NHS SCOTLAND

Scottish Good Practice Statement on ME-CFS

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Scottish Good Practice Statement on ME-CFS

The Scottish Government, Edinburgh 2010

Formally endorsed by the Royal College of General Practitioners (Scotland) and the Scottish Neurosciences Council

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1 Introduction

"ME was [is] known to run a chronic course and patients had disabilities due to persistent symptoms of pain, fatigue and loss of endurance to normal physical activities with conspicuous deterioration of symptoms after exercise (post exertional malaise)." Scottish Short Life Working Group.[1]

Purpose

The purpose of this Scottish Good Practice Statement is to provide general practitioners with guidance that can be used to assist with the differential diagnosis and clinical management of patients with ME-CFS. It contains more detailed information and underpins two other summary documents, prepared at the same time: a *Quick Reference Clinical Guide* and a *Patient Guide*. This Good Practice Statement is also *primarily* about the Care of Adults with ME-CFS, but in the absence as yet of a separate Good Practice Statement on Children with ME-CFS, interim guidance on the management of children and young people with ME-CFS is offered in Section 4. Further interim guidance on those severely affected, is offered in Section 5. Research and development issues are considered in Section 6. Further advice for patient support and sources of further assistance are provided in Section 7 and Appendix 1.

It is hoped that these documents will be the first of a series which will inform health professionals on the management of ME-CFS. Copies of all three documents are available from the following website:
http://www.show.scot.nhs.uk/GoodPracticeStatementonME-CFSforGeneralPractitioners

These documents are primarily based on the synthesis of best available current evidence, using recognised appraisal methods for developing clinical guidelines. In keeping with recent SIGN developments, due weight must also be given to people's experience of living with ME-CFS. As such, they are living documents and will be subject to periodic review as research is published which will influence clinical practice.

The guidance provided should not be regarded as prescriptive; such general advice will always need to be modified in line with the needs of any individual patient.

In parallel with the development of this Statement, the Scottish Public Health Network has undertaken a Health Care Needs Assessment of Services for people living with ME-CFS, which will help inform the NHS in Scotland on future service design and service provision.

There has been much national and international debate over the terminology for this illness. ME-CFS is an illness characterised by persistent and fluctuating symptoms of fatigue, pain and loss of endurance to normal activities associated with conspicuous deterioration after exercise. It has been referred to as ME (Myalgic Encephalomyelitis/Encephalitis/Encephalopathy), CFS (Chronic Fatigue Syndrome) and sometimes as PVFS (Post Viral Fatigue Syndrome).

It causes significant ill health and disability in a substantial number of adults, young people and children.[1] It can affect both sexes, at any age, from any ethnic group. Epidemiological evidence is lacking in Scotland but a population prevalence of at least 0.2-0.4% is widely accepted,[2] and over 20,000 people in Scotland may be affected.[3] It is more common in women and in patients aged from 35-55 years. It has characteristic features which can be variable among patients. It is also variable in its duration and severity, with a substantial number severely affected (see **Section 5**).

ME-CFS is therefore generally recognised as being heterogeneous and may consist of a number of sub-types, but these have not yet been specifically categorised. It follows that care of patients with ME-CFS must be specifically and carefully tailored to the symptoms, needs and circumstances of the individual patient.

At present, the diagnosis of ME-CFS remains clinical, based on recognising specific symptom patterns. Currently there are no specific tests available to confirm the presence of the illness. There are many conditions that can present with some symptoms that are common to ME-CFS, but differential diagnosis must be carefully applied and should enable ME-CFS to be accurately identified. Patients should be encouraged about establishing the correct diagnosis and may need to be reassured that listing those other conditions for the purposes of differentiation does not imply any judgment about the nature of ME-CFS.

The World Health Organisation (WHO) has classified Benign Myalgic Encephalomyelitis (ME) including post viral fatigue syndrome, under disorders of the nervous system (neurological diseases) - ICD 10 G93.3.

This particular WHO classification underpins this present guidance. (Note: the equivalent Read code to ICD 10 G93.3 is F286.) A number of other attempts have been made to define the illness, none of which are universally accepted. The Report of the 2002 Chief Medical Officer (England) CFS/ME Working Group called for a consensus on terminology and definition, and while awaiting this, suggested that a composite term should be used and that it is considered as one illness or a spectrum of disease.[2] The composite term ME-CFS is used in this guidance, which is also used by the Scottish Public Health Network's Health Care Needs Assessment of Services for people living with ME-CFS: www.scotphn.net/projects/current_projects/care_needs_for_those_experiencing_cfs_me/

The crucial point is that the NHS recognises that ME-CFS is real, associated with altered neural functioning and causes significant and in some cases, profound disability. As such, it places a substantial burden on people with the illness, their families and carers and on society.[4]

The prognosis is extremely variable. Most patients have a fluctuating course of illness with some people recovering, or improving significantly, in less than two years, while others remain ill for several decades.[2] Some patients will have a relapsing remitting course of illness while others do not experience remission.[5]

ME-CFS causes a range of symptoms and it is necessary to adopt a holistic approach[*] to care and symptom control having regard not only for the illness and its treatment but also for the impact of the illness on the patient, their carers, family and on work and social life.

The normal general practice principles of empathetic listening, mutual respect and shared decision making between a person with ME-CFS and health care professionals are essential during all phases of care in the NHS.[4] People with ME-CFS have a right to refuse or withdraw from any component of their care plan without affecting other aspects of their care, or future choices about care.[6]

During the early stages, particularly with acute onset, possibly triggered by a recent infection, the clinical presentation may involve symptoms such as hypersomnia and severe fatigue. These may fluctuate in severity and nature, requiring careful clinical management and appropriate review.

There is also the need for early and accurate diagnosis where possible, with consideration of making the provisional diagnosis by three to four months into the illness. Relevant investigations should be completed in this timeframe and symptom management should begin. GPs should be able to help alleviate symptoms in most patients with ME-CFS, as with many other chronic conditions. Shared care with specialists, for diagnosis and/or development of a management plan, will help with problems that are complex, severe and prolonged. Further assistance and sources of help, including advice on work and welfare benefits and the sharing of patient experiences, is provided in **Section 7** and **Appendix 1**.

In conclusion, the diagnosis of ME-CFS remains clinical, based primarily on symptom recognition. In the absence of a specific diagnostic test or tests, it is vitally important that Scotland develops effective mechanisms for bringing together researchers, practising clinicians and people with ME-CFS to drive forward the optimal care, research and development agenda. This will in turn, lead to improved clinical practice in the NHS in Scotland.

Going forward - in all of our endeavours for supporting people with ME-CFS and their carers, there has to be a sense of positivity, pulling together and of rising to the occasion – *"we owe it to our patients and to our professionalism"***.**[7]

[*] Holistic care: Comprehensive patient care that considers the physical, psychological, social, economic and spiritual needs of the patient and his or her response to the illness

2 Clinical assessment and diagnosis

INITIAL PRESENTATION OF ME-CFS

This may be sudden or gradual. It may follow an infection, typically but not always viral for example: flu-like illness, glandular fever, viral hepatitis, enteroviruses (including Coxsackie A & B), labyrinthitis, herpes viruses (including herpes zoster and cytomegalovirus) and parvovirus B19. In the region of one in ten to one in eight people may be affected by ME-CFS after contracting the Epstein-Barr Virus (EBV). Other infections, such as Coxiella burnetti/Q fever and Mycoplasma pneumoniae can also precipitate ME-CFS. Patients commonly describe themselves as never having fully recovered from the infection.

The role of trauma, surgery and stressful major life events as trigger factors is possible, but less well established. Toxin and pesticide exposures have also been suggested by some as trigger factors. In a minority of cases, the onset can be more insidious with no identifiable precipitating factor and here the diagnosis can be harder to make, particularly in the early stages.

As with any long term illness, early and accurate diagnosis brings significant benefits.[5] For most adults, six weeks from the onset of abnormal fatigue is a time to be considering ME-CFS as a differential working diagnosis. The aim should be to make a diagnosis 3-4 months into the illness. Further guidance on children and young people, including early diagnosis, is presented in **Section 4.**

Making a diagnosis is an essential first step in active management of the illness. It diminishes uncertainty, reduces fear and provides an explanatory model that justifies appropriate changes in a person's lifestyle and expectations. Like many neurological diseases, the diagnosis is based on clinical evaluation and there are no confirmatory diagnostic tests. The diagnosis should be a positive one based on pattern recognition of a range of recognised symptoms, and other conditions excluded as appropriate.

DIAGNOSTIC CRITERIA

A number of diagnostic criteria have been proposed for ME-CFS, including the Oxford (1991),[8] the US Centers for Disease Control and Prevention (CDC – Fukuda - 1994)[9] the Canadian Consensus Document (2003)[10] and NICE Guideline (2007)[4] definitions, but no one set has been universally agreed. This important issue is discussed in greater detail in **Section 6**. (The Canadian Consensus Document definition is provided in **Appendix 2**, including a list of differential diagnoses, exclusions and possible co-morbidities).

SYMPTOMS

ME-CFS usually presents with a combination of persistent or recurrent fatigue, myalgic and/or joint pain (in the absence of joint swelling or redness), that can be widespread and migratory. Pain, rather than fatigue may often be the patient's worst symptom. Symptoms are provoked by physical or mental exertion and can be very disabling. Post-exertional malaise lasting for more than 24 hours is commonplace. There is a substantial reduction in activity levels. The illness may have an acute or more insidious onset, and persists for at least six months. The symptoms of ME-CFS usually fluctuate in their severity and nature over time and diurnal variation is common.[11]

HISTORY

It is helpful to create a list of all current symptoms as "polysymptomatology" can be a significant diagnostic clue. The following symptoms may be present:-

- **Fatigue** – a significant degree of new onset, unexplained persistent or recurrent physical and mental fatigue or malaise that substantially reduces activity level.
- **Post exertional malaise and/or fatigue** – loss of previous physical and mental stamina and rapid fatigability, malaise and/or pain and a worsening of other symptoms that the patient may have. The recovery period is prolonged – 24 hours or longer is common.
- **Sleep disturbance** – hypersomnia, insomnia, reversed or chaotic diurnal sleep rhythms and unrefreshing sleep.
- **Pain** – significant myalgia is common. Arthralgia without swelling, redness or joint deformity, may be present. Muscle and/or joint pain can be experienced which is often widespread and migratory in nature.
- **Headaches** – are often present, usually migraine or tension type but a variety of patterns and severity may occur. New onset headache should be assessed according to standard clinical practice.
- **Cognitive symptoms** - almost always present - particularly sluggish or 'fogging' of thinking, poor attention/concentration and forgetfulness. Perceptual and sensory disturbances may be experienced – eg inability to focus vision. Hypersensitivity to light (photophobia) or noise (hyperacusis), are common problems.
- **Neurological symptoms** – muscle twitches, spasms and weakness - are common occurrences**.**
- **Postural light headedness, dizziness, pallor, palpitations** – are common features. Postural light headedness/dizziness may lead to an unsteady gait. An increase in heart rate may suggest Postural Orthostatic Tachycardia Syndrome (POTS) – see **Examination**, below.
- **Paraesthesia** - peri-oral and peripheral paraesthesia.
- **Flu-like symptoms** - Recurrent symptoms of sore throat; tender, painful and/or swollen lymph nodes. Feeling of fever, shivering and/or temperature fluctuation, sweating episodes, cold intolerance, cold extremities, intolerance of extremes of heat and cold.
- **Nausea**
- **Irritable bowel symptoms**

- **Altered appetite** – anorexia or abnormal appetite, loss of adaptability and worsening of symptoms with stress. Marked weight change may also be a feature and can be exacerbated by stress.
- **Urinary symptoms** - frequency and urgency

Symptoms of ME-CFS usually fluctuate in their severity and nature with time. It is important to ask about recent travel, tick/insect bites, unusual infections, drug and alcohol use (alcohol intolerance may be present in ME-CFS). Current medication should be reviewed, where applicable.

EXAMINATION

A full physical examination must be performed.

- Height and weight (severe obesity can cause fatigue; *very* small stature can raise the possibility of rare mitochondrial diseases)
- Supine+erect blood pressure and pulse rate (to exclude significant postural hypotension which can resemble some of the symptoms of ME-CFS or be a sign of Addison's disease. An increase in heart rate over 30 bpm may indicate Postural Orthostatic Tachycardia Syndrome (POTS),[12] a recognised co-morbid finding in ME-CFS – consider cardiology referral for further assessment).
- General medical examination including looking for signs of anaemia, tanning in unusual sites (for Addison's), enlarged or tender lymph nodes and organomegaly
- Skin and joints for evidence of systemic inflammatory diseases – note any peri-articular tenderness typical of fibromyalgia.
- Neurological examination to exclude specific neurological abnormalities such as: obvious muscle wasting, ptosis, upper motor neurone signs, ataxia, fasciculations, absent reflexes. **If any of these abnormalities are present, neurological specialist referral is indicated.** Note: Muscle twitches and spasms commonly occur and some give way weakness is also common in ME-CFS because of pain and fatigue, but normal power is usually possible even if only for a few seconds with encouragement.

