

Integrated Care Pathway for Cardiac Catheterisation / PCI

Patient Label

<b>Patient Details</b>	
Age	
Tel No	
Religion	
Next of Kin	
Next of Kin Tel No	
Consultant	
Date of pre-clerking	
Date of Admission	
Admission time	
Own Transport / Hosp Transport	
Hospital Transport Ref No	
Relative / Friend for 24h	
Transport Contact No	

<b>Allergy to Contrast</b>	Yes / No	<b>History:</b>	
If Yes		Asthma / COPD	Yes / No
Steroid to be given	Yes / No	Previous MI	Yes/ No
Anti-histamine to be given	Yes / No	Diabetes	Yes /No
Other Allergies	Yes / No	Hypertension	Yes /No
To what		High Cholesterol	Yes / No
		PVD	Yes / No
<b>Planned procedure:</b>		Vascular surgery	Yes / No
Diagnostic angio. only	Yes / No	TIA / CVA	Yes / No
PCI	Yes / No	Family history	Yes/ No
SBCA +/- PCI	Yes / No	Smoker	Yes/ No
IVUS / OFDI +/-	Yes / No	Ex-smoker	Yes / No
Proceed	Yes / No		
PWS +/- proceed	Yes / No		
Previous Grafts	Yes / No		
Operation details in notes			

<b>Blood Results</b>	Date	
Sodium	Hb	Cholesterol
Potassium	WBC	INR
Urea	Platelets	CRP
Creatinine	Glucose	MRSA
eGFR	Troponin	Other

**Integrated Care Pathway for Cardiac Catheterisation / PCI**

<b>Medications</b>			
Aspirin	Already on <input type="checkbox"/>	Loading Dose 300mg <input type="checkbox"/>	Date started .....
Clopidogrel 300mg / 600mg <input type="checkbox"/>	Prasugrel 60mg <input type="checkbox"/>	Ticagralor 180mg <input type="checkbox"/>	
Date started .....			

<b>Diabetes</b>	<b>Renal Disease</b>
Insulin Yes / No	eGFR <60 Yes / No
Tablets - Metformin Yes / No	IV fluids Yes / No
To Stop Yes / No	Visipaque Yes / No
Diet Yes / No	

<b>Warfarin/Apixaban/Acenocoumarol/Dabigatran/Edoxaban/Rivaroxaban</b>	<b>MRSA Status</b>
Yes / No	
<b>Continue</b> Yes / No	No <input type="checkbox"/> Unknown <input type="checkbox"/>
<b>Stop</b> Yes / No	Yes <input type="checkbox"/>
If stop how many days pre	Swab taken <input type="checkbox"/>

<b>1 CCS Angina Status</b>	<b>2 NYHA Dyspnoea Status</b>
0 No angina	1 No limitation of physical activity
1 No limitation of physical activity	2 Slight limitation of ordinary activity
2 Slight limitation of ordinary activity	3 Marked limitation of ordinary physical activity
3 Marked limitation of ordinary physical activity	4 Symptoms at rest or minimal activity
4 Symptoms at rest or minimal activity	

ETT	<input type="checkbox"/>
MPS	<input type="checkbox"/>
Stress echo	<input type="checkbox"/>
Stress MRI	<input type="checkbox"/>
CTCA	<input type="checkbox"/>
Comments:	

<b>Pulses Present:</b>										
Radial	Right	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>	Left	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>
Femoral	Right	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>	Left	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>

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Date of last ECG \_\_\_\_\_

Weight (kg) \_\_\_\_\_

Height (cm) \_\_\_\_\_

Baseline / Observations			
BP: _____	Pulse: _____	Resps: _____	O <sub>2</sub> Sats _____

<b>Day Case PCI Criteria satisfied</b>		
Patient can get to hospital without using public transport or driving own car?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Patient has someone at home on night of admission?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Patient has access to telephone at home?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Patient willing to be a day case?	Yes <input type="checkbox"/>	No <input type="checkbox"/>

<b>Tirofiban Contraindications:</b>		
Any bleeding problems?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Any recent surgery?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Any previous CVA?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Any surgery awaiting?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Patient Information provided?	Yes <input type="checkbox"/>	No <input type="checkbox"/>

