



Physiological
Measurements Ltd.

UNDERSTAND
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DELIVER

NHS

Redbridge

Clinical Commissioning Group



Redbridge Direct Access Cardiology Service

Referrer Information Pack Physiological Measurements Ltd.

Providing Services on Behalf of the NHS

The Service

Following a rigorous application process, PML were accredited to provide Community Cardiac Direct Access Diagnostics services in the Redbridge CCG, which aims to transform local services to provide patients access to greater choice of services, whilst assuring quality.

Acceptance Criteria

This Service is for adults aged 18 years of age and above.

Exclusion Criteria

The following groups are excluded from the provision of this service:

- Suspected Myocardial Infarction
- Chest Pain requiring urgent assessment
- Evidence of life threatening arrhythmia
- Acute left ventricular failure
- Acute loss of consciousness with evidence of cardiac heart block
- Paediatric cardiology referrals (unless transition from paediatric to adult services)
- Any other cardiological emergencies
- Children under the age of 18

How To Refer

The Referral Form provided with this Information Pack should be completed for each patient.

Electronic versions of the referral form can be found in the clinic finder section of our website www.physiologicalmeasurements.com/clinicfinder.

Simply type in your surgery postcode and the Redbridge clinics will appear with a link to the referral form. Or please call the Patient Management Centre on 01681 676496

Please Note: electronic results are returned to nhs.net addresses only. Please make sure you supply a current nhs.net email address for return of the results on the referral form.

Our Patient Management Centre manages all referrals to this service.

Referrals can be accepted to our Patient Management Centre Via:

- E-referral
- Secure Email
- Fax
- Post

The following contact details should be used:

The Diagnostics Patient Management Centre
The Old Malt House, Willow Street, Oswestry, Shropshire SY11 1AJ

T – 01691 676 496

F – 01691 676 016

E – referrals.pml@nhs.net

Red, Amber & Green Reporting

All Echocardiogram Reports are graded in accordance with our Red, Amber and Green (RAGs) reporting guidelines. Below is a sample of our RAGS which extends to many pages (Available upon request). These will be further refined in with local clinicians and to reflect the local pathways.

12 Lead ECG

Abnormality	Comment/Advice
1. 1-2mm ST segment deviation in 2 concordant leads with current or recent chest pain	Recommend urgent A&E assessment
2. Ventricular standstill >2 sec	Recommend urgent A&E assessment
3. Complete or Type II 2nd degree heart block with recent collapse (within the last 48 hours)	Recommend urgent A&E assessment
4. Any broad complex tachycardia >120 beats per min	Seek urgent cardiology advice
5. Any tachyarrhythmia \geq 150 beats per min	Seek urgent cardiology advice
6. AF or flutter with clear onset <48 hours ago	Seek urgent cardiology advice

Abnormality	Comment/Advice
7. VT salvo (more than 5 beats)	Urgent echo and same day cardiology advice
8. Asymptomatic complete or Type II 2nd degree heart block or symptoms >48 hours previous	Seek same day cardiology advice
9. Frequent (>10/min) ventricular ectopy esp. couplets or triplets or bigemini	Seek same day cardiology advice
10. Sinus pauses ≥ 3 seconds	Seek same day cardiology advice
11. Long QT with symptoms of collapse or palpitations	Seek same day cardiology advice
12. AF or flutter <150 beats per min. with onset >48 hours ago	Treat as per AF/flutter guidance and refer for consideration of DCCV
13. WPW with history of palpitations	Refer for cardiology opinion
14. Asymptomatic long QT	Refer for cardiology opinion
15. Prominent 'U' waves seen	Consider reviewing TFT and electrolytes

