Worcestershire Acute Hospitals NHS Trust

Post Percutaneous Coronary Intervention (PCI) Clinic Guideline

This guidance does not override the individual responsibility of health professionals to make appropriate decision according to the circumstances of the individual patient in consultation with the patient and /or carer. Health care professionals must be prepared to justify any deviation from this guidance.

Introduction

This guideline was introduced to allow punctual assessment of cardiac patients post percutaneous coronary intervention (PCI) by the cardiac specialist nurse. The post PCI clinics will be supported by the team of cardiologists.

Lead Clinician(s)

Dr Jasper Trevelyan	Consultant Cardiologist
Helen Routledge	Consultant Cardiologist
William Foster	Consultant Cardiologist

Approved by Cardiology Directorate Committee on:	4th February 2025
Review Date: This is the most current document and is to be used until a revised version is available	4th February 2028

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Key amendments to this guideline

Date	Amendment	Approved by:
24.08.2015	New Document	
August 2017	Document extended for 6 months as per TMC paper approved 22nd July 2015	TMC
December 2017	Sentence added at the request of the coroner	
December 2017	Document extended for 3 months as per TLG recommendation	TLG
March 2018	Document extended for 3 months as approved by TGL	TLG
June 2018	Document extended for 3 months as approved by TGL	TLG
July 2018	Document reviewed and approved for further two years	Cardiology business meeting
August 2020	Document extended for 6 months during COVID period	QGC/Gold meeting
March 2021	Document extended for 6 months as per trust agreement 11.02.21	
4th October 2021	Document approved for 3 years	Cardiology Directorate Committee
October 2024	Document reviewed and approved for 3 years	Cardiology Directorate Committee

Post Percutaneous Coronary Intervention (PCI) Clinic Guideline

Introduction

The post PCI clinic has been set up to review patients post PCI. The cardiac rehabilitation nurse specialist team will review this group of patients in a virtual clinic by telephone appointment. Patients will be identified by the interventionist cardiologist following a presentation of either elective PCI or PPCI to return to receive a telephone call by the specialist nurse

Competencies Required

The cardiac rehabilitation specialist nurse team will assist with this service. Competence will be assessed by already established cardiac knowledge, clinical supervision, CPD and relevant educational courses.

The team comprises of specialist nurses with a mixed skill set that includes a post registration cardiology degree.

Details of Guideline

- All patients that have had elective or emergency PCI and have been deemed appropriate for the nurse led PCI clinic by the discharging cardiologist

- Patients will be referred to the Post PCI clinic by the discharging consultant Cardiologist. Cardiology secretaries will inform appointments department and letters will be generated to invite the patients to the nurse led clinic PCI clinic

- Cardiac rehabilitation specialist nurse will utilise clinic pro forma as their reference point (chart 1)

- Patients contacted by the clinic virtually, will be asked for home monitoring blood pressure and heart rate.

- Patient notes and angiogram report will be viewed via electronic patient records by the cardiac Rehabilitation specialist nurse. Blood results will be reviewed.

- Patient will be reviewed by the Cardiac rehabilitation specialist nurse. A history will be taken and any further chest pain will be assessed. Medications will be reviewed and titrated if appropriate (chart 2). If unable to obtain blood pressure readings and heart rate (virtual clinics) recommendations will be to the patient's GP to review blood pressure and heart rate prior to making any changes.

- The cardiac rehabilitation specialist nurse will discuss any concerns or new symptoms with the Cardiologist.

- At the end of the consultation, a clinic letter will be written and sent electronically via hospital systems to the Patient's GP and a copy sent to the patient.

Chart 1

Post PCI clinic pro forma

To virtually assess patients returning post MI/PCI

Initial diagnosis:

Any angina, or new symptoms? Y/N

If yes discuss with cardiologist

Lifestyle issues: Smoking, healthy diet, alcohol consumption, exercise

ECG (if available) normal	Y/N	Cardiac rehab	Y/N
BP (if available) within normal limits	Y/N	Lipids checked	Y/N
Appropriate medication	Y/N		

Further investigations required Y/N

Review Echo report – EF < 35% at discharge then repeat echo may be indicated to determine need for device therapy discuss with cardiologist if LVEF <35%

Outcomes:

Discharge back to GP: patients should be discharged to primary care follow up after this appointment, unless an ongoing issue has identified

Add to outpatient waiting list: These patients must be discussed with a cardiologist.

Chart 2

Guidelines for nurse led post PCI clinic

- Angina symptoms – discuss with cardiologist

- Any new problems? If in doubt discuss with cardiologist

- **Virtual appointments: Any concerning symptoms must be investigated by arranging appropriate investigations, i.e., BP monitoring, ECG and a face to face appointment.**

Medications

- Bisoprolol 1.25mg – 5mg daily
- ACE I – Ramipril 1.25mg – 5mg or Perindopril 2mg – 4mg
- Clopidogrel 75mg OD or Ticagrelor 90mg BD or Prasugrel 5mg OD **(adults 18-74 years with body weight up to 60kg)** Prasugrel 10mg OD **(adults 18-74 years with body weight 60kg and above)** Prasugrel 5mg for **adults aged 75 and above**
- Aspirin 75mg OD lifelong – if contraindicated, consider Clopidogrel 75mg OD
- Atorvastatin 80mg OD – if not tolerated consider alternative/reduced dose.

