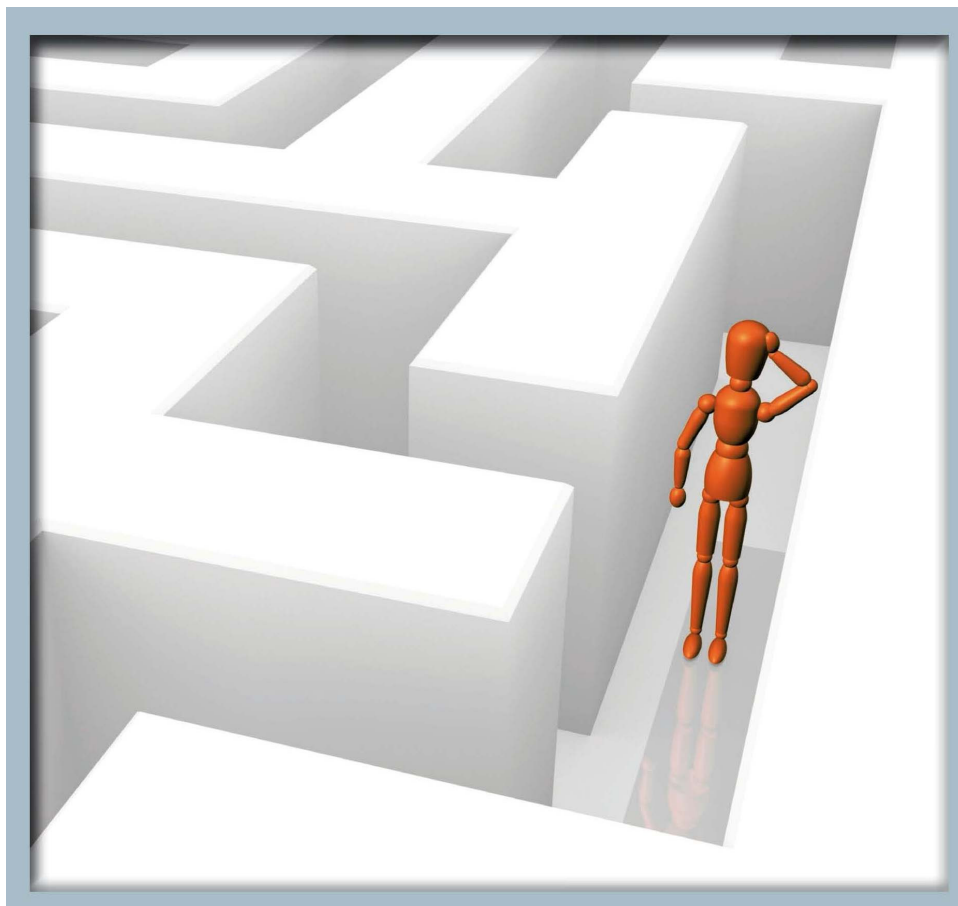


Clinical guideline for general practice

Functional disorders



Danish College of General Practitioners
2013

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Preface

We are pleased to publish a clinical guideline with focus on an issue which is quite central in the general medical work. A guideline about functional disorders has not previously been published in Denmark and is among the first to be published in Europe. Functional disorders have not been a priority in neither the pre- nor postgraduate education, and many health professionals are therefore self-taught when it comes to patients with functional disorders. The intention with this guideline is to upskill the future treatment in the area, partly by giving the reader an update on the current knowledge on functional disorders, partly by conveying concrete recommendations for assessment, diagnostics and treatment.

The guideline is primarily intended for GPs, but many elements can advantageously be used by other doctors, and the conveyed knowledge can furthermore be useful to a wider range of health professionals such as practice staff and social medical professionals. The guideline is targeted at the primary sector and therefore does not describe the specialised offers available for specific functional syndromes and pain conditions.

In the guideline, the term functional disorders is used for a number of symptoms and illnesses with common features and are therefore described as generic phenomena and not according to organ localisation.

The guideline consists of 15 chapters with alternating focus on basic knowledge and clinical recommendations, but in such a way that the theoretical knowledge conveyed should be seen in connection with the clinical chapters. At the beginning of each chapter, there is a box with the most important messages. Furthermore, boxes in the body text elaborate on important definitions and initiatives. Besides the main chapters, 2 chapters deal with patient groups, where there might be particular circumstances one should be aware of: Children and elderly patients. Finally, the last part of the guideline deals with the cooperation between GPs and other health professionals and the social system, quality development and measures regarding implementation. With the guideline follows 2 overview charts on diagnostics/assessment and prevention/treatment respectively (appendices 5 and 6). The guideline and appendices can also be found on The Danish College of General Practitioners' homepage, www.dsam.dk.

The workgroup has based its work on a systematic literature review with indication of level of evidence of the recommendations. In a lot of areas regarding functional disorders, the evidence however is still sparse, and we have in these cases chosen to also convey the workgroup members' experience-based knowledge. It is our hope that knowledge and recommendations in this guideline can act as support in the clinical decision process where evidence as well as experience, clinical estimation and the patients' wishes must be included in the final evaluation.

Marianne Rosendal
Chairman of the workgroup

Lars G. Johansen
Chairman of DSAM

Levels of evidence and strength of recommendations

The guideline is based on a systematic literature search to the greatest extent possible. The description of the literature search and the literature references indicated in the text with superscript figures can be found on The Danish College of General Practitioners' homepage, www.dsam.dk

Like in the other guidelines by The Danish College of General Practitioners, evidence is categorised according to the table below, yet in a way that we have exclusively used the levels A-D and ☒ for level of evidence for statements as well as for recommendations.

Recommendation	Level of evidence	Area of knowledge: Treatment and prevention
A	1a	Systematic reviews or meta-analyses of homogeneous randomised controlled trials
	1b	Randomised controlled trials
	1c	Absolute effect (e.g. insulin for patients with type 1 diabetes)
B	2a	Systematic reviews of homogeneous cohort studies
	2b	Cohort studies
	2c	Database studies
	3a	Systematic reviews of case-control studies
	3b	Case-control studies
C	4	Uncontrolled studies, case reports
D	5	Expert opinion without explicit critical assessment, or based on pathophysiology, laboratory research or rule of thumb
<input checked="" type="checkbox"/>	5	Recommended by the writing group as good clinical practice
DS	DS	Diagnostic studies

The purpose of grading the strength of the evidence and recommendations is to make it transparent for the user what the recommendations in the guideline are based on. The above-mentioned levels of evidence and grading of the recommendations' strength illustrate the principles which are used for grading the underlying knowledge that this guide is based on.

The recommendations' strength is graded from A (greatest validity) to D (least validity). In the guideline, the recommendations' strength is indicated to the left in the box. When evaluating the validity of the underlying knowledge, one must bear in mind that not all knowledge can be verified in randomised trials.

The category ☒ expresses the writing group's recommendation for "good clinical practice".

Introduction

It is natural to experience signals from the body. We call it sensations. Symptoms are *sensations* which cause worry about potential disease. Most people who visit their GP have symptoms. In general practice one should be aware that a new symptom rarely can be explained by a physical or mental disease, namely because sensations are common.

? What are functional disorders?

Definition of functional disorders

Disorders where the individual experiences symptoms that affect the daily functioning or quality of life and where the symptoms are not better explained by another well-defined physical disease or mental disorder, OR where the individual to a pathological extent worries about his/her health.

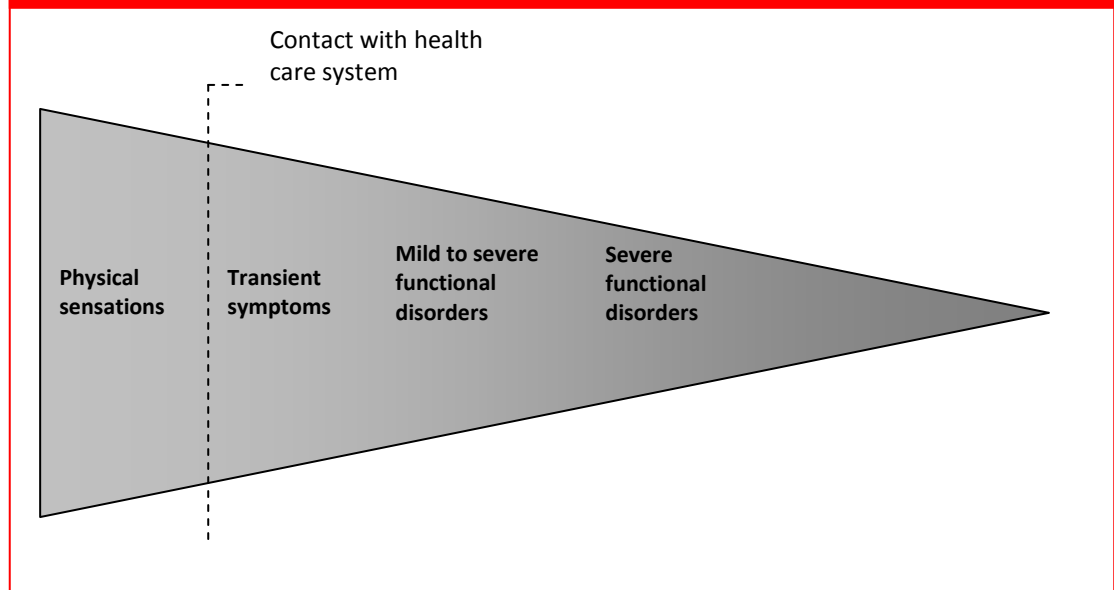
A distinction is made between mild, moderate and severe functional disorders.

Severe functional disorders are further divided into *bodily distress syndrome* and *health anxiety*.

- ***Bodily distress syndrome***: The patient is suffering from physical symptoms. The patient may at the same time have a natural worry that the symptoms are caused by an undiagnosed physical disease.
- ***Health anxiety***: The patient is plagued by fear of having a serious disease. Natural sensations can exacerbate this fear, but the physical symptoms per se are not significantly bothersome to the patient.

Functional disorders comprise a spectrum in severity and frequency (see figure 1). In mild cases, the symptoms often prove to be transient. Moderate cases may require treatment and are often named *bodily distress* as the symptoms can be seen as an expression of strain – both physically as well as mentally. Severe, often chronic, conditions are only seen in a small part of the patients and are named severe functional disorder or *bodily distress syndrome*. Finally, there is a distinction between different degrees of illness worry. In mild cases, the illness worry subsides after an ordinary assessment and information. In severe cases, the worry develops into actual health anxiety¹.

Figure 1. Functional disorders range from transient symptoms with high incidence to severe disorders with low incidence



It is appropriate to make some delimitation between the different conditions in the spectrum. Transient symptoms and mild to moderate functional disorders as well as natural illness worry do not have a significant influence on the patient's functioning or well-being, whereas patients with severe functional disorders such as *bodily distress syndrome* or health anxiety are significantly impaired by physical symptoms and anxiety respectively.

It's important to understand that patients with functional disorders do not deliberately produce the symptoms – as opposed to malingers. The patients do experience the symptoms and/or worry and are bothered by them/it.

? What is the patient's illness called?

In cases where the symptoms are transient and the patient presents with natural health concerns, diagnoses from the functional spectrum are rarely used. Instead, the symptoms are typically called what they are. In ICPC (International Classification of Primary Care), these conditions are classified with symptom diagnoses such as N01 Headache or N27 Fear of neurological disease. The same goes for some cases of mild and moderate functional disorder.

In severe cases where the patient's functioning is significantly affected, it is beneficial for both the patient and the health professionals involved that the illness gets a specific name. The term functional disorder can be used. If the symptoms dominate, the illness is also called *bodily distress syndrome* or *bodily stress disorder*. If anxiety dominates, the term *health anxiety* is used. These diagnoses are all classified under P75 Somatoform disturbance in ICPC.

Finally, a lot of different terms for functional syndromes within the somatic specialties are used². Examples of this are:

- Neurasthenia (P78)
- Chronic pain condition, General/widespread pain (A01)
- Chronic fatigue syndrome, Myalgic Encephalomyelitis, Post-viral fatigue syndrome (A04)
- Irritable bowel syndrome
- Cardiac syndrome X (K74)
- Fibromyalgia (L18)
- Chronic whiplash, Distorsio columnae cervicalis sequelae, Whiplash Associated Disorder, Whiplash syndrome (L83).

Examples of functional disorders

<p>Case A: Mild to moderate functional disorder</p> <p>Irene is 43 years old and works as a teacher. She lives alone with her 12-year-old son. She became a widow 2 years ago when her husband passed away suddenly. During the past 4 months, she has seen her GP once a month. The reason for consultation is often symptoms from the musculoskeletal system – in particular recurring lower back pain. Physical exercise eases the pain. Sometimes she suffers from head ache and mild dizziness. The many symptoms have caused her, besides consulting her GP, to consult a private clinic. At that clinic, they have made an MR scan and subsequently advised her to get an operation. She asks her GP for a referral for a back operation.</p>
<p>Case B: Severe functional disorder/bodily distress syndrome</p> <p>Samantha is 35 years old and frequently consults her GP. She is a marketing coordinator and has been used to having a lot on her plate. It is very important for her to be in control, both at work and in her private life, where she is mother of two girls aged 6 and 4. She has many different symptoms from several organ systems; palpitations, back pain, frequent urination, hot or cold sweats, breathlessness and fatigue. In the past 6 months, she has felt stressed and unfairly treated at work. She is now on long-term sick leave and her union has taken legal action against the workplace. From Samantha's point of view, the workplace has demanded a degree of flexibility on her part that exceeds what is possible for an employee.</p>
<p>Case C: Severe functional disorder/health anxiety</p> <p>Peter is 45 years old, works as a postman and has since his adolescence worried about suffering from cancer. He is very interested in health campaigns and often consults his GP. For instance, a leaflet that he picked up at the pharmacy about exposure to the sun and risk for skin cancer caused several visits to the GP, where he wanted various spots on the skin checked. Besides, he has accepted an offer from a private MR clinic that offers screening and diagnostics of colon cancer because his neighbour died from this a few years ago. Lately he worries about prostate cancer and wants to have a PSA after a campaign in the newspapers about the possibility of frequent nocturnal urination and difficulty passing urine being the first signs of cancer.</p>

? What is the explanation for functional disorder?

The etiology of functional disorder is multi-factorial. It is therefore not possible to categorise functional disorder as physical or mental. Components from both are included, and the medical division between body and mind falls short in these disorders.

