EARLY MORTALITY AFTER ACUTE CORONARY SYNDROME: A META-ANALYSIS OF OBSERVATIONAL STUDIES

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10.1136/heartjnl-2017-311726.67

Background A weekend effect where outcomes for patients admitted acutely during the weekend are worse than those for patients admitted during the week has been reported in many specialities across medicine. The evidence supporting a weekend effect among patients admitted with an acute coronary syndrome is conflicting. This systematic review and meta-analysis aims to determine if collectively there is a weekend effect in acute coronary syndrome.

Methods We searched Medline and EMBASE for cohort studies examining the association between weekend compared to weekday admission at any time of the day and early mortality (in-hospital or 30 day). Relevant studies were pooled using random effects meta-analysis for risk of early mortality. Additional analyses were performed considering only more recent studies (conducted after 2005) and by patient group (STEMI