Medicolegal neglect? The case for physical activity promotion and Exercise Medicine

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INTRODUCTION

Whether measured subjectively or objectively, a large proportion of the population are living sedentary and physically inactive lives.[1 2] This should be a major public health focus given the overwhelming evidence demonstrating that physical inactivity increases an individual's risk for all-cause mortality and may be one of the leading causes of non-communicable chronic disease in the world, responsible for about 60% of worldwide deaths[3–6] and probably more in developed countries.

Pandemic levels of physical inactivity result in a huge burden of unhealthy consequences within populations and for society, across all socioeconomic classes, all ethnicities and phenotypes.

However, attempts to explain the precise causes of chronic diseases and resultant deaths, for each individual, are very difficult. We are all exposed to multiple risk factors in variable quantities throughout our lives and, currently, these are virtually impossible to measure. Consequently, despite our remarkable growth in the medical field, explanations for precise causes of death remain speculative. To attribute causal status of risk factors for non-communicable disease is fraught with difficulty both clinically and medicolegally. For example, it is baffling that despite scientific progress since Richard Doll's landmark findings 60 years ago, strongly linking smoking with lung cancer,[7] causation of smoking and lung cancer has still not been upheld in a court of law.[8]

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DUTY OF CARE

Duty of care is a legal obligation imposed on a doctor requiring, via the Bolam test,[9] that their actions conform to those of a responsible body of professional opinion, even if others have a different opinion. More recently, the Bolitho v City and Hackney Health Authority case, entitled a judge to choose between two bodies of expert opinion and reject an opinion, which is 'logically indefensible'.[10]

In the UK, duty of care, in the form of National Institute for Health and Clinical Excellence and Royal College guidelines, currently represents an evidence-based responsible body of professional opinion relating to clinical care. Medical ethics, including patient autonomy, non-maleficence, beneficence and informed consent, guide our medical care, when guidelines are not always appropriately applied. Medical defence unions providing medical indemnity repeatedly recommend that our professional and clinical decisions be documented in medical records and note keeping, including those situations when guidelines are not suitable.

Numerous responsible bodies of professional opinion have recognised the extensive evidence base, cost-effectiveness and importance of physical activity promotion as a primary prevention and secondary treatment for various diseases. Physical activity promotion features in 39 national guidelines (table 1), even excluding physical activity–specific guidelines. On this basis, if a doctor managing a patient with any of these diseases has not followed these guidelines and advised or signposted appropriately on physical activity, then it is possible that medical negligence has ensued. Furthermore, would it be 'logically indefensible' for doctors not to promote physical activity for these patients, regardless of their personal opinions and learning needs?

Given the technology and functionality of primary care computerised medical records, it would be relatively cheap and simple to embed such recommendations within standard note keeping templates to help guide practitioners through the forgotten and fundamental basis of these guidelines, ensure medicolegal defensibility, should the need arise, and reduce the potential risk of medical-negligence proceedings.

Critics will argue that physical activity promotion is a lifestyle choice, however, so are smoking and alcohol consumption and yet these are medically accepted risk factors worthy of our clinical behaviour change efforts and consultation time. In many countries around the world, exercise and tailored physical activity are used by trained Sport and Exercise Medicine (SEM) specialists working within multidisciplinary teams, to both treat and prevent various chronic diseases. Unfortunately, in the UK, there are many patients with chronic diseases, risk factors and comorbidities, who are essentially excluded from physical activity. Their attending doctors invariably lack the knowledge to provide them with necessary physical activity and behaviour change advice (or exercise prescription), are fearful of perceived physical activity risks and resulting litigation, or cannot access specialist National Health Service (NHS) SEM services, despite the existence of an emerging trained specialist SEM workforce seeking NHS employment. Ironically, these patients stand to gain the most from intervention (as does the NHS), yet remain unlikely to receive this advice, being advised to rest, risking further health and well-being detriment.

The responsibility for delivering Exercise Medicine in the UK is left in the hands of doctors who do not understand the basic science behind physical activity, benefits, risks, doses or methods to change complex physical inactivity behaviours. Why can we rightly refer to a dietitian for assistance with disordered eating habits and still not refer to an SEM specialist on the NHS for specialist Exercise Medicine care, when appropriate?