In terms of differential diagnosis, fatigue is a very common presentation in general practice. In addition to assessment for physical causes, mental state examination should be carried out to identify patients with major depressive disorder or panic disorder with agoraphobia. Questions should be tailored enquiring about the ability to enjoy anything (including those activities the patient *is* physically capable of) and 'situationally-specific' somatic symptoms of panic (ie chest pain, palpitations, dizziness, weakness after a typical time gap on leaving the house). This can be the sole cause of persistent fatigue or present as important and reversible co-morbid disorders.

Some patients presenting with complaints of persistent fatigue and/or pain will have somatisation disorder; previous frequency and history of medical contact should be reviewed.

Features suggestive of other disorders or requiring further investigation

Fatigue is a symptom of many diseases and therefore a definitive list is not possible. The following should be regarded as *'red flags'* for alternative diagnostic explanations, as part of the process of differential diagnosis:

- Substantive unexplained weight loss
- Objective neurological signs
- Symptoms or signs of inflammatory arthritis or connective tissue disease
- Symptoms or signs of cardio-respiratory disease
- Symptoms of sleep apnoea
- Clinically significant lymphadenopathy

INVESTIGATIONS

Relevant investigations should be performed to aid in the differential diagnosis of ME-CFS and to exclude other illnesses.

All patients

- Full blood count (FBC)
- Urea, electrolytes and creatinine (U&Es)
- Liver function tests, including albumin (LFTs)
- Thyroid function tests (TFTs)
- Glucose (random)
- Erythrocyte Sedimentation Rate (ESR)
- C-reactive protein (CRP)
- Calcium
- Creatine kinase
- Ferritin
- Urinalysis

When indicated by history or examination

- Antimitochondrial antibodies (AMA) *(if minor alterations in LFTs)*
- Antinuclear antibody test (ANA)
- Cytomegalovirus (CMV)
- Coeliac serology *(if diarrhoea/altered bowel habit, weight loss or history of autoimmune disorders and in patients with a family history of coeliac disease)*
- Epstein-Barr Virus (EBV)
- Extractable Nuclear Antigens (ENA)
- Human Immunodeficiency Virus (HIV)
- Hepatitis B and C
- Lyme serology
- Serology for chronic bacterial infections
- Toxoplasma
- Electrocardiogram (ECG) *(if any cardiological symptoms)*

Tests or investigations that are not currently indicated in clinical practice

Laboratory tests not indicated:

- Vitamin B12 & folate (where normal FBC)
- Candida albicans
- Fibrinogen
- Lactate dehydrogenase
- Mitochondrial testing
- Platelet activation
- Protein electrophoresis
- Prothrombin fragment 1&2
- Soluble fibre monomer
- Thrombin-antithrombin complexes
- Xenotropic murine leukaemia virus-related virus (XMRV) serology

Other investigations not indicated:

- Magnetic Resonance Imaging (MRI) brain scan *(in the absence of objective neurological signs)*
- Tilt table testing *(in the absence of unexplained syncope or other clinical indications)*
- Auditory brainstem responses
- Electroencephalography (EEG)
- Electrodermal activity
- Positron Emission Tomography (PET) imaging
- Single Photon Emission Computed Tomography (SPECT) imaging

3 Interventions, management and rehabilitation

GENERAL PRINCIPLES

Patient support and wellbeing are key - all patients will benefit from the general skills of good medical practice including being treated with respect, being listened to with empathy, and having the opportunity to build a rapport with their general practitioner.[11] All treatment should be collaborative and clinicians should draw on their generic skills in chronic disease management. Imposed rigid programmes can be actively harmful.

In general clinicians should adopt a holistic approach in treating the symptoms of ME-CFS. No single treatment has yet been shown to be consistently effective. However, various rehabilitative approaches have often been found to be beneficial in modifying symptoms of this illness in some patients, and assisting the recovery process. While a variety of drug treatments have been suggested for people with ME-CFS, the results have generally been inconclusive or in some cases negative, when they have been subjected to well organised, randomised controlled trials (RCTs). This emphasises the continuing imperative for high quality research into the aetiology and management of ME-CFS (see also **Section 6**).

What works for one patient may not work for another and therefore it is crucial to tailor interventions to the needs and circumstances of the individual patient.

A standard approach to management will involve:

• It is important to give advice and support from the outset, even in the absence of a firm diagnosis.

• Acknowledge the reality of the patient's symptoms and the impact on their life.

• Share decision-making with the patient.

• Be explicit about diagnosis and co-morbidity (if relevant).

• Explain the possible causes, nature and fluctuating course of the illness, together with possible management options (benefits/risks), taking account of the person's age and the stage, severity and variability of their illness.

• Explore the range of management options that can be utilised, as appropriate to the particular patient's condition.

• Offer information on other sources of support (eg national charities, local groups and services). Please see **Appendix 1** for further guidance.

The following are usually helpful areas to discuss:

• Diagnosis: A clear diagnosis, with an explanation of why the diagnosis has been made in the particular patient's case, can be helpful and therapeutic.

• Give honest, realistic information about ME-CFS at diagnosis. Encourage cautious optimism.

• Facilitate discussion about the patient's acceptance of the diagnosis and the attitudes of other people in their life to the diagnosis.

• Suggest keeping a diary of activity levels over a four week period. Look for evidence of a 'boom and bust' approach to activity cramming lots into the 'good days' and 'paying for it' afterwards. Recommend a more consistent approach to activity planning.

• Acknowledge the difficulties in adjustment to coping with the illness.

• Offer advice on control of specific symptoms.

• Offer support and monitoring; listening, interpreting, guiding.

• Discuss the possibility of setbacks or more serious relapses and plan for how they might best be coped with.

• Support strategies with appropriate literature when available.

INTERVENTIONS

Pharmacological interventions

Medicines management: In general terms, it is usually beneficial to start with very low doses of medicines and then steadily increase over time. Side effects are often particularly bad during the first few weeks of exposure so try to avoid frequent changes to medication particularly between drugs in the same therapeutic class. Be alert to the problems of polypharmacy and stop medications that are not producing substantive benefits. Patients with ME-CFS are often very sensitive to the side-effects of medications (eg beta blockers and some antidepressants may be poorly tolerated).

Note: The present evidence levels for individual interventions are summarised at the end of this section - this will evolve as further studies are published.

Pain Relief

Pain is often problematic. In addition to non-pharmacological interventions such as local heat therapy and gentle massage:-

• Simple analgesics – should be tried first, including – paracetamol or NSAIDs (systemic or topical), escalating to co-codamol or co-dydramol, if required. Avoid excessive use, or high doses of opiate analgesics.

• Neuropathic pain – a low dose of a sedating tricyclic, eg amitriptyline (nortriptyline is an alternative) can be used initially, especially if there is also sleep disturbance. If valuable the dose can be slowly increased. If tricyclics are ineffective, insufficient or not tolerated, gabapentin may be tried. Alternative licensed agents for neuropathic pain include: carbamezepine, duloxetine and pregabalin (the latter two may be particularly helpful if fibromyalgia is present and have level 1+ evidence for this).[13-15] Sodium valproate has also been used selectively in some patients, but it is not licensed for this indication.

• Muscle pain – sometimes accompanied by twitching, cramps and spasm. Cautious use of baclofen and benzodiazepines have been advocated by some in selected situations, but please note that there is level 4 evidence that they may do more harm than good in some cases (see below).

In terms of non-pharmacological options, a TENS (Transcutaneous Electrical Nerve Stimulation) machine or acupuncture may be useful to relieve pain for some patients.

Sleep disturbance

The importance of a good sleep pattern should not be underestimated. Hypersomnia is a well recognised problem, particularly in the early stages of the illness. It is appreciated that many mild to moderately affected patients rely on daytime and weekend sleep to allow them to work or undertake essential activities. Relaxation and meditation techniques may be useful.

A low dose of a tricyclic antidepressant or trazodone (25-50mg) should be considered to help re-establish normal sleep rhythm. As for their use in pain control, careful explanation should be given that these drugs are not being used in these situations as antidepressants. If clinically indicated, hypnotic drugs should be used in the short term only.

Headache

If migrainous, standard treatment should be used, as required. In addition to simple analgesics, 'atypical' analgesics may be tried if necessary for refractory headache. Acupuncture may also be tried for headache symptoms (see Complementary Therapies, below).[16,17]

Abdominal symptoms

Treat as for irritable bowel syndrome.

Disorders of balance

Betahistine or cinnarizine may provide symptomatic relief when symptoms are intrusive or for travel and other likely triggers.[11]

Complementary Therapies

Although unproven by clinical trials, individual patient reports suggest that acupuncture may help to relieve pain in some and that other therapies may have a role to play in improving wellbeing (see also **Section 4**).

Dietary regimes and supplements

Research into the efficacy of individual dietary regimens has been inconclusive. Some patients report intolerances to various foods as contributory to their gastrointestinal problems. A healthy diet should be encouraged – suggesting caffeine and alcohol minimisation, avoiding excessive intake of refined carbohydrates (sugars) and by taking frequent smaller meals and healthy snacks as required.

A normal healthy diet will include the Recommended Daily Allowances (RDAs) for essential nutrients. However if individuals are restricting their diet for some reason, nutritional supplements may be required. Many patients have reported that use of supplements may be helpful as part of a self-management strategy for their symptoms such as: vitamin B12, vitamin C, coenzyme Q, multivitamins and minerals, although the evidence base is lacking to support their routine use. The NICE Guideline[4] recommends that all patients with moderate to severe ME-CFS should be encouraged to obtain adequate sun exposure and eat foods high in vitamin D - see **Section 6** for further discussion of vitamin D.

Rehabilitation and re-enablement

In most cases the aim for management will be rehabilitation or re-enablement, in terms of regaining function, according to the patient's needs and circumstances. Re-enablement should encompass cognitive, emotional and social aspects as well as physical aspects**.**

Any rehabilitation or increase in activity should start from an agreed, stable and possibly very low baseline and should be gradual. Keep goals small and achievable.

Although a return to previous levels of functioning in the short to medium term is often unrealistic, patients can be encouraged to set goals that involve steadily increasing both physical and mental activities - once their condition has started to stabilise and increases in activity have been maintained consistently.

If it is felt that management strategies supervised by a therapist, experienced in ME-CFS, such as activity management and cognitive behavioural therapy (CBT) may be beneficial, the choice of programme, its components and progression must be agreed by the patient and therapist and that patient and therapist are viewed as a partnership. 'Rehabilitation' does not necessarily have to mean 'exercise' - it may refer to any activity.

Progress must be regularly monitored - a relapse must trigger a reassessment of the management plan. Fluctuations in the illness are natural and may include natural plateaux which may last for a number of years, setbacks or more substantial relapses. Such fluctuations would indicate a need to reassess the management plan or for activity levels to be slowed down. Not all patients may benefit from activity strategies and some have reported feeling worse from this therapy.

Other aspects are also important, particularly in young people eg education and training, development etc. Adults may also not be able to undertake their original job and may need careers advice and re-training. People with ME-CFS are as potentially disabled as those with other chronic conditions and are therefore entitled to apply to the Department for Work and Pensions for the full range of sickness and disability benefits – this is covered further in **Section 7**.

Energy management

Activity management or pacing is a way of managing the reduced 'energy envelope' of people with ME-CFS. **Patient experience indicates that adequate and good quality rest is also important, especially in early stages and during relapses.** Gaining the balance between activity and rest can be difficult. It will vary from patient to patient and also during the course of the illness in any patient. It is important to avoid periods of 'boom and bust' in energy expenditure, both physical and mental. Many patients will try to squeeze as many of the weekly activities and tasks into a 'good day' and 'pay for it' the next. Instead, it is advisable that activities should be spread out more evenly and regularly.

• **Activity management** is an approach that is customised to the needs of the person with ME-CFS. It is based on an understanding that all activities have physical, emotional and cognitive components, and on identification of those components.

• **Pacing** is largely a self-management technique with the underlying approach being to establish sustainable activity levels. A safe, consistent and often low baseline of activity (mental as well as physical) should be established which avoids setbacks (including delayed reaction). A diary may help to establish patterns of activity. This is widely considered by patients to be the most helpful intervention. Appropriate, good quality, literature is essential. Setbacks and relapses are crucial reasons to re-evaluate the management plan. Support can be obtained from literature from ME charities eg the *Action for M.E.* booklet on Pacing (see **Section 7**). This approach is currently being tested in a large randomised trial, which has now finished recruiting, and more will be known of its effectiveness in the near future.