The etiology can be divided as follows:

1. The person's vulnerability which can originate partly in biological circumstances such as heredity, partly in learned behaviour and acquired attitudes.
2. Precipitating factors like physical injury, disease, social and/or emotional problems and strains. This is known for example from patients with chronic whiplash, where a sprained neck in a traffic accident is the precipitating factor.
3. Perpetuating /aggravating factors. The health system and the social system play a significant part both when it comes to keeping patients in a sick role and by exposing them to side effects of (unnecessary) examinations and treatments. Also family, friends, working place a. o. may influence the course.

Different factors will be brought into play at different times in the course of the illness, and the biological, psychological and social factors interact. As to the biological aspect, changes in brain function and brain structure have been shown in severe functional disorders^{3,4}. These changes are presumably both an expression of a hypersensitivity towards stimulus and a poor central filtration of stimulus. Besides, it is believed that the symptom production is increased due to arousal or physical deconditioning. Psychologically, both cognitive and behavioural conditions such as illness understanding and illness behaviour are significant.

? How frequent are symptoms and functional disorders?

Patients with symptoms often just want a GP's opinion regarding their bodily sensations and can usually explain why they have interpreted them as a possible sign of disease. In about 70 % of adults with new symptoms, the symptoms spontaneously resolve.

At least 20-30 % of adult patients seeing their GP have anxiety disorders, depressions and/or functional disorders. The comorbidity between these disorders is high, and generally they present themselves with physical symptoms.

In a small group of patients, 5-10% of adult patients in general practice, the symptoms are persistent and new symptoms may occur continuously. Some suffer primarily from worry or actual health anxiety, while others mainly are bothered by their symptoms, for instance chronic pain.

? What is the influence of culture and context?

Symptoms and symptom patterns described in patients with functional disorders have varied a lot throughout history, strongly affected by the socio-cultural context and the diagnoses which are “popular at the moment”. It is therefore uncertain if functional disorders have become more frequent over time since what may appear as differences in occurrence may be caused by changes in the diagnostic designations that have been used in different periods in history.

A typical example is neurasthenia and chronic fatigue syndrome. At the end of the 19th century, neurasthenia was one of the most commonly used diagnoses, whereas it was virtually not used during the inter-war period. With the introduction of chronic fatigue syndrome, these conditions flared up from the 1980's, especially in England and the USA. Now, chronic fatigue syndrome is strongly abating in USA, but not in England, and the disorder is almost unknown in Germany, contrary to Norway where chronic fatigue syndrome is growing rapidly and where a knowledge center and a number of clinics for the disorder have recently been established.

Diagnoses and symptom pictures are besides professional “fashion streams” affected by socio-economic conditions, for instance if the diagnosis gives the opportunity for sick note, pension, economic compensation etc. The medical industry also has influence, for instance through diagnostic indications for medical preparations. Finally, political initiatives are significant for e.g. treatment possibilities.

Culture and context can in this way be significant for what we call functional disorders and how we perceive them, but it must be emphasised that these disorders exist worldwide cross-culturally.

? Are functional disorders a task for general practice?

Like in other diseases, general practice has several important tasks in relation to functional disorders. Among these are:

4. Assessment, diagnostics and differential diagnostics at symptom debut
5. Treatment of mild to moderate functional disorders
6. Coordinator role in severe functional disorders where there is an actual risk of causing damage to the patient if initiating one somatically focused odyssey after another.

Functional disorders make particular demands on general practice. Visits with symptoms are one of the areas where the GP is an expert. It might be necessary to clarify differential diagnoses by involving other specialties, but diagnostics and treatment - and thereby the overall course - rest on general practice. The fact that the patients are plagued by bodily symptoms makes certain demands on insight into somatic differential diagnoses. The issue is often complex, and the GP plays an important part also when other professions such as psychologists or nurses are involved. Patients with functional disorders challenge the biomedical and mechanistic illness models, and there is a need for applying the bio-psycho-social illness model – an illness model which general practice masters.

Patients with chronic functional disorders may benefit from specialised treatment such as cognitive behavioural therapy. Unfortunately, a proper treatment offer for these patients is currently only sparsely available throughout the country (and in other countries), and general practice must therefore handle treatment for this patient group in the best way possible.

Diagnostics

Recommendation	
☑	Consider a functional disorder when the patient presents uncharacteristic physical symptoms that are not better explained by a well-known illness pattern.
☑	<p>The following differential diagnoses should be considered:</p> <ul style="list-style-type: none"> • Well-defined physical disease • Well-defined mental disorder <ul style="list-style-type: none"> ○ Abuse ○ Psychosis ○ Affective disorders ○ Anxiety disorders.

? When should we consider functional disorders in the clinic?

A functional disorder should be considered when the patient presents uncharacteristic physical symptoms or a symptom pattern which is characteristic for bodily distress syndrome (see below) as well as by symptoms of health anxiety. The diagnosis requires that the condition is not better explained by organic disorder, abuse, psychosis, affective conditions and anxiety conditions (see paragraph about differential diagnostics and assessment).

? How can I be certain that it is a functional disorder?

In patients who visit the GP with more than 6 somatic symptoms for women and at least 4 bodily symptoms for men, there is biomedical explanation for the disorders in 75% of the visits⁵.

Diagnostic criteria

Even though functional disorders etiologically are considered multi-factorial with a significant biological component, they are still categorised as being psychiatric, partly

for historical reasons, partly because an essential part of the treatment is based on psychological principles.

At present, the ICD-10 criteria for somatoform disorders (see appendix 2), which are classed with ICPC diagnosis code P75 Somatoform disorder, are used. However, in general practice these criteria are difficult to use. Recent literature and present work with ICD-11 indicate that in the future it will be relevant for general practice to categorise the somatoform disorders as either bodily distress syndrome or health anxiety⁽⁶⁻⁸⁾. These diagnoses are based on empirical research in general practice^(9;10) and are currently used as research diagnoses in Denmark.

Bodily distress syndrome

Patients with bodily distress syndrome present bodily symptoms in a characteristic symptom pattern. The disorder causes substantial and constant impaired functioning (see case B).

The symptom pattern is characterised by presence of at least 3 concurrent symptoms from at least one of the following symptom groups:

- Cardiopulmonary arousal (for instance palpitations, precordial discomfort, breathlessness without exertion, hyperventilation, hot or cold sweats, dry mouth)
- Gastrointestinal arousal (for instance abdominal pains, frequent loose bowel movements, diarrhea, feeling bloated/distended/heavy, nausea, burning sensation in chest or epigastrium)
- Musculoskeletal impact (for instance pains in arms or legs, muscular pains/aches, pains in the joints, feeling of paresis in arms or legs, back ache, pain moving from one place to another, unpleasant numbness or tingling sensations)
- General symptoms (for instance concentration difficulties, impairment of memory, fatigue, headache, dizziness).

The symptom pattern cannot be better explained by another physical or mental illness. The symptoms affect the patient's functioning and well-being.

Health anxiety

Patients with health anxiety typically visit the GP with physical symptoms. The main problem is not the symptoms as such but the patient's worry about a potential health problem (see case C).

Health anxiety is characterised by increased attention to the body and a high degree of concern for one's own health. The patient is tormented by recurring rumination with disturbing thoughts and fear of suffering from an illness. At the same time, the patient cannot or only with great difficulty stop the rumination. The diagnosis requires that the patient besides rumination at the same time has *one* or more of the following 5 symptoms:

- Worry or preoccupation with the fear of suffering from a serious physical illness or thoughts about being affected by the illness in the future. Or preoccupation with other health worries and intense attention to body functions and bodily sensations.
- Suggestibility and auto-suggestibility. If the patient hears or reads about a disease, she/he is inclined to fear suffering from that disease. By auto-suggestibility you are convinced by your own thoughts, by suggestibility you are convinced by another person.
- Excessive preoccupation with medical information.
- An unrealistic fear of being infected or contaminated by an object, something you have eaten or by a person you have met.
- Fear of taking prescribed medicine.

The symptom pattern cannot be explained better by another physical or mental illness. The symptoms affect the patient's functioning and well-being.

Differential diagnostics and comorbidity

Recommendation	
B	It is rare that diagnostics of severe physical disease is delayed in patients with functional disorders.
<input checked="" type="checkbox"/>	Always consider the possibility of a physical disease with multiple symptoms, for instance metabolic disorder, DS, SLE, AIDS and others.
<input checked="" type="checkbox"/>	Characteristics of well-defined physical disease: <ul style="list-style-type: none"> • Few and specific symptoms • Characteristic symptoms or illness patterns • Constant symptom localisation • Clear variation in intensity with few alleviating or aggravating factors • Main complaints can be identified • Clear description • Well-defined effect of specific treatment.
<input checked="" type="checkbox"/>	Consider well-defined mental disorders (abuse, psychosis, affective disorders, anxiety disorders)

? How big is the risk of delaying the diagnostics of other serious disease?

An organic explanation for bodily symptoms is rarely found in general practice. In an American general practice, 1000 patients with chest pains, fatigue, dizziness, sensory disturbance, erectile dysfunction, weight loss, cough and obstipation were followed for 3 years. In 2/3 of the cases, the GPs carried out additional diagnostic assessment. Overall, organic etiology was found in 16% of the patients¹¹.

By persistent symptoms, several studies indicate that the diagnosis of an organic disorder is delayed in less than 4% of the cases^{12;13}. In a recent study in a neurological clinic it was found that 1144 patients – corresponding to 30% of all recently referred patients – had medically unexplained symptoms. At a follow-up 18 months later of 1030 of these patients, 4 (0.4 %) had developed a neurological disease which could explain the initial symptoms¹⁴. In case of transitory symptoms, the diagnosis was according to a single study in general practice delayed in up to 10% of the patients who initially were considered to have a functional disorder, but in less than 1% of the cases this had serious health consequences¹⁵.

Patients who visit general practice with alarm symptoms of cancer will in most cases be diagnostically clarified within 3 months¹⁶.

? How long can you bide your time without biomedical assessment (watchful waiting)?

In the majority of patients, the symptoms causing the visit will have passed within 2 weeks after visiting the general practice¹⁷. Symptoms lasting more than 2 weeks should therefore lead to more thorough examination.

? Which are the most important differential diagnoses in functional disorders?

It is important to be aware of the fact that functional disorders can be comorbid with well-defined diseases. Thus, another diagnosis does not exclude the presence of a functional disorder and vice versa. In most well-defined diseases, the diagnosis is easily made from a characteristic symptom picture as well as clinical and paraclinical findings.

It is necessary to consider the possibility of well-defined physical disease with multiple symptoms, for instance metabolism disorder, disseminated scleroses, hyperparathyroidism, adrenal insufficiency/Addisons disease, acute intermittent porphyria, Parkinsons disease, myasthenia gravis, AIDS, borelliosis, systemic lupus erythematosus and other connective tissue diseases. Especially the rheumatologic diseases can give unspecific, changing and long-lived symptoms.

Patients who later proved to have cancer often had symptoms like pain, a lump, fatigue, changes in the bowel moment pattern etc. at their first visit to the GP. In about 25%, the symptoms were uncharacteristic¹⁸.

Bodily symptoms are very frequent in depression and anxiety disorders. If the GP pays attention to this, the differential diagnosis is rarely difficult as the symptom picture is marked by the basic disorder. Yet, there is a significant comorbidity between depression, anxiety and functional disorders. In close to half of the patients with a serious functional disorder, a diagnosis of depression or anxiety disorder can also be made¹⁹.

? What speaks against presence of a functional disorder?

The alarm symptoms of breast-, intestine-, urinary tract- and lung cancer are frequent in the generalpopulation, and about 15% has had at least one of these cancer alarm symptoms within a 12-month period²⁰. While for instance rectal bleeding is only connected with a risk of having cancer in about 0.1 % in the general population, the risk is considerably higher, namely 2.5-5%, in individuals who have chosen to visit their GP²¹. Debut of alarm symptoms is connected with increased risk (2-8 %) of an underlying cancer, especially in men and in individuals of both sexes over 65 years²². Patients visiting a general practice with alarm symptoms should therefore always be examined.

The following characteristics speak for a well-defined physical disease²³:

1. Few symptoms
2. Specific symptoms
3. Characteristic symptoms or symptom patterns
4. Constant symptom localisation
5. Distinct variation in intensity, including distinct periods with aggravation or improvement
6. Few alleviating or aggravating factors
7. Main complaint can be identified
8. Clear and distinct description
9. Well-defined effect of specific treatment.

Assessment

Recommendation	
<input checked="" type="checkbox"/>	Thorough assessment for well-defined physical disease or mental illness should be considered at initial symptom duration of more than two weeks.
<input checked="" type="checkbox"/>	Differential diagnoses are excluded by regular anamnesis and physical examination. A supplemental laboratory screening can reveal (but not exclude) most known organic disorders.
<input checked="" type="checkbox"/>	Consider screening for mental illness

? What is the assessment programme for uncharacteristic symptoms?

There is no commonly accepted and validated assessment programme for patients who visit general practice with uncharacteristic symptoms. Usually, medical history and physical examination combined with a so-called “psychiatry-package” consisting of the following is recommended²⁴:

- Haematological quantities (haemoglobin, thrombocyte, and leukocytes)
- Fluid levels (sodium, potassium, creatinine)
- Liver count (ALAT, GGT, ALP)
- Cobalamin
- HbA1c/fasting blood sugar
- Thyroid gland tests (thyroid stimulating hormone=
- Calcium
- CRP/sedimentation rate
- Dipsticks and screening for substance abuse if necessary

- ECG, BP, height, weight, lung function if necessary
- Other tests depending on the symptoms if necessary

In the assessment of a possible functional disorder, the *Common Mental Disorders Questionnaire* (CMDQ) is recommended (see appendix 5)²⁵. The first part of this questionnaire deals with the number of symptoms and the second part deals with illness worry. These are both relevant in relation to screening for functional disorder.

Furthermore, the CMDQ questionnaire contains a series of screening questions regarding anxiety, depression and alcohol abuse. These diagnoses are important differential diagnoses in the assessment of functional disorders.

The patient's illness beliefs

Recommendation	
B	All individuals experience daily bodily sensations.
B	One's perception of bodily sensations depends on heredity, attention, state of mind and previous experience with disease and treatment.
B	The patient's own understanding of symptoms influences illness course, prognosis and use of health care.

? How common is it to experience bodily symptoms?

All individuals experience bodily sensations from natural physiological processes and many also have symptoms in the sense that they consider the perceived signals possible signs of illness processes. Thus, up to 80% of adult Danes state that they have experienced sensations over 2 weeks²⁶.