AN INSTITUTIONAL AND EDUCATIONAL PROBLEM

General Medical Council (GMC) guidance on 'Good Medical Practice' suggests that doctors should 'protect and promote the health of patients and the public'.[11] Yet physical activity promotion remains un-rewarded in primary care,[6] Exercise Medicine is not on the core curriculum of many medical schools[12] and most doctors are not trained to deliver physical activity promotion and behaviour change.

Table 1 Physical activity promotion features in 39 national guidelines

		Guideline	Physical activity recommendation
	Gastrointestinal		
1	NICE (2010)	Constipation in children and young people: diagnosis and management of idiopathic childhood constipation	Advise daily physical activity tailored as a part of ongoing maintenance
2	NICE (2008)	Diagnosis and management of irritable bowel syndrome (IBS) in primary care	Give information explaining the importance of self-help of IBS, including physical activity
3	NICE (2004)	Dyspepsia: management of dyspepsia in adults in primary care	If no alarm signs and if not on drug with dyspeptic side effects, then offer simple lifestyle advice including weight reduction (ie, physical activity and diet)
4	Primary Care Society for Gastroenterology (2006)	The management of adults with coeliac disease in primary care	For osteoporosis risk and prevention recommend regular physical activity at annual review
5	British Society of Gastroenterology (2007)	Guidelines for osteoporosis in inflammatory bowel disease and coeliac disease	All patients should be advised to undertake regular weight-bearing exercise (including walking, using stairs, housework and gardening)
	Cardiovascular		
6	NICE (2008, revised 2010)	Lipid modification: cardiovascular risk assessment and the modification of blood lipids for the primary and secondary prevention of cardiovascular disease (CVD)	People at high risk of or with CVD should be advised to exercise 30 min a day, of at least moderate intensity, at least 5 days a week, in line with national guidance for the general population. People who are unable to perform moderate-intensity physical activity at least 5 days a week because of comorbidity, medical conditions or personal circumstances should be encouraged to exercise at their maximum safe capacity. Recommended types of physical activity include those that can be incorporated into everyday life, such as brisk walking, using stairs and cycling. People should be advised that bouts of physical activity of 10 min or more accumulated throughout the day are as effective as longer sessions. Advice about physical activity should take into account the person's needs, preferences and circumstances. Goals should be agreed and the person should be provided with written information about the benefits of activity and local opportunities to be active
7	NICE (2008)	Identification and management of familial hypercholesterolaemia	People at high risk of or with CVD should be advised to exercise 30 min a day, of at least moderate intensity, at least 5 days a week, in line with national guidance for the general population. People who are unable to perform moderate-intensity physical activity at least 5 days a week because of comorbidity, medical conditions or personal circumstances should be encouraged to exercise at their maximum safe capacity. Recommended types of physical activity include those that can be incorporated into everyday life, such as brisk walking, using stairs and cycling. People should be advised that bouts of physical activity of 10 min or more accumulated throughout the day are as effective as longer sessions. Advice about physical activity should take into account the person's needs, preferences and circumstances. Goals should be agreed and the person should be provided with written information about the benefits of activity and local opportunities to be active
8	NICE (2006)	Hypertension: management of hypertension in adults in primary care	Ascertain patients' diet and exercise patterns because a healthy diet and regular exercise can reduce blood pressure. Offer appropriate guidance and written or audiovisual materials to promote lifestyle changes
9	NICE (2007)	Myocardial infarction (MI): secondary prevention in primary and secondary care for patients following an MI	Patients should be advised to undertake regular physical activity sufficient to increase exercise capacity. Patients should be advised to be physically active for 20–30 min a day to the point of slight breathlessness. Patients who are not achieving this should be advised to increase their activity in a gradual step-by-step way, aiming to increase their exercise capacity. They should start at a level that is comfortable, and increase the duration and intensity as they gain fitness
10	NICE (2006, revised 2010)	Obesity: guidance on prevention, identification, assessment and management of overweight and obesity in adults and children	Weight management programmes should include behaviour change strategies to increase physical activity and decrease inactivity. Interventions in children should address lifestyle within the family and social settings. If a child, family or adult are unwilling to change, give them information about the benefits of increased physical activity, losing weight and healthy eating. Ask about their related activity levels and beliefs
11	British Cardiac Society, British Hypertension Society, Diabetes UK, HEART UK, Primary Care Cardiovascular Society, The Stroke Association (2005)	Joint British Societies guidelines on the prevention of cardiovascular disease in clinical practice	Discuss lifestyle targets to increase aerobic exercise
12	Guidelines (2010)	Consensus guideline for the management of symptomatic stable angina in primary care	Before a patient is referred for assessment by secondary care, it is important to give lifestyle advice including physical activity
13	Guidelines (2010)	Consensus guideline on reducing cardiovascular events and pancreatitis through the effective management of triglycerides	The management of hypertriglyceridemia is multifaceted, including a combination of lifestyle changes (including physical activity), risk factor modification and drug therapy