• **Graded exercise therapy (GET)** is intended to redress decline in physical fitness due to inactivity.[18,19] *GET has proved to be a particularly controversial form of treatment – which many patients have concerns about and some patients have indicated that GET has worsened their symptoms* (see below). GET makes use of an exercise programme involving a *gradual increase in exercise/activity*. It must be delivered by a suitably trained GET therapist with experience in ME-CFS, ideally on a one-to-one basis. Where fibromyalgia is also present, supervised aerobic exercise therapy may help physical capacity and relieve pain symptoms. [20]

Some patients with ME-CFS report that exercise programmes have been applied inflexibly at times, without consideration of individual circumstances and goals, sometimes with significant adverse responses. **It is essential that agreement and negotiation are at the very centre of any GET programme**.

• **Counselling** lacks a robust evidence base, but as with any chronic illness, counselling from a trained counsellor/nurse may be helpful, particularly in the early stages of the illness, in supporting patients as they learn to manage the consequences of ME-CFS.

• **Cognitive behavioural therapy (CBT)** can be used, as in other chronic physical medical conditions, as a tool to aid people develop better ways of coping with symptoms such as fatigue, pain and sleep disturbance.[18,21] CBT may be of value to patients when their symptoms have led to a psychological response that has compounded their problems.

EVIDENCE LEVELS FOR INTERVENTIONS

At the present time the strongest graded scientific evidence is in support of:
(1) pharmacological interventions for associated symptoms - duloxetine[13,15] or pregabalin,[14,15] where neuropathic pain and/or fibromyalgia are present; and
(2) rehabilitative strategies - cognitive behavioural therapy (CBT)[18,21] and graded exercise therapy (GET), recognising that such interventions need to be carefully matched to the needs of individual patients.[18-20] The summary data from the Cochrane collaboration reviews, based on randomised controlled trial (RCT) studies data in 3789 patients (comprising 1043 patients in CBT studies for CFS,[21] 470 in GET studies for CFS[19] and 2276 subjects in supervised aerobic exercise for fibromyalgia[20]), which support these treatments, is provided in the grading below. Such treatments are in line with standard neuro-rehabilitation principles. It is often assumed that the efficacy of such treatments suggests that the underlying illness must be 'psychological'. This is not the case and there is now high quality evidence that CBT leads to demonstrable changes in brain functioning and structure.[22]

However, as indicated above, **CBT and GET will not be effective for all patients and remain controversial.** In 2008, a survey of over 2760 people with ME-CFS, undertaken by *Action for M.E*. found that 82% of respondents had found pacing most helpful. 50% found CBT helpful and 45% of those who said that they received graded exercise therapy (GET) found it to be helpful. However, 34% of patients who said they had received GET or graded activity and 12% of those who said they had received CBT since 2005, reported that they felt worse.[23] A further survey of 4217 patients and carers reported by the *ME Association* in 2010, found pacing most helpful (71% of respondents improved), 26% found CBT helpful and 22% found GET helpful. 5% felt worse on pacing, 20% worse on CBT and 57% worse on GET.[24] This latter survey had a high proportion of respondents (44%), who indicated that their illness had been present for more than ten years.

These expressed concerns from patients with ME-CFS about CBT and GET, were reinforced by many comments received from patient representatives during preparation of this guidance. They clearly indicated that patients with ME-CFS should not be pressed into accepting unwanted treatments and as for all other medical conditions, had the right of refusal of any specific treatment offered.

If a patient wishes to explore these forms of treatment, it is important that such treatments are supervised by therapists working in teams with specific expertise in ME-CFS. The choice of programme, its components and progression must be agreed by the patient and therapist and that patient and therapist are viewed as a partnership.

The use of such rehabilitative treatments should not be confused with non-specific advice to be 'more active', or to go to the gym and 'do some exercise'. Such approaches are usually highly unproductive.

Grading of evidence

The grading of level of evidence has been made in accordance with the SIGN Guidelines approach.[25] When coming to a decision about specific treatments for individual patients, and in keeping with recent SIGN developments, due weight must also be given to people's experience of living with ME-CFS. Research evidence continues to evolve and further details are available at: www.sign.ac.uk/guidelines/fulltext/50/annexb.html. This key issue is discussed further in **Section 6**, in relation to the importance of professional clinical judgement in the context of limited scientific evidence.

Interventions that benefit some, but not all:
(Level 1+ evidence)

- Duloxetine or pregabalin (for pain relief, where neuropathic pain and/or fibromyalgia present)
- Cognitive Behavioural Therapy (when delivered in centres with specific expertise in treating ME-CFS)
- Graded Exercise Therapy (when delivered in centres with specific expertise in treating ME-CFS). Where fibromyalgia is present, supervised aerobic exercise therapy may help physical capacity and relieve pain symptoms.

Interventions that may benefit some, but not all:
(Level 4 evidence)

- Acupuncture (particularly for headache)
- Gabapentin
- Pacing
- 'Step 1' analgesics
- Transcutaneous Electrical Nerve Stimulation (TENS)
- Tricyclic antidepressant drugs (starting with a low dose)

Interventions that possibly work and are unlikely to do harm:
(Level 2- evidence)

- Acetyl-L-carnitine and propionyl-L-carnitine supplements
- Essential fatty acid supplements
- Massage therapy
- Melatonin

Interventions for which trials have shown a lack of benefit:
(Level 2- evidence and above)

Acyclovir, acyclidine, alpha interferon, amino acids, ampligen, clonidine, dexamphetamine, fludrocortisones, fluoxetine, galantamine, ganciclovir, general dietary supplements, growth hormone, homeopathy, hydrocortisone, inosine pranobex, interferon, liver extract, low sugar/low yeast diet, magnesium, medicinal mushrooms, moclobemide, ondansetron, osteopathy, phenelzine, pollen extracts, selegiline, sulbutiamine, terfenadine, topical nasal corticosteroids.

Interventions that may do more harm than good:
(Level 4 evidence)

Amantidine, antifungal drugs, baclofen, benzodiazepines, methylphenidate, naltrexone, nimodipine, thyroxine *(except where patients have a diagnosis of hypothyroidism),* non specific advice on activity (eg '*go to the gym and do some exercise'*).

Interventions that do more harm than good:
(Level 2- evidence)

Immunoglobulins, oral NADH, Staphylococcus toxoid.

The above appraisal of evidence levels draws on the systematic review undertaken by the Centre for Reviews and Dissemination, University of York in 2007.[18] Research evidence continues to accrue into the management of ME-CFS, which is discussed further in **Section 6**.

RATING SCALES

When a patient presents to a GP with symptoms consistent with ME-CFS, it may be helpful to ask the patient to fill out a rating scale and complete a body pain map. These documents allow a lot of clinical information to be communicated succinctly. This may aid management. They can also be used in ongoing monitoring of the clinical condition. A severity rating scale is provided in **Appendix 3**. A sleep and pain profile is provided in **Appendix 4.** Both are adapted from the Canadian Consensus Document (see **Appendix 2**).[10]

REFERRAL FOR SPECIALIST ASSESSMENT

Care Pathway

At present services throughout Scotland are not uniform. It is hoped that the Scottish Public Health Network's Health Care Needs Assessment for people living with ME-CFS[26] and the NHS QIS Clinical Standards for Neurological Health Services[27] will help to resolve this. Different care pathways will need to be developed for groups with particular requirements such as children and young people (**Section 4**); those severely affected (**Section 5**), including housebound or bedbound; and those living in rural areas. Referrals may need to be made to designated clinical services, for assistance with the management of patients in those whom the diagnosis has been made or to the appropriate medical specialty in situations where there is diagnostic doubt.

A generic diagnostic, management and referral algorithm (care pathway) has been incorporated into the accompanying Quick Reference Clinical Guide and is reproduced again below, for ready reference.

PROGNOSIS

The prognosis is variable. The majority of patients will show some degree of improvement over time, especially with treatment, although many will pursue a fluctuating course with periods of relative remission and relapse. Patients in primary care also present with milder fatigue states that have a much more favourable prognosis. However there is a significant minority, who are severely affected for many years and in extreme cases, for decades.[28,29] Further studies are required to inform this issue.

Further Information on Clinical Management

Further information on the clinical management of adults with ME-CFS, is available in publications listed in **Section 8 - References**.

GENERIC CARE PATHWAY

Key Guiding Principles:

- **WORK IN PARTNERSHIP WITH THE PATIENT**
- **MUTUALLY AGREE ALL TREATMENTS**

Patient presents with symptoms that may indicate ME-CFS

Do an initial assessment

- Take history (including exacerbating and relieving factors, sleep disturbance, inter-current stressors)
- Conduct physical examination
- Check for symptoms of psychiatric morbidity

Reassessment and interim advice

- Remain vigilant for newly emerging symptoms suggestive of alternative diagnoses
- Maintain relationship and encourage discussion of mood state
- Manage symptoms, as required. Encourage early rehabilitation, as appropriate. Encourage activity based on rehabilitation principles. Agree the appropriate balance of activity and rest. Suggest use of a diary & planned activity, *within abilities,* setting achievable goals. Be alert for, and caution against, a 'boom and bust' approach such as doing all the week's housework on a 'good day' then collapsing the next day.

Arrange Investigations

- FBC, U&Es, creatinine, LFTs (inc albumin), TFTs, ESR, CRP, calcium, creatine kinase, random glucose, ferritin, urinalysis
- Consider whether any other investigations are indicated by history

Make provisional diagnosis

- In adults if symptoms have lasted 4 months and other diagnoses have been excluded
- Reconsider diagnosis if any 'red flag' symptoms/signs are present

ME-CFS **diagnosis not supported at this stage: Consider referral to appropriate medical or psychiatric clinic**

- If specific diagnostic query (such as possible MS)
- If substantial pre-existent co-morbidity

If ME-CFS **suspected -**

- and symptoms have lasted more than four months and not improving
- or presentation is severe -

consider referral to Specialist Clinic/ Treatment Centre for:

- assessment
- further investigation as appropriate
- management advice
- referral for specific treatments if appropriate
- an expert intervention package tailored to the needs of each individual patient.

Maintain general practice involvement after specialist referral and follow general principles of good medical care

Review management plans and progress

- Remember to seek out positive features, such as goals met and achievements

Help manage setbacks and relapses

4 Children and young people

Children and young people can be as profoundly affected by ME-CFS as adults – it can significantly impact on the young person's development and academic progress. Symptoms may have similar severity to adults but the fluctuation in severity can be much more dramatic. Severe exhaustion, weakness, pain and mood changes make life very challenging for children (as well as adults) with ME-CFS.[30]

It is recognised that the diagnosis and management of ME-CFS in children and young people is an area which needs to be developed in a specific Good Practice Statement. Detailed guidance has been prepared by the Royal College of Paediatrics and Child Health (2004), including an extensive literature review: *Evidence Based Guideline for the Management of CFS/ME*[31] see: www.rcpch.ac.uk/research/ce/rcpch-guidelines.

In the absence of a specific Scottish Good Practice Statement for Children and Young People the following is therefore intended to provide summary, interim guidance only:-

Prognosis

The limited evidence available suggests that children and young people with ME-CFS are more likely to recover than adults. Studies with extended follow up show 60-80% partial or complete recovery with an average duration of illness of 37.5-49 months, with about 20% of cases remaining incapacitated, some for many years.[32] Severely affected young people may be bedbound and the impact should be recognised on the other members of the family, particularly other vulnerable children and adults.

Principles of care

The principles of care in children and young people are common to many chronic conditions. Most of the issues covered for adults also apply to children. Some need different emphasis. This can impact upon a young person's development and adversely affect family life. It is therefore crucial that the child and his/her parents or carers are carefully listened to.

Effective translation of the principles of the Scottish policy: *Getting it right for every child*[33] (GIRFEC), into effective practice should occur to ensure that children and young people with ME-CFS and their families receive optimal care and support.

The GIRFEC principles for children, young people and their families are that they:-
feel confident about the help they are getting; understand what is happening and why; have been listened to carefully and their wishes have been heard and understood; are appropriately involved in discussions and decisions that affect them; can rely on appropriate help being available as soon as possible; and that they will have experienced a more streamlined and coordinated response from practitioners.

Speedy diagnosis of ME-CFS is important to allay fears of other serious illness, to protect the patient from undue pressure and to allow symptom control and appropriate management to begin.

This should prevent further deterioration in many, but not all, cases. Management should be geared to the specific condition of the individual child or young person and agreed with the parents/carers.

Diagnostic criteria

As for adults, a significant problem in the literature is the lack of both an agreed paediatric definition of ME-CFS and a reliable instrument to assess it.[31,34] This is discussed further in the Royal College of Paediatrics and Child Health (RCPCH) Guideline.[31]

Clinical presentation

The range of possible presenting symptoms is similar to adults (see **Section 2**). Children and young people tend to have numerous symptoms of similar overall severity, but their hierarchy of symptom severity may vary from day to day. Severe, generalised pain is a common feature. Debilitating fatigue (both physical and mental) is the most commonly reported symptom, typically exacerbated by exercise or activity.[31] They may become tearful, physically weak and exhibit exhaustion or profound mood changes.

