



# A Toolkit for the Design, Implementation & Evaluation of Exercise Referral Schemes

Guidance for referring healthcare professionals

## Introduction

Welcome to the exercise referral toolkit - guidance for referring healthcare professionals.

Healthcare professionals have a crucial role to play in promoting physical activity with patients and ensuring that patients are offered the safest and most appropriate physical activity pathway to meet their healthcare needs and personal preferences.

The aim of this guide is to provide health professionals with background information about exercise referral schemes. It is an introduction and any health professionals involved in exercise referral schemes should ensure they obtain additional information about local scheme protocols before referring patients.

To accompany this resource, we have also developed:

- [Guidance for exercise professionals](#) - a resource which outlines the roles and responsibilities of the exercise professional and includes some practical tips for working with referred patients.
- [Guidance for exercise referral scheme coordinators](#) - a resource outlining the key steps to developing and coordinating a high quality exercise referral scheme.
- [Guidance for exercise referral scheme commissioners](#) - this resource provides an overview of the national guidance and protocols for developing and commissioning local exercise referral schemes.
- [A guide to evaluating exercise referral schemes](#) - this guide includes helpful hints on how to improve the evaluation of exercise referral schemes. It provides a checklist for evaluating schemes.
- [A guide to qualifications and training](#) - includes guidance on qualifications and training for professionals involved in the delivery, coordination and commissioning of exercise referral schemes.

## Guidance for referring healthcare professionals

### Contents

Terms of use	4
Using the toolkit	6
Acknowledgements	8
Executive summary	12
Guidance for referring healthcare professionals	14
1.0 Promoting physical activity in primary care	15
1.1 The relationship between physical activity and health	15
1.2 The role of primary care	16
1.3 Options to increase physical activity	17
1.4 Recommendation versus referral	17
2.0 Frequently asked questions about exercise referral schemes	19
2.1 Exercise Referral Pathway	21
2.1.1 How does exercise referral work?	21
2.1.2 Who can refer into a scheme?	21
2.1.3 How much paperwork will this involve?	22
2.1.4 Will referring patients for exercise be time consuming?	22
2.1.5 What information do I need to provide about the patient?	23
2.1.6 How is the information about my patient transferred to the exercise professional?	24
2.1.7 Is the patients consent needed to transfer their medical information?	24
2.1.8 Are there any guidelines about who not to, and who to, refer?	24
2.1.9 How do I decide which patients are suitable for referral?	26
2.1.10 What should I do about those patients who would benefit from being more physically active, but not suitable for the exercise referral scheme?	28

2.2	Clinical Governance	30
2.2.1	Is there any evidence that physical activity is beneficial to my patient's health?	30
2.2.2	Are physical activity/exercise referral schemes effective?	31
2.2.3	Is it safe for me to refer my patients to an ERS?	32
2.2.4	What relevant qualifications do the exercise professionals need to have to ensure they can safely develop an exercise programme for my patients?	33
2.2.5	Why should I refer my patients - is this an effective use of my time and resources?	34
2.2.6	How will I know whether the scheme has been beneficial to my patient and who is responsible for patient follow-up and feedback?	35
2.2.7	Do I need to pass on information about any relevant changes in the health of my patient?	35
2.3	Governance Arrangements	37
2.3.1	Who is responsible for developing and managing an ERS?	37
2.3.2	Do I play a role in scheme design or only refer when schemes are established?	37
2.3.3	How will I obtain information about the ERS protocol?	37
2.3.4	Will I be legally responsible if my patient has an adverse event as a consequence of me referring them for exercise?	38
2.3.5	Who is responsible for ensuring confidentiality of my patient's records?	39
2.3.6	Who is responsible for risk assessing the ERS?	39
	Summary	40
	References	41
	Appendices	44
	Physical Activity/Exercise Referral Transfer Form	45
	Irwin and Morgan Sample Risk Stratification Tool	49
	General Practice Physical Activity Questionnaire (GPPAQ)	51
	NQAF Patient Characteristics & Exercise Professional Expertise Pyramid	52

## Terms of Use

The aim of this toolkit is to provide an easy-to-read, practical guide for all those professionals involved in the delivery, coordination, commissioning and evaluation of exercise referral schemes. These professionals include general practitioners, practice nurses, community nurses, allied health professionals (physiotherapists, dieticians etc.), exercise professionals, health promotion/public health specialists, commissioners and researchers.

The toolkit has been developed in consultation and collaboration with a range of professionals involved with exercise referral schemes and key national stakeholders.

It draws upon current Government policy for the design and delivery of quality assured exercise referral schemes; it is NOT a replacement for such national policy. Furthermore it should NOT be used in isolation from the National Quality Assurance Framework for exercise referral schemes (NQAF).

It is a tool to aid the design, delivery and evaluation of exercise referral schemes, but is NOT POLICY. It uses the evidence base and local scheme practice to support schemes in meeting the guidelines set out within the National Quality Assurance Framework and to raise standards within schemes.

This resource was written and produced by the British Heart Foundation National Centre for Physical Activity and Health. It was last updated March 2010.





## Using the toolkit

It is recognised that capacity, resources and funding vary across schemes and that some schemes are struggling to implement elements of the National Quality Assurance Framework and consequently may struggle to adopt some of the recommendations set out within the toolkit.

The toolkit is not designed as a 'blueprint' for how exercise referral schemes must be designed, implemented and evaluated; it offers some best practice principles for all those involved in the delivery, management and commissioning of exercise referral schemes. It is for individual schemes to consider whether the implementation of these principles will improve the design, delivery and effectiveness of their scheme, given the capacity and resources available.

Many schemes may already be meeting the recommendations outlined within the toolkit, in which case the toolkit can be used as a resource for professionals to take a fresh look at their scheme or as a guide for on-going reflection.

Some local health boards and primary care trusts may have developed an integrated system for the promotion of physical activity, which offers a range of physical activity opportunities for the local population, such as led-walks, green-exercise, exercise referral schemes and/or specialist condition specific whole exercise classes. This toolkit is predominantly concerned with exercise referral schemes designed for low to medium risk patients which

involve the transfer of medical information from a healthcare practitioner to an appropriately qualified level 3, exercise professional.

Whilst it is recommended that, where appropriate, primary care professionals should advise patients to increase their physical activity it should be noted that recommending or sign-posting patients to local physical activity opportunities such as lay-led walking schemes is quite

distinct from referring an individual to a dedicated service and transferring relevant medical information about this individual to this service.

Where schemes offer specialist condition specific whole exercise classes for patients/clients with any conditions covered by the level 4 national occupations standards these schemes should ensure they comply with the relevant governance arrangements and quality assurance guidelines.



## Acknowledgements

This document could not have been completed without the assistance of many professionals involved in the delivery, coordination and commissioning of exercise referral schemes. We would like to thank all those professionals who responded to the audit questionnaire; kindly provided us with sample forms, scheme protocols and service level agreements and attended the consultation workshops to help shape the toolkit.

We would also like to extend our gratitude to Flora Jackson, Physical Activity Alliance Coordinator NHS Health Scotland; Nicola Brown, former Physical Activity Lead for the Health Promotion Agency Northern Ireland and the Department of Health Regional Physical Activity Leads for their assistance in identifying relevant professionals and convening the national and regional consultation workshops.

We would also like to acknowledge and thank those people and organisations who responded during the consultation phase, their comments have helped shape the final toolkit. Following the consultation process a national exercise referral toolkit working party was established to assist us in finalising the toolkit.

We would, therefore like to acknowledge the following individuals and organisations for their contribution to the working party and for their support in ensuring the comprehensiveness of the toolkit.

- Elaine McNish, Physical Activity Specialist, Welsh Assembly Government.

- Suzanne Gardner, Regional Physical Activity Coordinator - West Midlands, PANWM
- Hazel Ainsworth, Health Development Officer, Mansfield District Council.
- Dr William Bird, Strategic Health Advisor, Natural England.
- Claire Flood, Physical Activity Coordinator, NHS Havering.
- Mary Hague, Senior Public Health Strategy Manager, NHS Derbyshire County.
- Craig Lister, Public Health Manager, NHS Bedfordshire.
- Jean Ann Marnoch, Registrar, Register of Exercise Professionals.
- Niamh Martin, Senior Programme Officer, Physical Activity, NHS Health Scotland.
- Suzanne Mee, former Healthy Lifestyles Manager, London Borough of Tower Hamlets.
- Dr John Searle, Chief Medical Officer, Fitness Industry Association.
- Ruth Shaw, Programme Manager (Health Inequalities, PA Lead), NHS Greenwich.
- Martin Skipper, former Policy Officer, Fitness Industry Association.
- Steven Ward, Public Affairs and Policy Manager, Fitness Industry Association.

- Victoria Smith, Development Officer - Fitness, Skills Active.
- Jeannie Wyatt-Williams, National Exercise Referral Scheme Coordinator, WLGA.

We would like to extend special thanks to Elaine McNish for chairing the national working party and to Suzanne Gardner for her unquestionable commitment at the final stage of the production of the toolkit.

I would like to acknowledge Karen Milton, Research Associate, for her valuable contribution to the guide to evaluating exercise referral schemes.

A number of other individuals have also contributed to the development of this toolkit in various ways and I would like to acknowledge these individuals for their valuable input.

- Sonia McGeorge
- Sandra Prickett
- Sarah Wortley

Finally I would like to thank Rob Adams for his assistance with the templates and graphics included in the toolkit.

## Supporting Partners



**East of England Regional  
Physical Activity Alliance**





## Executive Summary

Healthcare professionals have a crucial role to play in promoting physical activity with patients and ensuring that patients are offered the safest and most appropriate physical activity pathway to meet their healthcare needs and personal preferences.



The aim of this resource is to provide health professionals with background information to exercise referral schemes, it is an introduction and any health professionals involved in exercise referral schemes should ensure they obtain additional information about local scheme protocols before referring patients to exercise professionals.

It is good practice identify a member of the practice team who can take particular responsibility for the exercise referral scheme, specifically liaising with the scheme coordinator and other referring professionals about training opportunities, changes in protocols etc.