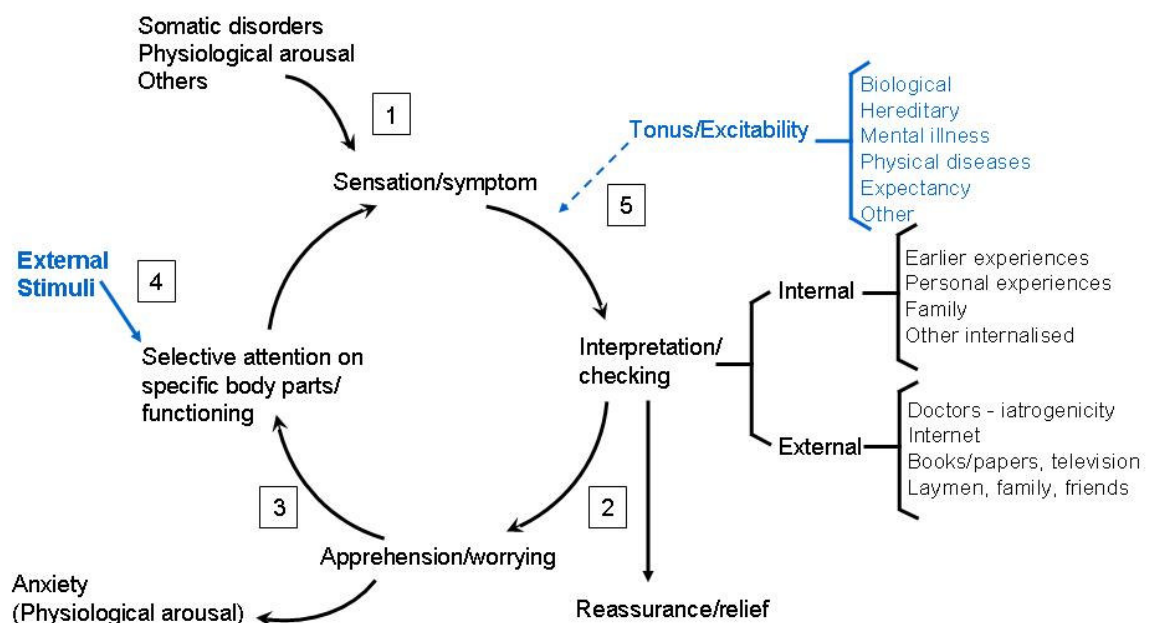
? How do we interpret our symptoms?

It is primarily our own interpretation that determines when we consider something a natural bodily sensation and when we consider it a sign of disease for which we seek treatment or see a GP. In figure 2 (page 16), a standard model is shown for how humans perceive and interpret bodily sensations and symptoms²³.

A number of circumstances such as new disease or anxiety-released physiological arousal can cause bodily sensations [1]. These sensations can lead to further concern or reassurance depending on how they are interpreted by the individual [2]. All people

have a relatively stable sensory- or symptom panorama, which they are familiar with. When girls for instance hit puberty, they become familiar with new bodily sensations in connection with menstruation, and these are added to the symptom panorama. Experience with symptoms from previous diseases, as for instance influenza, will also be a part of the individual's internal frame of reference. When new, unknown sensations occur, information is sought in external sources. These sources can be family members, colleagues, books, TV, internet and the GP. The GP's information and reaction can be of great significance as his/her response and questioning can reinforce or weaken the patient's attention to special symptoms and/or organs [3]. If the patient's interpretation causes worry, further arousal will occur reinforcing the bodily sensations [1].

Figure 2. Symptom perception and illness belief
Explanation with reference to the numbers can be found in the text.



External information about a disease, for instance from a newspaper or TV, can make a person change his/her perception of known bodily sensations so that these are suddenly interpreted as signs of illness [4].

Finally, a number of conditions – such as previous or existing disease, heredity etc. – are important for tonus in the perception circle in that a person can be more or less prone to letting sensations trigger the interpretation processes [5]^{23,27}.

? What does family history mean?

Since our illness belief is built through the experiences we get throughout life, it is strongly susceptible to cultural, social and other learned influences, including upbringing.

Genetic inheritance probably plays a role as well, which is particularly evident in persons with severe health anxiety as they have a readily aroused tendency to worry.

? Illness belief – what is that?

Illness belief consists of 5 main elements, and the patient's illness belief is explored by asking questions within these 5 areas²⁸.

Main elements in illness belief

Identity: The designation the patient uses (e.g. tension headache) and the symptoms that the patient attributes to a certain illness.

"Which thoughts have you had about what is wrong with you?"

Cause: Does the patient think that the condition is caused only by physical disease, do psychosocial factors play a part, or do other factors play a part?

"Which thoughts have you had about what the reason might be?"

Time frame: Does the patient think it will be short-lived, or does s/he fear a chronic disorder?

"How long do you think it will last?"

Consequences: Does the patient think that s/he or will be able to work again, that s/he will experience discomfort, that s/he will depend on sickness benefit etc.? "What do you think it will mean for your daily life?"

Recovery and control: Does the patient think that s/he will recover, that treatment will help and that s/he can influence the symptoms? Or does the patient feel helpless and without influence on his/her symptoms and illness?

"Have you thought about or have any experience with what could alleviate or aggravate your symptoms?"

By the way, it is a common misconception that patients with functional disorders are rigid in their conviction that they have a physical disease. This might be true for a small part of the most severely ill. Yet, several studies show that the patients in general have several concurrent understandings of their problems, including biological, psychological and social circumstances²⁹.

Likewise, it is a misunderstanding that the patients only want more examinations or somatic treatment. On the contrary, most of them want to be taken seriously, to receive qualified explanations (see box page 24) and to get treatment for their illness^{28;30;31}.

? Which significance does illness belief have?

The patient's illness behaviour is determined by his/her illness belief. The patient's own illness model hereby becomes important for the morbidity and prognosis as regards subjective well-being, functioning, compliance and use of health care.

Accordingly, the GP's illness understanding is vital for his/her choice of assessment and treatment.

? Where is the line between natural illness worry and health anxiety?

The line is based on a clinical evaluation. We are dealing with excessive illness worry or actual health anxiety if the worry does not disappear or reappears quickly when the patient has gone through relevant examinations and has been reassured by the GP, or if there is a repeated pattern with readily aroused illness worry that leads to contact with the health care system.

Perpetuating and aggravating factors

Recommendation	Factors in the patient
B	Comorbid mental illness.
C	Illness understanding and illness behaviour that result in frequent contact to the health care system.
D	Negative expectations to the illness course.

Recommendation	Factors in the health care system
A	Biomedical assessment (except from a focused clinical examination) and treatment attempts can increase illness worry and harm the patient.
A	Passive treatment.
<input checked="" type="checkbox"/>	Lack of specific treatment options.

Recommendation	Factors in the surroundings and societal circumstances:
B	Rules related to social benefits.
<input checked="" type="checkbox"/>	Stigmatisation.
<input checked="" type="checkbox"/>	The media's presentation of health and illness culture.

? What can cause aggravation of the patient's condition?

Factors in the patient

If the patient has a comorbid psychical disease such as anxiety or depression, the risk of medicalisation and a long-term course is increased³²⁻³⁴.

As indicated in the previous chapter, the patient's illness belief is important both for the course^{35;36} and the illness behaviour. Frequent contacts with the health care system and different health professionals increase the risk of iatrogenic harm and could contribute to the development of chronic functional disorders³⁷⁻³⁹.

Furthermore, the patient's expectations to the course are of importance in the way that positive expectations promote recovery, whereas negative expectations can contribute to medicalisation⁴⁰⁻⁴².

Factors in the health care system

A diagnosis gives explanations and options⁴³, while lack of diagnosis creates uncertainty in both patient and GP – but even when the diagnosis 'functional disorder' has been made, the patients are continuously referred to unnecessary examinations and treatment attempts⁴⁴. There is a paradox in the fact that uncertainty creates the need for more examinations which again create more uncertainty⁴⁵.

If the patient does not feel heard or taken seriously, a presentation of more or intenser symptoms is typically seen⁴⁶, and the more focus there is on the symptoms during the consultation, the more likely it is that the GP handles the problem from a narrow biomedical angle⁴⁷.

Some GPs use physical examinations to reassure the patients with negative findings. Physical examination – besides a regular, focused clinical examination – and biomedical treatment attempts can however contribute to increased illness worry⁴⁸, especially in patients with health anxiety, anxiety or depression^{33;49}. It is important to ensure a good communication about expected results and course prior to potential biomedical assessment⁵⁰⁻⁵².

Passive treatment as pain relievers and "diagnostic feints" can result in more symptoms with more worry as a consequence. Besides, incorrect guidance from therapists can reinforce a potential learned avoidance behaviour⁵³.

In some cases, the illness course becomes prolonged and marked by mistrust. The apparent lack of acknowledgement of the symptoms can lead to discontent with the treatment and frequent replacement of GP, which again leads to more referrals and further risk of iatrogenic harm. Some functional disorders are clearly chronic conditions, and in those cases, a systematic and proactive follow-up could prevent that the patients are thrown backwards and forwards between different health professionals.

The consequences of iatrogenic harm are listed in the chapter about complications, page 34.

? Why is the GP encouraged to pursue the biomedical approach?

GPs' fear of overlooking physical disease is the most frequent reason for further referral to assessment and treatment despite of the fact that serious disease is only rarely overlooked in this patient group (see chapter about differential diagnosis, page 12).

Some GPs see their role as “the biomedical consultant” and do not feel prepared to deal with the psychological and social components of the illness picture. Also, absence of targeted treatment offers contributes to a non-optimal ad hoc treatment in general practice and at the specialised wards in general hospitals. Finally, many GPs have a sparse knowledge about functional disorders and lack experience in diagnosing and treating these disorders.

Factors in the surroundings and the societal conditions

In 2003, an ‘ability to work model’ was introduced in Danish social legislation. The intention was that focus should be put on resources and functioning instead of limitations by allocation of benefits. However, a recent study shows that illness and the associated diagnoses are still pivotal⁵⁴. Both patient and GP can therefore be led into a behaviour where objective signs or proof of illness are sought⁴³. Less visible disorders such as fibromyalgia can cause a lack of understanding from the surroundings, distrust and stigmatisation⁵⁵ (see chapter about social relations, page 32). On the other hand, several studies show that the possibility of achieving financial compensation by sickness absence due to back ache increases the risk of long-term sickness leave⁵⁶.

There are cultural differences when it comes to which frame of understanding the patients' symptoms use for their symptoms. Thus, there is a big difference between for instance England and Brazil in that disabling fatigue to a great extent is considered a consequence of conditions of life in Brazil, while in England a biomedical explanation model is sought⁵⁷.

Also, the media plays a part. Often focus is on delayed diagnostics of for instance cancer, malpractice and potential insurance cases. One-sided threat assessments characterised by disaster regarding invisible impacts on the human body are presented – pollution, radiation, poison in food etc. - which can affect the illness belief of the individual and give rise to development of functional disorders in predisposed individuals⁵⁸.

Treatment and assessment

Recommendation	
A	The treatment should have a <i>stepped care</i> approach building on a co-operation between the GP and a psychiatrist.
A	Cognitive behavioural therapy by specialists has documented effect.
A	Cognitive-oriented treatment models carried out by GPs reduce the use of health care services.
A	Pharmacological treatment is effective in severe functional disorders.
C	Avoid unnecessary illness worry and inappropriate illness worry in all phases.
C	Agree on status consultations and regular consultations when dealing with patients with chronic disorders.
☑	Make the diagnosis if the criteria are met.
☑	Be understanding and give qualified explanations.
☑	Be proactive and be facilitator in complex problems.
☑	Avoid addictive medicine.

? What is the GP's role in the treatment?

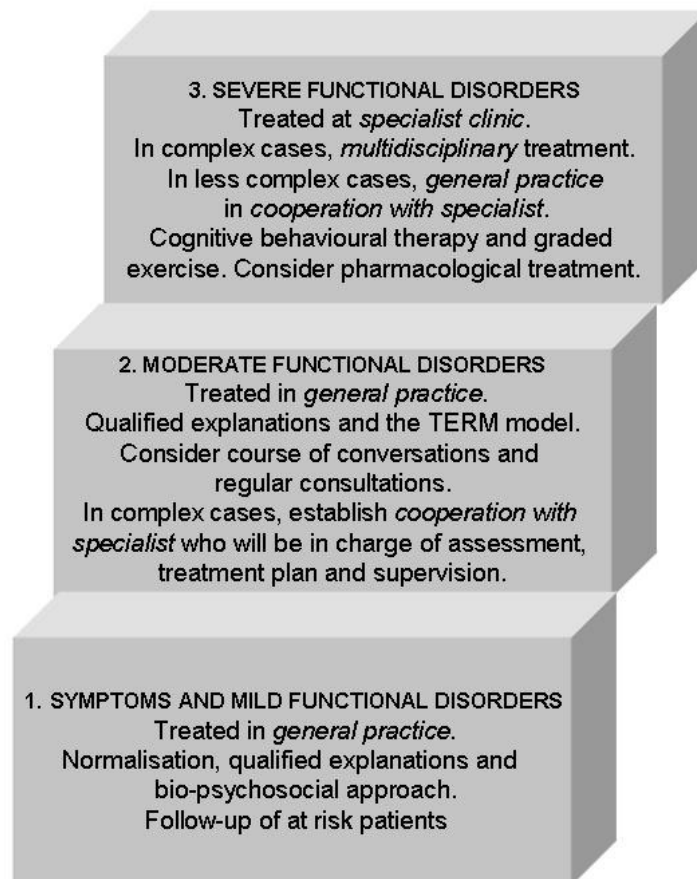
Most patients with functional disorders benefit from treatment, but the choice of treatment depends on where the patient is in the illness spectrum. Most patients present with mild functional disorders where prevention and timely treatment in practice is important. Other patients have chronic disorders where the problem can be complex, both illness- and administration-wise, where several health professionals and maybe the social system are involved at the same time. In these cases, it is an important task for general practice to take on a coordinating role.

Overall, the treatment of functional disorders should take its starting point in a stepped care approach where it should be determined at which specialisation level the patient is best treated (Figure 3)^{59;60}. Considerations regarding the patient's risk profile - assessed on the basis of severity and complexity of the disorder - and considerations about the feasibility, i.a. based on what is acceptable to the patient, available resources and the GP's competence in the area. How much of the treatment the GP is responsible for thus depends both on the GP's qualifications and on the availability of other treatment

possibilities in the geographic area. It is therefore extremely important that the GP is aware of his/her role in the treatment.