- **Loss of energy/fatigue**

The loss of energy and weakness may be so profound as to make the child bedbound. Post-exertional fatigue and weakness will affect the ability to undertake exercise or sport. The severity of symptoms will affect the ability of the child to attend school (see below).

- **Cognitive problems**

Slowing of thought processes occurs - work involving abstract thought is difficult to perform in all cases. Even if the child usually starts a task well, a rapid deterioration in cognitive abilities often takes place, which may be accompanied by exacerbations of other symptoms. Impairment or 'fogging' of thinking and forgetfulness are common, as are attentional difficulties - poor retention and recall - eg lack of recollection of magazine articles read only a few minutes previously. Cognitive abilities may deteriorate particularly in topics requiring analysis, multi-task activities, fast-paced and confusing environments and with physical, mental and emotional fatigue.

- **Disordered sleep pattern**

Phase delay and interruptions are the commonest reported problems.[31]

- **Weight change**

Both loss and gain occur, with reports that weight loss in the early stages can be significant. Maintenance of height and weight charts has been recommended in all paediatric cases of ME-CFS.[35] Specific dietetic assessment is essential where weight loss is severe.[31]

- **Gastro-intestinal disorder**

Gastrointestinal upset is common. Diarrhoea has been reported as particularly distressing in some children.

Investigations

Similar investigations should be considered as for adults when pursuing a differential diagnosis of ME-CFS (see **Section 2**).

Time to diagnosis

Children may be diagnosed with ME-CFS when symptoms have lasted for more than three months.[4,10] A working diagnosis may be made after a much shorter time.

Clinical management

The Royal College of Paediatrics and Child Health (RCPCH) Guideline has advocated a comprehensive management plan including as a minimum:-

- **Activity management advice** - including establishing a baseline of activity level and gradual increases as appropriate.
- **Advice and symptomatic treatment** - as required.
- **Early engagement of the family** – as well as maintaining a therapeutic alliance throughout the illness, this is crucial for successful implementation of the management plan.
- **Regular review of progress** – particularly those who have not made significant progress, making it clear that it is not the fault of the child or young person.

Advice is also provided by the RCPCH Guideline on diet, sleep problems, pain management, psychological support and co-morbid depression where present.

Careful attention to psychological wellbeing and potential co-morbidities is an important part of the assessment and management of ME-CFS in children and young people.

Further advice on interventions – CBT, GET and pharmacological advice is also offered, including trying complementary therapies where patients and families express an interest, if it does not interfere with current treatment. The RCPCH Guideline also notes that prolonged bed rest or complete inactivity should be avoided, wherever possible, as physical deconditioning is likely to exacerbate fatigue and weakness.

Care needs

A child can be so profoundly affected that the family may require practical help and support in the home setting. This may take the form of aids prescribed by a community occupational therapist (OT). Specific care packages may need to be drawn up for those more severely affected (see also **Section 5**).

Referral

GPs would normally consider this an area of specialist expertise and patients with suspected ME-CFS should be referred to paediatric services for further assessment.

As indicated above, diagnosis by 3 months is both possible and desirable in a child or young person with suspected ME-CFS. While referral should normally be made to a paediatrician in the first instance, the assessment and subsequent management should be a multidisciplinary process with the engagement of medical, nursing, AHP (allied health professional) staff and, if appropriate, child and adolescent mental health services.

Where a young person's mobility and daily living is affected with ME-CFS, referral to a community OT could also be valuable and would contribute to the overall needs assessment. It could be particularly useful in more severely affected cases where there are muscle problems and problems with mobility. There may be a need for appropriate training in ME-CFS for all relevant staff involved.

Hospital admission

The majority of children and young people with ME-CFS can be managed at home with appropriate support from the GP and the local paediatric team. However, there may be some circumstances when a hospital admission is helpful, for example the assessment or initiation of a management plan when the expertise is not available on an outpatient basis. Where admission is felt to be appropriate, the rationale should be carefully prepared and presented as a recommended option to young persons and their families.[31]

Monitoring and review

The RCPCH Guideline indicates that there is no research evidence on the effectiveness of different models of ongoing care for children and young people with ME-CFS but also notes that in one research study, the GP was the primary carer in 62% of cases and the paediatrician in 24%. Children and young people with ongoing ME-CFS will require regular review and there should be a clear management plan in place, identifying the lead professional to coordinate care, particularly across health and educational sectors.

The lead professional role will depend on individual skills, preferences, local resources and illness severity, but must be identified and agreed with the child/young person concerned and their parents/carers, in accordance with GIRFEC principles.[33] Robust communication lines must be clearly defined for all those involved in this process.

Schooling

As a result of physical and mental activity levels being reduced, pupils have difficulty at school or are unable to maintain a full school programme. There is a substantial body of research showing that ME-CFS can cause a significant disruption to education.[31] The length of school absence depends on illness severity, ranging from part-time

attendances to absences of several years with home tuition as the only educational exposure. Children and young people with ME-CFS may miss more school than those with juvenile arthritis, cystic fibrosis or migraine.[31] Children with better physical function are more likely to attend school.[36] In one UK study, 42% of pupils with certificated long-term school absenteeism were reported as suffering from ME-CFS.[37] A further detailed study in Edinburgh secondary school pupils, has reported lower rates of absence (8%) due to chronic fatigue syndrome.[38]

It is important to exclude and manage other defined causes of schools absence, for example school phobia or major depressive disorder, which have a different pattern to those depressive symptoms seen in patients with ME-CFS, if/when present as a co-morbid disorder. Cognitive difficulties, mental fatigue, disrupted sleep pattern, poor concentration, social withdrawal and the physical demands of travelling to school are likely causes of school absences, whilst in some cases family circumstances, social factors and anxiety may also play a part.

The school may require a supportive letter from the pupil's doctors (GP and/or paediatrician) outlining the patient's medical condition and the limitations this imposes, and advising on accommodations the school can make to take account of the impact of the illness on the child. Good and open communication between the school and the pupil's doctors is helpful. Arrangements should be responsive to the child's condition and take advantage of times when the child has more energy. Children attending school may not be able to undertake a full day and appropriate rest breaks in appropriate facilities should be organised. *Where children are unable to attend school, home tuition support may be required and statutory guidance/provisions must be followed.* A close working relationship between the clinical team caring for the patient with ME-CFS and the school is recommended - and should begin as soon as a diagnosis is made. This facilitates raising staff awareness, establishing the child's/young person's pre-morbid abilities and integrating educational needs into a comprehensive management plan, as and when appropriate. An appropriate individualised educational plan should be identified, implemented and monitored.[31] In more severe cases, the development of a coordinated support plan (CSP) would be appropriate. Additional Support for Learning (ASL) officers, based in local authorities, could also provide help and educational support for children and young people with ME-CFS.

Note: For further assistance - *Children in Scotland* runs *Enquire*, a telephone helpline for advice on educational support needs. (Tel: 0845 123 2303. E-mail: info@enquire.org.uk; www.childreninscotland.org.uk).

Child protection issues

There have been concerns that misunderstanding and lack of information about ME-CFS in education and social services have led to inappropriate initiation of child protection procedures.[39] Concerns have also been raised that child protection procedures have been initiated because of disagreements between families and health and education professionals over treatment plans. In addressing this area, the report of the Working Group on CFS/ME to England's Chief Medical Officer (2002), noted: *"Neither the fact of a*

child or young person having unexplained symptoms, nor the exercising of selective choice about treatment or education for such a child constitutes evidence of abuse."[2] This is a particularly worrying area for parents and carers of children with ME-CFS, requiring the highest levels of professional awareness and sensitivity. As for any other illness, children with ME-CFS may suffer harm and this should be considered as a possibility when preparing the differential diagnosis. As for other aspects of children's care, it is important to listen to the child, as well as to family members and patient/carers, to respect their experiences, and to give due weight to their views, especially the child's.[11] Further guidance on child protection issues for professionals working in health, social services and education, is available from the *Association of Young People with ME (AYME)* and *Action for M.E.*[39]

Transition to adult services

In many cases where ME-CFS is ongoing into early adulthood, and the patient is presently being cared for by a paediatric team, formal handover of care to another health specialist service may be required. This process, often referred to as transition, can be difficult for patients, especially where it involves the ending of a positive relationship between the paediatric team and their patients built up over a substantial period of time. Any transition may require increased input from services – eg from childhood to adolescence to adulthood, starting or stopping school – and represents an opportunity, if not a requirement to review the management plan with patient and parents/carers.[11] A multidisciplinary meeting might facilitate the smooth transition of care, particularly for complex cases. The RCPCH Guideline recommends that paediatricians should ensure that their clinic or hospital has a policy for the transition of care of adolescents with chronic illness. This policy needs to be flexible enough to be adapted to meet the individual requirements of adolescents with ME-CFS.

Further information

Further information on the management of children with ME-CFS is available in the Royal College of Paediatrics and Child Health Guideline[31] and from other publications listed in **Section 8 - References.** Further information on *Getting it right for every child*[33] is available from:
www.scotland.gov.uk/Topics/People/Young-People/childrensservices/girfec.

5 People who are more severely affected

The Report of the 2002 Chief Medical Officer (England) CFS/ME Working Group noted that not enough was known about severe forms of the illness: *"that are reported to affect up to 25% of patients"*.[2] A search of the scientific literature, has not been able to validate this estimate as no definitive studies have been carried out yet in the UK to determine the prevalence of severe disease. This also applies for less severe forms of ME-CFS. Recognising the heterogeneity and complexity of this area, research studies are therefore urgently required to inform our understanding of the prevalence, prognosis, impact and optimal management of individuals with severe disease (see also **Section 6**).

During preparation of this guidance many individuals kindly contributed by providing a number of comments on a previous draft version. Many of these comments came from individuals who have lived with severe ME-CFS over a number of years or who have cared for a relative/loved one with severe illness. A number of respondents also generously and confidentially shared specific aspects of their personal history of ME-CFS.

It is clear at some stage in their illness that many patients may fall into the category of severe ME-CFS, with specific care needs.

It is recognised that the diagnosis and management of severe ME-CFS is an area which needs to be developed in a specific Good Practice Statement. However, the following is intended to provide summary guidance in the interim:

Severity of illness

The quality of life of ME-CFS patients shows marked diminution. However, there is a spectrum of severity. Those who are severely affected have severe restrictions in their mobility and ability to carry out essential daily tasks and attend to personal care. Patients may suffer severe debility or become bedbound from the intensity of one prominent symptom or from a cluster of symptoms such as sore throat, swollen glands and flu-like symptoms.

At its most extreme, patients may be totally bedbound and report constant pain, inability to tolerate movement, light or noise and certain scents or chemicals (including prescribed drugs). They will often spend periods of time bedbound, housebound or wheelchair-bound. Some may have ME-CFS for several years, some for many years and some may never recover.[4] These latter cases account for a minority however, and a cautiously optimistic outlook is justified for the majority of patients.

As for adults, there are no consistently used definitions for severe ME-CFS in children and young people. The Royal College of Paediatrics and Child Health (RCPCH) Guideline has helpfully proposed that severity is primarily defined in terms of the effect on the patient, which will be a combination of degree and duration of functional impairment.[31] For children and young persons in the context of its guidance, the RCPCH Guideline proposes the following definitions:-

- **Severe** – any patient who is so affected as to be effectively housebound for a prolonged period of time (3 months or more) must be considered severely ill.
- **Very severe** – any patient who is so affected to be bedridden for a prolonged period of time (3 months or more) must be considered to be very severely ill.

As for other aspects of diagnostic criteria, definitions of degrees of severity of ME-CFS remain a work in progress, requiring further research and development.

Principles of care - individualised approach

The care and support of such severely affected patients requires a very individualised approach, with care being delivered in the patient's own home, as much as possible. It is vital for clinicians to be aware that there is very little research evidence on management of such patients and that simple extrapolation from other patient groups is usually inappropriate. Such patients can only manage physical or cognitive tasks for very short periods, if at all, and this will need to be reflected in consultations.

It is important to check for intercurrent illness such as chest infection and other potential co-morbidities, which may further diminish quality of life.

Expectations must be realistic and discussed with the patient to focus their very limited energy on things that are meaningful for them. For some severely affected patients, normal functions of daily living may be very challenging: eating, drinking, dressing, toileting. Severe effects may prevail for many years before any improvement or stabilisation is seen.

There should be understanding and agreement between clinicians and patients as to what are an individual's most important goals. It may be an agreement to try to achieve modest increases in self-care or activities of daily living.

The primary care team is crucial for supporting severely affected patients. Assessment by appropriately trained community nursing, community OT and community physiotherapy staff may also be valuable, depending on the specific needs of the patient.