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Table 1 Continued

		Guideline	Physical activity recommendation
	Respiratory		
14	NICE (2004, updated 2010)	Chronic obstructive pulmonary disease (COPD): management of COPD in adults in primary and secondary care	Pulmonary rehabilitation should be made available to all appropriate people with COPD including those who have had a recent hospitalisation for an acute exacerbation. Pulmonary rehabilitation should be offered to all patients who consider themselves functionally disabled by COPD (usually MRC grade 3 and above). Pulmonary rehabilitation is not suitable for patients who are unable to walk, have unstable angina or who have had a recent MI. The rehabilitation process should incorporate a programme of physical training, disease education, nutritional, psychological and behavioural intervention. Patients should be made aware of the benefits of pulmonary rehabilitation and the commitment required to gain these
15	The British Thoracic Society and Scottish Intercollegiate Guidelines Network (2008, revised 2009)	British guideline on the management of asthma: a national clinical guideline	Physical training improves indices of cardiopulmonary efficiency and should be seen as part of a general approach to improve lifestyle and rehabilitation in asthma, with appropriate precautions advised about exercise-induced asthma
	Central nervous system		
16	NICE (2007)	Chronic fatigue syndrome/myalgic encephalomyelitis (CFS/ME) (or encephalopathy): diagnosis and management of CFS/ME in adults and children	Healthcare professionals should advise people with CFS/ME on the role of rest periods, how to introduce rest periods into their daily routine and the frequency and length appropriate for each person. This may include: limiting the length of rest periods to 30 min at a time. Introducing 'low level' physical and cognitive activities (depending on the severity of symptoms)
17	NICE (2006)	Dementia: supporting people with dementia and their carers in health and social care	For the secondary prevention of dementia, vascular and other modifiable risk factors (eg, smoking, excessive alcohol consumption, obesity, diabetes, hypertension and raised cholesterol) should be reviewed in people with dementia, and if appropriate, treated (ie, includes physical activity from obesity, hypertension, diabetes and cholesterol guidelines, when appropriate)
18	NICE (2006)	Parkinson's disease: diagnosis and management in primary and secondary care	Physiotherapy should be available to enhance aerobic capacity, improve movement initiation and functional independence
19	NICE (2009)	Schizophrenia: core interventions in the treatment and management of schizophrenia in adults in primary and secondary care	Physical health should be monitored at least once a year with focus on cardiovascular disease risk assessment in line with NICE lipid modification guideline as higher risk than general population (refer to guidelines numbers 6 and 7 above)
20	NICE (update 2009)	Depression: the treatment and management of depression in adults	For people with persistent subthreshold depressive symptoms or mild-to-moderate depression, consider offering one or more of the following interventions, guided by the person's preference: individual guided self-help based on the principles of cognitive behavioural therapy (CBT), computerised cognitive behavioural therapy (CCBT), a structured group physical activity programme
21	NICE (2009)	Depression in adults with a chronic physical health problem: treatment and management	Regarding sleep disturbance, recommend taking regular physical exercise where this is possible for the patient. For patients with persistent subthreshold depressive symptoms or mild-to-moderate depression and a chronic physical health problem, and for patients with subthreshold depressive symptoms that complicate the care of the chronic physical health problem, consider offering a structured group physical activity programme
22	NICE (2006)	Bipolar disorder: the management of bipolar disorder in adults, children and adolescents, in primary and secondary care	Should have annual physical review, usually in primary care, to assess lipid levels, plasma glucose levels, weight and blood pressure (see NICE guidelines above when appropriate)
	Endocrine		
23	NICE (2009)	Type II diabetes: the management of type II diabetes (update)	Integrate increasing physical activity into a personalised diabetes management plan including other aspects of lifestyle modification. Measure blood pressure annually and offer and reinforce preventive lifestyle advice. Offer lifestyle advice (diet and exercise) at the same time for blood pressure control. Start metformin treatment in a person who is overweight or obese (tailoring the assessment of body weight associated risk according to ethnic group) and whose blood glucose is inadequately controlled by lifestyle interventions (nutrition and exercise) alone. Guidance recommends trial of 3 months lifestyle interventions to control and reduce blood glucose and HbA1c before commencing medication
24	Diabetes UK (2005)	Recommendations for the provision of services in primary care for people with diabetes	If the screening test is negative and the person has no symptoms of diabetes, they should be given advice on how to reduce their risk of going on to develop diabetes and supported to lose weight and increase their physical activity levels. People aged <40 with diabetes who are asymptomatic and who are overweight (body mass index (BMI) 25–30 kg/m^2) or obese (BMI >30 kg/m^2) should be advised to increase their physical activity levels, adopt a balanced diet and aim to reduce their calorie intake. Insulin should be considered in those who are not obese. People aged >40 with diabetes who are asymptomatic should initially be treated with diet, weight control and increased physical activity. They should be advised to increase their physical activity levels, adopt a balanced diet and, if they are overweight or obese, aim to reduce their calorie intake. If blood glucose control is not achieved within 3 months, treatment with oral hypoglycaemic agents should be commenced. Insulin treatment should be considered if blood glucose control is not achieved with diet, increased physical activity and combined drug therapy. Oral and written information about diabetes and its management should be provided in appropriate languages and media at each point of the care pathway as part of a structured education programme, meeting nationally agreed criteria