Furthermore comes the rehabilitation efforts etc. after the social legislation (see paragraph about the social-medical cooperation, page 46).

Figure 3. Stepped care in the health care system



? How can development and aggravation of functional disorders be prevented?

The GP's approach to a patient presenting with symptoms can be crucial for the further course^{61;62}. Examinations and treatment attempts can increase worry, medicalisation and GP seeking (see chapter about perpetuating and aggravating factors, page 19)⁶³. The GP should therefore apply a broad approach to the problem and not only a narrow biomedical one⁶⁴. It is particularly important also to explore the patient's psychological and social circumstances as well as the patient's illness belief and expectations to the GP/health care system and other involved parts such as workplace and local authorities.

The GP should include this knowledge already at the beginning of the illness course, also when there is indication for biomedical assessment. The aim is to enhance the patient's coping with the symptoms and reduce illness anxiety parallel to an assessment, if any. Unspecific, general reassurance is not very efficient and it is inappropriate to do biomedical assessments just to reassure the patient^{33;48}. Instead, qualifying explanations and normalisation are used⁶⁵.

Qualifying explanations are explanations that include the patient's illness understanding, that are meaningful to the patient and support the patient's coping.

In **normalisation**, the patient's symptoms are put into the context that it is normal (known from other patients) to have bodily sensations and that these are only rarely a sign of actual disease. Normalisation can ONLY be used in mild cases.

Also patients with chronic functional disorders need qualified explanations and dialogue regarding illness understanding and expectations as well as information about what functional disorders are. Many need emotional support as well²⁸. In patients with high use of health care, it is recommended to be proactive and make fixed appointments based on the patient's current need and then adapt gradually. The GP's coordinating role is especially important for these patients, and an open discussion with the patient about the appropriateness of his/hers use of on-call GPs, emergency room, alternative treatment etc. may be necessary.

? How are functional disorders treated?

Psychological treatment has shown good effect, especially cognitive behavioural therapy⁶⁶. This goes for both health anxiety and other functional disorders and syndromes such as chronic fatigue syndrome, fibromyalgia and irritable bowel syndrome^{2;19;60;67-70}. These treatments are primarily developed and tested in specialised settings^{68;70-77}, and therefore the results can not just be applied in general practice^{78;79}.

In general practice, models taking their starting point in cognitive therapy, but which have been adapted to primary health care, for instance the Danish TERM-model (The Extended Reattribution and Management model), are recommended. The TERM-model is both a model for the consultation process and for treatment of functional disorders. These models seem to reduce use of health care and improve patient satisfaction, while improvement of the patients' health beyond 3 months has not been documented^{1;80-86}.

A precondition for starting a dialogue with the patient about the course of treatment is that the patient feels understood. The GP should acknowledge that the patient's symptoms are real and apply a concurrent biological, psychological and social approach to the patient's problem based on the below-mentioned conditions (first part of the TERM-model¹).

Step 1 of the consultation (the patient's part)

To create understanding and ensure a bio-psycho-social approach

- Explore symptom anamnesis
- Explore signals of emotional problems
- Ask about symptoms of anxiety/depression
- Explore strain, stress and external factors
- Ask about functional level
- Explore the patient's illness understanding
- Explore the patient's expectations to assessment and treatment
- Make a focused clinical examination and paraclinical tests if indicated.

The further course will depend on how severe the patient's disorder is.

Mild and moderate functional disorders

The starting point is taken in the patient's illness understanding which should be clarified to create an expanded frame of understanding of the symptoms. Normalisation and different explanation models can be included, and especially biological explanation models are seen as useful by the patients. For instance, one can talk about autonomous reactions in stress reactions or muscle tensions in nervousness as foundation for the bodily stress condition. At the same time, one should be aware of preventing aggravation or future functional disorders instead of contributing to medicalisation.

Severe functional disorders

The treatment in general practice can with advantage be a part of shared care programmes in which the GP cooperates with specialised health professionals in the treatment^{72;87}.

In patients with severe functional disorders, the problem can be very complex. In those cases, it is recommended to do a status consultation to go through the entire illness course with the patient. In patients with chronic functional disorder and frequent contact with the health care system (active illness phase), the GP should be proactive, and it is recommended to do a status consultation at least once a year. As part of the status consultation, it is advisable to monitor the patient's physical and mental symptom strain, for instance by using the CMDQ (see appendix 5).

Status consultation

- Review the patient's medical history
- Open dialogue with the patient about the course so far
- Support the patient in taking active part in the treatment trajectory
- Joint plan for the further course
- Involve relatives if necessary

Treatment principles based on cognitive therapy

The below treatment principles apply in both *bodily distress syndrome* and health anxiety, but the focus of the therapy depends on the disorder.

Based on cognitive therapy, work with the following:

- Make the diagnosis and communicate it
- Psycho education
- Explore the patient's thoughts and beliefs
- Alternative understanding of behaviour, including reducing illness worry and dysfunctional behaviour
- Objective
- Problem-solving
- Prevention of relapse

Bodily distress syndrome

In these patients, focus is especially on symptoms and behaviour related to these. You can explain that the underlying causes are not known, but that there is a biological foundation with changes in the nervous system's filtering of signals, and that the body concurrently is in a kind of constant state of alert producing more symptoms than usual. A symptom registration chart is used (see appendix 4) to make the variation in symptoms visible and to form basis for working with alternative understanding and behaviour. Also, for the latter, the basic cognitive model for functional disorders is used in connection with automatic and alternative thoughts and behaviour. Finally, the focus is on working with coping and problem-solving e.g. by using steps of objectives (see appendices). The starting point is that in all diseases, coping and how you react to your symptoms is important for the course.

Graded exercise therapy has good effect⁷⁰ in patients who are deconditioned due to their illness.

New methods like mindfulness therapy and Acceptance and Commitment Therapy (ACT) may have effect, but the documentation is insufficient at the moment⁸⁸.

Health anxiety

Patients with health anxiety are usually aware that it happens in their mind, especially in phases without health anxiety. However, when the fear takes over they can be at the mercy of it and be convinced they are seriously ill. The cognitive therapy focuses on the patient's dysfunctional assumptions of having contracted a disease. You work with the patient's disposition to easily provoked anxiety and possible catastrophising. Figure 2 (see chapter about the patient's illness belief, page 15) can be included for this purpose, and the basic cognitive model for functional disorders could be used in the work with alternative explanations (see appendix 4).

These patients can be treated in cooperation with a psychologist as the anxiety and not the symptoms are dominating the illness picture.

It is particularly important to prepare patients with health anxiety for expected (negative) results prior to necessary physical examinations.

Especially in chronic disorders

In chronic cases, there is no immediate prospect of recovery, and it is extremely important to avoid iatrogenic harm and to support a prospective process towards recovery. For this purpose, a number of principles as listed in the table about management of chronic functional disorders can be used (page 28 and appendix 6).

? When is pharmacological treatment indicated?

At the moment, no medication has functional disorders as a registered indication. In the following, expert recommendations and evidence in the area is conveyed.

Potential medical treatment should only happen on indication, i.e. in case of a verified diagnosis and when there is evidence-based treatment effect. Specific medical treatment aimed at severe functional disorders in the shape of *bodily distress syndrome* or health anxiety can be considered while symptom treatment rarely is indicated.

In severe cases of functional disorders, antidepressants (SNRI, TCA) can be effective, also in patients who are not depressed^{67;89-93}. In functional disorders, the psychopharmacological treatment is aimed at disturbances of the symptom perception and the central pain inhibition and not at a presumed underlying depression. Furthermore, anticonvulsants (Gabapentin, Pregabalin, Lamotrigine, Carbamazepine), which are used in pain treatment, probably also have an effect⁹³. In severe health anxiety, the effect of SSRI⁷³ is documented. In some cases there is indication for specific symptom treatment, e.g. with motility-modifying agents in colon irritable⁹². Avoid addictive medicine such as strong analgesics and benzodiazepines.

General advice on management of patients with CHRONIC functional disorders

Physical

- Make a physical examination focusing on the organ system from which the patient has (new) complaints.
- Avoid tests and procedures, unless indicated by objective signs or a well-defined (new) clinical illness picture.
- Never treat a patient for an illness he or she does not have.
- Reduce unnecessary drugs, do not use on-demand prescriptions, and avoid habit-forming medication

Psychological

- Make the diagnosis and tell the patient that the disorder is known and has a name.
- Acknowledge the reality of the patient's symptoms.
- Be direct and honest with the patient about the areas you agree on and those you do not agree on, but be careful as not to make the patient feel ignorant, humiliated or not respected.
- Be stoic; do not expect rapid changes or cures.
- Reduce expectations to cure and accept that the patient suffers from a chronic disorder, but make sure to support the patient in believing that he will get better. The objective is to accept the patient and limit (iatrogenic) harm.
- Consider whether worsening or emergence of new symptoms can be perceived as a worsening of the functional disorder or the emergence of new illness.
- Possibly try a specific therapy and consider referral to specialist treatment.
- Motivate the patient to accept specialized psychiatric treatment if relevant and available.

Psychopharmacological treatment

- Consider treatment with psychoactive drugs (primarily antidepressants and, secondly, antiepileptic drugs).
- Avoid habit-forming medication and, if possible, choose medication that can be serum monitored.
- Start with a smaller dosage than usual and increase slowly. Be stoic about side effects.
- Treat any coexisting psychiatric disorder according to usual guidelines.

Administrative

- Be conscious of your role in the treatment
- Be proactive rather than reactive if you are the patient's primary health care provider. Schedule a series of appointments of a fixed duration and with fixed intervals instead of leaving the scheduling to the patient's discretion.
- Contact the patient's primary health care provider, often a GP, and arrange treatment/diagnostic work-up if you are not his primary health care provider yourself.
- If the patient has a job, sick leave should be avoided if at all possible.
- Try to make an alliance with the patient so that you become the patient's only GP, and minimize the patient's contact to other health care professionals, out-of-hours services and alternative therapists.
- Inform your colleagues about your treatment plan and make arrangements with your colleagues if you take a day off.
- Try to build an alliance with the patient's relatives by informing them about the treatment plan.
- Arrange any necessary support/follow-up for yourself.

In pharmacological treatment, you should be aware that patients with functional disorders often are more sensitive to side effects and you should therefore start with a lower dosage than normal (start low – go slow). At the same time you should consider choosing drugs which can be serum-monitored due to evaluation of side effects and compliance. As in any medical treatment, the medicine should be discontinued by lack of effect. For antidepressants this means after 3 months. We lack knowledge about how long the treatment should be maintained by treatment effect.

? How are specific expectations about non-indicated initiatives handled?

If the patient requests for instance a sick note, medicine or a specific examination, the GP should be conscious of his/her role and act based on professional knowledge. At the same time, it is obvious that the patient has a good reason for wanting an examination etc., and it is always important to explore the patient's expectations during the consultation. However, if a given examination is not medically indicated, there is a potential risk of iatrogenic harm and the examination should therefore not be carried out. The communication of this should take place in an open and accommodating dialogue with the patient where the advantages and disadvantages of a certain initiative can be discussed.

? How to handle functional disorder in patients with a comorbid physical disease?

Comorbid diseases, both physical and mental, are treated after given guidelines. To also be able to take care of the patient's functional disorder, including health anxiety, it is especially important with a broad bio-psycho-social approach to the problem and an open dialogue with the patient about illness understanding and illness behaviour as well as indication for and expected results of potential physical examinations/treatment. As mentioned under pharmacological treatment, these patients can be particularly sensitive to side effects.

The GP-patient relation

Recommendation	
B	Rigid explanation models and economic compensation systems can damage the GP-patient relationship.
B	The GP's acknowledgement of the patient's symptoms and thoughts about the disorders can make the GP-patient relationship better.
B	Supervision can contribute to reducing the GP's diagnostic and therapeutic uncertainty.

? What do functional disorders do to the GP-patient relation?

Severe functional disorders constitute a special challenge to the GP. If the patient comes to the consultation with explanation models, which the GP does not share, it can cause a vicious circle and mutual negative expectations between GP and patient. If the patient furthermore rejects the GP's explanations and authority, it is obviously not a good basis for a consultation⁹⁴. Patients with persistent worry can also cause problems in the GP-patient relationship as unclarified worries create expectations about more examinations and referrals³⁶.

Studies of patients with chronic back pain have shown that the possibility of achieving financial compensation is connected with a bad prognosis for the disease⁹⁵. Pending action for damages can place the GP in a role where he is in conflict with himself and his role as the patient's lawyer who should help the patient to get compensation and the patient's health professional who should promote recovery, respectively.

An Australian interview study of patients with whiplash syndrome indicates that the patient's disorder in connection with the trauma is often underestimated by the GP and that a supporting relation between the GP and patient in itself promotes the healing⁹⁶.

? How to build a good relation with the patient?

Recognition of the patient's subjective disorder is a precondition for a good relation (see also chapter about treatment and assessment, page 22)¹.

The management of severe *bodily distress syndrome* as a chronic disorder with conscious professional behaviour including regular consultations constitutes a necessary framework for the GP-patient relation. Efficient treatment requires cooperation between GP and patient. It is important that any worries are expressed and specified in order to enter a dialogue about them³⁸.

? How to handle assessment and treatment in cooperation with the patient?

In the assessment course, regular consultations are important to maintain a trustful alliance. If the GP has a conscious proactive behaviour, iatrogenic harm can be prevented when the patient undergoes an assessment programme⁴⁴.

The GP should provide good, objective information about the expected course and continually inform the patient about plans, considerations and expected results.

If the patient wants a certain examination or referral, the GP should inquire about the patient's specific situation, perceptions and worries.

A good GP-patient relation is an important precondition for a good treatment course, not least if a dialogue is initiated⁹⁷.

? How to reduce the GP's insecurity?

Studies indicate that the GP's insecurity is reduced if he/she gets better at understanding the patient's perspective⁹⁶.

Greater knowledge about functional disorders, a better understanding of the illness and the GP's improved skills achieved through training and supervision also contribute to reducing his/her insecurity⁹⁸.

The patient's social relations

Recommendation	
B	Health and mortality is associated with social relations.
B	Good social relations hamper development of functional disorders.
B	Unemployment increases the risk for functional disorders, use of medication and visits to the GP.
B	Chronic symptoms and the pursuit of a diagnosis can lead to social isolation.
B	Patients with functional disorders want advice on self-help.
C	Functional disorders are stigmatising and often involve lack of understanding from family, health care system and social authorities.
<input checked="" type="checkbox"/>	Therapists ought to be aware of the social relations' importance for development of functional disorders.