A concern has been expressed that some GPs may not be aware of the clinical conditions of the most severely affected patients, making it difficult for their needs to be properly addressed. As with all conditions with complex needs, it is important that care is regularly reviewed for those patients who are severely affected with ME-CFS. Where appropriate, the out-of-hours services should be proactively notified of specific circumstances and needs of individual patients via the electronic care summary (ECS) to assist effective continuity of care. Where care is being delivered by the input of a number of different professionals, this should be coordinated by a named lead professional.[4]

Medicines management

As for less severe forms of ME-CFS, medication can be useful to help with symptoms such as pain, sleep and secondary anxiety, muscle spasms and cramps, and nausea. Many experts have advised that very low doses of medication be used initially (liquid formulations can help with this) – see also **Section 3**.

Referral

Where provision exists, severely affected patients should be referred urgently to a specialist, experienced in severe ME-CFS.[6] Where there is no specific provision, it would be appropriate to refer to the consultant physician most capable of dealing with the patient's particular clinical needs. The NICE Guideline has recommended that diagnosis, investigations, management and follow-up care for people with severe ME-CFS should be supervised or supported by a specialist in ME-CFS.[4] The Scottish Public Network's Health Care Needs Assessment for people living with ME-CFS has also recommended the development of specialist services for ME-CFS and multidisciplinary teams with the requisite skill-mix. [26]

Other care aspects

Diet - dietary intake may be compromised in these patients and in a few, very severe cases of ME-CFS, use of enteral feeding has been reported. Such interventions must only be instigated following full specialist assessment/investigation.

Hospitalisation – most people with ME-CFS will not need hospital admission. However, a planned admission may be useful in the event of deterioration or for further assessment and investigations which would otherwise require frequent or multiple visits to hospital. The decision to admit should be made with the patient with ME-CFS and their family/carers and be based on informed consideration of the benefits and disadvantages.[4]

Respite care - may be helpful if desired, but ideally should be in settings that have experience with people with severe ME-CFS, and that are adapted to their particular needs.

Caring for the carers - Carers are especially important in supporting patients, and their own needs must be considered, as part of the ongoing management plans of people with severe ME-CFS. *Caring Together – the Carers Strategy for Scotland 2010-15*, jointly produced by COSLA and Scottish Government, has recently committed to ten headline actions, including a Carers' Rights Charter.[40]

Timely support - Many people with ME-CFS, especially those who live alone, will lose the means to manage their home circumstances, including finances, and effectively seek help and support during their time of incapacity. Anecdotal evidence suggests that the longer it takes to receive medical and practical assistance, including social care support, where appropriate, the longer the patient's recovery time and the greater the likelihood of chronicity.

Long term conditions planning

It is hoped that aligning the care of those people severely affected with ME-CFS, to the long-term conditions planning work in NHS Boards – particularly their current work on neurological services improvement[27] – will allow a full assessment of their care needs and allow appropriate management and support plans to be developed.

In turn, this should be facilitated by the *National Action Plan for Improving Health and Wellbeing of People with Long Term Conditions in Scotland* (2009)[41] and the *Healthcare Quality Strategy for NHS Scotland* (2010).[42]

Further information and assistance

Further sources of support and information are provided in **Section 7** and **Appendix 1**.

6 Research and development

This section provides a brief overview only of some aspects of ME-CFS research and development (R&D), including where to obtain further information on research. A more detailed systematic review of the literature is outwith the scope of this guidance. It also provides specific discussion on diagnostic criteria and the need for further progress and development in this important area.

A simple initial search of one database alone - MEDLINE® (1950 to week 2 July 2010) indicates that 3667 research articles or letters have been published using the term: *'myalgic encephalitis* mapped to *chronic fatigue syndrome',* 266 of which have been published in 2009-10 (see www.ovid.com). This is a substantial underestimate and provides only a rough pointer to the significant volume of the bioscientific and health services research publications on ME-CFS, because of differences and disagreements on terminology/definitions used. This preliminary search is also lacking in any assessment of the nature and quality of these publications, which will vary considerably. Nevertheless, this indicates that there is already a substantial literature on the aetiology, epidemiology and management of ME-CFS.

Ongoing research is required into ME-CFS to improve our understanding of the causes of the illness (aetiology), its prevalence and also to guide optimal management approaches. Please note again that the studies cited below, constitute *a limited sample only* of the recent literature on ME-CFS and are not part of a formal systematic review.

Aetiology

As outlined in **Section 2**, the onset of ME-CFS is often linked with the recent presence of an infection. A large number of virological, immunological, neuroendocrine, autonomic nervous system, cardiological and neurological abnormalites have been reported in patients with ME-CFS, including genetic biomarker studies, but there has been a lack of consistency in laboratory findings. This may be contributed to by combining patients into a single heterogeneous group rather than by attempting subgroup analysis[43] - see also below.

Examples of recent research include: reporting of autonomic dysfunction,[44] differential gene expression in ME-CFS,[45,46] a novel biological abnormality in recovery of muscular pH following standardised exercise,[47] lower/abnormal diurnal blood pressure regulation in patients with ME-CFS,[48] and raised F(2) isoprostanes associated with oxidative stress.[49,50]

Reporting of an association between human retrovirus XMRV (xenotropic murine leukaemia virus-related virus) and ME-CFS[51] in the USA has not been substantiated by further studies in the UK[52,53] and the Netherlands[54] - the results of other studies are awaited. Discussions continue to take place on possible explanatory models for ME-CFS including bio-psychosocial[55] and biological models[56] - in which inflammatory, oxidative and nitrosative stress (IO&NS), and immune pathways are postulated. It has also been suggested that new drugs should be developed to target these pathways.[57]

In summary, there is accumulating evidence of a number of nervous system, immune, neuroendocrine, autonomic and other abnormalities in patients with ME-CFS.[58] However, as yet, no definitive laboratory test (or tests) have been found for ME-CFS, which must remain a crucial research priority for the diagnosis, classification and sub-typing of this disease.

Epidemiology

As previously indicated, ME-CFS can affect both sexes, at any age, from any ethnic group. Epidemiological evidence is lacking in Scotland but a population prevalence of at least 0.2-0.4% is widely accepted,[2] and over 20,000 people in Scotland may be affected.[3] There is therefore a particular need to study:

- the prevalence and impact of all categories of the illness, particularly severe disease.
- factors associated with, and prognostic features of all categories, particularly severe disease.

Reflected in the use of a composite term in this guidance (myalgic encephalitis-chronic fatigue syndrome), ME-CFS is recognised by many as being heterogeneous and there is a growing view that incorporating subtypes might be particularly helpful in a better understanding of the pathophysiology of the illness.[43] Published studies with ME-CFS have been found to differ with respect to characteristics such as the case definition utilised, method of case ascertainment, functional disability, differing biomarkers, physiological parameters studied and psychiatric co-morbidity.[58,59] Various potential risk factors for the development of ME-CFS have been studied, but no definitive predictors have been characterised, as yet.[60]

Diagnostic Criteria

Good epidemiological studies pivot on robust case definitions and diagnostic criteria. Regrettably, available diagnostic criteria for ME-CFS continue to prove controversial. As previously indicated, a number of diagnostic criteria have been proposed for ME-CFS, including the Oxford (1991),[8] the US Centers for Disease Control and Prevention (CDC – Fukuda - 1994)[9] the Canadian Consensus Document (2003)[10] and NICE Guideline (2007)[4] definitions, but no one set has been universally agreed. Characteristics of the main available criteria are discussed in the NICE Guideline[4] and in the Scottish Public Health Network's Health Care Needs Assessment of Services for people living with ME-CFS, which also provides a summary comparison of the different diagnostic criteria.[26]

Most research to date has been based on the US Centers for Disease Control and Prevention (CDC - Fukuda definition - 1994),[9] while the more recent Canadian Consensus Document definition (2003 – see **Appendix 2**)[10] is favoured by a number of patient groups, including UK based ME-CFS charities, as they believe it better reflects patients' experience of the illness. The Scottish Parliament Cross Party Group on M.E. is also strongly supportive of the Canadian Consensus Document definition.[61] It has been adopted for general use in Australia and New Zealand. The Gibson Inquiry (2006) recently reviewed diagnostic criteria and concluded that the Canadian Consensus

Document definition was a useful contribution to defining the clinical condition of ME-CFS.[62] Reflecting the lack of accord, the Scottish Public Health Care Network's Health Care Needs Assessment of Services for people living with ME-CFS, has recommended the *'pragmatic use'* of the Canadian Consensus Document for the clinical, symptomatic definition of ME.

The Scottish Neurosciences Council has expressed concerns about some aspects of the Canadian Consensus Document definition – particularly the need for the safe diagnosis of neurological abnormalities and potential misdiagnosis in individuals who present with ataxia, muscle weakness and fasciculations. However, this present guidance makes clear in **Section 2** that neurological examination *must be done routinely in the differential diagnosis of ME-CFS*, to exclude specific neurological abnormalities such as: obvious muscle wasting, ptosis, upper motor neurone signs, ataxia, fasciculations, absent reflexes**.** If any of these abnormalities are present, neurological specialist referral is recommended for further investigation:

When the Canadian Consensus Document definition is used to assist the diagnosis and management of ME-CFS, clinicians should carefully adhere to this specific neurological referral recommendation.

During the preparation of this guidance, it became clear that diagnostic criteria for ME-CFS is a key and polarising issue, which threatens to impede much needed service improvements for patients. There is a strong case for there to be a further professional and scientific re-appraisal of the diagnostic criteria for ME-CFS, *including subgroup analysis*, taking into account patient experience of the illness. In order to achieve this, it is imperative that patient groups and health professionals seek to move forward and work more closely together.

Management

In **Sections 3-5**, advice on the management of ME-CFS was offered and a summary of the current treatment evidence base provided.[4,13-22] Robustly designed studies of sufficient power are required to provide significant results on whether or not a treatment is both safe and effective. However, the paucity of such studies also underlines the dilemma for clinicians, caring for people with ME-CFS, when considering potential treatments for individual patients. *A number of treatments have been reportedly found helpful in individual cases, but for which robust scientific evidence is lacking – either because the relevant studies have not been done or because those that have been done have been poorly designed, subject to bias, or insufficiently powered***.** Additionally, it is unlikely that many of these potential treatments will, in the future, be subject to robust trial appraisal. Therefore, in the context of limited scientific evidence, it is crucial to take people's experiences into account and to exercise best professional judgement - in order to tailor interventions to the needs and circumstances of the individual patient. Further progress in investigating treatments for ME-CFS should be appropriately informed by the perspectives of patients and their carers.

In terms of recent research, the **FINE** Trial (Fatigue Interventions by Nurses Evaluation) a pragmatic rehabilitation programme delivered at home by trained general nurses

reported small improvements in fatigue, sleep and depression but not physical functioning.[63] Subsequent criticisms of the study included entry selection criteria (the Oxford criteria was the primary method of inclusion)[8] and the use of the Chalder *et al* fatigue score.[64] Further publications are expected from this particular study.

In a recent review of **non-antidepressant drug** trials performed between 1988 and 2009, the authors concluded that pharmacotherapy should not be considered first line therapy in chronic fatigue syndrome, but pointed out that future research should take specific subgroups into account and should target immunological aspects of the illness.[65] Since that review, a study of ondansetron, a 5-HT3 receptor antagonist, in chronic fatigue syndrome, has been published and it did not demonstrate any benefit compared to placebo.[66]

In a recent feasibility study, **home orthostatic training** (HOT) in chronic fatigue syndrome was found to be well tolerated and generally complied with.[67] This study builds on previous work, including Postural Orthostatic Tachycardia Syndrome (POTS)[12,44,47] and the authors concluded an adequately powered study, including strategies to enhance compliance, is warranted.

The **PACE** Trial (Pacing, graded Activity and Cognitive behaviour therapy: a randomised Evaluation) has been set up in order to provide a systematic evaluation of these therapies.[68] The trial is expected to report later in 2010.