It is recommended that referring healthcare professionals:

- Assist service providers and commissioners to:
  - determine scheme protocols & guidelines e.g. inclusion & exclusion criteria based on local priorities
  - agree governance arrangements
- Engage in briefing sessions about the scheme and become acquainted with:
  - their roles and responsibilities
  - scheme documentation
  - their medico-legal responsibilities
- Adopt a more systematic approach for identifying patients suitable for referral.
  - Be proactive in identifying patients for example, via CVD screening, targeting.
  - Use a risk stratification tool to determine which patients would be most suited to the exercise referral scheme.
  - Assess readiness to change.

- Work with commissioners and scheme providers to agree a mechanism for profiling the characteristics of those who decline the offer of a referral and methods for recording why this might be so.
- Agree scheme evaluation and monitoring procedures.

Primary care professionals should ensure that exercise referral schemes operate in conjunction with (or as part of) coordinated health promotion and disease prevention programme in primary care.

## Guidance for referring healthcare professionals

The aim of this resource is to provide health professionals with background information to exercise referral schemes, it is an introduction and any health professionals involved in exercise referral schemes should ensure they obtain additional information about local scheme protocols before referring patients to exercise professionals.



There are clearly significant issues regarding the roles and responsibilities of all professionals involved in an Exercise Referral Scheme (ERS) and more detailed information on these can be found in the Department of Health (2001) Exercise Referral Systems: A National Quality Assurance Framework.<sup>1</sup> The health professional's responsibility is essentially the same 'duty of care' that he/she would expect to exercise as they would when referring a patient to any other third party for additional or further treatment. The GP remains responsible for the overall management of each patient's clinical care programme.

This section of the toolkit provides healthcare professionals with a brief overview of the health benefits of physical activity; a summary of the options for increasing physical activity and an outline of the distinction between recommendation and referral. Finally this section provides answers to a number of questions frequently raised by healthcare professionals about exercise referral schemes.



## 1.0 Promoting physical activity in primary care

### 1.1 The relationship between physical activity and health

There is strong scientific evidence that physical activity is essential for good health. Regular moderate intensity physical activity can substantially reduce the risk of developing or dying prematurely from heart disease, diabetes, several forms of cancer and high blood pressure.<sup>2</sup> For example, regular physical activity can reduce the risk of developing coronary heart disease, stroke and type II diabetes by up to 50% and reduce the risk of premature mortality by about 20-30%.

Individuals who are active are almost two times less likely to die prematurely from a heart attack than their inactive contemporaries. Regular physical activity can also modify the classical cardiovascular risk factors, such as high blood pressure and adverse lipid profiles.<sup>3</sup>

**Regular physical activity is important to the health and well-being of people of all ages; it offers direct protection against the risk of developing more than 20 different diseases and long-term medical conditions.**<sup>2</sup>

One in three people in the UK is currently living with a long-term condition.<sup>4</sup> Long-term conditions are now the most common cause of death in most industrialised nations and in many developing countries.<sup>5</sup> The role physical activity can play in the treatment and management of long-term conditions is significant given the prevalence of these conditions in society today.

Regular moderate intensity physical activity:

- Is important in preventing weight gain and essential to weight management for individuals who have lost weight.<sup>6</sup>
- Can produce metabolic benefits that contribute to the management of type II diabetes.<sup>6</sup>
- Can delay the progression of osteoporosis and osteoarthritis.
- Is effective in the treatment of mild-to-moderate depression and can help in the treatment of anxiety.<sup>6</sup>
- Is important in the prevention and management of osteoporosis.<sup>6</sup>
- Can help in the treatment and management of lower back pain, arthritis, chronic obstructive pulmonary disease, stroke, hypertension and many more long term medical conditions.<sup>6</sup>

Furthermore, the improvements in mobility associated with moderate physical activity are essential in maintaining functional independence in later life.<sup>6</sup>

In spite of the well documented benefits of regular moderate intensity physical activity the majority of the adult population in the United Kingdom fail to meet the current physical activity guidelines to confer health benefits. It is recognised globally that there is a need to promote healthier lifestyles and improve physical activity levels in order to reduce premature mortality and morbidity from chronic diseases.<sup>2,7</sup>

A study examining the burden of physical activity related ill-health in the UK found that in 2003-2004 over 35,000 deaths could have been avoided if the population were physically active at the levels recommended by the UK government. Physical inactivity was directly responsible for 3% of mortality and morbidity in the UK and accounted for an estimated £1.06 billion of direct costs to the NHS.<sup>8</sup> On average an inactive person has 5.5% more family physician visits, 13% more specialist service visits and 12% more nurse visits than an active individual.<sup>9</sup>



## 1.2 The role of primary care

Primary care has been recognised as an important setting for the promotion of physical activity. Primary care professionals come into frequent contact with the general public, indeed it is estimated that 85% of the population visit their GP surgery on an annual basis.<sup>10</sup> Every consultation provides an opportunity to promote behaviour change or to refer to relevant support services.<sup>11</sup> Furthermore there is strong clinical and cost- effectiveness evidence to demonstrate the importance and the potential of using health professionals to promote physical activity.<sup>12</sup>

### 1.3 Options to increase physical activity

There are a range of interventions which can be used by primary care practitioners to promote physical activity for disease prevention, these include:

- Routine advice to increase physical activity.
- Physical activity counselling or brief interventions.
- Recommending activities, facilities or services such as:
  - Self-directed, unsupervised activities, e.g. swimming, gardening, cycling, walking, activities of daily living.
  - Lay-led activities e.g. health walks, green gyms.
  - Supervised, structured activities e.g. dance, tai-chi, and aerobics.
- Referring into a specific structured system with a specialist exercise professional such as an exercise referral scheme, condition-specific class (cardiac rehabilitation, falls prevention).



Exercise referral schemes represent only one type of intervention that can be used by primary care professionals to promote physical activity for health gain, such schemes should operate as part of a coordinated health promotion and disease prevention programme.

### 1.4 Recommendation versus Referral

Recommending a patient increase their physical activity or signposting a patient to any of the broader physical activity opportunities, i.e. walking scheme, is quite distinct from referring an individual to a dedicated service for the development of a tailored physical activity programme i.e. an exercise referral scheme. With the former the responsibility for taking part in any of these activities is up to the patient who is also responsible to act within the boundaries of the health professional's recommendation.

The latter, exercise referral, requires the transfer of relevant medical information about an individual in order for an exercise professional to develop a tailored physical activity programme. Furthermore the exercise professional takes responsibility for the safe and effective design, delivery and management of this individual's physical activity programme.

It is important to adopt an approach which best suits the characteristics and expressed needs of the individual patient. Some inactive people may find community-based physical activity programmes, such as a led walking group more accessible and more appealing than formal exercise programmes, such as an exercise referral scheme.

Making a decision about whether a patient is suitable for exercise referral or which physical activity option is best for an individual patient relies on the health professionals' clinical judgement and is based on a number of factors (see FAQ).

## 2.0 Frequently asked questions about exercise referral schemes

These questions have been identified following consultation and discussion with a number of healthcare professionals engaged in exercise referral schemes. Questions have been grouped under three headings: The exercise referral pathway, clinical governance and scheme governance arrangements (specifically focusing on issues relating to scheme management).

The questions are listed below and answers are provided on the respective pages.

### 2.1 Exercise Referral Pathway

- 2.1.1 How does exercise referral work?
- 2.1.2 Who can refer into a scheme?
- 2.1.3 How much paperwork will this involve?
- 2.1.4 Will referring patients for exercise be time consuming?
- 2.1.5 What information do I need to provide about the patient?
- 2.1.6 How is the information about my patient transferred to the exercise professional?
- 2.1.7 Is the patients consent needed to transfer their medical information?
- 2.1.8 Are there any guidelines about who not to, and who to refer?
- 2.1.9 How do I decide which patients are suitable for referral?
- 2.1.10 What should I do about those patients who would benefit from being more physically active, but not suitable for the exercise referral scheme?

### 2.2 Clinical Governance

- 2.2.1 Is there any evidence that physical activity is beneficial to my patient's health?
- 2.2.2 Are physical activity/exercise referral schemes effective?
- 2.2.3 Is it safe for me to refer my patients to an ERS?
- 2.2.4 What relevant qualifications do the exercise professionals need to have to ensure they can safely develop an exercise programme for my patients?
- 2.2.5 Why should I refer my patients - is this an effective use of my time and resources?
- 2.2.6 How will I know whether the scheme has been beneficial to my patient and who is responsible for patient follow-up and feedback?
- 2.2.7 Do I need to pass on information about any relevant changes in the health of my patient?

## 2.3 Governance Arrangements

- 2.3.1 Who is responsible for developing and managing an ERS?
- 2.3.2 Do I play a role in scheme design or only refer when schemes are established?
- 2.3.3 How will I obtain information about the ERS protocol?
- 2.3.4 Will I be legally responsible if my patient has an adverse event as a consequence of me referring them for exercise?
- 2.3.5 Who is responsible for ensuring confidentiality of my patient's records?
- 2.3.6 Who is responsible for risk assessing the ERS?



## 2.1 The Exercise Referral Pathway

### 2.1.1 How does exercise referral work?

Exercise referral schemes operate in various ways; typically schemes involve a partnership between primary care trusts and local leisure services. In the main schemes involve a member of the primary care team, or another health professional, referring a patient to a suitably qualified exercise professional for an assessment of the patient's need, the development of a tailored exercise programme, monitoring of progress and a follow-up. The exercise programme usually takes place in a leisure centre, swimming pool or gym; however some schemes offer a range of community-based activities, such as tai-chi, cycling, led-walks, green-gyms, and conservation work. Eligible participants are normally recruited during routine consultations or in some circumstances after searching the practice database for patients at risk of coronary heart disease or other long term conditions.

### 2.1.2 Who can refer into a scheme?

Health professionals are the primary gatekeeper for patients entering the exercise referral process and hence play a pivotal role in current scheme design. Historically the majority of referrals have been initiated by a

General Practitioner or practice nurse, however more recently a range of other health professionals are now referring into schemes, these include physiotherapists, diabetes specialist nurses, dieticians, mental health teams. At the present time only registered healthcare professionals can refer into an exercise referral scheme.