? Which significance do social relations have for your health?

The connection between social relations and health is complex, and social relations are not a constant phenomenon but change through life. Good social relations as well as perception of control and faith in others are generally important health parameters and are significant for the development of functional disorders⁹⁹.

The association between social relations and health is strong^{100;101}. For instance, persons with insufficient social support have higher prevalence of overweight, heart attacks, anxiety and depression, and lack of social relations increases the susceptibility for diseases and/or delays recovery.

However, social relations can also constitute a strain on the health. Straining relations can for instance increase the risk of mental disorder¹⁰¹.

? What does the health mean to the social relations?

On the other hand, the health also has importance for development and maintenance of the social relations.

Low physical functioning and depressive symptoms are some of the most important factors, while self-rated health and serious disease mean less. Severe functional disorders as for instance fibromyalgia symptoms can mean ruined relations, social isolation as well as reduced functioning both in relation to work, daily life and leisure activities¹⁰².

The lack of diagnosis and legitimacy for functional disorders creates uncertainty and anxiety, and the pursuit for a diagnosis can lead to social isolation^{103;104}.

? What do the patient's social relations mean for the course of a functional disorder?

It is of vital importance how the family copes with the situation¹⁰⁵. The background for a good mental health is balance in social relations, in domestic life as well as in work relations (control and support)¹⁰⁶. For instance, insufficient social support and low income are risk factors for developing depression in younger women with chronic fatigue syndrome¹⁰⁷.

Unemployment increases the risk for functional disorders and depression for both genders, independent of social network¹⁰⁸.

? Which significance do the patient's social relations have for the treatment course?

The GP's role

There is a strong association between the number of visits to the GP and the patient's social relations. The need drops with increased social support but rises with negative life events¹⁰⁹, including unemployment¹⁴. For instance, people with reduced functioning, low social support and who live alone have a 3-7 times higher health care use than the general population¹¹⁰.

Mapping of and knowledge of the patient's social relations are important for identifying vulnerability in relation to psychological stress^{5;12;22}. Besides, knowledge about the patient's social relations is a precondition for involving relevant health professionals in the assessment and treatment. It is therefore important routinely to examine the patient's psychosocial risk factors^{108;109;111} and be aware of the family's possibilities for providing practical and emotional support in connection with the illness¹¹².

By unemployment, the GP can contribute to increasing the attention to the health effects in the affected person and the impact on the entire family¹¹³.

The GP has – besides taking care of the medical treatment – an important role in conveying access to psychological assistance, case handling and job service when necessary¹¹³.

A study has shown that patients with chronic fatigue syndrome preferred self-help, social support and counselling as part of the rehabilitation in order to better cope with the situation themselves¹¹⁴.

The role of the surroundings

Lack of understanding and the sense of stigmatisation is a common phenomenon^{55;115;116}. Greater knowledge of the disease as well as support from the surroundings are key factors in achieving a sense of control and accept for the patients¹¹⁶. For instance, patients with fibromyalgia often experience mistrust and stigmatisation both from people close to them, colleagues and from the health- and social system⁵⁵. This happens partly in the form of overprotection, denial and lecturing, partly as lack of support and recognition, and this affects the course of the illness in a negative way⁵⁵. Insecurity and social isolation also affects the relatives.

On the other hand, an intervention study has shown that social support and teaching improved the symptoms, provided increased faith in own capability and made the patients more self-sufficient after 1 year²⁵.

Complications

Recommendation	
B	Potential harmful examinations and treatments are common in patients with functional disorders
B	Patients with severe functional disorders are exposed to unnecessary somatic treatment resulting in physical harm and prolonged illness trajectories.
B	Functional disorders account for 14 % of all sick notes beyond 8 weeks.

Prevention is important both in mild and severe functional disorders (see chapter about treatment and assessment page 22). Patients with mild to moderate functional

disorders risk medicalisation, and a consequence of this could be development of a chronic condition. Patients with severe functional disorders have a high risk of getting mental and physical complications.

Complications typically arise due to wrong management or due to lack of specific treatment. A narrow somatic approach to assessment and treatment can result in iatrogenic harm. At the same time, the health care system offers very limited specialised treatment options.

? Which complications can occur by exaggerated physical focus?

If you avoid making the diagnosis functional disorder when the criteria are met, the patient risks being plaything between different medical specialists, the social services etc. as everybody is uncertain about what is wrong with the patient. This way the patient risks iatrogenic harm and unnecessary prolongation of the illness course.

A few studies have shown directly negative effects of physical examinations and treatment attempts by musculoskeletal system symptoms. For instance, a randomised study of x-ray examinations due to back pain showed that several of the examined patients had chronic pain, bad functioning and high use of health service compared with the patients who did not receive diagnostic imaging assessment¹¹⁷.

There are many case reports on complications in diagnostics and treatment, but only few uncontrolled studies in the area. A Danish study from 1992 showed that patients with repeated admissions due to functional disorder were exposed to more surgical procedures and received almost just as much pharmacological treatment as patients with physical diseases; often just with side effects as a consequence. As examples of iatrogenic harm it can be mentioned that repeated intra-abdominal procedures can result in adhesion formation¹¹⁸. Also, there has been an increase in the use of stomach ulcer medicine although several examinations have documented that most cases of upper dyspepsia are not caused by organic changes¹¹⁹.

Finally, long waiting time and legislation regarding economic compensation contribute to the medicalisation. This goes for both the health care system and the social system and in potential insurance cases^{95;120;121}. *"If you have to prove you are ill, you can't get well"*²⁶.

? Which complications can occur due to lack of available treatment options?

When the patient is kept in a sick role and is not offered specific treatment, the risk for developing a long-lived and chronic course with consequent impaired functioning is increased.

A Danish study on individuals on long-term sickness leave found that 14% had functional disorders and 22% had a psychical disease³⁴. A randomised study on whiplash injuries found that more patients remained sick after sickness leave and getting treated with cervical collar compared to patients who received general advice¹²². Impaired

functioning and sickness leave contribute to exclusion from the labour market and development of social isolation.

Prognosis

Recommendation	
B	Initial symptom duration over 4 weeks often entails a prolonged illness course.
B	Unspecific symptoms subside spontaneously in 50-75 %.
B	Health anxiety disappears spontaneously in 30-50 %.

? What should I say to the patient about prognosis?

The prognosis and the course of the disease are dependent on the severity and the duration of the symptoms. In the severe chronic cases, the disease can lead to disability and severely impaired functioning, whereas in the mild cases, the symptoms are often transient.

Untreated, 50-75 % of the patients with bodily symptoms will get better, while 10-30 % of the patients will experience impairment over time¹²³. The best predictor for symptom persistence is an initial duration for more than 4 weeks before the problem is presented as well as musculoskeletal complaints at debut¹²⁴. There is some evidence that the more and severe physical symptoms the patient experiences at the first visit to the GP, the worse the prognosis¹²³.

In patients with health anxiety, 30-50 % will get better without treatment meaning that patients with mild health anxiety have a good prognosis, while patients with severe health anxiety often develop chronic courses^{8;123}.

? How do we best monitor the treatment of functional disorders?

The treatment of functional disorders is best monitored with physical symptom score and estimation of the degree of health anxiety, for instance by using the CMDQ questionnaire (see appendix 3 and 5), use of health care services and objectives for functioning. Such a monitoring can be part of a status consultation.

Functional disorders in children and adolescents

Recommendation	
B	The symptom presentation in young children is often mono- or oligo-symptomatic and predominantly in the form of recurring pain (stomach ache, headache, pains in arms/legs).
B	Multi-symptomatic presentation increases with age where other complaints like fatigue and (pseudo)neurological symptoms are seen.
B	Comorbid emotional disorders may be present (anxiety and depression) as well as behavioural problems and learning difficulties.
C	The symptoms may present with illness worry/anxiety.
<input checked="" type="checkbox"/>	The family and other social network are essential and necessary informants, particularly for children aged 0-10 years.
<input checked="" type="checkbox"/>	In children and adolescents, family factors have a particular importance for symptom coping, contact with the health care system, use of health services and behavioural changes.

? How common are symptoms and functional disorders in children and adolescents?

In school age, approximately 1 out of 10 children complains about recurrent bothersome bodily symptoms¹²⁵. In 5-7-year-old children, the 1-year prevalence of parent-reported symptoms affecting the physical functioning is 4.4 %. Especially in older children and adolescents, the prevalence is higher in girls than boys. No data is available on the number of children and adolescents with functional disorders presenting in general practice in Denmark. In the before-mentioned Danish study of 5-7-year-olds, 31 % of the children had had medical contact during the past year due to the symptoms.

? What is the clinical picture in children and adolescents?

Functional disorders in children and adolescents occur, as in adults, within a spectrum of mild, often transient, symptoms to disorders with chronic and disabling symptoms with marked impact on functioning^{125;127-129}.

Yet, functional disorders in children seldom meet the ICD-10 criteria for somatoform conditions and instead unspecific symptom diagnoses are often used¹³⁰. In younger

children, worry about health can be expressed by anxiety about something in the body being broken or through the behaviour - for instance that the child is difficult to reassure when having bodily symptoms.

As opposed to children, adolescents with functional disorders more often meet the ICD-10 criteria for the somatoform disorders. This age group is also more frequently characterised by dissociative conditions and disturbances in the shape of e.g. cramps, movement disturbances and sensory disturbances, including blindness.

? What role does family play?

Functional disorders are more prevalent in some families. The family-related transmission seems to be contingent on both socio-cultural learning and heredity. Studies show that children of parents with functional disorders and anxiety, depression and abuse have a higher prevalence of bodily symptoms¹²⁵ and that children get involved in repeated visits to the GP due to the parents' illness worry¹³¹. In some cases, complicated family patterns aggravate, perpetuate or precipitate a functional disorder in the child. This can be in the form of inflexible illness understanding, e.g. persistent conviction about a biomedical explanation in spite of numerous negative examination results, constant illness worry or a dysfunctional illness behaviour, e.g. that the child is supported in inactivity and absence from school due to symptoms.

Hence, a high degree of parent over-involvement in the child's disease has been found in children/adolescents with a functional disorder, and children have an even poorer diagnosis if their parents are convinced that the symptoms have a biological/physical cause solely. In a few cases, physical or sexual abuse can occur. Other stressors such as death in the near family or bad financial circumstances also increase the prevalence of functional disorders in children, but are unspecific factors as they also predispose mental disorders.

Children with a vulnerable mental constitution (anxious, sensitive, conscientious) seem to be particularly susceptible to the mentioned conditions. As vulnerability factors – especially in relation to dissociative phenomena in adolescents – cognitive difficulties, social strain and attachment difficulties can be mentioned.

? How to diagnose children and adolescents?

There is no validated assessment programme for children and adolescents. In the literature, the following is recommended¹³²⁻¹³⁴:

- A thorough symptom anamnesis with interview of both child and parents as especially children younger than 9-10 years old find it difficult to give a detailed symptom description. By divergence between the parent-report and the child's/adolescent's own description of the symptoms, the GP judges which information should be more emphasised. Questions should be asked about how the child develops and manages in day care or at school, whether there is a lot

of sickness absence and how the symptoms have influenced the child's functioning.

- Other relevant information from the child's medical history is the physical and mental development and constitution at early age, family relations (for instance parent conflicts, abuse, mental disorder, disabled brother or sister), current bothersome events, loss, disease and possible school problems (e.g. learning difficulties, bullying).
- Retrieval of additional information if necessary, e.g. from day care/school about the child's academic and social function and/or review of previous medical record.
- A clinical evaluation of the child and observation of the parent-child-interaction and how the parents treat their child.
- A physical examination, including an evaluation of the general well-being, and measuring of height and weight.

Possible laboratory tests depend on findings related to the above-mentioned recommendations. As the separate symptoms of a well-defined physical functional disorder are homogeneous, it can often be indicated to take the following blood tests: Haematological quantities (haemoglobin, thrombocyte, leukocytes), fluid levels (sodium, potassium, creatinine), liver count, Thyroid gland tests (thyroide stimulating hormone), CRP/sedimentation rate, creatinine kinase in case the clinic suspects a muscular disease as differential diagnosis. Besides that the urine is tested for protein and glucose.

Decision about the need for possible cognitive assessment.

Information in the medical history indicating that symptoms are functional

- Timewise coincidence between possible stressors and the bodily symptoms (e.g. bouts of pain by problems at school or familial conflicts).
- Psychiatric comorbidity (anxiety, depression or other mental disorder).
- Previous functional disorders in the child and/or a familial clustering of functional disorders.
- Social or familial aggravation of symptoms (e.g. that the child obtains special treatment or avoids things s/he doesn't like when the symptoms are present).
- The child's symptoms look like a symptom picture of another family member or someone from the social environment.
- The symptoms and/or the level of impaired functioning are not consistent with the clinical findings (e.g. long-lasting severe stomach ache after short-lived abdominal infection).
- Response to influence (e.g. amelioration of symptoms by psychological treatment and placebo, aggravation by suggestivity).

NB. None of the above items are positive criteria as they are also seen in children with well-defined physical disease, but the constellation of more or all items increases the probability for functional disorder.

? How should children and adolescents be treated?

The younger the child is, the more focus should be on supporting the network in managing the child's symptoms appropriately. The treatment takes its starting point, as with the adults, in a stepped-care model.

Mild to moderate functional symptoms/disorders

Reassurance and normalisation with "naming" and qualifying explanation of the symptoms¹³³. It should be emphasised that the symptoms do not necessarily disappear. The child and the parents are encouraged to focus on normal activities and behaviour to strengthen their symptom coping. There might also be a need for information to and cooperation with the day care/school to prevent and diminish sickness absence.

Moderate to severe functional disorders

It can be necessary with assessment and treatment in a cross-functional team, e.g. in a children's ward^{132;134}.

Severe functional disorders

Severely impaired functioning, suspicion about psychiatric comorbidity and distinct dysfunctional illness belief and illness behaviour in the family usually calls for a joint pediatric and child- and adolescent psychiatric effort. There are no evidence-based guidelines for specific treatment, but family-based cognitive behavioural therapy has proven efficient for several functional disorders in children and adolescents¹³⁵. Implementation of systematised models for *shared care* and specialised treatment options are however not widespread in Denmark.

Pharmacological treatment

SSRI-treatment can be used in comorbid anxiety and/or depression¹³². In children and adolescents, a specialist should initiate treatment, while maintenance of treatment can be managed by the GP in consultation with a child- and adolescent psychiatrist.

