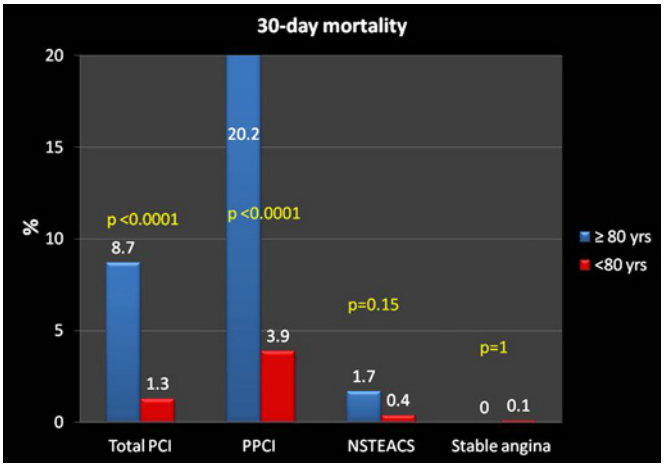
had PCI for non-ST elevation ACS (NSTEACS) and 118 (29.4%) had PCI for stable angina. Of the 2530 patients in the younger cohort (<80 years) who had PCI, 765 (30.2%) had PPCI, 739 (29.2%) had PCI for NSTEACS and 1026 (40.6%) had PCI for stable angina. The demographic and procedural data of octogenarians are compared with younger patients (Abstract 027 table 1). The clinical outcomes for octogenarians are shown in Abstract 027 table 2. The total 30-day mortality for patients aged ≥ 80 years was 8.7% compared with a mortality rate of 1.3% for those aged <80 years (p<0.0001). This highly significant mortality difference related almost entirely to a fivefold higher mortality in patients aged ≥80 years undergoing PPCI compared with younger patients (Abstract 027 figure 1).

Abstract 027 Table 1

n (%)	≥80 years (n=401)	<80 years (n=2530)	p Value
Age (mean±SD)	84±4	63±10.2	<0.0001
Male	225 (56.1)	1917 (75.8)	<0.0001
Diabetes	70 (17.5)	402 (15.9)	0.38
Previous MI	135 (33.7)	599 (23.7)	<0.0001
Previous CABG	33 (8.2)	158 (6.2)	0.13
Previous PCI	55 (13.7)	488 (19.3)	0.007
LMS involvement (≥75% stenosis)	14 (3.5)	44 (1.7)	0.03
Single vessel PCI	303 (75.6)	2073 (81.9)	0.003
DES usage	196 (48.9)	1667 (65.9)	<0.0001

Abstract 027 Table 2

n (%)	Total PCI (n=401)	PPCI for STEMI (n=163)	PCI for NSTEACS (n=120)	PCI for stable angina (n=118)
In-hospital mortality	25 (6.2)	24 (14.7)	1 (0.8)	0
30-day mortality	35 (8.7)	33 (20.2)	2 (1.7)	0
Major bleeding	13 (3.2)	6 (3.7)	6 (5)	1 (0.85)
Myocardial infarction	6 (1.5)	4 (2.5)	2 (1.7)	0
CVA	2 (0.5)	1 (0.61)	0	1 (0.85)



Abstract 027 Figure 1

Conclusion In this consecutive series from a high volume tertiary centre, patients aged ≥80 years undergoing PCI have 30-day mortality rates comparable with younger patients treated for stable angina or NSTEACS. Further studies are required to refine treatment strategies in unselected patients aged ≥80 years undergoing PPCI for STEMI.

028 AGE RELATED MORTALITY OF PRIMARY PCI PATIENTS AT A HIGH VOLUME UK CARDIAC CENTRE

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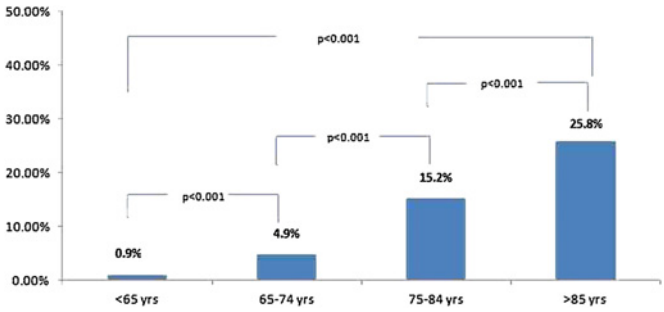
Introduction Despite being the fastest growing population group, the elderly have usually been excluded from reperfusion clinical trials. We studied the difference in mortality in different age groups after primary percutaneous coronary intervention (PPCI) for ST elevation myocardial infarction (STEMI) at our high volume 24/7 cardiac centre.