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Table 1 continued

		Guideline	Physical activity recommendation
	Urology		
25	NICE (2010)	The management of lower urinary tract symptoms (LUTS) in men	Offer men with LUTS suggestive of overactive bladder supervised bladder training, advice on fluid intake and lifestyle advice (ie, including physical activity)
26	NICE (2006)	Urinary incontinence (UI): the management of UI in women	Women with UI or overactive bladder syndrome who have a BMI greater than 30 should be advised to lose weight (ie, including physical activity)
27	NICE (2008)	Chronic kidney disease (CKD): early identification and management of CKD in adults in primary and secondary care	Encourage people with CKD to take exercise, achieve a healthy weight and stop smoking
28	British Society for Sexual Medicine (2009)	Guidelines of the management of erectile dysfunction (ED)	Lifestyle modifications can greatly reduce the risk of ED, and should accompany any specific pharmacotherapy or psychological therapy. The potential advantages of lifestyle changes may be particularly pronounced in those with psychogenic ED, but patients with serious medical illnesses such as diabetes may also benefit from these changes, for example, weight loss (ie, diet and physical activity)
29	British Association of Urological Surgeons (2004)	Primary care management of male LUTS	Not all patients require treatment, and primary care management should include reassurance, watchful waiting, advice on lifestyle (ie, including physical activity) and a review of their current medication
	Obstetrics and gynaecology		
30	PCOS UK (2006)	Diagnosis and management of polycystic ovary syndrome (PCOS)	An increase in physical activity is essential, preferably as part of the daily routine. 30 min/day of brisk exercise is encouraged to maintain health, but to lose weight, or sustain weight loss, 60–90 min/day is recommended. Concurrent behavioural therapy improves the chances of success of any method of weight loss
31	Royal College of Obstetricians and Gynaecologists (2007)	Long-term consequences of PCOS	Women diagnosed with PCOS should be advised regarding weight loss through diet and exercise
32	Royal College of Obstetricians and Gynaecologists (2007)	Management of premenstrual syndrome	General advice about exercise, diet and stress reduction should be considered before starting treatment
33	National Association for Premenstrual Syndrome (2003)	Treatment guidelines for premenstrual syndrome	All sufferers benefit from simple advice related to dietary changes, exercise, relaxation, stress avoidance and lifestyle modification
	Musculoskeletal		
34	NICE (2008)	Osteoarthritis: the care and management of osteoarthritis in adults	Exercise should be a core treatment for people with osteoarthritis, irrespective of age, comorbidity, pain severity or disability. Exercise should include local muscle strengthening and general aerobic fitness
35	NICE (2009)	Low back pain: early management of persistent non-specific low back pain	Advise people to stay physically active and exercise
36	SIGN (2003)	Management of osteoporosis	Everyone with osteoporosis will benefit from a good calcium intake and weight-bearing exercise. All healthcare professionals should encourage regular exercise, such as walking, to promote good bone and general health. High intensity strength training is recommended as part of a management strategy for osteoporosis. Low impact weight-bearing exercise is recommended as part of a management strategy for osteoporosis
	Other		
37	British Lymphology Society (2009)	Strategy for lymphoedema care	Maintenance therapy includes a programme of exercise and movement to maximise lymph drainage
39	NICE (2004)	Falls: the assessment and prevention of falls in older people	Strength and balance training is recommended. Those most likely to benefit are older community-dwelling people with a history of recurrent falls and/or balance and gait deficit. A muscle-strengthening and balance programme should be offered. This should be individually prescribed and monitored by an appropriately trained professional