Parents' medicalisation of the child

If the primary problem is medicalisation of the child, special attention should be brought to the parents' illness belief and possible health anxiety. Recognition of their worry regarding the child's symptoms and possible fear of physical disease is in this case essential to the treatment alliance. Differential diagnostics in relation to Münchhausen by Proxy, where the parents deliberately inflict damage and illness on the child, can be tricky. In these cases, it is particularly important that the GP is aware of protecting the child against unnecessary and potentially dangerous examination courses.

Enhanced duty to report

As in all other situations where children and adolescents visit the GP - and not least when functional disorders are the problem - the GP has to make sure that the child's/adolescent's health and development are not threatened, alternatively if notification should be made to the municipality's children-adolescents committee.

Functional disorders in elderly patients

Recommendation	
B	With age, an increased prevalence of physical disease is seen.
<input checked="" type="checkbox"/>	Other important differential diagnosis – the 5 Ds: <ul style="list-style-type: none">• Dementia• Delirium• Depression• Drugs/side effects• Drinking
<input checked="" type="checkbox"/>	The symptoms can often be alleviated by relevant pain management.
<input checked="" type="checkbox"/>	Psychoeducation of relatives care assistants is important.

Most studies of functional disorders have been done in adults under 65 years. Hence, the evidence in this area is sparse.

In the literature, the lower limit for elderly is set at 65 years, but the biological ageing is not significant until the age of 80. With age, an increasing number of physical diseases and mental disorders occur²⁶. Often both components occur at the same time, but to varying degrees. Assessment of functional disorders in elderly is therefore complicated.

Functional disorders usually have onset at the age of 30-40 years. With increasing age, the symptoms can fade, but the prevalence is presumably unchanged.

In the elderly, the disease symptomatology is often atypical. For instance, an elderly person can have pneumonia without fever and depression without conspicuous sadness, but instead present a symptom picture in the form of dizziness, fatigue, discouragement, nausea, loss of appetite, vomiting or problems with defecation. Beginning or existing dementia can complicate assessment and treatment.

Mental disorders in elderly are often overlooked or misdiagnosed. Psychosocial problems like for instance loss of spouse can provoke bodily and mental symptoms or depression. Side effects of medicine and symptoms in a lot of mental disorders can be misinterpreted as functional disorder.

? How do we diagnose and treat the elderly patient?

The GP has – with his knowledge of the patient, relatives and the illness history – the best preconditions for making a diagnosis and schedule a treatment course.

Mild and transient bodily symptoms as a reaction to strain are also often seen in the elderly and seldom require treatment. These can be headache, fatigue, inactivity or loss of appetite.

Bodily symptoms in the elderly should always cause a thorough physical assessment and treatment. Consider tests for dementia, depression and anxiety (see chapter about differential diagnostics and assessment, page 12 and 14).

Optimised treatment of pain with known aetiology can ease the symptoms. The treatment should be a combination of mental support, conversational therapy, possibly physiotherapy and medicamental treatment consisting of paracetamol, possibly supplemented with antidepressant or anticonvulsants. NSAID should be avoided in elderly persons as side effects often occur. Also avoid benzodiazepine, medicaments with anticholinergic effect and drugs containing morphine.

Cognitive behavioural therapy can also teach the elderly to better understand and cope with bothersome symptoms in the shape of more appropriate thinking and coping patterns. The elderly can, just as younger people, practise methods of problem-solving. It is important to consider involvement of relatives and care assistants in parts of the treatment, e.g. psycho-education.

Health anxiety presents in the elderly as excessive worry about being physically ill. Thoughts about serious illness and death can go round in circles and cause a permanent condition of worry. In serious cases, actual delusions can arise. The treatment follows principles described in the chapter about treatment and assessment, page 22.

General practice's relations to the health care and social system

The health care system's organisation and the role of general practice

- ☑ The GP has an important role as co-ordinator, gate keeper and person of confidence.
- ☑ The patients are in the borderline territory between general hospital and psychiatry.
- ☑ Assessment and treatment of functional disorders is fragmented and shared among many specialties.
- ☑ Only few specialised treatment options exist for the severely ill.
- ☑ The social and labour market-related system is ill equipped to care for these patients, and the transfer from the health care system to the social system often causes problems.

In the major part of patients presenting with functional disorders, the problem can be managed by their general practitioner¹. But in some of the severe cases of functional disorders, the patient can concurrently have contact with different doctors from different specialties as well as contact to the local authorities and so on. The problem can therefore be complex both from a professional and an administrative point of view and hence difficult for the persons involved to create an overview of assessment, treatment, course and social aspects.

Part of the problem is caused by the fact that functional disorders in our specialised health service is placed – organisationally - in the borderland between general hospital and psychiatry and that currently only very limited specialised treatment options exist¹⁴⁵. Furthermore, patients with multiple symptoms of uncertain genesis have a great risk of being assessed sequentially at different medical specialties for one symptom at a time. The municipality rehabilitation department often wait for a disease to be diagnosed to get a clarification of whether the functioning can get better by treatment.

The organisation of the health- and social sector can therefore in itself directly contribute to some patients with functional disorders being maintained in an illness course without receiving sufficient treatment and rehabilitation (see paragraph about the social-medical cooperation page 46)^{34;146}.

? Why is management of functional disorders a medical task?

At the moment, no other professions can independently treat patients with functional disorders. Like other patients, these patients have a need for assessment and treatment, which are medical core assignments. It is important that the GP has knowledge about functional disorders as regards assessment, differential diagnostics, diagnostics, treatment and rehabilitation. Early intervention can presumably prevent further development of a functional disorder. In addition, the GP can prevent medicalisation in the many cases where patients visit the GP due to symptoms. Finally, only the GP can decide if medical treatment possibilities are depleted and if the condition from a biomedical evaluation is static.

? How is the cooperation between psychiatrists and psychologists?

The optimal situation is a stepped-care model where the treatment is adapted to the complexity of the disorder and where there is a close cooperation (shared care) between the GP and the specialised team, the psychiatrist or psychologist^{59;60}. A psychologist or a psychiatrist with expertise and education in the area is a good supplement in the treatment, especially in health anxiety.

? How is the cooperation between doctors within occupational- and social medicine?

Patients with functional disorders often have problems coping with daily life, and therefore treatment and rehabilitation measures must be coordinated and often take place concurrently.

In Denmark, rehabilitation is primarily a municipality task and has focus on both the patient's skills and surroundings, including the workplace. When possible, doctors from occupational- and social medicine take part as specialists to ensure optimal cooperation between the regional health system and the municipality as these doctors have insight in the tasks and aid opportunities in both systems.

? What is the challenge for general practice?

Patients with functional disorders are entitled to the same treatment quality as other patients presenting in general practice. The mild cases are treated in general practice, and in all cases iatrogenic harm should be avoided and unnecessary worry in the patient should be prevented. Besides the GP has an important health pedagogical task and should therefore try to work against stigmatisation of these patients, both in the health- and social sector as well as in society in general.

To a great extent, general practice is alone with the task regardless of the complexity of the disorder. The GP must, as best as s/he can, try to organise the treatment and use the local possibilities knowing that s/he is not capable of fully compensating for lacking specialised treatment possibilities.

? How to handle the complexity?

It is important that there is a coordinator who is in charge of the treatment. Continuity and coherence in assessment, treatment and rehabilitation is required. As a main rule, the GP undertakes this function.

? How to strengthen the GP's role as coordinator, gate-keeper and person of trust?

The GP must be aware of his/her role and have a good and trustful relation with the patient. If there are too many health professionals involved, and if this causes problems, the consequences of this can be discussed with the patient, and scheduled consultations for a period can be suggested.

If necessary, the GP can initiate that the treatment is coordinated between all health professionals involved. The optimal situation is that all involved parties, including the patient and possible relatives, are gathered to agree on the further course so that a joint strategy can be made with a clear distribution of the responsibility that everyone understands the significance of.

It might also be necessary to involve other participants – e.g. the municipality job centre.

? What do we do when specialists in specialised areas make themselves experts in the general area?

It is important that the GP is specific in his wishes regarding medical specialists or hospital admissions and that the GP in his referral informs the medical specialist about the problem, for instance that the patient has, or presumably has, a functional disorder. If the patient has shown a pattern with many symptoms and many examinations, this should also be indicated. The GP should also mark the limit between his own and the medical specialist's area of competence.

There is a special problem with treatment options, where patients themselves can make contact thus sidestepping the GP and putting the gate-keeper function out of force. The GP must then try to talk to the patient about how it can affect the treatment course if the GP is not involved.

? Which role does alternative treatment play?

Studies have shown that patients with functional disorders do not use more alternative treatment than patients with other diseases¹⁴⁷. The risks by alternative treatment are: that the patient does not receive an effective treatment, that certain treatments can be downright damaging and that economic expenses are inflicted on the patient. Furthermore, the alternative therapist's illness understanding and the dependence of being in a fixed treatment might keep the patient in an inappropriate illness behaviour.

Cooperation between social system and GP

Recommendation	
B	Avoid long-term sick leave.
<input checked="" type="checkbox"/>	Be proactive and suggest social medical case handling.
<input checked="" type="checkbox"/>	Pass along specific and relevant health information with the patient's consent.
<input checked="" type="checkbox"/>	Take part in and/or instigate round table conferences.
<input checked="" type="checkbox"/>	The GP may not recommend specific social benefits.

? What is the municipality's task?

Patients, whose functioning is seriously affected might need actions from the municipality – actions that may involve both job centre, family department and adult disability department. With his/her knowledge about the patient, the GP plays an important role in the communication and description of the patient's overall situation to the social worker in the municipality.

Since sickness benefit and social security are temporary benefits, the goal for the patient and the social worker is to find the shortest and quickest way back to the labour market.

Prolonged medical assessment and the social worker's lack of knowledge on functional disorders can contribute to preventing that goal-oriented, labour market-aimed and social action is timely initiated. Patients with functional disorders and very impaired functioning can be on sick leave for so long that they lose their right to sickness benefit, and the risk of permanent exclusion from the labour market is huge. Social security is rarely an option if the patient is married or has assets.

When a patient with functional disorders receives sickness benefit or social security, the course is often characterised by great uncertainty about duration of the sickness leave and the ability to work.

? Which occupational adaptations are possible?

The patient's needs and abilities should be described as detailed as possible. There may be considerations in relation to the concrete impairment in functioning. If it is assessed that the patient without any health problems can participate in courses to develop the functioning, this is stated in the doctor's note. This could e.g. be a recommendation of reduced number of hours at the beginning, increase of number of hours over time or the described needs and abilities. Since functional disorders empirically can give rise to problematic patient courses, the GP can, with the patient's consent, recommend an interdisciplinary meeting in the shape of a round table conference in the municipality or in practice. The patient will often experience this in a positive way, and the other parties may experience that this promotes the process.

Quality assurance

Quality assurance and indicators

To ensure the quality of future treatment of patients with functional disorders, it is crucial to establish an efficient cooperation between general practice, psychiatry and the social authorities. This applies both generally seen where a stepped-care principle with supervision should be followed as well as in the specific patient cases where the patient should be ensured a coherent course.

Quality indicators for identification, assessment or treatment of functional disorders have not been developed. In daily clinic, questions regarding symptoms and health anxiety in the CMDQ questionnaire (see appendix 3 & 5) can be used for monitoring. Furthermore, health care use can be a predictor for patients with severe functional disorders as some of these patients have a high use of health services. Finally, a new study suggests that it might be useful to pay special attention to the patients who have seen a doctor for 3 or more different symptoms within 6 months¹⁴⁸.

On the basis of the above mentioned, DAK-E (Danish Quality Unit of General Practice) has developed two quality reports which are relevant for this guide:

- Frequent users (a report for everyone)
 - Multiple symptoms and functional disorders (a report for sentinel doctors)
- Anonymised reports can be seen at www.dak-e.dk under data capture demo.

Implementation of the guide in clinical practices

A first step to create better conditions for patients with functional disorders is to integrate this guide in practice and to convey it to relevant collaborators. Different training aspects can be included:

- In cooperation with the Danish Medical Association, an e-learning programme about functional disorders has been developed (only in Danish so far).

- A well-described educational programme is available in which diagnostics and treatment of functional disorders using the TERM-model is explored in depth and learning methods such as communication, reflection, exercises and video supervision are used¹⁴⁹.
- Expertise in the area can be found, among other places, at the Research Clinic for Functional Disorders and Psychosomatics, Aarhus University Hospital, www.functionaldisorders.dk.
- Quality reports from DAK-E (www.dak-e.dk) can be used for learning both in own practice and in the decentralised group-based continuing education.

Besides offers targeted functional disorders, courses on cognitive behavioural therapy may be relevant.

Appendices

Appendix 1

Diagnostic coding in ICPC-2-DK

Symptom codes (01-29) all chapters.

A29 General symptom IKA can be used when the patient has several symptoms or mild to moderate functional disorders without fulfilling the criteria for somatoform disorder. The diagnosis can be specified by adding the ICD text “medically unexplained symptoms”.

P75 Somatoform disorder is used when the criteria are met: Somatoform disorder is characterised by preoccupation by and recurrent presentation of physical symptoms and complaints and continued demands of getting physical examinations in spite of repeated negative findings and reassurance from doctors. The diagnosis requires presentation of multiple, recurrent and often alternating symptoms during at least one year. The diagnosis of hypochondria requires that, for a period of at least one year, a continued preoccupation of either physical appearance or the possibility of being seriously ill coupled with continued complaints of physical symptoms must be present for at least one year – and this in spite of repeated normal findings and reassurance from doctors.

The diagnosis can be specified with the ICD text:

- Somatoform disorder not otherwise specified
- Dissociative disorder or disturbance not otherwise specified
- Hypochondria/health anxiety
- Somatisation disorder
- Somatoform autonomic dysfunction
- Undifferentiated somatoform disorder

In addition, there are codes for functional syndromes in other chapters (e.g. D93 Colon irritable).

