time to reperfusion for the subgroup presenting after hours (median 130 vs 134 min pre-April and post-April respectively). The two-thirds of patients who bypassed MMH out of hours did have a trend to a shorter overall time to reperfusion (119 vs 151 min, p = 0.09) due to a shorter door-to-device time (61 vs 90 min, p = 0.01).

<table>
<thead>
<tr>
<th>Ethnicity Row</th>
<th>Age Group</th>
<th>Labels</th>
<th>Less than 50</th>
<th>50 to 65</th>
<th>65+</th>
<th>Grand Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre Ambulance ECG (n = 29)</td>
<td>Door to Device (minutes)</td>
<td>Median (IQR)</td>
<td>44 (37 – 59)</td>
<td>72 (57 – 84)</td>
<td>118 (100 – 144)</td>
<td>0.4156</td>
</tr>
<tr>
<td>Post Ambulance ECG n = 45</td>
<td>Door to Device (minutes)</td>
<td>Median (IQR)</td>
<td>50 (37 – 63)</td>
<td>65 (45 – 90)</td>
<td>119 (96 – 143)</td>
<td>0.5014</td>
</tr>
</tbody>
</table>

**Conclusion:** In this early experience, door-to-device times were shorter in patients who bypassed MMH out of hours following pre-hospital ECG transmission, however overall time to reperfusion was not improved.

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**P29**

**Trastuzumab induced cardiotoxicity in Auckland**

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**Background:** Trastuzumab improves the prognosis of HER2 positive breast cancers but is associated with a decline in cardiac function. We looked at the incidence of Trastuzumab induced cardiotoxicity (TIC) in Auckland, defined as a reduction of LVEF of ≥5% to <55% with symptoms of heart failure or an asymptomatic reduction of the LVEF of ≥10% to <55%.

**Methods:** 136 patients who had at least two echocardiograms for LV assessment, during treatment with Trastuzumab, between 2009 and 2011, were identified. Baseline characteristics, risk factors and treatment details were recorded and echocardiogram reports were reviewed.

**Results:** Of the 136 patients, 24 patients (18%) had a decline in EF of more than 10% during therapy (13% were of Maori descent, 50% NZ European, 17% European, 17% Pacific Islanders and 4% Asian) but only eight (6%) met the standard definition as above.

Of the eight patients with TIC, five stopped treatment as a result.

Two did not recover their EF, one had continued treatment after diagnosis the other stopped. One continued to have reduced LV function one year following treatment cessation, the other had no further follow up studies. Of those that recovered, two had continued therapy throughout.

There were no significant changes in diastolic function and no correlations with cumulative dose.

**Conclusions:** More Pacific Islanders developed TIC than might have been expected. 6% of those receiving Trastuzumab developed TIC consistent with that reported amongst other populations. 75% of these recovered irrespective of whether treatment was continued or not.

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**P30**

**Management of valvular heart disease: Role of echocardiography and assessment of pulmonary hypertension reversibility**

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**Background:** Valvular heart disease (VHD) can lead to pulmonary hypertension (PHT) which is an important predictor of right ventricular failure and mortality following surgical intervention. Echocardiography and reversibility assessment of pulmonary vasculature resistance index
(PVRI) may be useful in identifying high risk patients resulting in better procedural outcomes.

**Methods:** We have performed a retrospective study of 100 consecutive patients of VHD with moderate to severe PHT (systolic PAP of 50mmHg, mean PAP >30mmHg and mean pulmonary capillary wedge pressure >15mmHg), from June 2010 until June 2013. Transthoracic echocardiography (TTE) was performed electively in all patients pre-PVRI assessment (average 4weeks). Assessment of PVRI reversibility was performed by using nebulised iloprost (20microgram/ml for 10minutes).

**Results:** The median age of our cohort was 77years (range 27 to 84), (60%) male. Seventy two (72%) had severe mitral and 28(28%) had severe aortic valve disease. Reversibility was assessed in 30 patients (30%).