Holter ECG

Abnormality	Comment/Advice
1. Ventricular standstill >3 sec and symptomatic	Recommend urgent A&E assessment
2. Sustained broad complex tachycardia >120 beats per min	Recommend urgent A&E assessment
3. Any tachyarrhythmia \geq 150 beats per min	Seek urgent cardiology advice
4. Complete or Type II 2nd degree heart block with recent collapse (within the last 48 hours)	Seek urgent cardiology advice re: permanent pacing
5. Ventricular standstill >3 sec and asymptomatic	Results to GP practice, same day as analysis performed
6. Asymptomatic complete or Type II 2nd degree heart block or with symptoms more than 48 hours previous	Results to GP practice, same day as analysis performed
7. VT salvos (>5 beats) or non-sustained broad complex tachycardia	Results to GP practice, same day as analysis performed
8. Frequent (>6/min) ventricular ectopy esp. couplets or triplets	Results to GP practice, same day as analysis performed
9. Daytime pauses \geq 3 seconds	Results to GP practice, same day as analysis performed
10. Long QT with symptoms of collapse or palpitations	Results to GP practice, same day as analysis performed

Abnormality	Comment/Advice
11. Sustained AF or atrial flutter	Treat as per AF/atrial flutter guidance, consider anticoagulation and clinical review
12. Paroxysmal AF or atrial flutter	Treat as per AF/atrial flutter guidance. Consider anticoagulation and clinical review
13. Sick sinus syndrome or tachy-brady syndrome	Refer for cardiology opinion
14. WPW with history of palpitations	Refer for cardiology opinion
15. Asymptomatic long QT	Refer for cardiology opinion
16. Occasional ventricular ectopics or any atrial ectopics	Refer for cardiology opinion
17. Asymptomatic Type I 2nd degree heart block	Assess and review any Cardiovascular lifestyle factors Early but benign conduction disease; exclude possible exacerbating factors e.g. medication, hypothyroidism. Repeat in 12 months

Echocardiogram

Abnormality	Comment/Advice								
1. Pericardial effusion with depth > 2cm	Seek urgent cardiology advice								
2. Intracardiac mass or vegetations	Seek urgent cardiology advice								
3. Critical aortic stenosis (estimated valve area < 0.9cm ² or peak aortic velocity ≥ 4m/s) with recent symptoms of chest pain, exertional dizziness or collapse	Seek same day cardiology advice								
4. Any significant valvular abnormality associated with overt heart failure symptoms or signs	Seek same day cardiology advice								
5. Significant LV impairment with overt heart failure symptoms or signs	Seek same day cardiology advice								
6. Any moderate to severe valvular disease	See 'Actions for all identified valve disease'. Refer for cardiology opinion. Echo repeat likely 6-12 monthly.								
7. Significant systolic LV impairment (EF < 40%)	Clear LV systolic dysfunction; treat as heart failure and B Blocker indicated. Refer for Cardiology or HF nurse appointment.								
<table border="1"> <tbody> <tr> <td>Normal LVSF</td> <td>> 55%</td> </tr> <tr> <td>Mild LVSD</td> <td>45-54%</td> </tr> <tr> <td>Moderate LVSD</td> <td>36 to 44%</td> </tr> <tr> <td>Severe LVSD</td> <td>< 35 %</td> </tr> </tbody> </table>	Normal LVSF	> 55%	Mild LVSD	45-54%	Moderate LVSD	36 to 44%	Severe LVSD	< 35 %	Commence heart failure therapy and consider referral to cardiologist/GPwSI-led community heart failure programme
Normal LVSF	> 55%								
Mild LVSD	45-54%								
Moderate LVSD	36 to 44%								
Severe LVSD	< 35 %								
8. Mild to moderate systolic LV impairment (EF 36-54%)									

Abnormality	Comment/Advice
9. Mild to moderate systolic LV impairment (EF 36-54%)	See 'Actions for all identified valve disease'. If asymptomatic repeat echo in 3 years

Overt heart failure symptoms

- unable to lie flat (orthopnoea)
- walking with acute SOB at night (PND)