**Medical History**

Pre-checking Nurses Signature \_\_\_\_\_

Printed Name \_\_\_\_\_

Position: \_\_\_\_\_

Date: \_\_\_\_\_

addressograph

## Pre-Procedure Checklist

Date: \_\_\_\_\_ Allergies: \_\_\_\_\_

Ward: \_\_\_\_\_

Enter Yes, No or N/A	Ward	Lab		Ward	Lab
Weight (kg):			Consent form signed	Yes / No	
Height (cm):			Notes Present:	Yes / No	
BP:			Drug chart present:	Yes / No	
Pulse:			Last dose of Aspirin		
Temp:			Last dose of Clopidogrel / Prasugrel / Ticagrelor		
Resps:					
Sats:			Last dose of anticoagulant		
NEWS 2 Score:			Tirofiban check		
Date of last ECG:			CVA / TIA	Yes / No	
Diabetic: Yes <input type="checkbox"/> No <input type="checkbox"/> Type I <input type="checkbox"/> Type II <input type="checkbox"/>			Previous bleeding Surgery in the last 6 Months	Yes / No	
				Yes / No	
Metformin Stopped If yes, date stopped	Yes <input type="checkbox"/> No <input type="checkbox"/>		Pink cannula Left / right arm	Yes / No	
Asthma / COPD	Yes <input type="checkbox"/> No <input type="checkbox"/>		Identity band x1 - correct	Yes / No	
Epilepsy	Yes <input type="checkbox"/> No <input type="checkbox"/>		MRSA	+ve / -ve / Unknown	
Prepped groin / wrist			Jewellery	Yes / No	
Hospital gown and paper pants on	Yes <input type="checkbox"/> N/A <input type="checkbox"/>	No <input type="checkbox"/>	Hearing aid	Yes / No	
Dentures / Caps / Crowns	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Radial pulses present	Yes / No	
Next of kin recorded:			Glasses	Yes / No	
Pregnancy Status	Yes <input type="checkbox"/> N/A <input type="checkbox"/>	No <input type="checkbox"/>	Additional info:		
Pregnancy Status (females 12-55) Definitely not pregnant <input type="checkbox"/> Possibly or definitely pregnant <input type="checkbox"/>					

Patients Signature: .....

Signature (Ward) \_\_\_\_\_ Printed Name \_\_\_\_\_  
Signature (Lab) \_\_\_\_\_ Printed Name \_\_\_\_\_

**Protocol for Patient Management  
According to eGFR**

Patient Label

eGFR  
**Inpatient admission**  
**Nephrology consultation**  
**Dialysis planning**

eGFR 30 - 59  
**Start Statin**  
**Discontinue NSAIDS**  
24h pre procedure and for 24h post procedure  
**Stop metformin**  
**Iso-osmolar contrast medium**  
  
**Volume expansion**  
>1ml/kg/h 12h prior and 12h post procedure  
**OR**  
3ml/kg/h 1h prior and 1ml/kg/h 3-6h after procedure  
  
**Consider NAC**  
NAC 1200mg BD (24h pre and post procedure)

eGFR >60  
**No further action**

Date	IV Fluid/ Additive	Volume / Dose	Running Time	Doctors Signature	Batch No	Time Started	Nurses Initials	Time ended

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Medication during procedure

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Date	Drug	Dose	Route	Time	Given By

Doctor's signature to verify medication given

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## End of Procedure Checklist

addressograph

Date: \_ \_ \_ \_ \_

**Procedure:**

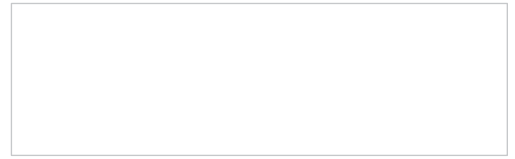
- |                                      |  |
|--------------------------------------|--|
| Angiography <input type="checkbox"/> | Pressure wire <input type="checkbox"/>     |
| IVUS / OFDI <input type="checkbox"/> | Rotablation / IVL <input type="checkbox"/> |
| PCI <input type="checkbox"/>         |  |