Where a referral is initiated by another allied health professional, working with delegated authority, the scheme organisers should issue guidance outlining the procedures for referral. This should include information about informing the patient's GP regarding the intended referral as well as the boundaries within which the referral can be made. For example, if the allied healthcare professional is unable to provide basic information about the patient's health status, e.g. current blood pressure, heart rate reading and details of medication it is recommended that the patient seeks a referral from their GP. GPs should not be placed in a position whereby



they have to accept somebody else's referral and then endorse it without having the opportunity to discuss this with the patient.<sup>1</sup>

### 2.1.3 How much paperwork will this involve?

Most exercise referral schemes have referral documentation in place, such as a referral letter or patient transfer form. The referring practitioner is required to complete the relevant transfer letter or form, and to obtain the patient's consent to transfer all of the relevant clinical information to the exercise professional. Patient consent to transfer the relevant clinical information to the exercise professional is required as their personal information is being transferred to a non-medically qualified professional.

Referral letters or forms should be no more than two sides of A4. In an attempt to simplify the referral process some schemes accept a print out of the patient's drug and/or medical history as an attachment to the referral form. If the referral form is considered too lengthy it is recommended that GPs discuss this option with the exercise referral scheme coordinator to explore how this approach might work. An example of a referral form based on SIGN good

<sup>1</sup> Recommendation from the Royal College of General Practitioners (2009)

practice guidelines for referral documentation can be found in Appendix 1.

### 2.1.4 Will referring patients for exercise be time consuming?

No, once a GP, practice nurse or allied healthcare professional has decided to make an exercise referral, all relevant clinical information is transferred to the exercise professional, via the referral form. It generally takes between 2 to 3 minutes to complete the referral form.



### 2.1.5 What information do I need to provide about my patient?

It is the referring practitioner's responsibility to ensure that all relevant clinical information about

the patient's health status is disclosed to the exercise professional to enable them to develop a safe and effective exercise programme that will meet the needs and ability of the patient.

The NQAF for Exercise Referral Systems states:

“There must be meaningful transfer of relevant information to the person who will be conducting the exercise intervention.”

p29 NQAF (2001)<sup>1</sup>

NQAF recommends that referral forms should include the following information:

- Relevant current and past health problems.
- Details of any medications being taken and known impact on everyday functional ability.
- If known, the possible effects of diagnoses and medications on activities of daily living and on physical activity.
- Standard measures, such as blood pressure, heart rate, body mass index and lifestyle factors, for example, smoker, heavy drinker.
- Any special considerations or advice given to the patient, for example, a patient with osteoarthritis should be advised to recognise and respect an increase in pain, stiffness or swelling.
- Information about any exercise already being undertaken or for which the patient or referrer has expressed a preference should also be included.

- p29 NQAF (2001)<sup>1</sup>

However, it is recognised that it may be too time consuming for GPs, practice nurses and allied healthcare professionals to provide details such as known impact of medications on functional ability or physical activity and the patient’s current exercise status.

It is therefore recommended, as a minimum the referral documentation must state clearly the reason for referral and provide information about the patient’s current health status, medication and relevant medical history. It is also good practice to indicate on the referral form how long the referral is valid for.

“Referral letters or forms without this information or containing only blanket phrases such as “I know of no reason why Mrs X should not engage in exercise” are not acceptable as part of a quality referral system.”

“Exercise professionals are advised not to accept responsibility for a referred patient until all relevant clinical information is available.”

#### 2.1.6 How is the information about my patient transferred to the exercise professional?

A protocol for processing referrals should be agreed between the commissioners and service providers

after consultation with the referring practitioners. Typically paperwork is transferred via telephone, post and email or presented in person by the referred patient. Some schemes are also in the process of developing electronic referral systems. If electronic referral forms are the preferred option for transferring information this should be discussed with the commissioners and service coordinator or provider to consider how this could be developed and implemented.

#### 2.1.7 Is the patient's consent needed to transfer their medical information?

Yes, under common law, a healthcare professional wishing to disclose a patient's personal information to anyone outside of the team providing care should first seek the consent of that patient. Generally an exercise referral form will have a section for patient consent.

#### 2.1.8 Are there any guidelines about who not to, and who to, refer?

Guideline 2 of the National Quality Assurance Framework recommends:

“Each scheme should develop its own medically led selection criteria which is tailored to the health needs of the patient population, the competencies

and qualifications of the exercise professionals and the exercise facilities and services available.”

p18 NQAF (2001)<sup>1</sup>

Patient referrals should be made on the basis of these agreed criteria. Generally, exercise referral schemes have been set up to cover a range of low to medium risk populations with specific medical conditions or health risk factors.

The NQAF<sup>1</sup> defines low risk populations as ‘*people with minor, stable physical limitations or two or less CHD risk factors*’ and medium risk populations as ‘*people with significant physical limitation related to chronic disease or disability*’.

In the absence of a national standardised risk stratification tool, the risk tool developed by Irwin and Morgan<sup>13</sup> provides straightforward referral guidelines for healthcare professionals which can be used to categorise patients during a clinical consultation (see appendix 2).

According to the NQAF people with current severe disease or disability (high risk) are not considered suitable for a general exercise referral scheme and should only be referred to medically supervised, and/or specialist physical activity/exercise sessions with a clinical exercise lead.<sup>1</sup>

There are also several absolute contraindications to exercise which referring health professionals should be familiar with, see list opposite.<sup>2</sup>

Patients with any of these absolute contraindications should not exercise until such conditions are stabilised or adequately treated.

<sup>4</sup>Absolute contra-indications to exercise:

- A recent significant change in a resting ECG, recent myocardial infarction or other acute cardiac event.<sup>3</sup>
- Symptomatic severe aortic stenosis.
- Acute pulmonary embolus or pulmonary infarction.
- Acute myocarditis or pericarditis.
- Suspected or known dissecting aneurysm.
- Resting Systolic Blood Pressure  $\geq$  180mmHg / Diastolic Blood Pressure  $\geq$  100mmHg.
- Uncontrolled / unstable angina.
- Acute uncontrolled psychiatric illness.
- Unstable or acute heart failure.
- New or uncontrolled arrhythmias.
- Other rapidly progressing terminal illness.

- Experiences significant drop in BP during exercise.
- Uncontrolled resting tachycardia  $\geq$  100 bpm.
- Febrile illness.
- Experiences pain, dizziness or excessive breathlessness during exertion.
- Any unstable, uncontrolled condition.<sup>4</sup>

The decision to refer is for the individual health professional when faced with the individual patient. A health professional is under no obligation to make a referral.

#### 2.1.9 How do I decide which patients are suitable for referral?

As previously mentioned each scheme will have an agreed set of inclusion and exclusion criteria that specifies which patients are suitable for referral. Some schemes may only include individuals who are insufficiently active with existing medical conditions; other schemes may include individuals who are inactive, with no underlying medical problems.

<sup>2</sup> Absolute contraindications taken from BACR (2006) Phase IV Exercise Instructor Training Manual & ACSM (2006) Guidelines for Exercise Testing and Prescription

<sup>3</sup> Appropriate guidance on this should be provided either by the patient's cardiologist or cardiac rehabilitation team

<sup>4</sup> Diabetes may be an exception here as exercise can help individuals in the management of controlled diabetes

*Generally referrals for exercise are most suitable for patients who are insufficiently active and are likely to need help with motivation, exercise programming, supervision and monitoring and/or need assistance in selecting the appropriate type, intensity, frequency and duration of activity, directed at a specific health outcome.*

Health professionals can use different tools to identify which patients would benefit from being more physically active and would be appropriate for referral. NICE recommends primary care professionals should use a validated tool, such as the General Practice Physical Activity Questionnaire (GPPAQ), to identify inactive individuals (see appendix 3).<sup>12</sup>

In addition, as part of NHS Health Checks health professionals can screen practice registers to identify suitable patients for exercise referral, for example patients at increased risk of CVD. UK guidelines recommend that all people aged 40 or over should have a routine cardiovascular risk assessment.

Patients with a moderate-to-high predicted CVD risk may benefit from lifestyle interventions to increase physical activity; such patients may be ideal candidates for an exercise referral scheme.

It is also recommended that the referring healthcare professional should assess the patient's readiness to change behaviour as this may screen out patients who are unlikely to attend the initial assessment or likely to drop-out before the end of the exercise referral programme.<sup>1</sup>

Typically, patients who are regularly active would not be considered for a referral scheme. However, there may be exceptions to this rule, for instance when an active patient is newly diagnosed with a medical condition, e.g. diabetes, a referral

might be judged as necessary in order to increase the likelihood of a safer and more effective exercise experience.

*Making a decision about whether a patient is suitable for exercise referral or which physical activity pathway is best for an individual patient relies on the health professionals' clinical judgement and is based on a number of factors.*

The table below provides a quick guide to determining which physical activity pathway (referral or recommendation) is best for an individual patient.

Table 1. Factors to consider when assessing options to increase an inactive patient's physical activity		
Factor	Favours exercise referral	Favours recommendation
General health status	Fair/poor	Good
Ready to change behaviour	No/Ambivalent	Yes
Requires activity for specific health outcomes	Yes	No
Requires tailored exercise programming	Yes	No
Able to safely exercise alone	No	Yes
Needs motivational support	Yes	No
Social circumstances	Living alone/ not coping	Good

In summary, referral to a qualified exercise professional for the development of a tailored exercise programme may be favoured for some patients who: are inactive; living with a medical condition which will benefit from being more active; and need help with motivation, exercise programming and supervision.

the majority of the general population would benefit from becoming more active. However, the bulk of the population who are inactive do not necessarily require supervised exercise in the guise of an exercise referral scheme. For the majority of the population recommendations to try to become more physically active in order to gain health benefits may be suffice.

2.1.10 What should I do about those patients who would benefit from being more physically active, but not suitable for the physical activity/exercise referral scheme?

Given that only a third of the adult population meet the current physical activity recommendations for health<sup>14</sup>





Recent NICE guidance recommends that:

“Primary care professionals should take the opportunity whenever possible, to identify inactive adults and to advise them to aim for 30 minutes of moderate activity on 5 days of the week or more.”