Overt heart failure signs

- mid zone pulmonary crackles
- gross pitting oedema above the knees

Actions for all identified valve disease

- Assess or review CV risk factors
- Institute appropriate lifestyle changes especially smoking cessation
- Initiate/optimize BP, lipid and glucose controls
- Give IE antibiotic prophylaxis advice with appropriate BHF patient-held card

Indicators of severe valve disease

Aortic stenosis

- Peak aortic jet velocity $\geq 4\text{m/s}$
- Estimated AV area $\leq 0.9\text{cm}^2$
- Presence of significant LVH $> 1.5\text{cm}$

Aortic regurgitation

- Regurgitant jet width $> 0.6\text{cm}$
- Pressure half-time or AR flow $< 300\text{ms}$
- Presence of diastolic aortic flow reversal
- LV end diastolic diameter $\geq 7\text{cm}$
- LV end systolic diameter $\geq 5\text{cm}$
- Ascending aorta diameter $> 5.5\text{cm}$

Mitral stenosis

- Pressure half-time of mitral inflow $> 220\text{ms}$
- Estimated MV area $< 1\text{cm}^2$
- End diastolic pressure gradient $> 10\text{mmHg}$
- Mean pressure gradient $> 12\text{mmHg}$

Mitral regurgitation

- LV end systolic diameter $\geq 4.5\text{cm}$
- LV ejection fraction $< 60\%$
- Pulmonary hypertension $> 45-55\text{mmHg}$

24 hour BP monitoring

Ambulatory daytime mean BP is approximately 10/5 mmHg lower than surgery or clinic readings with home readings somewhere in between (approx 5/3 lower than clinic readings).

ABPM daytime mean	Clinic or surgery equivalent	Comment/Advice
1. >200/115 with signs of malignant hypertension.	>210/120 (V. severe) with signs of malignant hypertension.	Recommend urgent A&E assessment
2. >200/115	>210/120 (V. severe)	Contact GP same day with results

PML Directory/Contact List

PML HQ Address;

Physiological Measurements Ltd

The Old Malt House, Willow Street, Oswestry, Shropshire SY11 1AJ

T – 01691 676 496 (option1)

F – 01691 676 016

E – info@pml.tel

Enquiries about Contract/Service

Cardiology Manager – Andrew Honeyman

T – 01691 676 496

E – a.honeyman@pml.tel

Referral/Appointments/Results Enquiries

Patient Management Centre Manager

T - 01691 678 041

E – pml@nhs.net

PMC Administrative Team

E (Appointments) – pml@nhs.net

E(Reports/Results) – results.pml@nhs.net OR referrals.pml@nhs.net

T - 01691 676 496 (Option 1)

Patient Information

All Diagnostic tests performed are non-invasive and both safe & painless.

Chaperones

The Patients appointment or Test may be performed by a male member of staff. They are welcome to bring a friend or relative to attend the Appointment. If a friend or relative is unable to attend we are able to provide a chaperone to be present during the examination if they wish. The Patient will need to contact the PMC prior to their appointment if they would like us to provide a chaperone.

Are there any special precautions that the Patient needs to take before the test?

No. The patient can take their medication as normal. They can also eat and drink as normal.

At the end of the Patients test

Once the test is complete the Patient can get dressed and leave. There are no limitations to what you can do after the scan, for example they may drive. A copy of the test report will be sent back to the GP.

Our Clinics

Southdene Surgery, The Shrubberies,
George Lane, South Woodford,
London, E18 1BD

Bus: No. 179, W12 OR W13

Nearest Station: South Woodford

Granville Medical Centre, 4 Granville
Road, Ilford, Essex, IG1 4JY

Bus: No. 364/No. 366 Or No. 150

Nearest Station: Ilford Station

Aldersbrook Medical Centre,
65 Aldersbrook Road, Manor Park,
London, E12 5DL

Bus: W19 OR No. 101

Nearest Station: Manor Park Station

The Palms Medical Centre,
97-101 Netley Road, Newbury Park,
Ilford, Essex, IG2 7NW

Bus: No. 66

Nearest Station: Newbury Park