Vascular access									
Femoral	R <input type="checkbox"/>	L <input type="checkbox"/>	Sheath size	5F <input type="checkbox"/>	6F <input type="checkbox"/>	7F <input type="checkbox"/>	8F <input type="checkbox"/>	Arterial / Venous	
Radial	R <input type="checkbox"/>	L <input type="checkbox"/>	Sheath size	4F/5F <input type="checkbox"/>	5F <input type="checkbox"/>	5F/6F <input type="checkbox"/>	7F <input type="checkbox"/>	Distal / Proximal	
Time sheath removed.....									
Pressure applied for.....									
Angioseal			Yes / No	Deployed at:					
TR Band			Yes / No	Volume of air inserted:			mls		
Haematoma			Yes / No	Describe:					
Femostop required			Yes / No	Inflation pressure:			mmHg		

Drugs given during procedure:			
Diazemuls / Midazolam	Yes / No	total dose:	mg
Diamorphine	Yes / No	total dose:	mg
GTN	Yes / No	total dose:	mcg/mg
Heparin	Yes / No	total dose:	units
Tirofiban	Yes / No	total dose:	ml
Metoclopramide	Yes / No	total dose:	mg
Adenosine	Yes / No	total dose:	mg
Atropine	Yes / No	total dose:	mg
Phenylephrine	Yes / No	total dose:	mcg/mg
IV Fluids	Yes / No	total volume:	ml
Contrast: Vis 270 / Omni 300		total volume:	ml
Other:		total volume:	ml/mcg/mg

BP (at end of case):	/	mmHg			
ACT @	=	Sec	ACT @	=	Sec
ACT @	=	Sec	ACT @	=	Sec
ACT @	=	Sec	ACT @	=	Sec
Complications: Yes / No		Description:			
Cath Lab Nurse Signature: .....		Printed Name: .....			

**Integrated Care Pathway for Cardiac Catheterisation / PCI**





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addressograph

		Time		Sign
Angino Femoral Angioseal	Return to ward		Sit on return to ward	
	Sit patient up		Sit for 1hr	
	Mobilise patient		Mobilise after 1hr sitting	
	Home after total 1½hr		Observations every 15min for 1hr	

		Time		Sign
Angino Femoral IVUS / OFDI/ PWS	Return to ward		Lay flat for 2hr	
	Sit patient up		Sit for 1hr	
	Mobilise patient		Mobilise if Cardiovascularly stable	
	Home after total 4hr		Observations every 15 min for 1hr	

		Time		Sign
Angio Radial	Return to ward		Patient is able to sit up on return to ward	
	Reduce TR band		Gradual release TR pressure after 60min	
	Mobilise patient		Mobilise if cardiovascularly stable	
	Home after total 2½hr		Observations every 15min for 60min	
			Remove TR band and Apply dressing	

		Time		Sign
Angio Radial IVUS / OFDI /PWS	Return to ward		Patient is able to sit up on return to ward	
	Reduce TR band		Gradual release TR pressure after 2hr	
	Mobilise patient		Mobilise after 2hr of observations	
	Home after total 4hr		Observations every 15min for 2hr	
			Remove TR band and Apply dressing	

Femstop Care Plan			
Time applied		Pressure at	
Time reduced		Pressure at	
Time reduced		Pressure at	
Time reduced		Pressure at	
Time reduced		Pressure at	
Time reduced		Pressure at	

Chest pain  
ECG Changes

Speech problems  
Arm & leg weakness

Abdo tenderness  
Low BP  
Severe back / groin pain  
Tachycardia

Consider stent blocking

Consider CVA

Consider Retroperitoneal bleed

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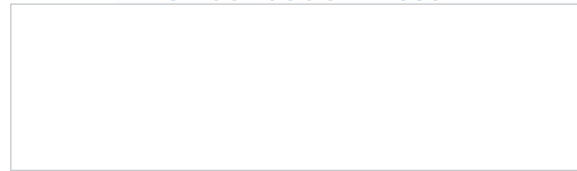
addressograph