Appendix 2

ICD-10 criteria for somatoform disorders

F45.0 Somatization disorder

F45.1. Undifferentiated somatoform disorder

F45.2 Hypochondriacal disorder

F45.3 Somatoform autonomic dysfunction

- F45.30 Heart and cardiovascular system
- F45.31 Upper gastrointestinal tract
- F45.32 Lower gastrointestinal tract
- F45.33 Respiratory system
- F45.34 Genitourinary
- F45.38 Other organ systems

F45.4 Persistent somatoform pain disorder

F45.8 Other somatoform disorders

Somatization disorder (F45.0)

Criteria	Description
a	At least 2 years of multiple and variable physical symptoms for which no adequate physical explanation has been found (presence of physical disease does not explain the severity, the extent, the combination or the persistence of the physical symptoms or the concomitant impaired functioning). Autonomic symptoms are not prominent.
b	The preoccupation with symptoms is bothersome and results in repeated ≥ 3 doctors visits or examinations
c	The patient cannot, or only temporarily, accept reassurance that the symptoms are not organically based
d	At least 6 symptoms from 2 or more organ systems <ul style="list-style-type: none"> • Gastrointestinal symptoms <ul style="list-style-type: none"> - Stomach ache - Nausea - Bloating - Coated tongue or bad taste in mouth - Vomiting or regurgitation • Cardiovascular symptoms <ul style="list-style-type: none"> - Breathlessness without exertion - Chest pain • Urogenital symptoms <ul style="list-style-type: none"> - Dysuria or frequent urination - Unpleasant sensation in genitals - Discharge • Skin and pain symptoms <ul style="list-style-type: none"> - Spots or discolouring of skin - Pain in joints or arms/legs - Paraesthesia

Hypochondriacal disorder (F45.2)

A disorder that is characterised by persistent preoccupation with the possibility of having one or more serious and progressive physical disorders and which manifests by persistent somatic complaints or persistent preoccupation with one's own physical appearance. Normal or common sensations and appearances are often interpreted by the patients as abnormal and distressing, and attention is usually focused on only one or two organ systems. Depression and anxiety are often present and may justify additional diagnosis.

To make the diagnosis, these criteria must be met:

Criteria	Description
a	At least 6 months of fear of having serious, named physical disease or Persistent preoccupation of a given disfigurement.
b	The preoccupation of the fear and symptoms is unpleasant or interferes with daily activities leading to examinations and treatment.
c	The patient cannot, or only temporarily, accept reassurance that there is no physical illness underlying the symptoms.
d	The symptoms are not only present in connection with other physical disease.

Appendix 3

Instructions for Common Mental Disorders Questionnaire (CMDQ)

CMDQ is a questionnaire for identification of strain or illness within the following categories:

1. Multiple symptoms/*bodily distress syndrome*
2. Illness worry / health anxiety
3. Nervousness / anxiety disorder
4. Sadness / depression
5. Alcohol abuse.

If a score is increased in one or more categories, the GP needs to make a relevant assessment in order to establish the diagnosis.

Values for sensitivity, specificity and positive predictive values for the different scales in CMDQ can, together with the instructions, be found at DSAM's homepage, www.dsam.dk.

The CMDQ questionnaire can be used for the following:

- Diagnostic screening
- Monitoring of the patient before, under and after treatment (conversations, medication)
- Psychoeducation of the patient. The responses illustrate symptoms, (worrying) thoughts and emotions and can support the dialogue with the patient during the consultation.

The questionnaire is found in appendix 5 (instructions appendix 3) and is also found on DSAM's homepage, www.dsam.dk.

Appendix 4

Charts for cognitive behavioural therapy

See charts p. 56-61

Symptom registration chart

Please note how bothersome your symptoms are on a daily basis at the indicated times using the below scale:

For each entry, make cues about the situation you are in at the time of the symptoms. As an example, this could be: *in the bus, at work, at mother-in-law's or the like.*

No pain / discomfort / emotions	0 1 2 3 4 5 6 7 8 9 10	Worst possible pain / discomfort / emotions
--	-------------------------------	--

	Morning	Afternoon	Evening	Night
Monday date:				
Tuesday date:				
Wednesday date:				
Thursday date:				
Friday date:				
Saturday date:				
Sunday date:				

Symptom registration chart – with example

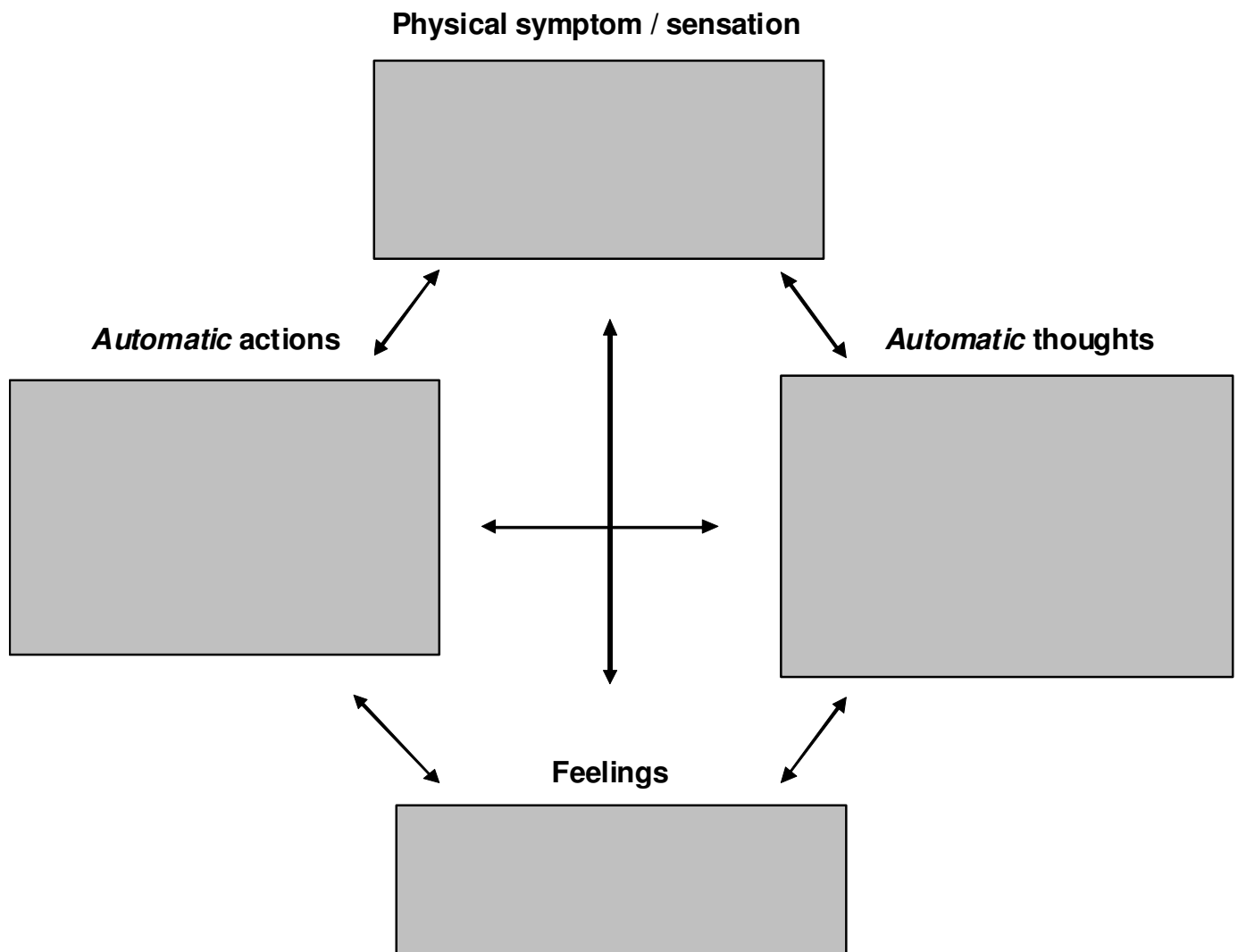
Case B: Bodily distress syndrome/functional disorder

Lisa Smith is 35 years old and frequently visits her family physician. She is a marketing coordinator and is used to managing several things at a time. It is very important to her to be in control, both at work and in her private life. She has 2 girls aged 6 and 4. Lisa has many different symptoms from several organ systems: palpitations, back pain, frequent urination, tendency to sweat, breathlessness and fatigue. During the past 6 months, Lisa has felt stressed and unfairly treated at work. She is now on long-term sick leave and her union is pressing charges against her employer. Lisa has the opinion that her work place has demanded flexibility on her part that goes beyond what a regular employee can meet.

	Morning	Afternoon	Evening	Night
Monday date:	Take the girls to nursery / school 6 (mostly tiredness and pain)	Take a nap 5 Fetch the girls 6	Watch TV 5	Sleep poorly 7
Tuesday date:	Shopping and cleaning 5			
Wednesday date:				
Thursday date:				Slept very poorly due to back pain 10
Friday date:	Get up late 8	Go for a walk 7	Cook, husband is out 9 (severe back pain, dizzy). Go to bed early with the girls	
Saturday date:	Shopping 7	Sarah is poorly and has a temperature. Fix the garen 8	On the phone with my sister 9	Disturbed sleep – must check on Sarah 9
Sunday date:	Get up late. Try to do some exercises for my back but don't manage too well 9	Go for a walk Cook 8		
Look for variation, e.g. when are the symptoms best/worst, are there variations during a 24-hour period, and is there a difference between every day and weekend. Also note how the sleep is.				

The basic cognitive model – functional disorders: Automatic thoughts and actions

Time:
Situation:

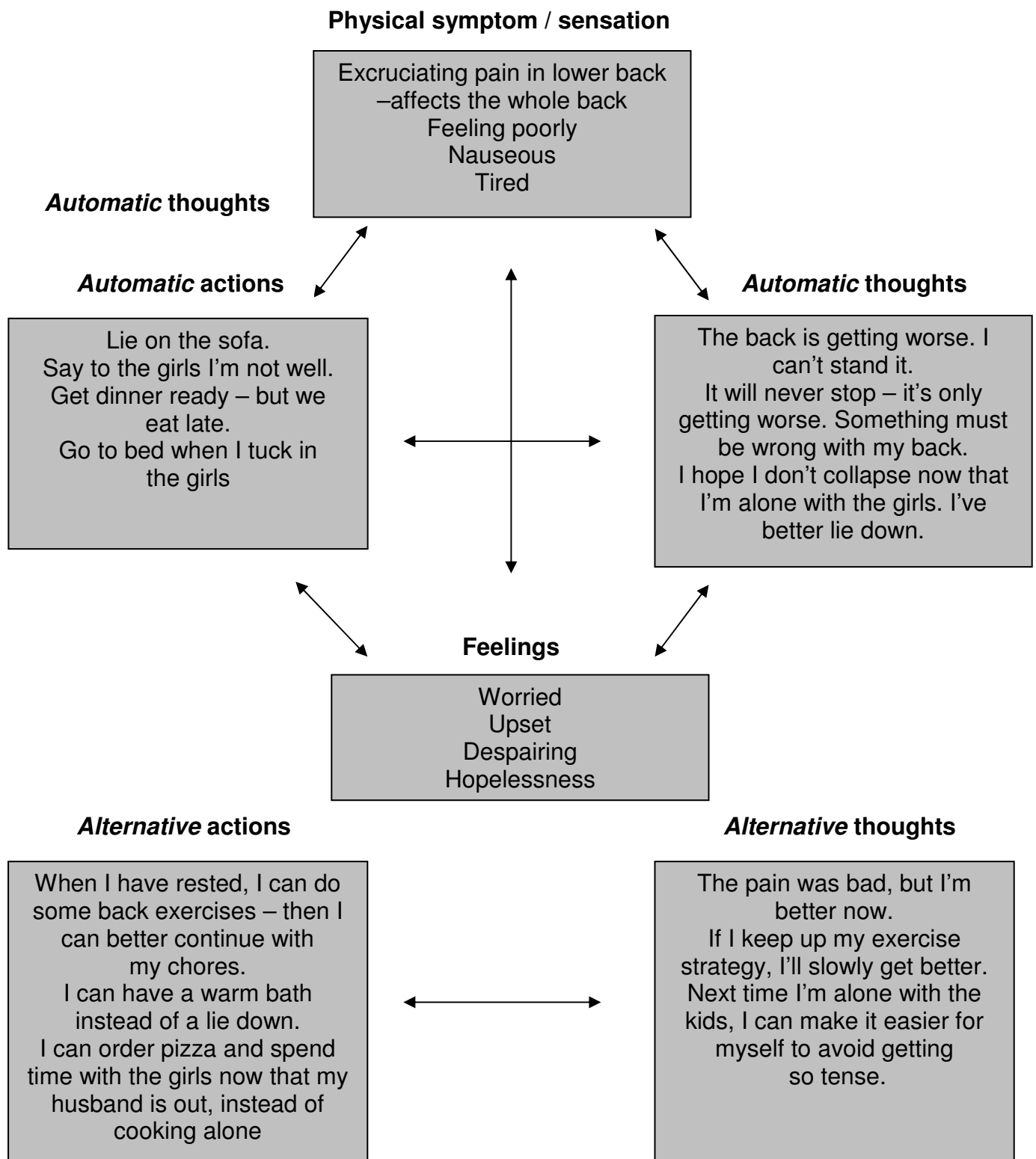


Note: When the automatic thoughts and actions are clarified, work with alternative thoughts and actions.