NICE (2006)<sup>12</sup>

The National Quality Assurance Framework<sup>1</sup> makes the distinction between recommending a patient to become more active and specifically referring a patient to a third party where a tailored exercise programme can be devised and delivered. A recommendation to become more active may be made as part of general lifestyle advice and would be no different to any other recommendation, for example to stop smoking. However, when making the decision to recommend a patient becomes more habitually active, the

healthcare professional should ensure there are no underlying medical conditions which would make this recommendation a particular risk.<sup>5</sup>

<sup>5</sup> The medico-legal issues regarding specifically referring patients to a third party are discussed later in this section. With regards to general lifestyle advice to become more physically active NICE do not think practitioners would be liable if they had taken responsible steps to ensure there weren't any underlying medical conditions making exercise a particular risk, i.e. take a proper history and do basic tests such as check blood pressure to exclude underlying disease. Given the evidence of the important therapeutic benefit of exercise, if practitioners are not advising patients about exercise they might to considered not to be practicing medicine to the benefit of the patient and liable to challenge. Personal communication with NICE 16/06/2008

Healthcare professionals should also consider whether the person is receptive to and capable of carrying out this recommendation safely.

The presence of a severe disease or disability, such as cardiovascular disease, stroke, osteoporosis, depression, dementia, chronic pulmonary disease, chronic renal failure, peripheral vascular disease, or arthritis (which may all be present within a single individual) should not preclude individuals from being active. While patients who are classified as 'high risk' may not be suitable for a general exercise referral scheme, regular clinically supervised exercise and/or physical activity is likely to be extremely beneficial to the treatment and management of their condition.



High risk populations who would benefit from being more physically active are likely to require medically supervised physical activity and/or specialist exercise sessions in secondary and/or tertiary health care



settings, for example, phase III or phase IV cardiac rehabilitation, phase III osteoporosis, falls services, stroke rehabilitation, COPD rehabilitation clinics. Information about these opportunities should be available from the Primary Care Trust, Community Health Partnership or Local Health Board.

The National Quality Assurance Framework provides a contextual diagram for matching patients medical characteristics with professional expertise (see Appendix 4).

## 2.2 Clinical Governance

### 2.2.1 Is there any evidence that physical activity is beneficial to my patient's health?

There is a wealth of scientific and epidemiological evidence documenting the health benefits of regular moderate to vigorous physical activity across the life course. In a report summarising the evidence on the impact of physical activity and its relationship to health the Chief Medical Officer concluded the scientific evidence is compelling.<sup>2</sup>

Regular physical activity is important to the health and well-being of people of all ages; it offers direct protection against the risk of developing more than 20 different

diseases and long-term medical conditions.<sup>2</sup>

Several Cochrane systematic reviews have found that physical activity/exercise interventions have therapeutic benefits with respect to several major chronic diseases, for example:

- Exercise significantly improves blood glucose control, reduces visceral adipose tissue and plasma triglycerides, but not plasma cholesterol in people with type 2 diabetes, even without weight loss.<sup>15</sup>
- In people with asthma, physical training can improve cardiopulmonary fitness without changing lung function. It does not have an adverse effect on lung function and wheeze in patients with asthma.<sup>16</sup>
- Exercise forms an important component of the management of Chronic Obstructive Pulmonary Disease. Exercise rehabilitation relieves dyspnoea, fatigue, improves emotional function and enhances patients' sense of control over their condition. These improvements are moderately large and clinically significant.<sup>17</sup>
- Therapeutic exercise is used as one modality to treat people with osteoarthritis. Both high intensity and low intensity aerobic exercise

appear to be equally effective in improving a patient's functional status, gait, pain and aerobic capacity in people with osteoarthritis of the knee.<sup>18</sup>

- Some patients with chronic fatigue syndrome may benefit from exercise therapy and no evidence that exercise therapy may worsen clinical outcome on average.<sup>19</sup>
- In adults living with HIV/AIDS aerobic exercise appears to be safe, the main results indicated that performing constant or interval aerobic exercise may improve cardiopulmonary fitness and psychological well-being.<sup>20</sup>

Further review level evidence documents the therapeutic benefits of exercise interventions for people with a range of long-term medical conditions such as fibromyalgia syndrome, rheumatoid arthritis, intermittent claudication, non-specific low back pain, depression and breast cancer.<sup>21-26</sup>

### 2.2.2 Are physical activity/exercise referral schemes effective?

Exercise referral schemes are a popular intervention used to encourage patients with long-term medical conditions, such as diabetes, obesity, mental health problems, osteoarthritis, chronic fatigue

syndrome etc., to become more physically active. At a local level such schemes are often considered very successful and perceived to have a positive impact on a range of functional and social-psychological parameters of the people referred. For patients who are initially anxious about exercise, the individually tailored exercise prescriptions and close supervision are seen as particularly important factors.<sup>27</sup>

Despite their popularity a recent NICE review of the effectiveness of four commonly used methods to increase physical activity found that exercise referral schemes can have positive effects on physical activity levels in the short-term (6 to 12 weeks), however the evidence of the effectiveness of exercise referral over the longer term (over 12 weeks) was equivocal.<sup>12</sup>

NICE concluded that there is insufficient RCT level evidence to recommend the use of exercise referral schemes where their primary purpose is to increase physical activity. However, research conducted by Riddoch and colleagues examined several case studies and revealed that exercise referral schemes had other benefits, which the controlled trials of effectiveness had so far missed.<sup>27</sup>

Following the publication of the NICE guidance the Department of Health released a statement urging commissioners, practitioners and policy makers to continue to provide high quality exercise referral schemes for their local population where these address:

- a) The medical management of conditions, for example mild-moderate hypertension, type 2 diabetes, obesity, osteoarthritis and osteoporosis.
- b) Approaches specific to preventing or improving individual health conditions (e.g. falls prevention), which fall outside the overarching advice to achieve 30 minutes moderate activity on at least 5 days a week.<sup>28</sup>

The DH statement endorsed the NICE recommendation that use of exercise referral schemes solely for the purpose of increasing physical activity are recommended only when they are as part of a properly designed and controlled research study to determine their effectiveness.

It is recognised that there is a need to build the evidence base with respect to the long-term effectiveness of exercise referral schemes for increasing physical activity participation and their cost-effectiveness relative to other

physical activity or lifestyle interventions.

### 2.2.3 Is it safe for me to refer my patients to an exercise referral scheme?

There will always be an element of risk associated with referring patients for exercise; however the risks need to be put into context. Thousands of patients have participated in exercise referral schemes, in spite of this there remain very few reported serious adverse reactions. Exercise referral schemes provide an opportunity for people with long-term medical conditions to increase their physical activity in a safe environment under the appropriate guidance of a suitably qualified and insured exercise professional.

All professionals involved in exercise referral have a duty of care, where a healthcare professional is concerned; the law would expect reasonable care and skill to be shown in undertaking an assessment of the risks and benefits of the patient exercising. This assessment should take account of past and present medical history, family history and medication. To comply with duty of care the referring healthcare professional must ensure there is a meaningful transfer of all relevant information to the exercise professional who will be responsible

for designing and supervising the exercise programme.

Where the exercise professional and the service provider are concerned the law would expect reasonable care and skill to be shown in minimising any potential risks involved in participation in the exercise programme. The Register of Exercise Professionals<sup>29</sup> (REPS) Code of Ethical Practice requires its members to confine themselves to practice those activities for which their training and competence is recognised by the Register.

Therefore exercise professionals working with referred clients should have the relevant knowledge, skills and competencies to design, agree, adapt and review a physical activity programme appropriate to the referred patients medical condition and physical limitations (*for further information on qualifications and training of exercise professionals see the toolkit Guide to Qualifications and Training*).

**2.2.4 What relevant qualifications do the exercise professionals need to have to ensure they can safely develop an exercise programme for my patients?**

The National Quality Assurance Framework recommends that patients are referred to exercise professionals

who are members of the Register of Exercise Professionals and registered as a Level 3 exercise referral instructor or where service delivery necessitates registered Level 4 specialist instructor. REPS registration signifies that the exercise professional meets the National Occupational Standards for practice, including continuing education and insurance.

As part of the service level agreement commissioners should specify the qualifications for exercise professionals working with referred patients. Furthermore, service providers are responsible for ensuring that all exercise instructors working with referred patients hold the appropriate qualifications, registration and insurance.

**2.2.5 Why should I refer my patients - is this an effective use of my time and resources?**

Data on the benefits of exercise referral schemes for referring healthcare professionals are not routinely collected. However, evidence extracted from studies which have used exercise as an alternative or adjunctive treatment for patients with a range of long-term medical conditions have shown positive benefits for primary care practice.



A randomised controlled trial of exercise training in primary care patients with persistent, unexplained physical symptoms found that primary care consultations rates and prescriptions were significantly reduced in the six months after training. In addition, the number of secondary care contacts and the number of patients who were newly referred to secondary care significantly declined from the start of the programme to six month follow-up.<sup>30</sup>

The 'Diabetes Prevention Programme' found that those at high risk of developing type II diabetes can delay and possibly prevent the disease by lifestyle modification. The trial showed that diet and exercise were significantly more effective than metformin in the prevention of diabetes in glucose intolerant patients. The lifestyle intervention group reduced incidence of diabetes by 58% as compared to the placebo group, metformin reduced incidence by 31%. This study indicated that

professionals would need to treat seven people for three years with lifestyle intervention to prevent one new case of diabetes compared to 14 people for three years with metformin.<sup>31</sup>

Other NNT studies have compared exercise with clinical and/or pharmacological intervention and found that the numbers needed to treat are much lower than more invasive and pharmacological interventions.

For an average practice of 20,000 patients (made up equally of men and women) each year there are 68 new cases of CHD and 38 new cases of stroke that could be mitigated by promoting physical activity effectively in primary care (using QOF data; statistics are relevant for the year of the study).<sup>32</sup>

It has been calculated that 9% of CHD could be avoided if all those who are sedentary and lightly active became more moderately active<sup>33</sup> and that regular moderate physical activity has the potential to reduce half the incidence of hip fractures in over 45 year olds.<sup>34</sup>

Physical inactivity is a public health burden in the UK; it is estimated to directly cost the NHS around £1.6 billion per year. For a practice population of 10,000 patients the cost

of five conditions attributable to physical inactivity averages £50,000 per year.<sup>35</sup>

### 2.2.6 How will I know whether the scheme has been beneficial to my patient and who is responsible for patient follow-up and feedback?