Methods From the start of our PPCI service, there has been no age criteria to access the service. We collected data from our prospective cardiac database for the 24-months period between September 2009 and September 2011, with mortality provided by the summary care records.

Results There were 1322 PPCI procedures with an age range of 14–98 years (mean 65.3). 656 patients (50%) were under 65 years, 326 (25%) were 65–74, 243 (18%) were 75–84 and 97 (7%) were 85 years or over. The 30-day all-cause mortality rates are shown in the graph below.

Conclusions The data presented demonstrate a clear significant correlation between age and mortality following PPCI. For those patients aged under 65 years, the 30-day mortality following PPCI for STEMI is very low. There is then a stepwise increase in mortality with age. This report from a high volume centre adds to the sparse literature documenting outcome for the elderly following PPCI in an unselected "all-comer" real world population. It raises the issue of what the most appropriate treatment strategy should be in very elderly patients presenting with STEMI and warrants further investigation.



Abstract 028 Figure 1

029 MANAGEMENT AND OUTCOMES OF PATIENTS FOLLOWING OUT-OF-HOSPITAL CARDIAC ARREST

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Introduction Treatment of patients with out-of-hospital arrest (OOHA) is complex, may be time sensitive and depends on the coordinated actions of diverse healthcare providers. There are no clear guidelines for the management of these patients and there is a lack of outcome data for those presenting with cardiac causes. We reviewed the characteristics and outcomes of a series of patients with OOHA referred and accepted to a tertiary cardiac service.

Methods and Result Between January 2010 and October 2011, 76 pts with OOHA were accepted by our unit. Median age was 62 years (21–91) and 66% were male. The diagnosis of STEMI was made prior to the arrest in 38 pts (Gp 1) and emergency angiography

± PCI was attempted. PCI was done in 36 (95%). 14 (37%) were in cardiogenic shock, 9 (24%) were transferred to ITU, 5 (13.2%) had therapeutic cooling and 33 (87%) survived to hospital discharge. In 20 pts, the diagnosis of STEMI was made following resuscitation (Gp 2). Of these 18 (90%) had angiography + PCI, 9 (45%) were in cardiogenic shock, 6 (30%) had therapeutic cooling, 12 (60%) admitted to ITU, 3 (15%) were admitted to ITU first before coming to the Cath lab and 15 (75%) survived to discharge. There was no evidence of STEMI following resuscitation in 18 pts accepted by our unit (Gp 3). Of these, 17 (94%) had angiography, 7 (39%) had PCI, 2 (18%) had CABG, 2 (18%) were in cardiogenic shock, 15 (83%) were admitted to ITU, 7 (38%) had therapeutic cooling and survival to discharge was 94%. In Gp 3, angiography was delayed pending a head CT in 7 (38%) compared to none in Gps 1 and 2. Angiography was deferred following initial ITU treatment in 8 (44%) patients in Gp 3. Overall survival in patients with and without cardiogenic shock was 58% and 98% respectively ($p<0.01$). Survival was 87% for those with a witnessed OOHA compared to 40% where the arrest was not witnessed ($p<0.05$).

Conclusion A programme of immediate cardiovascular assessment of patients with OOHA and referral for angiography and revascularisation as deemed appropriate is associated with encouraging short-term outcomes. Outcomes are related to the presence of shock and whether the OOHA was witnessed or not. National guidance on the immediate management of these patients may improve outcomes.

030 MANAGEMENT OF BIFURCATION DISEASE WITH A DEDICATED SIDE-BRANCH DEVICE; A SINGLE CENTRE EXPERIENCE WITH THE TRYTON STENT

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Background The optimal strategy for the treatment of bifurcation disease is not yet defined. While trial data suggests that "provisional" side-branch (SB) stenting may be superior to more complex 2-stent approaches, the role of customised devices designed specifically to treat this complex anatomy has not been examined. The TRYTON side-branch stent is one such example. This is a 5 French guide compatible, non-drug eluting, Cobalt Chromium device mounted on a monorail balloon catheter. When deployed into the SB, it is specifically designed to scaffold the ostium. A second stent is mandated in the main branch (MB) and deployed through TRYTON in a culottes fashion, serves to further cover the carina and secure TRYTON. This is followed by final kissing balloon inflation.