		Time		Sign
PCI Femoral	Return to ward		Lay flat for 2hr	
	Sit patient up		Sit for 1hr	
	Mobilise patient		Mobilise after 1hr sitting	
	Home after total 5hr		Observations every 15min for 2hr	
		Time		Sign
PCI Femoral with Tirofiban	Return to ward		Lay flat for 2hr	
	Sit patient up		Sit for 1hr	
	Mobilise patient		Mobilise after 1hr sitting	
	Home after total 6hr		Observations every 15min for 2hr	
			Check wound regularly	
			Check FBC after 4hr	
	If on infusion		Remain on bed rest. Check FBC in the morning	
		Time		Sign
PCI Radial	Return to ward		Patient is able to sit up on return to ward	
	Reduce TR band		Gradual release TR pressure after 2hr	
	Mobilise patient		Mobilise after 2hr of observations	
	Home after total 5hr		Observations every 15min for 2hr	
			Remove TR band	
			Apply dressing	
		Time		Sign
PCI Radial with Tirofiban	Return to ward		Patient is able to sit on return to ward	
	Reduce TR band		Gradual release TR pressure after 3hr	
	Mobilise patient		Mobilise after 2hr of observations	
	Home after total 6hr		Observations every 15min for 2hr	
			Check FBC after 4hr	
	<u>If on infusion</u>			
	- Remain on bed rest until the end of infusion			
	- Check FBC in the morning			
	- Leave TR Band on with 3ml air in until the end of the infusion			

NEWS 2 Scoring System

Score	3	2	1	0	1	2	3
Respiration Rate (BrPM)	≤8		9-11	12-20		21-24	≥25
%SpO <sub>2</sub> (Scale 1)	≤91	92-93	94-95	≥96			
%SpO <sub>2</sub> (Scale 2, use with hypercapnic respiratory failure)	≤83	84-85	86-87	88-92 ≥93 on Air	93-94 on Oxygen	95-96 on Oxygen	≥97 on Oxygen
Supplemental Oxygen?		Yes		No			
Systolic Blood Pressure (mmHg)	≤90	91-100	101-110	111-219			≥220
Heart Rate (BPM)	≤40		41-50	51-90	91-110	111-130	≥131
Consciousness (ACVPU)				Alert			CVPU
Temperature (°C)	≤35		35.1-36	36.1-38	38.1-39	≥39.1	

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Recovery Observations

Time →																			
240																			
230																			
220																			
200																			
190																			
180																			
170																			
160																			
150																			
140																			
130																			
120																			
110																			
100																			
90																			
80																			
70																			
60																			
50																			
40																			
30																			

Oxygen saturations																			
Respiratory rate																			
Heart rhythm																			
NEWS 2 Score																			
Pain score (0-10)																			
ETCO2																			

**Femoral**

Wound																			
Pulse																			
Color																			
Temp																			

**Radial**

Wound																			
Pulse																			
Color																			
Temp																			

Integrated Care Pathway for Cardiac Catheterisation / PCI

Wound	Pulses	Colour	Temperature
P = Pressure D = Dry O = Ooze B = Bruise H = Haematoma R = Rebleed	P = Present A = Absent F = Faint D = Doppler	N = Normal P = Pale M = Mottled	W = Warm CL = Cool CD = Cold

**Deflation of TR Band**.....

TR Band applied at :

Applied to Right\* / Left\* Distal / Proximal Radial puncture site

Quantity of air inserted : \_\_\_\_\_ml

Commence removal of air at: \_\_\_\_\_

Time	Amount of Air removed	Observation of wound / reinsertion of air as applicable	Signature
	Removal of TR band	Dressing applied	

If Statseal Used

- Remove 3 ml of air at :
- After a further 20 minutes, remove the remaining 5 ml of air
- After another 20 minutes, remove the TR Band leaving the transparent dressing and Statseal in place (for 24 hours, No need for pressure dressing).
- If on Tirofiban infusion – Leave TR Band on with 3 ml air in until the end of the infusion.

## Pre-discharge Checklist

addressograph

Date.....

		Initials
Wound checked and dressed	Yes / No	
Cannula removed and site checked	Yes / No	
ECG stickers removed	Yes / No	
Discharge ECG performed and copy given to patient	Yes / No / NA	
Patient passed urine	Yes / No	
Patient aware of procedure results	Yes / No	
Patient aware of follow up plan	Yes / No	
Discharge letter copy given to patient	Yes / No	
Discharge letter copy to GP	Given to patient / Posted	
Discharge medication checked and given to patient	Yes / No / NA	
Antiplatelet card given to patient	Yes / No / NA	
Angioseal card given to patient	Yes / No / NA	
Appropriate blood form given to patient if renal impairment (eGFR <60)	Yes / No / NA	
Discharge information leaflet given to patient	Yes / No	
Cardiac rehab. referral made	Yes / No / NA / TBA	
Outpatient appointment made	Yes / No / NA / TBA	
Transport arranged	Yes / No	
Additional comments		

Signature -----

Printed Name -----

Time -----