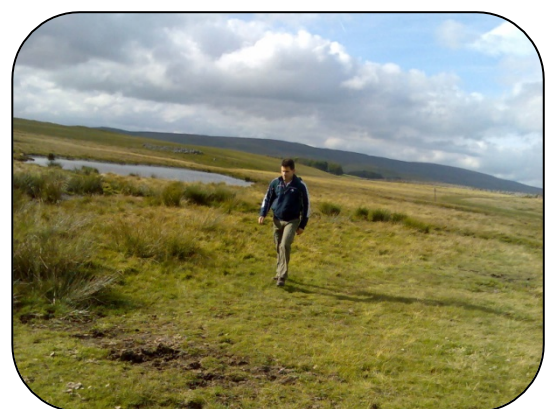
It is the responsibility of the exercise professional (service provider) to provide the referring healthcare professional with information about the patient's progress and benefits to their patient.

Most schemes will have a protocol in place for providing feedback to referring practitioners either for individual patients or for the practice population. The referring healthcare professional needs to agree with service providers how information about their patient's progress or lack of it, is to be fed back to them.

### 2.2.7 Do I need to pass on information about any relevant changes in the health of my patient?

Whilst NQAF states that the GP is responsible for the overall management of each patient's care programme and should therefore pass on any information about any relevant changes in the health of the patient to the exercise professional. It is recognised that this might present practical problems.

As an alternative to the GP being responsible for passing on this information, it is advised that some responsibility should be put on the patient to disclose any changes in circumstances and GPs are advised to give patients examples of such things, e.g. changes in medication, shortness of breath, dizziness. In these circumstances the exercise professional may seek further information from the patient's GP. According to NQAF the GP has a duty of care to respond in an appropriate and timely manner to enquiries about the patient from the exercise professional.









## 2.3 Governance Arrangements

### 2.3.1 Who is responsible for developing and managing the exercise referral scheme?

The planning of each exercise referral scheme should be undertaken locally by a multi-disciplinary steering group. It is good practice for the steering group to involve representatives from the local health board, (primary care trust or community health partnership), leisure services, referring healthcare team and an exercise professional.

The planning group should determine the protocols and guidelines for the scheme, including:

- Who can be referred into the scheme (inclusion/exclusion criteria).
- Who can initiate a referral.
- Who can receive referrals (Level 3 advanced exercise professionals).
- What physical activity referral opportunities will be available.
- Who is responsible for running the scheme.
- The administrative processes in place.
- The organisations involved and
- The monitoring and evaluation procedures.

It is recommended that the scope of a scheme is determined by the

demographic and health needs of the local population and the competencies and qualifications of the exercise professionals at the point of delivery, the exercise facilities and services available.

Generally the scheme will be managed by an exercise referral coordinator employed either by the local health board (primary care trust or community health partnership) or leisure service.

### 2.3.2 Do I play a role in scheme design or only refer when schemes are established?

As mentioned above it is good practice for a representative of the referring healthcare team to be a member of the scheme steering/planning group, however where schemes are already established this might not be feasible.

### 2.3.3 How will I obtain information about the exercise referral scheme protocol?

Most schemes will offer a briefing session for healthcare professionals engaged in a local exercise referral scheme. It is good practice and important that all referring healthcare professionals involved in new or established schemes are fully briefed regarding the scheme protocols and guidelines. Referring

healthcare professionals also have a responsibility to read and familiarise themselves with all relevant scheme documentation and protocols to ensure they are clear about:

- Their roles and responsibilities;
- Which patients the scheme is intended to support and the criteria (medical or otherwise) that will guide exclusions from the scheme;
- The referral process;
- The feedback and evaluation mechanisms and
- Patient exit routes after the ‘referral period’.

2.3.4 Will I be legally responsible if a patient has an adverse event as a consequence of me referring them for exercise?

NO, the referring healthcare professional does not develop the exercise programme. The referrers role is to decide whether the patient is eligible for the scheme and make the referral into an exercise referral scheme which is quality assured. By making a referral to an appropriately qualified exercise professional the healthcare professional is not assuming responsibility for the design, delivery or supervision of the exercise programme. Indeed NQAF specifies that:

“...when an individual is specifically referred for exercise by a health

practitioner, once all of the relevant medical information has been transferred to the exercise professional, the responsibility for safe and effective management, design and delivery of the exercise programme passes to the exercise and leisure professionals.”

p13 NQAF (2001)<sup>1</sup>

Medical Defence Union members have questioned whether they could be criticised or held to account by the General Medical Council for referring patients for exercise programmes, particularly when they do not know what the programmes involve, or where the exercise professionals are not registered with appropriate regulatory bodies. The GMC has indicated that it would have no concerns about a GP referring a patient to an exercise professional on the Register of Exercise Professionals since REPS is a recognised body by the Department of Health.

2.3.5 Who is responsible for ensuring confidentiality of my patient’s records?

The scheme organisers will be responsible for ensuring that local protocols and structures are suitable for the purpose of ensuring that the patient’s confidentiality is maintained throughout the referral process. Scheme organisers will be responsible for ensuring patients’ health records

are securely protected during their transportation between sites or organisations.

### 2.3.6 Who is responsible for risk assessing the exercise referral scheme?

The service provider has a duty of care which must be fully considered in establishing and running a quality assured exercise referral scheme. In meeting this duty of care, leisure managers and scheme coordinators will need to liaise with their insurance risk manager and undertake a risk assessment of all aspects of the exercise referral scheme and potential patient groups.

Regardless of where the exercise is taking place, i.e. public, private or voluntary health and fitness facility, community centre, swimming pool or local park, there must be evidence that the exercise environment has been risk assessed. This should demonstrate the environment is fit for the purpose, all health safety legislation is complied with and appropriate insurance is in place (p16 NQAF).

## Summary

Healthcare professionals have a crucial role to play in promoting physical activity with patients and ensuring that patients are offered the most appropriate physical activity pathway to meet their healthcare needs and personal preferences.

Healthcare professionals tend to have knowledge of the local health priorities and health issues and exercise referral schemes should be designed around the needs of the local population. To ensure this

happens, it is recommended that a representative healthcare professional engages with other relevant stakeholders to design the local exercise referral service.

It is also good practice to identify a member of the practice team who can take particular responsibility for the exercise referral scheme, specifically liaising with the scheme coordinator and other referring healthcare professionals about briefing sessions, scheme protocols and documentation

## References

1. Department of Health (2001) Exercise referral systems: A National Quality Assurance Framework. London: Department of Health.
2. Chief Medical Officer (2004) At least five a week: Evidence on the impact of physical activity and its relationship to health. London: Department of Health.
3. American College of Sports Medicine (2006) Guidelines for exercise testing and prescription. Philadelphia: /Lippincott, Williams & Wilkins.
4. Department for Health (2008) Ten things you need to know about long-term conditions. [www.dh.gov.uk/en/Healthcare/Longtermconditions/DH\\_084294](http://www.dh.gov.uk/en/Healthcare/Longtermconditions/DH_084294)
5. World Health Organisation (2003) World Health Report 2002, Geneva: WHO.
6. Jonas, S. & Phillips, E. M. (2009) ACSM's Exercise is Medicine: A clinician's guide to exercise prescription. Philadelphia: Wolters Kluwer Health/Lippincott, Williams & Wilkins.
7. World Health Organisation (2004) Global strategy on diet, physical activity and health. Available online at: [www.who.int/hpr/global\\_strategy.html](http://www.who.int/hpr/global_strategy.html)
8. Allender, S., Foster, C., Scarborough, P & Rayner, M. (2006) The burden of physical activity related ill health in the UK. *Journal of Epidemiology and Community Health*. 61:344-348.
9. Sari, Nazmi (2008) Physical inactivity and its impact on healthcare utilisation. *Wiley Interscience*, 18 (8):885-901. Cited in National Health Service (2009) Let's Get Moving: Commissioning Guidance. A new physical activity care pathway for the NHS
10. QRESEARCH and the Health and Social Care Information Centre (2008) Trends in consultation rates in general practice: 1994/1196 to 2007/2008: Analysis of the QRESEARCH database. London: NHS Health Information Centre.
11. Boyce, T., Robertson, R. and Dixon, A. (2008) Commissioning and behaviour change: Kicking bad habits final report. London: The King's Fund.
12. National Institute of Health and Clinical Excellence (2006) Implementation Advice: Four commonly used methods to increase physical activity. *Public Health Intervention Guidance no2*. London: National Institute of Health and Clinical Excellence
13. Irwin, D. & Morgan, O. (2003) Developing a risk tool for GP exercise referral. *Sport Ex Health*, 12: 16-18
14. Department of Health (2006) Health Survey for England. London: HMSO.
15. Thomas, D.E., Elliott, E.J., Naughton, G.A. Exercise for type 2 diabetes mellitus. *Cochrane Database of Systematic Reviews* 2006, Issue 3. Art. No. CD002968. DOI: 10.1002/14651858.CD002968.pub2.