<table>
<thead>
<tr>
<th></th>
<th>Responders (N = 17)</th>
<th>Non-Responders (N = 13)</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age in years</td>
<td>Median 71yrs (Range 37-83)</td>
<td>Median 66yrs (Range 51-79)</td>
<td>0.376</td>
</tr>
<tr>
<td>Mean PCWP (Right heart study)</td>
<td>22mmHg</td>
<td>29mmHg</td>
<td>0.030</td>
</tr>
<tr>
<td>Pulmonary Artery Systolic Pressure (Right heart study)</td>
<td>60 mmHg</td>
<td>59 mmHg</td>
<td>0.5498</td>
</tr>
<tr>
<td>Pulmonary Vascular Resistance Index (PVRI)</td>
<td>11WU/m²</td>
<td>7.3WU/m²</td>
<td>0.00758</td>
</tr>
<tr>
<td>Change in PVRI post Reversibility test with Iloprost</td>
<td>3.3WU/m²</td>
<td>0.03WU/m²</td>
<td>0.00014</td>
</tr>
<tr>
<td>Cardiac Index Litres/min/metre²</td>
<td>2.55L/min/m²</td>
<td>2.04L/min/m²</td>
<td>0.00124</td>
</tr>
<tr>
<td>Left Ventricle diastolic dimension on transthoracic echo. Pre-study</td>
<td>53 millimetre</td>
<td>60 millimetre</td>
<td>0.0257</td>
</tr>
<tr>
<td>RV Tricuspid Annular Plane Systolic Excursion (TAPSE) on transthoracic echo. Pre-Study</td>
<td>Median 1.8cm (Range 2.3-0.8)</td>
<td>Median 1.25cm (Range 2.0-0.5)</td>
<td>0.03563</td>
</tr>
<tr>
<td>Left Atrium (LA) area on Apical 4Ch view (TTE)</td>
<td>Median 27cm² (Range 17-44)</td>
<td>Median 34cm² (Range 24-47)</td>
<td>0.01929</td>
</tr>
</tbody>
</table>

*p-value of less than 0.05 is statistically significant.

Seventeen (53%) of our patients were responders and had 20% or greater decrease in PVRI. Non-responders had dilated left atrium and ventricle with reduced TAPSE and high pulmonary wedge pressure.

**Conclusion:** Assessment of reversibility of PHT is infrequently performed in patients with VHD. Non-responders had reduced biventricular function on echocardiography. Combining data from invasive and non-invasive investigations, may help in identifying patients more likely to benefit from valve surgery.

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**P31**

**Percutaneous coronary intervention (PCI) outcomes at Tauranga Hospital: A new non-surgical centre’s early experience**

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**Background:** Performance of PCI in New Zealand is largely restricted to hospitals in which cardiac surgery is performed. We started a non-surgical centre PCI program in April 2012, to address local needs for coronary revascularisation, with the support of the regional cardiac surgical centre. Safety and outcome data are presented.

**Methods:** Demographic, procedural and outcome data were collected into a local database between April 2012 and January 2014. ANZACS QI database has been used for national data collection since June 2012.

**Results:** 294 procedures were performed between 26 April 2012 and 3 February 2014. Patients’ mean age was 67 (range 39 - 89); 74% were male, 96% NZ European, 17% Diabetic. 101 (34%) procedures were performed electively, 190 (65%) for acute coronary syndromes. Radial artery access was used in 280 cases (95%), conversion to femoral access occurring in 10 instances (3% conversion rate). 347 stents were deployed in 253 cases (average 1.4 per case), 32 cases being pressure wire studies with no subsequent intervention. 70% were drug eluting stents. Single vessel disease was treated predominantly (average 1.4 per case). There was 1 in-hospital MACE (NQMI due to side branch occlusion), no emergency transfers for surgery, and 1 arterial complication (a-v fistula after repeat transradial access).

**Conclusion:** Our experience supports the delivery of PCI in centres without on-site cardiothoracic surgical support. The majority of procedures are performed for acute coronary syndromes, are safe and effective in acute and stable settings.

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**P32**

**Cryoablation for AF in the Waikato; Early results**

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3Cardiology/Electrophysiology Tauranga Hospital, Tauranga

*Corresponding author.

**Background:** Cryoablation is a novel treatment for atrial fibrillation (AF). Commencing November 2012 with 3