The effective **relief of pain** in ME-CFS is of paramount importance. This is primarily discussed in **Section 3** of this guidance. Encouraging recent high grade evidence has emerged for the use of duloxetine[13] and pregabalin[14] for neuropathic pain or when fibromyalgia is present as a co-morbidity.[15] Essentially the classification of chronic pain falls into three broad categories: (1) pain owing to tissue disease or damage (nociceptive pain), (2) pain caused by somatosensory system disease or damage (neuropathic pain), and (3) pain without a known somatic background. Recent helpful guidance on the management of chronic neuropathic pain confirms that it is both underrecognised and underrated and that primary care doctors are uniquely placed to diagnose it and to establish an effective treatment plan.[69]

There has been considerable recent interest in the role of **vitamin D** in the aetiology and treatment of a number of chronic diseases including ME-CFS. Patients with ME-CFS may be at increased risk of osteoporosis due to their relative lack of physical activity and excessive time spent indoors. In a recent retrospective study, 25-hydroxy vitamin D levels were found to be significantly lower in ME-CFS patients than in the general population.[70] A recent editorial pointed out that there was no downside risk to increasing the intake of vitamin D intake by increasing the consumption of foods that naturally contain or are fortified with vitamin D.[71] A prospective randomised controlled study of vitamin D on the vascular health of ME-CFS patients is underway and hopes to report in 2011.[72] In this particular study, patients have been recruited that fulfil both the CDC (Fukuda)[9] and Canadian Consensus Document[10] diagnostic criteria. This should help to inform whether vitamin D supplements should be routinely offered to patients with ME-CFS. In the interim, where vitamin D supplements are deemed to be clinically

indicated, a dose of 1500-2000 IU/day has been recommended for adults and teenagers.[71]

In relation to the expressed **needs of patients with ME-CFS and their carers**, a recent systematic review - involving 32 qualitative and quantitative studies and over 2500 people living with ME-CFS with mainly moderate or severe disease - has reported the following major support needs:[73] (1) The need to make sense of symptoms and gain diagnosis, (2) for respect and empathy from service providers, (3) for positive attitudes and support from family and friends, (4) for information on ME-CFS, (5) to adjust views and priorities, (6) to develop strategies to manage impairments and activity, (7) to develop strategies to maintain/regain social participation. The authors conclude that there was consistent evidence that substantial support is needed to rebuild the lives of patients with ME-CFS.[73]

In relation to the **roles of GPs and primary care nurses**, in treating patients with ME-CFS, recent UK research has found clear concerns among these health professionals. Until GPs feel comfortable making the diagnosis of ME-CFS, facilitating initial management, and have appropriate services to refer patients to, there will continue to be delays in confirming the diagnosis and securing the optimal management of ME-CFS.[74] This finding is echoed in another recent study from Belgium.[75] Additional research on the role of practice nurses in the management of ME-CFS has indicated that their current role is limited and that there is partial understanding of the evidence base for treatment.[76] Practice nurses largely welcomed the potential role for treating people with ME-CFS but identified barriers and training needs, which must be addressed to enable them to feel confident of managing patients with this illness.

The findings of the systematic review of the expressed needs of people with ME-CFS and their carers, [73] also the research on the roles of GPs and primary care nurses,[74-76] are particularly telling. Taken together, they reinforce the requirement for this Scottish Good Practice Statement, the associated Scottish Public Health Network's Health Care Needs Assessment of Services for people living with ME-CFS[26] and ongoing education for primary care workers on the care of patients living with ME-CFS.

Research and development - looking to the future

As indicated previously, it is vitally important that Scotland develops effective mechanisms for bringing together researchers, practising clinicians and people with ME-CFS to drive forward the optimal care, research and development agenda. This will in turn lead to improved clinical practice in the NHS in Scotland. As we progress this pressing agenda, it is important to recognise the marked increase in the size and quality of the evidence base on our understanding of, and interventions for ME-CFS. It will be important that this trend continues, with a focus on peer-reviewed, high quality scientific publications. While it is not within the scope of this guidance to provide a research agenda, it is clear that a number of areas beckon for further work:

- Aetiology – continued contributions to our understanding of the causes and underlying mechanisms involved and diagnostic investigations, including as yet elusive but definitive diagnostic test(s)
- Epidemiology - greater understanding of prevalence and severity, including subtypes[42,77]
- Management – robust studies of new treatment modalities and effective models of service delivery/care management, with specific emphasis for children, young people and for those who are more severely affected.

The RCPCH Guideline contains a specific section on research priorities for children and young people.[31] There is also a recommendation for a more focused research strategy in the Scottish Public Health Network's Health Care Needs Assessment of Services for people living with ME-CFS.[26]

Further information on research, its sponsorship and participation in research studies

Government sponsored research

The Chief Scientist Office (CSO), of the Scottish Government Health Directorates, which has responsibility for encouraging and supporting research into health and health care needs in Scotland, is collaborating with the Medical Research Council (MRC) on the implementation of its research strategy into ME-CFS. CSO has contributed funding to the PACE trial.[68]

ME-CFS is a strategic priority area for the MRC and they are continuing to promote research in this area and encourage applications for funding. Research proposals in all areas compete for the funding available. While research excellence continues to be the primary consideration in funding decisions, and the MRC does not as a rule earmark funds (nor commission research) for particular topics, when appropriate, high quality research in the areas MRC is promoting, may be given priority in competition for funds.
In 2008, a new Expert Group was set up by the MRC to consider how best to encourage new high-quality research into ME-CFS and to bring researchers from associated areas into the field. In addition, the MRC held a ME-CFS workshop in November 2009 - see their website (www.mrc.ac.uk) for any updates.

Charity supported and other research

In Scotland, the charity, ME Research UK (MERUK) is supporting biomedical research, both by direct financial support and through holding international conferences. (www.meresearch.org.uk). ME Research UK also holds a large research publications database.
Other charities supporting research are:
The CFS Research Foundation website: www.cfs-research.org/
Action for M.E. website: www.afme.org.uk
The MEA Ramsay Research Fund:
www.meassociation.org.uk/wp-content/uploads/pdfs/Ramsay_Research_Fund_explained.pdf
Invest in ME: www.investinme.org/index.htm

Information about ME-CFS research

In addition to MEDLINE, OVID and other academic reference databases, other sources of information on research are available from other databases, and ME-CFS charities including:
www.meactionuk.org.uk/research_references_update_Dec_08.htm
www.meresearch.org.uk
www.name-us.org/researchpages.research.htm

It is important that research on ME-CFS is conducted to the highest standards and subject to robust scientific peer review, as exemplified in the reviews undertaken by the Centre for Reviews and Dissemination, University of York,[18] and by the Cochrane Collaboration Reviews.[13,14,19-21]

Supporting participation in research studies

Research studies, however novel and well designed, will only be successful if enough patients are recruited into them. We must all play our part in pulling together patients, clinicians and researchers, to aid recruitment into studies. It is imperative that in Scotland we have effective structures which bring together researchers, practising clinicians and people with ME-CFS to facilitate future research into the illness.

7 Support for patients

For people living with ME-CFS and their care needs: "gaining support depends – most importantly – on the providers of health and social care, colleagues, friends and relatives, and those providing education and leisure services to understand and respond to these needs."[73]

GPs primarily provide medical advice to patients with ME-CFS and their carers. Primary care teams also support patients with advice in day to day living with their illness and by signposting help with benefits, social work and employers - including referral to appropriate agencies, for example Citizens Advice Bureau and social services.

Services should be delivered in ways that are suitable for the individual patient; this may sometimes mean domiciliary services. This is particularly important for the severely affected who often experience extreme barriers to accessing all forms of care and treatment.

WELFARE BENEFITS

People with ME-CFS are as potentially disabled as those with other chronic conditions and are therefore entitled to apply to the Department for Work and Pensions for the full range of sickness and disability benefits, including the new Employment and Support Allowance (ESA).

Further guidance may need to be produced following welfare reforms currently under way in Scotland.

In order to qualify for benefits the claimant has to provide sufficient medical evidence to support a claim. The GP's assistance is essential to provide support for this process. The fluctuating nature of the condition needs to be taken into account when assisting with welfare benefits applications.

ME-CFS is an illness that may be eligible for the provisions of the Disability Discrimination Act.

Useful contacts for patients

People with ME-CFS can contact Citizens Advice Bureau: www.cas.org.uk and www.adviceguide.org.uk or one of the main charities (see **Appendix 1**) for advice on welfare benefits, housing, transport issues etc.

Local authorities often have benefits/money advice centres - see local telephone directory. Centres for Inclusive Living give information and advice on a wide range of issues including benefits and money eg the Lothian Centre for Inclusive Living - Tel: 01314752350; www.lothiancil.org.uk or the Glasgow Centre for Inclusive Living - Tel: 01415504435; www.glic.org.uk.

There are also local welfare benefit advice organisations and information is available from local support groups (see **Appendix 1**). The following organisations provide useful contacts and resources for patients:

Action for M.E. Welfare Rights Line
Factsheets on ESA, DLA etc plus a Welfare Rights Line for people with ME.
Tel: 0845 123 2380 for opening times. See also www.afme.org.uk

Citizens Advice
The local Citizens Advice Bureau may be able to help patients to fill in the forms. See the phonebook for the nearest bureau, or www.cas.org.uk

Disability Alliance
Free factsheets are available to download from this website. Disability Alliance also produces a guide: *ESA - Employment and Support Allowance*, (price £7 – but £2 for people on benefits). The guide can be ordered by telephoning 020 7247 8776 (please note that this is not an advice line). www.disabilityalliance.org

DWP
Benefit Enquiry Line for people with disabilities, plus downloadable factsheets from the website, which links to further information at Jobcentre Plus.
Tel: 0800 882 200, Mon-Fri 8.30am-6.30pm and Sat 9am-1pm. www.dwp.gov.uk

Jobcentre Plus
To find out how to claim assistance and for further information: www.direct.gov.uk

DIAL UK
Some Disability Information Advice Line offices help with Welfare Rights issues. The local phone directory should be checked to see if there is a locally accessible DIAL UK office.
Tel: 0141 954 8432 Email: informationenquiries@dialuk.org.uk; www.dialuk.info

Benefits and Work
The Benefits and Work website contains much helpful information about benefits. Membership (currently £18.95 a year) gives unlimited access to their guides for claimants and members forum. www.benefitsandwork.co.uk

SOCIAL CARE

Social care provides crucial support, especially for people who are severely affected. Depending on the level of disability, people with ME-CFS may be unable to undertake their own personal care, domestic tasks such as shopping, cooking, laundry, dealing with money issues, etc.

Provision of adequate support will require an effective partnership of health and social care. Early recommendation for a community care assessment will be helpful.

Allocation of a key worker or contact responsible for ensuring adequate and appropriate input to the patient's home support, may be particularly beneficial.

Note: Many people with ME-CFS rely heavily on a family member for daily care, who may themselves require support, advice, information or a care assessment. Carers Scotland has a useful website for carers at: www.carerscotland.org.

EMOTIONAL SUPPORT

There is still some stigma associated with ME-CFS and it is important to recognise that, as well as experiencing debilitating symptoms and loss of income/work/ educational/social opportunities, unsupportive attitudes amongst family, friends and professionals can increase the sense of isolation and emotional impact on patients.[73]

A recent survey of 168 ME-CFS patients in Lothian highlighted the importance of listening to patients and providing continuity of help and support.[78]

Counselling from a trained counsellor/nurse may be very helpful where patients report difficulties adjusting to long term illness (see also **Section 3**).

As well as offering support through appropriate regular monitoring, GPs and primary care teams should put patients in touch with relevant charities, which offer helplines, a wide range of publications and online links to local support groups.

NATIONAL HELPLINES

NHS 24: Provides self care advice for people in Scotland and urgent care assistance/ clinical advice when GP surgeries are closed. Tel: 08454 24 24 24. www.nhs24.com
NHS Inform: Provides a coordinated source of quality assured health information for the public in Scotland. Tel: 0800 22 44 88. www.nhsinform.co.uk
Care Information Scotland: Provides a confidential information phoneline service for any individual who is seeking information about community care for older people. Tel: 08456 001 001. www.CareInfoScotland.co.uk

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www.nhslothian.scot.nhs.uk/news/publications/believe%20in%20ME.pdf

Appendix 1

USEFUL CONTACTS

- **Action for M.E**.
  Tel: 0845 123 2380
  Welfare Rights Line for people with ME: 0845 122 8648
- **Benefits and Work**
  The Benefits and Work website contains plenty of information n about benefits. Membership (presently £18.95 a year) gives unlimited access to their guides for claimants and members forum.
  www.benefitsandwork.co.uk
- **Centres for Inclusive Living** provide information and advice on a wide range of issues including benefits and money eg. Lothian Centre of Inclusive Living (www.lothiancil.org.uk 0131 475 2350) and Glasgow Centre of Inclusive Living (www.glic.org.uk 0141 550 4455)
- **Citizens Advice Bureau** www.cas.org.uk and www.adviceguide.org.uk - one of the main charities for advice on welfare benefits, employment rights, housing, transport issues etc. The local **Citizens Advice Bureau** may be able to help to fill in benefits forms. Also see the phonebook for the nearest bureau.
- **Department for Work and Pensions**
  Benefit Enquiry Line for people with disabilities, plus downloadable factsheets from the website, which links to further information at Jobcentre Plus.
  Tel: 0800 882 200, Mon-Fri 8.30am-6.30pm and Sat 9am-1pm.
  www.dwp.gov.uk
- **Disability Alliance**
  Free factsheets are available to download from their website. They also produce an annual guide called: *'Disability Rights Handbook (Disability Alliance)'*. The 34th edition is for the year April 2009-April 2010. There are separate publications on ESA (Employment and Support Allowance) and DLA (Disability Living Allowance). These guides can be ordered by telephoning 020 7247 8776 (please note that this is not an advice line) or through the website www.disabilityalliance.org
- **Jobcentre Plus**
  How to claim and further information www.direct.gov.uk
- **Local authorities** often have benefits/money advice centres - see local phone directory.
- There are also **local welfare benefit advice organisations** and information is available from local support groups.