16. Ram, F.S.F., Robinson, S.M., Black, P.N., Picot, J. Physical training for asthma. *Cochrane Database of Systematic Reviews* 2005, Issue 4. Art. No. CD001116. DOI: 10.1002/14651858.CD001116.pub2.
17. Lacasse, Y., Goldstein, R., Lasserson, T.J., Martin, S. Pulmonary rehabilitation for chronic obstructive pulmonary disease. *Cochrane Database of Systematic Reviews* 2006, Issue 4. Art. No. CD003793. DOI: 10.1002/14651858.CD003793.pub2.
18. Brosseau, L., MacLeay, L., Robinson, V.A., Tugwell, P., Wells, G. Intensity of exercise for the treatment of osteoarthritis. *Cochrane Database of Systematic Reviews* 2003, Issue 2. Art. No. CD004259. DOI: 10.1002/14651858.CD004259.
19. Edmunds, M., McGuire, H., Price, J. Exercise therapy for chronic fatigue syndrome. *Cochrane Database of Systematic Reviews* 2004, Issue 3. Art. No. CD003200. DOI: 10.1002/14651858.CD003200.pub2.
20. Nixon, S., O'Brian, k., Glazier, R.H., Tynan, A.M., Aerobic exercise interventions for adults living with HIV/AIDS. *Cochrane Database of Systematic Reviews* 2005, Issue 2. Art. No. CD001796. DOI: 10.1002/14651858.CD001796.
21. Busch, A.J, Barber, K.A., Overend, T.J, Peloso, P.M.J. & Schachter, C.L. Exercise for treating fibromyalgia syndrome. *Cochrane Database of Systematic Reviews* 2007, Issue 4. Art. No. CD003786. DOI: 10.1002/14651858.CD003786.
22. Han, A., Judd, M.G., Robinson, V.A., Taixiang, W., Tugwell, P. & Wells, G. Tia chi for treating rheumatoid arthritis. *Cochrane Database of Systematic Reviews* 2004, Issue 3. Art. No. CD004849. DOI: 10.1002/14651858.CD004849
23. Watson, L., Ellis, B. & Leng, G.C. Exercise for intermittent claudication. *Cochrane Database of Systematic Reviews* 2008, Issue 4. Art. No. CD000990. DOI: 10.1002/14651858.CD000990
24. Hayden, J., van Tulder, M.W., Malmivaara, A. & Koes, B.W. Exercise therapy for treatment of non-specific low back pain. *Cochrane Database of Systematic Reviews* 2005, Issue 3. Art. No. CD000335. DOI: 10.1002/14651858.CD000335
25. Mead, G.E., Morley, W., Campbell, P., Greig, C.A., McMurdo, M., & Lawlor, D.A. Exercise for depression. *Cochrane Database of Systematic Reviews* 2008, Issue 4. Art. No. CD004366. DOI: 10.1002/14651858.CD004366
26. Markes, M., Brockow, T. & Resch, K.L. Exercise for women receiving adjuvant therapy for breast cancer. *Cochrane Database of Systematic Reviews* 2006, Issue 4. Art. No. CD005001. DOI: 10.1002/14651858.CD005001



27. Riddoch, C., Puig-Ribera, A. & Cooper, A. (1998) Effectiveness of physical activity promotion schemes in primary care: A review. London: Health Education Authority.
28. Department of Health (2007) Best practice guidance: statement on Exercise Referral. Gateway Reference 7930 London: Department of Health
29. Register of Exercise Professionals (2006) Information and Guidance: Qualifications and Training in Exercise Referrals. London: REPS.
30. Peters, S., Stanley, I., Rose, M., Kaney, S. And Salmon, P. A randomised controlled trial of group aerobic exercise in primary care patients with persistent, unexplained physical symptoms. *Family Practice*, 2002, 19, 6: 665-674.
31. Knowler, W.C., Barrett-Connor, E., Fowler, S.E., et al. Reduction in the incidence of type 2 diabetes with lifestyle intervention or metformin. *New England Journal of Medicine*, 2002 346 (6): 393-403.
32. Services Division Scotland (2005) The Scottish Health Survey 2003 Volume 1 Cardiovascular disease. Rothwell, PM et al. (2005) Population-based event rate, incidence, case fatality and mortality for all acute vascular events in all arterial territories (Oxford Vascular Study), *Lancet* 266,(9499) 1773-83. Cited in National Health Service (2009) Let's Get Moving: Commissioning Guidance. A new physical activity care pathway for the NHS
33. Britton, A. & McPherson, K. Monitoring the progress of the 2010 target for CHD Mortality: Estimated consequences on CHD incidence and mortality from changing prevalence of risk factors. 2002, London: National Heart Forum.
34. Nicholl, J.P., Coleman P. & Brazier, J.E. Health and health care costs and benefits of exercise. *Pharmaco Economics*, 1994, 5 (2) 109-122.
35. Department of Health (2009) Be active, be healthy: A plan for getting the nation moving. London: Departments of Health.

## Appendices

1. Physical Activity/Exercise Referral Transfer Form
2. Irwin and Morgan Sample Risk Stratification Tool.
3. General Practice Physical Activity Questionnaire (GPPAQ)
4. NQAF Patient Characteristics & Exercise Professional Expertise Pyramid.

## Appendix 1 Physical activity/exercise referral transfer form

Physical activity referral is one way of increasing physical activity levels of patients with specific medical conditions.

**It may not be the most appropriate route for patients where there is no underlying medical condition or risk.** A general recommendation to increase physical activity levels in order to gain health benefits may be all that is required if you consider the patient has reasonable motivation and resources to safely increase their physical activity levels.

Refer to the **scheme inclusion criteria** and use your professional judgement to determine whether the exercise referral scheme is the most appropriate route for the patient.

### PLEASE COMPLETE THIS FORM IF THE PATIENT IS BEING REFERRED

To be completed by Referring Practitioner ONLY

Please **complete all sections of the form**, incomplete forms may be returned and your patient may be temporarily deferred until all relevant medical information is obtained.

PATIENT DETAILS		REFERRING PRACTITIONERS DETAILS	
Surname:		Name:	
Forename:		Position:	
Male/Female:		Address:	
Date of Birth:			
Address:		Postcode:	
		Tel. No:	
Postcode:		Fax. No:	
Contact Tel. No:		Email Address:	
NHS No:		Referral No:	
REGISTERED GP DETAILS (if different from referring practitioner)			
Name:		Address:	
Practice:			
Tel. No:		Postcode:	
Fax. No:			
Email Address:			
REASON FOR REFERRAL: Please check against scheme inclusion/exclusion criteria.			
<i>Insert list of conditions included in the scheme if preferred</i>			
MEDICAL INFORMATION: Please provide <b>all relevant</b> information about the patient's health status.			
Resting HR:		Systolic BP:	
		Diastolic BP:	
		BMI:	
MEDICAL CONDITIONS: Please give details of <b>all relevant current and past</b> health problems.			
Details <i>i.e. Previous history of Chronic Fatigue</i>		Dates <i>Diagnosed 20<sup>th</sup> May 2000</i>	

<b>MEDICATION:</b> Please provide a list of <b>any medications being taken.</b>	<b>PHYSICAL LIMITATIONS:</b> Please provide details <b>any physical limitations</b>
<i>i.e. Beta blockers</i>	<i>e.g. Arthritis of the hip</i>
<b>ADDITIONAL RELEVANT INFORMATION:</b> Please include any additional relevant information which has not been included in other parts of the form.	
<i>e.g. awaiting further investigations</i>	

<b>AUTHORISATION</b> I can confirm that the details given are a true reflection of the patient's medical history & medication, I refer this patient to the physical activity scheme under the terms & conditions set out in the protocol.	
Name of Referring Practitioner (PLEASE PRINT)	
Signature of Referring Practitioner	
Contact Telephone No.	
Date of Referral	

<b>PATIENT CONSENT<sup>vii</sup></b> The Exercise Referral Scheme has been fully explained to me. I am prepared to participate and I give permission for this information to be passed to staff on the physical activity referral scheme.	
<b>PLEASE PRINT YOUR NAME</b>	
Signature of Patient	
Date	

**IMPORTANT:**  
This referral is valid for **3 months**. If the patient fails to attend the initial consultation within 3 months of the date of referral and still wishes to participate in the referral scheme, the patient must see their Referring Practitioner in order to be re-referred.  
  
**Physical Activity Referral Officers are advised NOT TO ACCEPT responsibility for a referred patient until all relevant clinical information is confirmed and signed.**  
  
Referral letters or forms without this information or containing only blanket phrases such as 'I know of no reason why Mrs X should not engage in exercise' ***are not acceptable as part of a quality referral system.***

vii All information in this form will be treated in the strictest confidence and stored securely according to the Data Protection Act 1998.



**PHYSICAL ACTIVITY/EXERCISE REFERRAL TRANSFER FORM**

Physical activity referral is one way of increasing physical activity levels of patients with specific medical conditions.

It may not be the most appropriate route for patients where there is no underlying medical condition or risk. A general recommendation to increase physical activity levels in order to gain health benefits may be all that is required if you consider the patient has reasonable motivation and resources to safely increase their physical activity levels.

Refer to the scheme inclusion criteria and use your professional judgement to determine whether an exercise referral scheme is the most appropriate route for the patient.

**PLEASE COMPLETE THIS FORM IF THE PATIENT IS BEING REFERRED**

To be completed by Referring Practitioner ONLY

Please complete all sections of the form, incomplete forms may be returned and your patient may be temporarily deferred until all relevant medical information is obtained.

**Patients Details:**

**Surname:** The last name currently used by the patient.

**Forenames(s):** The forename(s) currently used by the patient, in the correct order.

**Sex:** Male or female gender of patient.

**Date of Birth:** Date of birth of patient.

**Patient's Address and Postcode:** The address and postcode to which correspondence should be addressed. This would normally be the patient's usual home address.

**Telephone no:** The patient's telephone contact number.

**Referring Practitioners Details:**

**Name of Referring Practitioner:** The name of the person making the referral

**Position:** The position of the person making the referral, e.g. practice nurse, dietitian, physiotherapist

**Referring Practitioners Address and Postcode:** The address and postcode of person making the referral

**Telephone/fax/e-mail:** The telephone/fax/e-mail address of the referring practitioner.

**Registered GP Details:**

**Name:** The name of the general practitioner with whom the patient is registered.

**Practice Address and Postcode:** The address and postcode of the general practitioner with whom the patient is registered.

**Telephone/fax/e-mail:** The telephone / fax / e-mail address of the registered general practitioner.

**Reason for Referral:**

The referring practitioner should be explicit about why the patient is being referred to the scheme. This will help the receiving exercise professional understand the nature of, and reasons for, the referral. The 'reason for referral' may, if desired, include an indication of the expected referral outcome which, for example, aids the treatment and management of diabetes, treatment of borderline hypertension, weight management.

PATIENT DETAILS		REFERRING PRACTITIONERS DETAILS	
Surname:	Name:	Position:	Address:
Forename:	Position:	Postcode:	Tel. No:
Male/Female:	Address:	Tel. No:	Fax. No:
Date of Birth:	Postcode:	Email Address:	Referral No:
Address:	Tel. No:	<b>REGISTERED GP DETAILS (if different from referring practitioner)</b>	
	Postcode:	Name:	Address:
	Postcode:	Practice:	
	Postcode:	Tel. No:	
	Postcode:	Fax. No:	
	Postcode:	Email Address:	
	Postcode:	<b>REASON FOR REFERRAL - Please check against scheme inclusion/exclusion criteria.</b>	
	Postcode:	<i>See list of conditions included in the scheme if preferred</i>	
	Postcode:	Resting HR:	Systolic BP:
	Postcode:	Diastolic BP:	BMI:
	Postcode:	<b>DICAL CONDITIONS: Please give details of all relevant current and past health problems.</b>	
	Postcode:	Dates Diagnosed 20 <sup>th</sup> May 2000	
	Postcode:	Previous history of Chronic Fatigue	

**Medical Information:**

This section of the form should include a current measurement of resting heart rate, blood pressure and body mass index. This section of the transfer form should include a comprehensive and relevant summary of the patient's current and past medical status.