Blood Pressure

- If clinic BP >140/90mmHg arrange for repeat check at home or in primary care
- If BP known to be consistently >140/90, make appropriate changes to medications, if qualified and competent to do so. Refer to NICE guidelines.
- Alternatively, discuss with cardiologists re additional anti-hypertensive medication (usually CCB or thiazide)

Lipids

- A repeat lipid profile should be measured 3 months following initiation of treatment
- Aim for a greater than 40% reduction in non HDL cholesterol
- If 40% reduction in non HDL cholesterol is not achieved in patients with primary hyperlipidaemia; check adherence to medications. Optimise adherence to diet and lifestyle measures. Consider increasing statin dose if commenced on a low dose, **and add Ezetimibe 10mg OD.**
- If non-HDL-C remains >2.5mmol/L, arrange fasting profile and refer for Dr Goyal for consideration of injectable therapy (inclisiran or PCSK9 inhibitors)

Lifestyle issues

- Attend cardiac rehab programme. Exercise taken each week? Recommended 30 minutes daily
- Smoking cessation
- Alcohol consumption <3 – 4 units daily for men and <2 – 2 units daily for women
- Healthy diet – 5 a day, low fat, high fibre, low salt, low sugar

Investigations: **to be discussed with cardiologist**

- Echocardiogram if clinical signs indicate, i.e. new murmur signs of heart failure
- Stress echocardiogram/exercise tolerance test if refractory angina/new symptoms
- 24 – 48-hour tape if symptoms of palpitations/arrhythmia
- Coronary angiogram – if indicated, must be agreed by interventionist cardiologist

Monitoring Tool

This should include realistic goals, timeframes and measurable outcomes.

How will monitoring be carried out?

Who will monitor compliance with the guideline?

Page/ Section of Key Document	Key control:	Checks to be carried out to confirm compliance with the policy:	How often the check will be carried out:	Responsible for carrying out the check:	Results of check reported to: *(Responsible for also ensuring actions are developed to address any areas of non-compliance)*	Frequency of reporting:
	WHAT?	**HOW?**	**WHEN?**	**WHO?**	**WHERE?**	**WHEN?**
	Compliance by staff with guidelines Patient compliance/concordance with medications Cardiac rehab uptake Blood tests requested appropriately and acted upon. .	Collect specific data for audit using excel	Twice a year.	Lead nurse for PCI clinic. Supported by Cardiac rehabilitation team	Audit results will be presented at the cardiology directorate meeting.	Audit results will contribute to the annual Cardiac rehab service review which will be presented annually.

References

- Department of Health (2005) National service framework*. Coronary Heart Disease. Chapter 8. Arrhythmia and sudden cardiac death.* Department of Health.
- Trust guideline (2021) *Acute coronary syndrome guideline. (including mangement of ST elevation and non-ST elevation myocardial infarction)* WAHT-CAR-043. (2021)
- NICE guidelines CG181 (2016) *Cardiovascular disease: risk assessment and reduction, including lipid modification* www.nice.org
- NICE Guidelines NG136 (2019) *Hypertension in adults: diagnosis and management* www.nice.org
- NICE Guidelines NG185 (2020) *Acute Coronary Syndromes* www.nice.org
- NICE Guidelines CG95 (2016) *Recent – onset chest pain of suspected cardiac origin: assessment and diagnosis* www.nice.org
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- NICE Guidelines *Secondary prevention in primary and secondary care for patients following a* myocardial infarction. www.nice.org
- Strategy for Management of Patients with suspected or known stable angina in angina in primary care. WAHT-CAR-032
- Cardiac Catheterisation WAHT-CG-056
- Trust guideline (2021) Treatment of chronic Heart Failure caused by left ventricular dysfunction WAHT-CAR-041

Contribution List

This key document has been circulated to the following individuals for consultation;

Name	Designation
Sally Baker	Lead Cardiac rehabilitation CNS
Kerry O'Dowd	Lead nurse cardiology specialist teams
Katherine Smith	Cardiology Pharmacist
Dr Jasper Trevelyan	Consultant Cardiologist
Dr Helen Routledge	Consultant Cardiologist
Dr David Smith	Consultant Cardiologist
Dr Deepak Goyal	Consultant Cardiologist
Dr William Roberts	Consultant Cardiologist
Dr Ashiq Saffy	Consultant Cardiologist

Supporting Document 1 - Equality Impact Assessment Tool

To be completed by the key document author and included as an appendix to key document when submitted to the appropriate committee for consideration and approval.