Regulatory authorities, such as the GMC, are now responsible for standards of medical education, in a position to focus future medical practice and ensure that preventive medicine and wellness promotion feature as highly as treatment of illness in the future. The GMC regulates undergraduate medical education and, regrettably, physical activity does not feature as a curricula requirement (Tomorrow's Doctors 2003 and 2009). In addition, it is not specifically covered in GMC medical school quality assurance reviews. The GMC, like doctors, may have a responsibility and duty of care to the public and their future members to review medical school curricula requirements relating to the promotion of health and prevention of disease with greater emphasis and guidance for physical activity education. Only then, will future doctors be optimally educated to deliver behaviour and lifestyle change for the prevention and treatment of illness, which are embedded within ever-increasing guidelines.

UK PUBLIC HEALTH STRATEGY

In the UK NHS, the introduction of the Responsibility Deal and GP commissioning, will probably place more health strategy decisions in the hands of corporate stakeholders and 'willing providers'. Hidden agendas, such as profitability, may influence important public health rationing decisions and perceived unprofitable physical activity promotion and Exercise Medicine may well continue to suffer. Unfortunately, very few private stakeholders stand to benefit from better population health, which, worryingly, means that corporate agendas could direct national health strategies and leave Exercise Medicine largely aspirational and marginalised. In brief, for the current evidence base to be translated into commissioned NHS Exercise Medicine services in the UK, there is an urgent need for strong evidence to demonstrate cost-effectiveness, improved patient care pathways and outcomes for such services.

SUMMARY

Medical science has shown that low cardiorespiratory fitness (resulting from sedentary behaviour) is one of, if not, the most important risk factors for all-cause mortality,[13] yet clinical practice, medical education and public health strategy continue to focus on all other risk factors except sedentary behaviour. Physical activity promotion is embedded within a large number of ever-increasing clinical guidelines with strong supporting evidence, both medical and cost-effective, delivering positive clinical messages and medicolegal responsibility to healthcare practitioners.

Is it possible that there may be a time when a lawyer cross examines a doctor in the witness stand, asking why they did not address their sick or dead patients' physical inactivity, citing clinical guidelines, because it is known to be one of the highest modifiable risk factors for morbidity and mortality? Physical activity promotion is one of the first treatment recommendations in numerous clinical guidelines with a good reason and should no longer be medically neglected.

Physical activity failings are institutionally embedded within our environment, medical practice, education and culture. The public are being let down on physical activity promotion, treatment choices (eg, Exercise Medicine), preventive medicine, the sedentary environment, corporate influences, a lack of physically active medical role models and failed by a lack of funding for physical activity and inactivity research. All resulting in between approximately 27–59 million[14] people in the UK alone, when measured subjectively and objectively, respectively,[15] literally sitting in a pre-disease or disease state caused by physical inactivity – probably the biggest silent killer of our times.

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