Referring practitioners should include sufficient information to give a clear picture of the medical status of the patient. It may be appropriate to give information about the duration and severity of the medical condition the patient is being referred for. Sufficient information should be included so that the exercise professional can make an informed judgement about the most appropriate exercise intervention for the patient.

**Any Physical Limitations:**  
 This section of the transfer form should include information about any factor(s) that might impact on the patient's functional ability or capacity to engage in physical activity.  
 It should also include any special considerations or advice given to the patient regarding the above.

**Referring Practitioner's Signature and Date:**  
 The referring practitioner should sign and date the referral form

**Patients Signature and Date:**  
 The patient should sign and date the referral form.


<p><b>Medication:</b>                  This section of the form should include information about the medications the patient is currently taking and/or any recent drug treatment. The referring practitioner should also include information about any known impacts of the medication on the patient's everyday functional ability. The referring practitioner may also have knowledge of 'over the counter' preparations being used by the patient which should also be conveyed in this part of the form.</p>	<p><b>PHYSICAL LIMITATIONS:</b>                  Please provide details <u>any physical limitations</u>  <small># 2, 4 (Items of the NP)</small></p> <p><b>EDUCATION:</b>                  Please provide a list of <u>any medications being taken</u>.  <small>1. Beta blockers</small></p> <p><b>ADDITIONAL RELEVANT INFORMATION:</b> Please include any additional relevant information which has not been included in other parts of the form.  <small>2. awaiting further investigations</small></p>
<p><b>Additional Relevant Information</b>                  (including patient's issues, social circumstances and special needs): This section of the form should contain additional relevant information which has not been included in other parts of the transfer form. Examples might include clinical or social information specific to the patient being referred; special needs relating to disability, ongoing clinical investigations, any exercise preferences for your patient.                  Information could be conveyed here about any expectations or concerns the patient has expressed with respect to being referred to the scheme.</p>	<p><b>AUTHORISATION</b>                  I can confirm that the details given are a true reflection of the patient's medical history &amp; medication, I refer this patient to the physical activity scheme under the terms &amp; conditions set out in the protocol.</p> <p>Name of Referring Practitioner (PLEASE PRINT)                  Signature of Referring Practitioner                  Contact Telephone No.                  Date of Referral</p> <p><b>PATIENT CONSENT</b>                  The Exercise Referral Scheme has been fully explained to me. I am prepared to participate and I give permission for this information to be passed to staff on the physical activity referral scheme.</p> <p>PLEASE PRINT YOUR NAME                  Signature of Patient                  Date</p> <p><b>IMPORTANT:</b>                  This referral is valid for <b>3 months</b>. If the patient fails to attend the initial consultation within 3 months of the date of referral and still wishes to participate in the referral scheme, the patient <b>must</b> see their Referring Practitioner in order to be re-referred.                  Physical Activity Referral Officers are advised <b>NOT TO ACCEPT</b> responsibility for a referred patient until all relevant clinical information is confirmed and signed.                  Referral letters or forms without this information or containing only blanket phrases such as 'I know of no reason why Mrs X should not engage in exercise' <b>are not acceptable as part of a quality referral system.</b></p>

<sup>1</sup> All information in this form will be treated in the strictest confidence and stored securely according to the Data Protection Act 1998.



# Appendix 2 Irwin and Morgan sample risk stratification tool

## HEALTH PROMOTION



# DEVELOPING A RISK TOOL

By Dawn Irwin MSc and Oliver Morgan BSc (Hons) MSc

**SCHEME DEVELOPMENT**

In the central London borough of Kensington and Chelsea, the local Primary Care Trust (PCT) was approached to develop exercise referral schemes and the local authority to develop local exercise opportunities. The aim was to increase the number of people participating in regular exercise.

Our first step was to establish a working group, which included scheme managers, a general practitioner and representatives from the Primary Care Trust and local community organisations. The group identified the referral process as the most problematic stage of successful exercise referral schemes. We therefore decided that our first piece of work would be to look at how this process could be improved. We conducted telephone interviews with general practitioners and general practice nurses to find out what they needed to make better referrals. The respondents overwhelmingly replied that they wanted a simple, easy to use tool that they could use during a clinical consultation.

**THE RISK STRATIFICATION TOOL**

The group used the National Quality Standard for Exercise Referral (1) as the development process and also looked at examples of several different schemes across the UK. These schemes largely took a risk stratification approach, defining health conditions as high, medium and low risk. The tool was designed to be clear and easy way to consider risk, none of the examples contained sufficient

detail for the referring clinician to be able to categorise patients. For example, bone density changes represents low risk but a diagnosis of osteoporosis with no history of fracture increases the risk to medium. When a history of previous low back pain is present, this score is high risk and therefore the patient is not suitable for the scheme, but for specialist referral into the Falls and Injury Prevention Exercise Service.

The sixth edition of the American College of Sports Medicine's Guidelines for Exercise Testing and Prescription (5) was used as a resource for evidence along with ACSM Position Stands on Osteoporosis (6), British Association of Geriatricians for Older Adults (9). Other sources of guidelines included the Chartered Society of Physiotherapy Guidelines for the Management of Osteoporosis (10) and the British Association of Cardiac Rehabilitation (11).

**USING THE TOOL**

The tool takes the form of a simple traffic light system and is produced as a laminated A4 card. Basic information about the scheme is provided on the reverse side and each scheme has also received a colour coding which corre-

Exercise referral schemes exist in an evidence-free wilderness. The results from existing studies are inconclusive; a review by the Health Education Authority of physical activity promotion in primary care (1) suggested only limited evidence of effectiveness and two further reviews by Hillison and Thorogood (2,3) recommended that home based activities may be better. So where can we draw on the evidence to help us design a tool that looks at how one primary care trust developed its own risk stratification tool to improve the referral process to the existing referral schemes.

Specific to the risk level that it can take referrals, we have designed the referral forms so that clinicians can indicate the risk level of the condition for which they are referring.

**OTHER DEVELOPMENTS**

Currently a set of evidence based exercise protocols is being developed. These will form the basis of an exercise resource that will be available at each scheme, for use by the fitness instructors when programmes are assessed through the scheme's monitoring systems and periodic evaluations within general practice.

**CONCLUSION**

We expect that this risk stratification tool will help increase the confidence of clinicians to refer their patients to exercise referral schemes. In addition, an evidence based risk stratification tool is likely to make referrals safer and more effective.

**References**

1. Ridoch, C., Puig-Ribera, A., Cooper, A. Effectiveness of physical activity promotion in primary care. London: Health Education Authority, 1998
2. Hillison M, Thorogood M, Arnes T, Morris J.

Printed with permission of Dawn Irwin

www.sportex.net

## RISK TOOL

LOW RISK	MEDIUM RISK	HIGH RISK
<p><b>Overweight</b> High normal blood pressure (130-139/85-89) not medication controlled Deconditioned Type 2 diabetes Female aged &gt;65 Anxiety Postnatal Osteoarthritis Mild bone density changes Exercise induced asthma Stress/mild anxiety Seropositive HIV</p>	<p>(140-159/90-99). Medication controlled Mild (ventilatory limitation but would benefit from optimisation of respiratory timing of exercise, and warning signs No other risk factors With intermittent mobility problems BMD &gt;2.5 at spine, hip or forearm or ≥4 on FRAX<sup>®</sup> index, with no history of fracture General of osteoporosis. NOT CARDIAC. Surgery - Pre and Post: Stroke/TIA Asthma COPD Neurological conditions Early symptomatic HIV Chronic Fatigue Syndrome Depression Pharyngitis</p>	<p>Older people &gt;65 years at risk of falls. Frail older people with osteoporosis Recent falls or history of fracture REFER DIRECT TO FALLS SERVICE Cardiac disease Stroke/TIA Severe Osteoarthritis/ Rheumatoid arthritis Type 1 or Type 2 Diabetes (Advanced) Moderate to severe asthma AIDS Psychiatric illness/cognitive impairment/dementia AMI score &lt; 8</p>
<p>No complications Due to age or inelastic lifestyle Diet controlled No symptoms of osteoporosis No history of osteoporosis Provide 50% check complete with no complications Mild when physical activity will provide symptomatic relief BMD &gt;1.5 at spine, hip or forearm or ≥2.5 on FRAX<sup>®</sup> index, with no history of fracture One other Q10 risk factor &amp; no known impairment of respiratory function. Asymptomatic</p>	<p>(140-159/90-99). Medication controlled Mild (ventilatory limitation but would benefit from optimisation of respiratory timing of exercise, and warning signs No other risk factors With intermittent mobility problems BMD &gt;2.5 at spine, hip or forearm or ≥4 on FRAX<sup>®</sup> index, with no history of fracture General of osteoporosis. NOT CARDIAC. Surgery - Pre and Post: Stroke/TIA Asthma COPD Neurological conditions Early symptomatic HIV Chronic Fatigue Syndrome Depression Pharyngitis</p>	<p>Older people &gt;65 years at risk of falls. Frail older people with osteoporosis Recent falls or history of fracture REFER DIRECT TO FALLS SERVICE Cardiac disease Stroke/TIA Severe Osteoarthritis/ Rheumatoid arthritis Type 1 or Type 2 Diabetes (Advanced) Moderate to severe asthma AIDS Psychiatric illness/cognitive impairment/dementia AMI score &lt; 8</p>