Please complete assessment form on next page;

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Herefordshire & Worcestershire STP - Equality Impact Assessment (EIA) Form
Please read EIA guidelines when completing this form

Section 1 - Name of Organisation (please tick)

Herefordshire & Worcestershire STP		Herefordshire Council		Herefordshire CCG	
Worcestershire Acute Hospitals NHS Trust	x	Worcestershire County Council		Worcestershire CCGs	
Worcestershire Health and Care NHS Trust		Wye Valley NHS Trust		Other (please state)	

Name of Lead for Activity	**Dr Jasper Trevelyan**

Details of individuals completing this assessment	**Name**	**Job title**	**e-mail contact**
Date assessment completed	**05/11/2021**		

Section 2

Activity being assessed (e.g. policy/procedure, document, service redesign, policy, strategy etc.)	**Title:** Post Percutaneous Coronary Intervention (PCI) Clinic Guideline			
What is the aim, purpose and/or intended outcomes of this Activity?	See body of document			
Who will be affected by the development & implementation of this activity?	❑	Service User	❑	Staff
	x	Patient	❑	Communities
	❑	Carers	❑	Other _____
	❑	Visitors	❑	
Is this:	x Review of an existing activity ❑ New activity ❑ Planning to withdraw or reduce a service, activity or presence?			

What information and evidence have you reviewed to help inform this assessment? (Please name sources, eg demographic information for patients / services / staff groups affected, complaints etc.	See body of document
Summary of engagement or consultation undertaken (e.g. who and how have you engaged with, or why do you believe this is not required)	See body of document
Summary of relevant findings	See body of document

Section 3

Please consider the potential impact of this activity (during development & implementation) on each of the equality groups outlined below. **Please tick one or more impact box below for each Equality Group and explain your rationale**. Please note it is possible for the potential impact to be both positive and negative within the same equality group and this should be recorded. Remember to consider the impact on e.g. staff, public, patients, carers etc. in these equality groups.

Equality Group	Potential positive impact	Potential neutral impact	Potential negative impact	Please explain your reasons for any potential positive, neutral or negative impact identified
Age				No impact
Disability				No impact
Gender Reassignment				No impact
Marriage & Civil Partnerships				No impact
Pregnancy & Maternity				No impact
Race including Traveling Communities				No impact
Religion & Belief				No impact
Sex				No impact
Sexual Orientation				No impact
Other Vulnerable and Disadvantaged Groups (e.g. carers; care leavers; homeless;				No impact

Equality Group	Potential positive impact	Potential neutral impact	Potential negative impact	Please explain your reasons for any potential positive, neutral or negative impact identified
Social/Economic deprivation, travelling communities etc.)				
Health Inequalities (any preventable, unfair & unjust differences in health status between groups, populations or individuals that arise from the unequal distribution of social, environmental & economic conditions within societies)				No impact

Section 4

What actions will you take to mitigate any potential negative impacts?	Risk identified	Actions required to reduce / eliminate negative impact	Who will lead on the action?	Timeframe
		.		
How will you monitor these actions?	**N/A**			
When will you review this EIA? (e.g in a service redesign, this EIA should be revisited regularly throughout the design & implementation)				

Section 5 - Please read and agree to the following Equality Statement

1. Equality Statement

1.1. All public bodies have a statutory duty under the Equality Act 2010 to set out arrangements to assess and consult on how their policies and functions impact on the 9 protected characteristics: Age; Disability; Gender Reassignment; Marriage & Civil Partnership; Pregnancy & Maternity; Race; Religion & Belief; Sex; Sexual Orientation
1.2. Our Organisations will challenge discrimination, promote equality, respect human rights, and aims to design and implement services, policies and measures that meet the diverse needs of our service, and population, ensuring that none are placed at a disadvantage over others.
1.3. All staff are expected to deliver services and provide services and care in a manner which respects the individuality of service users, patients, carer's etc, and as such treat them and members of the workforce respectfully, paying due regard to the 9 protected characteristics.

Signature of person completing EIA	
Date signed	05/11/2021
Comments:	Completed on behalf of document owners
Signature of person the Leader Person for this activity	
Date signed	
Comments:	

Supporting Document 2 – Financial Impact Assessment

To be completed by the key document author and attached to key document when submitted to the appropriate committee for consideration and approval.

	Title of document:	Yes/No
1.	Does the implementation of this document require any additional Capital resources	N
2.	Does the implementation of this document require additional revenue	N
3.	Does the implementation of this document require additional manpower	N
4.	Does the implementation of this document release any manpower costs through a change in practice	N
5.	Are there additional staff training costs associated with implementing this document which cannot be delivered through current training programmes or allocated training times for staff	N
	Other comments:	

If the response to any of the above is yes, please complete a business case and which is signed by your Finance Manager and Directorate Manager for consideration by the Accountable Director before progressing to the relevant committee for approval.