FURTHER RESOURCES (in addition to publications cited in Section 8 - References)

1. *Living with CFS/ME* – leaflet produced by Dumfries and Galloway M.E. Network. February 2009
2. *Pacing for people with M.E.*, Action for M.E. 2010
3. *All about M.E.,* Action for M.E. 2010
4. *Your Child and M.E.,* Action for M.E. 2010
5. Action for M.E. has a series of articles by medical professionals and others, together with a number of factsheets, available to download free from its website: www.afme.org.uk
6. The ME Association's publications list is available online at www.meassociation.org.uk
7. Ho-Yen D. *Better Recovery from Viral Illnesses,* Dodona Books, 2008, ISBN 0-9511090-7-3

National ME charities

- Action for M.E.
  Booklets including Pacing for people with M.E., plus factsheets, volunteer supportline, welfare rights helpline.
  Tel: volunteer helpline lo-call 0845 123 2314
  www.afme.org.uk
- ME Association
  Factsheets and volunteer helpline.
  Tel: 0844 576 5326
  www.meassociation.org.uk
- Association of Young People with ME (AYME)
  For children and young people up to 25
  Tel: 08451 23 23 89
  www.ayme.org.uk
- 25% Group
  For people who are severely affected
  Tel: 01292 318611
  www.25megroup.org
- Young ME Sufferers Trust (Tymes Trust)
  Tel: 0845 003 9002
  www.tymestrust.org

Local support groups

- ME and You Aberdeen
  Gregor McAbery
  Tel: 01224 581162
  E-mail: Gregor.mcabery@mac.com
  www.meandyouaberdeen.co.uk
- Borders ME Group
  Tel: 01361 810422
  Miranda Brackenbury
  E-mail: Miranda.bmeg@yahoo.co.uk
- Cathcart ME Group
  John McKnight
  Tel: 0141 632 2486
  E-mail: help@cathcartmesupportgroup.org.uk
- ME East Kilbride [MEEK] Group
  Meeting held on last Tuesday of each month (except Jan, June & Dec) at 7-30pm in Hairmyres Hospital.
- Dumfries & Galloway ME Network
  Norma and Denis Turner
  Tel: 01576 204129
  E-mail: dennor@btinternet.com
  www.dgme.co.uk
- Edinburgh M.E. Self-Help Group (edmesh)
  Tel: 0845 625 2025 or email: membership@edmesh.org.uk
  E-mail: convenor@edmesh.org.uk
  www.edmesh.org.uk
- ELMESH (East Lothian ME Self Help)
  Dr Marilyn McNeill
  Tel: 01620 880651
  E-mail: Marilyn@rowansdrem.plus.com
- Falkirk ME Self Help Group
  Diane Hall
  E-mail: dhall66@btinternet.com
- ME Support Fife
  Catherine Meikle
  Tel: 01334 653202
  E-mail: catherinemeiikle76@talktalk.net
- Glasgow West
  Ewan Dale
  Tel: 0141 332 8115
  E-mail: ewandale@yahoo.co.uk
- Glasgow M.E./CFS Meet-up Group
  Anna Wood
  Tel: 01419452682
  E-mail: anna.k.wood@talktalk.net
  www.meetup.com/glasgow-me

- Inverness ME/Fibromyalgia/CFS Support Group
  Brenda Fraser
  Tel: 01463 238533
  E-mail: Glenesk.brenda@yahoo.com
- Lanarkshire ME Support Group
  Jane Giakoumakis
  Tel: 01698 817114
  E-mail: janeyannis@talktalk.net
- Moray Support Group
  Contact Moray Council for details
  Email: Fion.rolt@moray.gov.uk
- Oban
  Adrian A Lauder
  Tel: 01631 720262
  E-mail: adrian.lauder@gmail.com
- Paisley & District ME Support Group
  Theresa Bates
  Tel: 0141 561 3426
  E-mail: Theresa@mepaisley.co.uk
- Perth ME Group
  E Moncrieff
  Tel: 01738 621933
  E-mail: e.mon@btinternet.com
- ME Support (Stirling)
  Alexandra Russell
  Tel: 01786 816478
- Wigtownshire FM-ME Support Group
  Janet Graham
  Email: janetg@wigtownshire-fm-me.org.uk
  www.wigtownshire-fm-me.org.uk

Other useful organisations

- Neurological Alliance of Scotland
  Tel: 07540 643545
  www.scottishneurological.org.uk
- Long Term Conditions Alliance Scotland
  Tel: 0141 404 0231
  www.ltcas.org.uk
- Carers Scotland
  www.carerscotland.org
  0141 445 3070
  CarersLine: 0808 808 7777
- Citizens Advice Scotland
  www.cas.org.uk
- Thistle Foundation
  Tel: 0131 661 3366
  www.thistle.org.uk
- Children in Scotland
  Enquire helpline for advice on educational support needs
  Tel: 0845 1232303
  E-mail: info@enquire.org.uk
  www.childreninscotland.org.uk
- Princess Royal Trust for Carers
  E-mail: info.scotland@carers.org
  Tel: 0141 221 5066
  www.carers.org

Appendix 2

Canadian Consensus Document - Clinical Working Case Definition of ME-CFS[+]
(from Carruthers BM et al.[10] See also **Section 6,** *where this definition and other diagnostic criteria are discussed)*

A patient with ME-CFS will meet the criteria for fatigue, post-exertional malaise and/or fatigue, sleep dysfunction, and pain; have two or more neurological/cognitive manifestations and one or more symptoms from two of the categories of autonomic, neuroendocrine and immune manifestations; and adhere to item 7.

1. **Fatigue**: The patient must have a significant degree of new onset, unexplained, persistent, or recurrent physical and mental fatigue that substantially reduces activity level.

2. **Post-Exertional Malaise and/or Fatigue**: There is an inappropriate loss of physical and mental stamina, rapid muscular and cognitive fatigability, post exertional malaise and/or fatigue and/or pain and a tendency for other associated symptoms within the patient's cluster of symptoms to worsen. There is a pathologically slow recovery period–usually 24 hours or longer.

3. **Sleep Dysfunction**: There is unrefreshed sleep or sleep quantity or rhythm disturbances such as reversed or chaotic diurnal sleep rhythms.

4. **Pain**: There is a significant degree of myalgia. Pain can be experienced in the muscles and/or joints, and is often widespread and migratory in nature. Often there are significant headaches of new type, pattern or severity.

5. **Neurological/Cognitive Manifestations**: Two or more of the following difficulties should be present: confusion, impairment of concentration and short-term memory consolidation, disorientation, difficulty with information processing, categorizing and word retrieval, and perceptual and sensory disturbances – *e.g*. spatial instability and disorientation and inability to focus vision. Ataxia, muscle weakness and fasciculations are common.[++] There may be overload phenomena: cognitive, sensory – *e.g*. photophobia and hypersensitivity to noise–and/or emotional overload, which may lead to 'crash' periods and/or anxiety.

6. **The patient must have at least one symptom from two of the following categories**:

[+] The term ME/CFS is used in the original Canadian Consensus Document: ME-CFS has been substituted here to conform to the descriptor used elsewhere in this guidance.
[++] **Note:** Individuals presenting with specific neurological abnormalities such as: obvious muscle wasting, ptosis, upper motor neurone signs, ataxia, fasciculations or absent reflexes, should be referred for neurological specialist assessment.

a) Autonomic Manifestations: orthostatic intolerance – neurally mediated hypotension (NMH), postural orthostatic tachycardia syndrome (POTS), delayed postural hypotension; light-headedness; extreme pallor; nausea and irritable bowel syndrome; urinary frequency and bladder dysfunction; palpitations with or withou111t cardiac arrhythmias; exertional dyspnoea.

b) Neuroendocrine Manifestations: loss of thermostatic stability – subnormal body temperature and marked diurnal fluctuation, sweating episodes, recurrent feelings of feverishness and cold extremities; intolerance of extremes of heat and cold; marked weight change – anorexia or abnormal appetite; loss of adaptability and worsening of symptoms with stress.

c) Immune Manifestations: tender lymph nodes, recurrent sore throat, recurrent flu-like symptoms, general malaise, new sensitivities to food, medications and/or chemicals.

7. **The illness persists for at least six months**. It usually has a distinct onset, although it may be gradual. Preliminary diagnosis may be possible earlier. Three months is appropriate for children.

NOTE:

- To be included, the symptoms must have begun or have been significantly altered after the onset of this illness.
- It is unlikely that a patient will suffer from all symptoms in criteria 5 and 6.
- The disturbances tend to form symptom clusters that may fluctuate and change over time.
- Children often have numerous prominent symptoms but their order of severity tends to vary from day to day.
- There is a small number of patients who have no pain or sleep dysfunction, but no other diagnosis fits except ME-CFS. A diagnosis of ME-CFS can be entertained when this group has an infectious illness type onset.
- Some patients have been unhealthy for other reasons prior to the onset of ME-CFS and lack detectable triggers at onset and/or have more gradual or insidious onset.

Exclusions

Exclude **active** disease processes that explain most of the major symptoms of fatigue, sleep disturbance, pain, and cognitive dysfunction.

It is essential to exclude certain diseases, which would be tragic to miss:

Addison's disease, Cushing's syndrome, hypothyroidism, hyperthyroidism, iron deficiency, other treatable forms of anaemia, iron overload syndrome, diabetes mellitus and cancer.

It is also essential to exclude:

Treatable sleep disorders such as upper airway resistance syndrome, obstructive or central sleep apnoea, rheumatological disorders such as rheumatoid arthritis, lupus, polymyositis and polymyalgia rheumatica; immune disorders such as AIDS; neurological disorders such as multiple sclerosis (MS); Parkinsonism, myasthenia gravis and B12 deficiency; infectious diseases such as tuberculosis, chronic hepatitis, Lyme disease, etc; primary psychiatric disorders and substance abuse. Exclusion of other diagnoses, which cannot be reasonably excluded by the patient's history and physical examination, is achieved by laboratory testing and imaging. If a potentially confounding medical condition is under control, then the diagnosis of ME-CFS can be entertained if patients meet the criteria otherwise.

Co-morbid entities

Fibromyalgia Syndrome (FMS), myofascial pain syndrome (MPS), temporomandibular joint syndrome (TMJ), irritable bowel syndrome (IBS), interstitial cystitis, irritable bladder syndrome, Raynaud's phenomenon, prolapsed mitral valve, depression, migraine, allergies, multiple chemical sensitivities (MCS), Hashimoto's thyroiditis, Sicca syndrome, etc. Such co-morbid entities may occur in the setting of ME-CFS. Others such as IBS may precede the development of ME-CFS by many years, but then become associated with it. The same holds true for migraines and depression. Their association is thus looser than between the symptoms within the syndrome. ME-CFS and FMS often closely connect and should be considered to be 'overlap syndromes'.

Idiopathic Chronic Fatigue: If the patient has unexplained prolonged fatigue (6 months or more) but has insufficient symptoms to meet the criteria for ME-CFS, it should be classified as idiopathic chronic fatigue.

Appendix 3

Severity rating scale

The following guide is drawn from the Canadian Consensus Document.[10] It was designed to assist GPs in assessing severity and duration of symptoms and is to be completed by patients.

Please rank your symptoms in order of severity (1 being the most severe) in the left column. Rate severity of symptoms by putting a check mark in the appropriate box.

Rank	Symptom	0 Absent	1 Mild	2 Moderate	3 Severe
	Post-exertional fatigue: loss of physical and mental stamina, fatigue made worse by physical exertion				
	Long recovery period from exertion: takes more than 24 hours to recover to pre-exertion activity level				
	Fatigue: persistent, marked fatigue that substantially reduces activity level				
	Sleep disturbance: non-restorative sleep, insomnia, hypersomnia				
	Pain: in muscles, joints, headaches				
	Memory disturbance: poor short term memory				
	Confusion and difficulty concentrating				
	Difficulty retrieving words or saying the wrong word				
	Gastrointestinal disturbance: diarrhoea, IBS				
	Recurrent sore throat				
	Recurrent flu-like symptoms				
	Dizziness or weakness upon standing				
	Change in body temperature, erratic body temperature, cold hands and feet				
	Heat/cold intolerance				
	Hot flushes, sweating episodes				
	Marked weight change				
	Breathless with exertion				
	Tender lymph nodes: especially at sides of neck and under arms				
	Sensitive to light, noise, or odours				
	Muscle weakness				
	New sensitivities to food/medications/chemicals				
	Total check marks in column				
	Column Total				

Overall Total Score: _____
Overall symptom severity:_____mild_____moderate_____severe_____

(***Mild*** – occurring at rest, ***moderate*** – symptoms that occur at rest become severe with effort, unable to work, and ***severe*** – often housebound or bed-bound).

Other symptoms:

_____
_____
_____
_____
_____

Aggravators:

_____
_____
_____
_____

Change in symptoms:

_____
_____
_____
_____

How good is your sleep on a scale of 1-5? (5 = good restorative sleep, 1 = no sleep):____

How do you feel today on a scale of 1-10? (10 = terrific, 1 = totally bedridden):

_____

Appendix 4

Sleep and pain profile

This chart is adapted from the Canadian Consensus Document and to be completed by patients.