REFER DIRECT TO FALLS SERVICE

# HEALTH PROMOTION

## EXERCISE REFERRAL SCHEME - RISK STRATIFICATION

LOW RISK POPULATIONS			
<b>Definition:</b>	People with minor, stable physical limitations or 2 or less CHD risk factors (see below).		
<b>Exercise Setting:</b>	Exercise Referral Schemes or other community leisure setting		
MEDIUM RISK POPULATIONS			
<b>Definition:</b>	People with significant physical limitations related to chronic disease or disability.		
<b>Setting:</b>	Exercise Referral Schemes or other community leisure setting.		
HIGH RISK POPULATIONS			
<b>Definition:</b>	People with current severe disease or disability. Not suitable for Exercise Referral Schemes.		
<b>Setting:</b>	Secondary and Tertiary Health Care settings ONLY		
EXERCISE REFERRAL SCHEMES			
<b>Low</b>	<b>Medium</b>	Kensington Leisure Centre	Walmer Road, W11 4PQ Tel: 020 7727 9747
<b>Low</b>	<b>Medium</b>	Chelsea Sports Centre	Chelsea Manor St SW7 5PL Tel: 020 7352 6985
<b>Low</b>	<b>Medium</b>	Portobello Green Fitness Centre	3-5 Thorpe Close W10 5XL Tel: 020 8960 2221
REHABILITATION AND TERTIARY EXERCISE SERVICES			
<b>High Risk</b>		Cardiac Rehabilitation*	Kensington & Chelsea PCT
		Established Osteoporosis **	Tel: 020 8237 2535
		Falls Risk ***	
CHD RISK FACTORS			
Family history	<55 male; <65 female		
Cigarette smoking	Current or given up within past 6/12		
Hypertension	≥ 140/≥ 90		
Hypercholesterolaemia	Total > 5.2 mmol/L OR HDL <0.9 mmol/L OR LDL > 3.4 mmol/L		
Sedentary lifestyle	Not meeting minimum recommendation ≥ 30 mins moderate physical activity every day		
Obesity	BMI ≥ 30 kg/m <sup>2</sup> or waist girth > 100 cm		
Impaired Fasting Glucose	≥ 6.1 mmol/L		
CONDITIONS INDICATING CARDIAC REHABILITATION - PHASE IV			
Angina	Stable and controlled with no pain at rest		
CABG	If successful operation and has been discharged from Phase III		
Arrhythmias	Provided full cardiologist screening and approval		
Valvular Heart disease	Provided full cardiac screen and approval		
Congestive Cardiac Failure	Stable, on medical therapy without absolute contraindications (particularly obstruction to left ventricular outflow, decompensated CHF or threatening arrhythmias and have an exercise capacity of > 3 METs)		

\* At present there is no provision within K&C PCT for Phase IV Cardiac Rehabilitation Exercise Services. Patients who present with any of the conditions overleaf who have associated cardiac problems require special consideration.

\*\* See FRACTURE Index Screening Tool

\*\*\* See Falls Risk Assessment Screening Tool

Randomised controlled trials of physical activity promotion in free living populations: a review. *Journal of Epidemiology Community Health* 1995;49:448-453

3. Hillsdon M, Thorogood M. A systematic review of physical activity promotion strategies. *Journal of Sports Medicine & Physical Fitness* 1996; 30:84-89

4. Exercise Referral Schemes: A National Quality Assurance Framework. *Department of Health* 2001

5. American College of Sport Medicine's Guidelines for Exercise Testing and Prescription Sixth edition. *ACSM* 2000

6. Osteoporosis and Exercise. American

College of Sports Medicine's Position Stand *MSSE* 1995;27(4):pp.i - vii

7. Exercise and Type 2 Diabetes. *American College of Sports Medicine Position Stand*

8. Physical Activity, Physical Fitness and Hypertension. American college of Sports Medicine Position Stand. *MSSE* 1993;25(10):ppi - x

9. Exercise and Physical Activity for Older Adults. American College of Sports Medicine Position Stand. *MSSE* 1998;30:6

10. Guidelines for the Management of Osteoporosis. *Chartered Society of Physiotherapy and National Osteoporosis Society* 1999

11. British Association of Cardiac Rehabilitation: Guidelines for Cardiac Rehabilitation. *Blackwell Science* 1995

Dawn Irwin MSc and Oliver Morgan BEng (Hons) Msc

*Dawn Irwin is a senior clinical exercise practitioner and the falls prevention and exercise development co-ordinator for Kensington and Chelsea Primary Care Trust. Oliver Morgan is a multi-disciplinary public health specialist working in Kensington and Chelsea Primary Care Trust.*



## Appendix 3 General Practice Physical Activity Questionnaire


**General Practice Physical Activity Questionnaire**

Date.....

Name.....

1. Please tell us the type and amount of physical activity involved in your work.

		Please mark one box only
a	I am not in employment (e.g. retired, retired for health reasons, unemployed, full-time carer etc.)	
b	I spend most of my time at work sitting (such as in an office)	
c	I spend most of my time at work standing or walking. However, my work does not require much intense physical effort (e.g. shop assistant, hairdresser, security guard, childminder, etc.)	
d	My work involves definite physical effort including handling of heavy objects and use of tools (e.g. plumber, electrician, carpenter, cleaner, hospital nurse, gardener, postal delivery workers etc.)	
e	My work involves vigorous physical activity including handling of very heavy objects (e.g. scaffolder, construction worker, refuse collector, etc.)	

2. During the *last week*, how many hours did you spend on each of the following activities?  
*Please answer whether you are in employment or not*

Please mark one box only on each row

		None	Some but less than 1 hour	1 hour but less than 3 hours	3 hours or more
a	Physical exercise such as swimming, jogging, aerobics, football, tennis, gym workout etc.				
b	Cycling, including cycling to work and during leisure time				
c	Walking, including walking to work, shopping, for pleasure etc.				
d	Housework/Childcare				
e	Gardening/DIY				

3. How would you describe your usual walking pace? Please mark one box only.

Slow pace (i.e. less than 3 mph)	<input type="checkbox"/>	Steady average pace	<input type="checkbox"/>
Brisk pace	<input type="checkbox"/>	Fast pace (i.e. over 4mph)	<input type="checkbox"/>

## Appendix 4 NQAF Patient Characteristics & Exercise Professional Expertise Pyramid

**Figure 1. A contextual diagram for matching participant characteristics with exercise professional expertise within the UK National Occupational Standards (NOS)**

*Note:* the expertise in this diagram can be determined for an individual instructor by matching with the Professional Register for Exercise and Fitness (England) described in Section C7 of this document, whose structure is illustrated in Appendix 11.

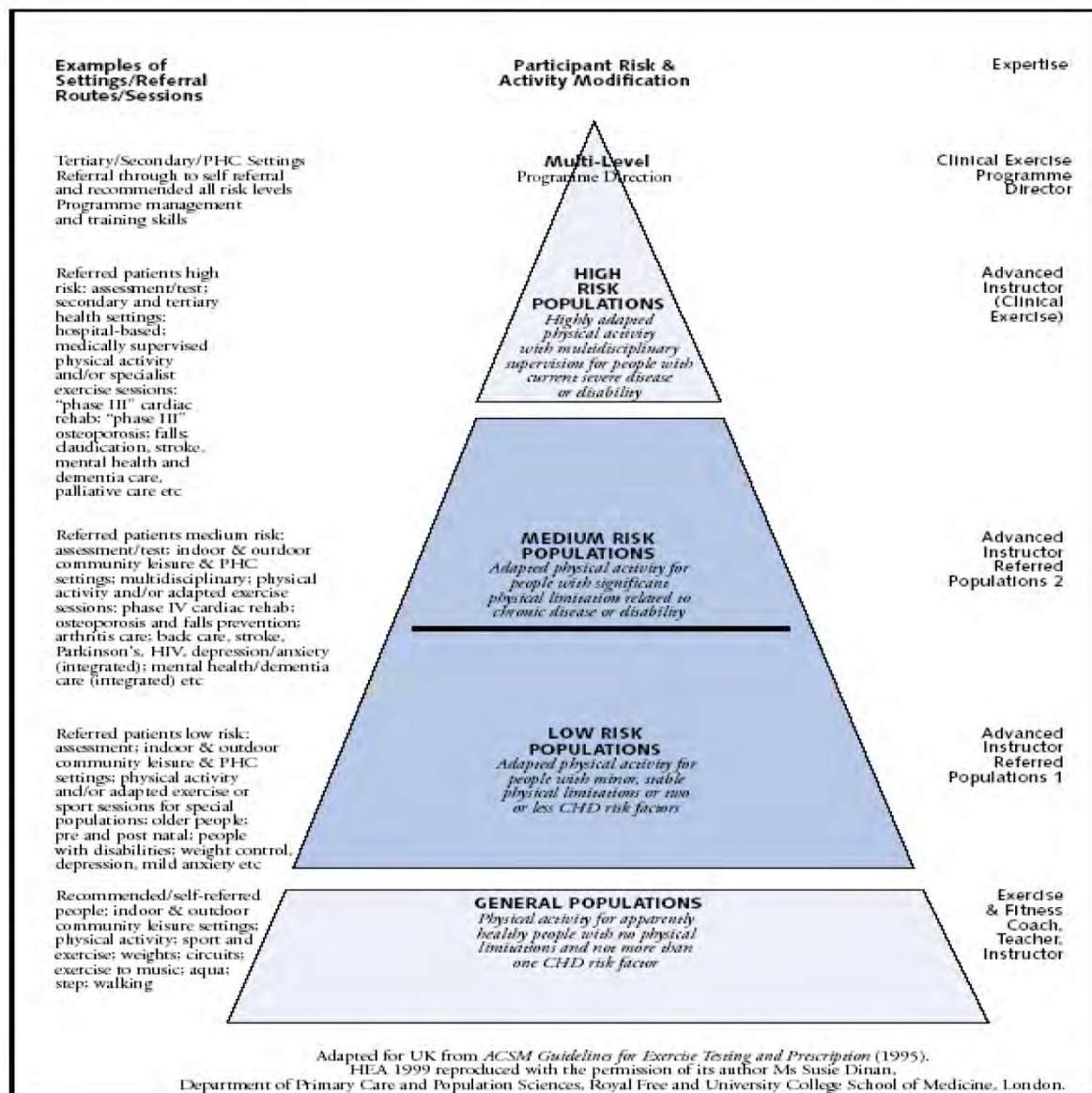


Diagram taken from Department of Health (2001) Exercise Referral Systems: A National Quality Assurance Framework. London: Department of Health