The basic cognitive model - functional disorders: Automatic thoughts and actions – with example

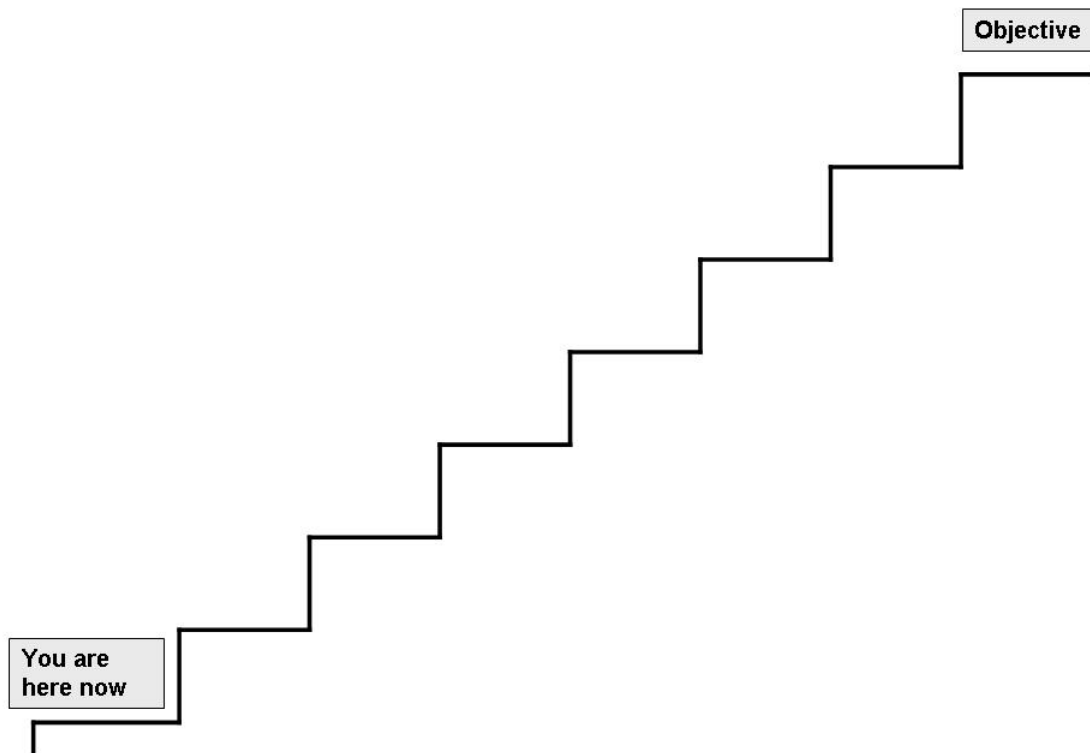
Time: *Friday night*

Situation: *Alone with the girls, cooking*

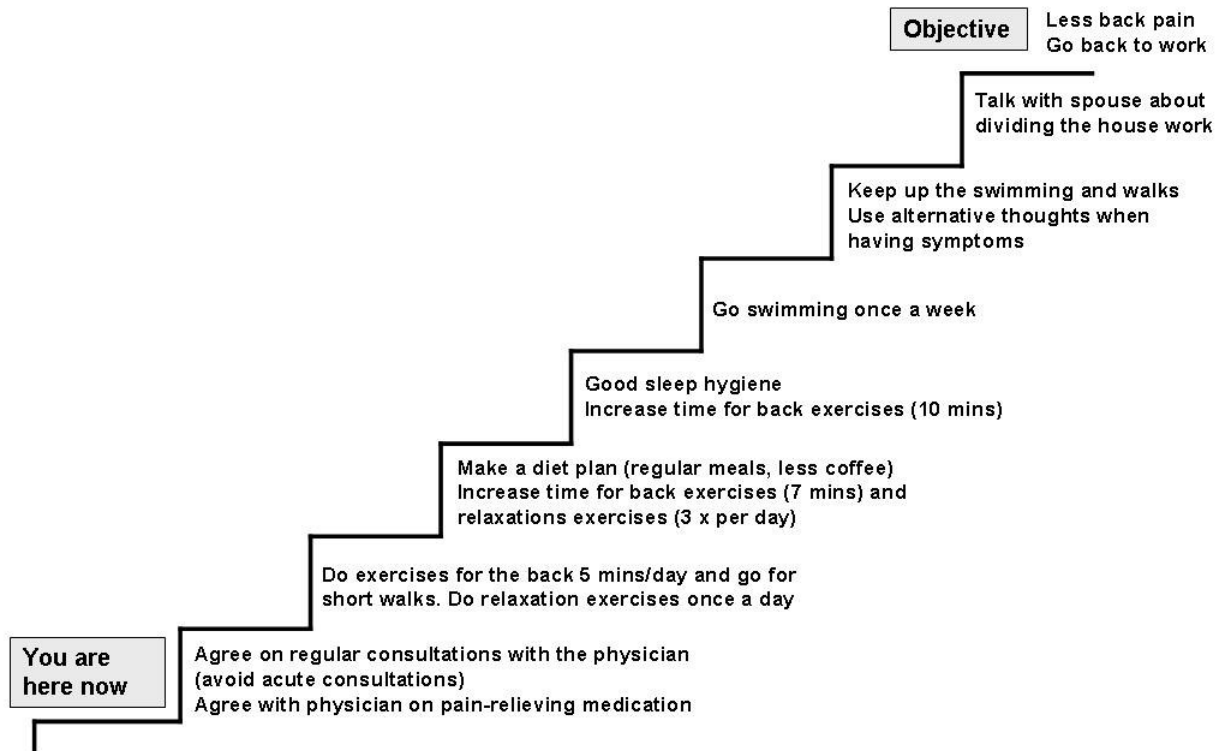


Note: When talking to the patient about alternative thoughts and actions, ask how she imagines that these affect the symptoms (less back pain) or feelings (less afraid and depressed)

Steps of objectives



Steps of objectives – with example



Appendix 5

Diagnostics and assessment of functional disorders

Diagnostics and assessment

A broad bio-psycho-social approach is a precondition for good diagnostics.

Paraclinical tests

- Haematological quantities (haemoglobin, thrombocyte, leukocytes)
- Fluid levels (sodium, potassium, creatinine)
- Liver count (ALAT, GGT, ALP)
- Cobalamin
- HbA1c/fasting blood sugar
- Thyroid gland tests (thyroide stimulating hormone)
- Calcium
- CRP/sedimentation rate
- Dipsticks and screening for substance abuse if necessary
- ECG, BP, height, weight, lung function if necessary
- Other tests depending on the symptoms if necessary

Psychiatric assessment

- Screening with the CMDQ (p. 2)

Criteria for *bodily distress syndrome*

The patient meets one or more of the below symptom pictures

- | | |
|---------------------|---|
| At least 3 symptoms | Cardiopulmonary / autonomic arousal
Palpitations, heart pounding, precordial discomfort, breathlessness without exertion, hyperventilation, hot or cold sweats, trembling or shaking, dry mouth, churning in stomach, "butterflies", flushing or blushing |
| At least 3 symptoms | Gastrointestinal arousal
Frequent loose bowel movements, abdominal pains, feeling bloated, full of gas, distended, heavy in the stomach, regurgitations, constipation, nausea, vomiting, burning sensation in chest or epigastrium |
| At least 3 symptoms | Musculoskeletal tension
Pains in arms or legs, muscular aches or pains, feelings of paresis or localized weakness, back ache, pain moving from one place to another, unpleasant numbness or tingling sensations |
| At least 3 symptoms | General symptoms
Concentration difficulty, impaired memory, fatigue, headache, dizziness |
- The symptoms are not better explained by another physical disease or mental disorder
 - The symptoms influence the patient's functioning and well-being

Criteria for *health anxiety*

a) Rumination with intrusive thoughts and fears of harbouring an illness

- b) One or more of these symptoms
- Worries, preoccupation or fear of harbouring a severe physical disease and/or bodily preoccupation
 - Suggestibility or autosuggestibility
 - Excessive fascination with medical information
 - Fear of being infected or contaminated
 - Fear of taking prescribed medication

c) The symptoms are not better explained by another physical disease or mental disorder

d) The symptoms influence the patient's functioning and well-being

Common Mental Disorders Questionnaire (CMDQ)

	During the last 4 weeks how much were you bothered by:	Not at all	A little	Moderately	Quite a bit	Extremely
1.	Headache?	0	1	2	3	4
2.	Dizziness or faintness?	0	1	2	3	4
3.	Pains in heart or chest?	0	1	2	3	4
4.	Pains in lower back?	0	1	2	3	4
5.	Nausea or upset stomach?	0	1	2	3	4
6.	Soreness of your muscles?	0	1	2	3	4
7.	Trouble breathing?	0	1	2	3	4
8.	Hot or cold spells?	0	1	2	3	4
9.	Numbness or tingling in parts of your body?	0	1	2	3	4
10.	A lump in your throat?	0	1	2	3	4
11.	Feeling weak in parts of your body?	0	1	2	3	4
12.	Heavy feelings in your arms or legs?	0	1	2	3	4
13.	Worries that there is something seriously wrong with your body?	0	1	2	3	4
14.	Worries that you suffer from a disease you have read or heard about?	0	1	2	3	4
15.	Many different pains or aches?	0	1	2	3	4
16.	Worries about having a serious illness?	0	1	2	3	4
17.	Many different symptoms?	0	1	2	3	4
18.	Worries that the doctor may be wrong when he tells you there is nothing to worry about?	0	1	2	3	4
19.	Worries about your health?	0	1	2	3	4
20.	Sudden fear without any reason?	0	1	2	3	4
21.	Nervousness or shakiness inside?	0	1	2	3	4
22.	Spells of terror or panic?	0	1	2	3	4
23.	You worry too much?	0	1	2	3	4
24.	Feeling blue?	0	1	2	3	4
26.	Thoughts of ending your life?	0	1	2	3	4
27.	Feeling of being trapped or caught?	0	1	2	3	4
28.	Feeling lonely?	0	1	2	3	4
29.	Blaming yourself for things?	0	1	2	3	4
Within the last year, have you ever...		No		Yes		
30.	Felt you ought to cut down on your drinking?					
31.	Been annoyed by people criticizing your drinking?					
32.	Felt bad or guilty about your drinking?					
33.	Had a drink in the morning to steady your nerves or get rid of a hangover?					

Increased values for the sum score:

Symptom checklist (questions 1-12): **10-48**

Health anxiety (questions 13-19): **6-28**

Anxiety disorder (questions 20-23): **5-16**

Depression (questions 24-29): **5-24**

Alcohol abuse (questions 30-33): **2-4**

Appendix 6

Prevention and treatment of functional disorders

General principles

In all cases, a bio-psycho-social approach is applied both in the assessment and treatment

- Explore the medical history
- Explore cues of emotional problems
- Ask about anxiety and/or symptoms of depression
- Explore life events, stress and external factors
- Explore functional level
- Explore the patient's health beliefs
- Explore the patient's expectations to assessment and treatment
- Make a brief, focused physical examination and, if indicated, non-clinical examination

	Biomedical	Psychological	Social
Prevention	<ul style="list-style-type: none"> • Make only relevant assessment and treatment 	<ul style="list-style-type: none"> • Matching of expectations, incl. proactive communication • Qualified explanations 	<ul style="list-style-type: none"> • Support the patient's level of activity • Avoid sick notes
Mild to moderate functional disorders	<ul style="list-style-type: none"> • Stop unnecessary assessment and treatment 	<ul style="list-style-type: none"> • Normalisation • Qualified explanations based on the patient's health beliefs and expectations 	<ul style="list-style-type: none"> • Support the patient's level of activity • Avoid sick notes
Bodily distress syndrome	<ul style="list-style-type: none"> • Stop unnecessary assessment and treatment • Consider SNRI or TCA in severe cases 	<ul style="list-style-type: none"> • Make the diagnosis • Expansion and clarification of the patient's context • Consider cognitive behavioural therapy or the like • Consider status consultation and regular consultations 	<ul style="list-style-type: none"> • Help to maintain/improve functional level • Quick social-medical clarification • Be proactive in connection with cooperation and be the coordinator
Health anxiety	<ul style="list-style-type: none"> • Stop unnecessary assessment and treatment • Consider SNRI or severe cases 	<ul style="list-style-type: none"> • Make the diagnosis • Cognitive behavioural therapy based on the patient's health beliefs 	<ul style="list-style-type: none"> • Help to maintain/improve functional level • Avoid sick notes

Cognitive behavioural therapy

	Bodily distress syndrome	Health anxiety
Focus in the therapy	<ul style="list-style-type: none"> • Clarification and coping with symptoms • Objectives and problem-solving 	<ul style="list-style-type: none"> • Illness understanding, dysfunctional beliefs and alternative models of explanation
Charts	<ul style="list-style-type: none"> • Symptom registration chart (weekly) • The basic cognitive model for functional disorders • Pyramid of objectives 	<ul style="list-style-type: none"> • Illustration of "symptom perception and illness understanding" (Fig 2) • The basic cognitive model for functional disorders

Particularly in **CHRONIC** functional disorders

Status consultation

- Review of medical records
- Open dialogue with the patient about the course so far
- Support the patient in taking active part in the treatment course
- Common plan for the further course
- Consider involving relatives

General advice on management of chronic functional disorders

Physical

- Make a brief, focused physical examination
- Avoid tests and procedures, unless indicated by objective findings or a well-defined (new) clinical illness picture
- Never treat a patient for a disease he or she does not have.
- Medication changes if needed.

Psychological

- Make the diagnosis
- Acknowledge the reality of the patient's symptoms.
- Be direct, honest and respectful.
- Be stoic; do not expect rapid changes or cures.
- Reduce expectations to cure and support, but support the patient in believing in improvement.
- Consider whether worsening or emergence of new symptoms can be perceived as a worsening of the functional disorder or the emergence of new illness.
- Apply specific therapy and consider referral to specialist treatment.
- Motivate the patient to accept specialized psychiatric treatment if relevant and available.

Psychopharmacological treatment

- Consider treatment with psychoactive drugs (primarily antidepressants) in severe cases.
- Avoid habit-forming medication.
- Consider medication that can be serum monitored for compliance and sensitivity to side effects
- Start with a smaller dosage than usual and increase slowly. Be stoic about side effects.
- Treat any coexisting psychiatric disorder according to usual guidelines.

Administrative

- Be aware of your role in the treatment
- Be proactive
- Avoid sick notes if possible
- Try to make an alliance with the patient that you are the coordinator, and try to limit the number of different therapists.
- Inform your colleagues about treatment plan and arrangements.
- Try to build a therapeutic alliance with the patient's relatives.
- Arrange any necessary support/follow-up for yourself.

About DSAM's clinical guidelines in general

DSAM has published clinical guidelines since 1999. The guides are thought as an aid from practicing colleagues to practicing colleagues.

The purpose with the guidelines is to gather and go through current knowledge in a certain area and, from a general medicine point of view, to get an overview of this. The guides draw up relevant proposals as to how GP and patient together – on the basis of individual and local conditions – can meet a given problem. The clinical guides hereby state general guidelines for good clinical behaviour, but will always just be a part of the compiled foundation which is included in a decision process. The guide is a tool for prioritization of examination, treatment and care on the basis of treatment effect, costs and risk assessment so that the GP and the patient together can make a decision based on the patient's own values. Hence a clinical guide is *one* way of handling a clinical problem – not a legally binding instruction.

DSAM's hope is that the clinical guidelines can contribute to quality development of and continuing education within the profession. The guides should therefore deal with relevant and frequently occurring clinical problems where insecurity reigns. Subjects of the guides are picked out by DSAM's co-ordination group for clinical guides and are approved by DSAM's board. The guides are compiled by GPs in cooperation with relevant business partners. DSAM strives that the guides are evidence based, action oriented, understandable and flexible in relation to the GP's working day. In connection with the publishing of new guides DSAM strives to the greatest extent possible to stimulate implementation activities but the conversion of the guide's words to action will in predominant extent depend on local activities and initiatives. The guides both can and should be adapted to local conditions.

Further information about DSAM's clinical guides can be found on www.dsam.dk