Methods All patients undergoing bifurcation stenting using the TRYTON stent were systematically included in a registry. Follow-up data were obtained by case note and angio review and telephone interview.

Results Since November 2008, 79 patients (mean age 63 years, range 36–84) with bifurcation disease and SB vessel diameters of at least 2.5 mm were selected for treatment with TRYTON in our centre. 75% (59/79) of the target lesions were in the left anterior descending/diagonal while 4 were in the left main stem. 60% (47/79) lesions were Medina 1.1.1, while 15% (12/79) had no SB disease. Procedural success was achieved in 94%. In 5 cases from our initial 6 months' experience, TRYTON could not be delivered to the target lesion due to proximal calcification or tortuosity, resulting in stent dislodgement in 4 cases and requiring retrieval of TRYTON in 1. An alternate bifurcation strategy was used and none of the 5 patients suffered clinical sequelae. Subsequent device modification by the manufacturers to improve balloon adherence, trackability and deliverability resulted in a 100% success rate. In the remaining 74 patients TRYTON was deployed successfully and in all but one case, a drug eluting stent was used in the main branch. Additional drug eluting stents were deployed into further diseased segments of the SB in five cases and the MB in 28. Final kissing balloon inflation could be performed in all but one case (99%). Angiographic success in both the main and side branches was 100%. After a median follow-up of 18 months (range 2–40), there have been no instances of unplanned readmission with ischaemia, myocardial infarction or death in any of the 79 patients. In one case in-stent restenosis in the bare-metal MB stent required further treatment with a drug eluting balloon.

Conclusion TRYTON performs predictably and successfully scaffolds the side-branch ostium. The enhanced ability to rewire the side-branch for final kissing balloon inflation when compared with other 2-stent strategies may have contributed to our low observed clinical event rate. The medium term results in this series are encouraging. A randomised trial comparing TRYTON with provisional side-branch stenting is ongoing.

031 USE OF THE NOVEL SIDEGUARD DEDICATED BIFURCATION STENT: A REAL WORLD EXPERIENCE

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Introduction PCI treatment of bifurcation disease is technically challenging. Dedicated bifurcation stents have been developed to address some of the challenges associated with bifurcation lesions. The aim of this study is to report clinical utility and outcomes of the Sideguard stent in patients undergoing treatment to bifurcation coronary lesions in a real world setting in a large tertiary UK centre.

Methods Retrospective study of 61 consecutive patients treated with the Sideguard Stent for bifurcation PCI at the Manchester Heart Centre from March 2010 to October 2011. Patient demographics and PCI procedural data were obtained from the in-house, cross validated PCI database. Mortality data were obtained from National Office of Statistics. Interim 6 month and 1 year data were obtained from clinical review. Clinical end point studied included death, subsequent myocardial infarction, stent thrombosis and target lesion/vessel revascularisation (TLR/TVR).

Results A total of 61 consecutive patients underwent bifurcation PCI using the Sideguard stent during this study. Mean age 57.1±11.5 years (range 30–76) of which 50/61 were male (81.9%). Bifurcation site was in LAD in 44 (72.2%), Cx in 14 (22.9%) and RCA in 3 (4.9%) of cases. Medina classification was 1:1:1 in 38 (62.3%), 1:0:1 in 10 (16.3%) and 0:1:1 in 6 (9.9%) of cases. Moderate or severe calcification was present in 27 (44.3%) of cases. Mean main vessel (MV) diameter was 3.36±0.39 mm, mean MV stent length was 35±18.4 mm and mean number of stents in MV was 1.54±0.77. Mean Side branch vessel (SB) diameter was 2.93±0.33 mm, mean SB stent length was 13.4±8.5 mm and mean number of stents in SB was 1.24±0.43. Final kissing balloon was attempted in 57 (93.4%) and successful in all cases attempted. Procedural complications occurred in 4/61 (6.6%) cases. Complications included 1 case of limited perforation of the MB which was treated conservatively, 1 case of clot formation related to IVUS examination (neither of these complications were thought to be related to sidegurad stent, directly) and 2 cases of stent displacement. Local deployment techniques have been modified to combat displacement. Operators now wait for 30 s and take a frame shot after stent deployment to confirm placement before removing the stent balloon. In our interim analysis 43 of these 61 patients have been followed up for at least 6 months (70.5%) and 37 patients for at least 1 year (60.7%). There were no deaths or stent thromboses.