Name _____
Date _____

Please complete this chart for the week before your next appointment.

Day	Awakening time	Temp a.m.	Time slept	Sleep quality	Pain a.m.	Pain p.m.	Temp p.m.	Energy level	Bed time	Minutes to fall asleep
Week Average										

Guidance Notes:

Temp a.m.: Take your temperature as soon as you awaken, while you are still lying down. Also indicate if you feel cold (C), had cold feet (CF), or cold hands (CH), and if you were stiff (S).

Time slept: Indicate approximate number of hours and minutes you slept.

Sleep quality: Good, fair, or poor. Also indicate the number of times you woke during the night including waking up much too early, eg. if you woke up twice (W2). Indicate if you know why you woke up – to urinate, because of muscle cramps, nasal congestion, or other symptoms.

Pain Scale: 0 to 10, 0 being no pain, 10 being the worst pain you have experienced.

Energy level: Indicate your average energy level for the day – 0 being bedridden, 10 full of energy.

Temp p.m.: Take your temperature before going to bed. Indicate if you feel cold.

Minutes to fall asleep: Indicate as best you can how many minutes it took you to fall asleep.

Stress: Was anything in particular bothering you this week? eg family crisis, other.

Body pain diagram

Pain - Visual Analogue Scale (Pain VAS), Body Pain Diagram

Please indicate the amount of pain you have had in the last 48 hours by marking a "/" through the line.

0____ 1____ 2____ 3____ 4____ 5____ 6____ 7____ 8____ 9____ 10____
No pain **Excruciating pain**

On the following body diagrams, please indicate your areas of:

Aching: ===
Burning pain: xxx
Stabbing pain: ///
Pins and needles: ooo
Other pain: ppp

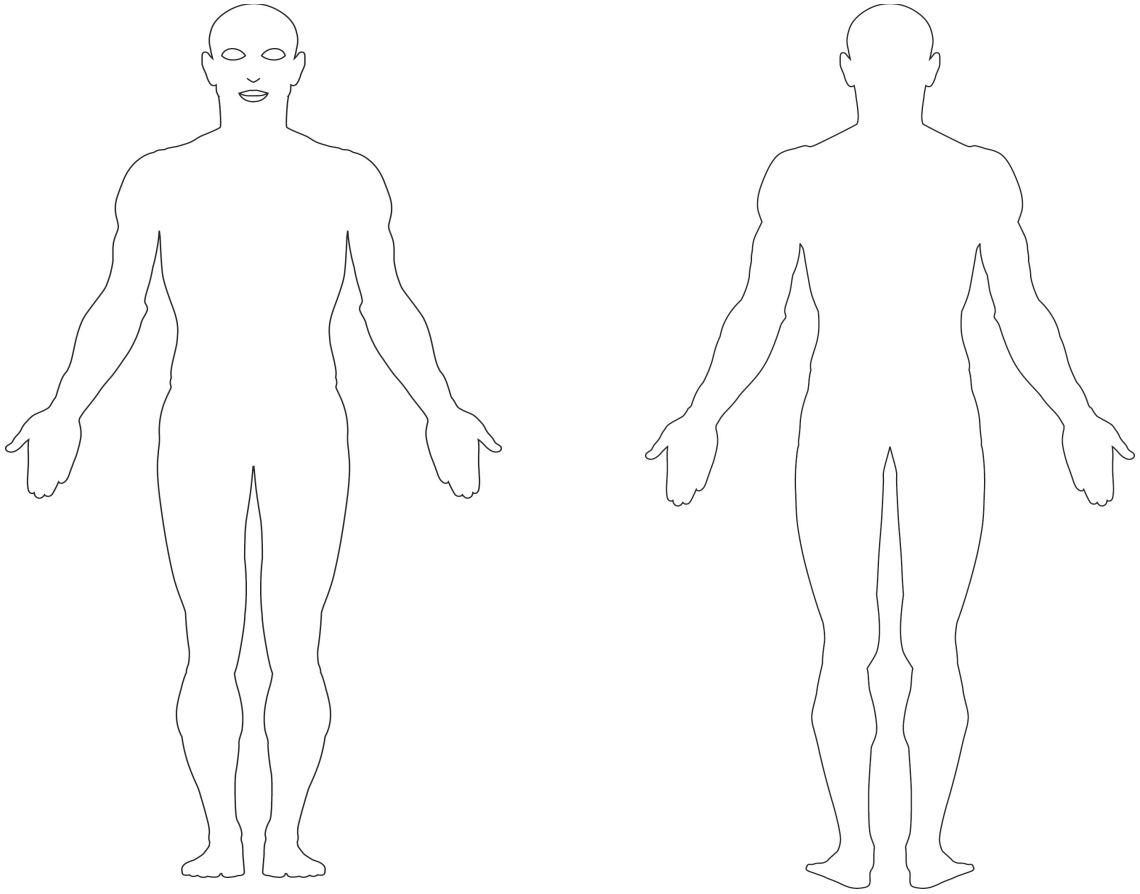
Description of symptoms:

_____

_____

_____

_____



Appendix 5

Group Process

The original draft of the Scottish Good Practice Statement on ME-CFS was produced in May 2009, led by Dr Gregor Purdie. A Working Group was established and tasked to peer review this guidance and worked over the period September 2009-August 2010, chaired by Professor Lewis Ritchie. The task was divided into two further workstreams - two subgroups were established – the first was led by Dr Gregor Purdie to produce a summary patient guidance document/leaflet; the second by Dr Alan Carson to produce a summary Quick Reference Clinical Guide to the Scottish Good Practice Statement on ME-CFS.

Clinical and patient peer review was sought on the draft guidance - see below for further details. The draft guidance, comprising three documents, (the revised draft Scottish Good Practice Statement, the patient leaflet and the quick reference clinical guide), were circulated to members of the Cross Party Group on ME (CPG), on 23rd/26th April 2010 and to Mr Phil Mackie, Lead Author of the Scottish Public Health Network's Health Care Needs Assessment of Services for people living with ME-CFS. Dr Carson and Prof Ritchie attended to discuss the draft guidance at an additional, specially-convened meeting of the CPG on 5th May and Prof Ritchie attended the meeting of the CPG on 26th May to further discuss the draft guidance. Dr Gregor Purdie, Mr Will Scott and Sir Peter Spencer, members of the Working Group, were also present at both CPG meetings. Comments were invited from members of the Cross Party Group following their review of the draft guidance, and over 100 were received and considered, primarily from members but also from other interested parties. The draft guidance was extensively revised, taking into account all comments received from the members of the Cross Party Group, other interested parties and the nominated patient and clinical peer reviewers, listed below. As is standard peer review practice, while all comments received were carefully considered, the final versions of the three guidance documents may not reflect the specific views of individual contributors.

Group Membership

Working Group

Dr Alan Carson, Consultant in Neuropsychiatry, NHS Lothian
Dr Kenneth Lawton, General Practitioner, Aberdeen, NHS Grampian and Chairman, RCGP Scotland
Dr Gregor Purdie, General Practitioner, Castle Douglas and Clinical Lead for ME, NHS Dumfries & Galloway
Prof Lewis Ritchie, General Practitioner, Peterhead, NHS Grampian and Mackenzie Professor of General Practice, University of Aberdeen *[Group Chair]*
Will Scott, Scottish Government Health Directorates
Sir Peter Spencer, Chief Executive, Action for M.E.
Working Group Secretariat: Hazel Dawson, Projects Worker Scotland, Action for M.E. and Craig Bell, Scottish Government Health Directorates. [Heather Walker, Head of

Communications, Action for M.E, attended the first meeting of the Working Group. Susan Webster, Project Co-ordinator Scotland, Action for M.E., kindly deputised for Hazel Dawson at one meeting of the Working Group and facilitated the attendance of Working Group members to the Cross Party Group].

Patient Guidance Document Subgroup

Liz Blackadder, Patient Representative
Ewan Dale, Patient Representative
Hazel Dawson, Projects Worker Scotland, Action for M.E.
Dr Gregor Purdie, General Practitioner, Castle Douglas and Clinical Lead for ME, NHS Dumfries & Galloway *[Subgroup Lead]*

Clinical Guidance Subgroup

Dr Alan Carson, Consultant in Neuropsychiatry, NHS Lothian *[Subgroup Lead]*
Dr Carl Counsell, Senior Lecturer in Medicine (Neurology), University of Aberdeen and Honorary Consultant Neurologist, NHS Grampian
Dr Kenneth Lawton, General Practitioner, Aberdeen, NHS Grampian and Chairman, RCGP Scotland
Dr Gregor Purdie, General Practitioner, Castle Douglas and Clinical Lead for ME, NHS Dumfries & Galloway
Dr David Watson, General Practitioner, Aberdeen, NHS Grampian

Patient Representative Peer Reviewers of the Patient Guidance Document

Dr Emily Ackerman
Adrienne Rifkind
Dr Anna Wood
A further two patient representative peer reviewers also kindly provided comments

Health Professional Peer Reviewers of the Clinical Guidance

Dr Katy Auckland, Consultant in Paediatric and Adolescent Psychiatry, NHS Lothian
Professor D Nicholas Bateman, Professor of Clinical Toxicology, University of Edinburgh and Director of the National Poisons Information Service (NPIS), Edinburgh
Dr Jim Beattie, Consultant in Medical Paediatrics, NHS Greater Glasgow and Clyde
Professor Ian Bone, Honorary Senior Research Fellow (Neurology), School of Medical and Cardiovascular Studies, Western Infirmary Glasgow
Dr Tom Brown, Consultant in Liaison Psychiatry, NHS Greater Glasgow & Clyde
Dr Robert Dickie, General Practitioner, Stornoway, NHS Western Isles
Dr James Douglas, General Practitioner, Fort William, NHS Highland
Professor Peter Helms, Professor of Child Health, University of Aberdeen and Honorary Consultant in Paediatrics, NHS Grampian
Dr Patricia Jackson, Consultant in Community Child Health, NHS Lothian
Dr Catriona Kemp, General Practitioner, St Margaret's Hope, NHS Orkney
Dr Derek King, Consultant in Haematology (Adult and Paediatric), NHS Grampian
Dr Brian Lennox, General Practitioner, Ayr, NHS Ayrshire & Arran

Dr Pauline Lockhart, Clinical Lecturer in Primary Care, University of Dundee and General Practitioner, NHS Tayside
Dr Paul MacIntyre, Consultant Cardiologist, NHS Greater Glasgow & Clyde
Professor Kenneth McColl, Professor of Gastroenterology, University of Glasgow and Honorary Consultant Gastroenterologist, NHS Greater Glasgow & Clyde
Dr Lucy Munro, General Practitioner, Grangemouth, NHS Forth Valley
Dr Jill Murie, General Practitioner, Forth, NHS Lanarkshire
Dr Tom Pullar, Consultant Physician and Rheumatologist, NHS Tayside
Dr R Andrew Seaton, Consultant in Infectious Diseases and General Medicine, NHS Greater Glasgow & Clyde
Dr Robert Simpson, Consultant in Paediatrics, NHS Dumfries and Galloway
Dr Shona Valentine, Associate Specialist in Community Child Health, NHS Lothian
Professor Alan (Mike) Wallace, Consultant Clinical Scientist, NHS Greater Glasgow & Clyde *(deceased)*
Professor David Weller, Mackenzie Professor of General Practice, University of Edinburgh and General Practitioner, NHS Lothian
Dr Derek Wooff, General Practitioner, Stranraer, NHS Dumfries & Galloway

Acknowledgements

The original draft Scottish Good Practice Statement prepared in May 2009 contained the following acknowledgement:

'The publication of this document has been led by Dr Gregor Purdie, Clinical Lead for ME, NHS Dumfries & Galloway on behalf of the Scottish Government Health Directorates. It has been produced in consultation with Scottish medical practitioners, people with ME and their representatives, ME charities and support groups and professionals in health, social care and research.'

In relation to the peer review and revision process of the draft document, undertaken between September 2009 and August 2010, the members and chairman of the Working Group would like to express their appreciation to all who assisted in their task.

Firstly, particular thanks are due to all of the individuals who contributed as subgroup members or as peer reviewers - they are identified by name in **Appendix 5**. Thanks are also due to the Convener of the Cross Party Group on ME, Mr Andy Kerr MSP, for facilitating discussion with its members of draft versions of the guidance. Very many comments were received from members of the Cross Party Group and other interested parties, following review of draft versions of the guidance. The Working Group is greatly appreciative of their contributions and also for the comments provided by the Scottish Neurosciences Council.

Finally, special thanks are due to Hazel Dawson, Susan Webster and Craig Bell, for their steadfast administrative support throughout.

Lewis Ritchie
Chairman, on behalf of the Guidance Working Group

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