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CLINICAL PRACTICE GUIDELINES

Anorexia Nervosa: management

GUIDELINES

June 2010

The evidence report of these guidelines can be consulted in full at
www.has-sante.fr

Haute Autorité de santé
Service documentation – information des publics
2, avenue du Stade de France – F 93218 Saint-Denis La Plaine Cedex
Tél. : +33 (0)1 55 93 70 00 – Fax : +33 (0)1 55 93 74 00

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Abbreviations

ALAT	alanine aminotransferase
ALP	alkaline phsophatase
AN	Anorexia Nervosa
ASAT	aspartate aminotransferase
BMI	Body Mass Index
CBT	cognitive-behavioural therapy
CRP	C-reactive protein
ECG	electrocardiogram
ED	eating disorder
CPG	practice guidelines *(Recommandations de bonne pratique, RBP)*
HDT	*hospitalisation à la demande d'un tiers*, French legal provision for compulsory hospitalisation
LQTS	long QT syndrome
OPP	*ordonnance de placement provisoire*, provisional placement order, French legal provision for compulsory hospitalisation for minors
SCOFF	Sick, Control, One stone, Fat, Food; SCOFF-F: French language version
TSH	thyroid-stimulating hormone

1 Introduction

1.1 Theme and objectives of these guidelines

► Theme

These practice guidelines (PG) were developed by the *Association Française pour le Développement des Approches Spécialisées des Troubles du Comportement Alimentaire* (AFDAS-TCA – organisation for the development of specialised approaches to eating disorders), with the participation of the *Fédération Française de Psychiatrie* (FFP) and INSERM Unit 669, in a methodological, logistic and financial partnership with the *Haute Autorité de la Santé* (HAS - French health authority). The work was conducted on the initiative of AFDAS-TCA and the *Direction Générale de la Santé*, which had approached HAS for the drafting of guidelines on the theme.

Anorexia Nervosa (AN) is an eating disorder (ED) that is multi-factorial in origin: there are individual psychological vulnerability factors, genetic and biological factors, and also family, environmental and socio-cultural factors (such as the importance of body image in our societies). The illness is defined by diagnostic criteria in the international classifications (ICD-10 and DSM-IV-TR, see annex 3).

Cases of AN that meet DSM-IV-TR diagnostic criteria are fairly rare: the prevalence in the general population is reported to be 0.9 to 1.5% among women and 0.2 to 0.3% among men. The sub-syndromal form, i.e. not strictly complying with ICD-10 and DSM-IV-TR criteria, is more frequent.

These diagnostic criteria are today widely debated, in particular with regard to the place of subthreshold (or partial) forms (EDNOS: eating disorders not otherwise specified), and the co-occurrence of several eating disorders. Anorexic and bulimic behaviours are often associated, either concurrently or sequentially. However, while among anorexic patients almost half meet the diagnostic criteria for bulimia at some stage, the reverse is not true. Because this is a very complex area, the present Practice Guidelines (PG) focus on AN, with or without binging and/or purging behaviours (restrictive type). These Guidelines also concern subthreshold (partial) AN, which warrants similar treatment approaches.

Anorexia Nervosa is characterised by the potentially serious nature of its prognosis:
- risk of death (suicide, somatic complications). It is the psychiatric illness that has the highest mortality rate, reaching 10% in studies with a follow-up of more than 10 years;
- risk of numerous somatic and psychiatric complications: heart failure, osteoporosis, infertility, depression, suicide etc;
- risk of chronic illness, relapse and social exclusion (see annex 4).

Recovery is possible, even if the condition has already lasted several years

The multi-disciplinary approach that is justified by the need to tackle nutritional, somatic, psychological and family issues raises the question of how to coordinate the different professionals involved in the long-term global care plan.

► Objectives of these Practice Guidelines

The objectives of these PG are to assist in the following:
- detecting AN as early as possible in its course;
- improving the support and care of the patient and his/her entourage;
- improving care provision and the initial orientation or referral of the patient;

- improving hospital care where it is required, and post-hospitalisation follow-up.

In these GPG, the priority issues for improvement in care quality, directly linked to the concerns of professionals and patient organizations, are as follows:

- early detection and diagnosis, with a particular focus on the populations most at risk, on early signs, and on the most relevant diagnostic criteria; there is also a focus on forming an alliance with the patient and his/her entourage, which is often difficult because the patient is liable to be in denial[1];
- detailed provision for orientation and outpatient care (referral, multi-disciplinarity, and specialised structures, in particular for day-care;)
- indications and provisions for full-time hospitalisation (severity criteria, therapeutic contract, and the place of compulsory hospitalisation).

1.2 Patients concerned

These GPG concern children, pre-adolescents, adolescents and young adults, Infants, adults with late onset of AN are not included in the scope of these GPG.

1.3 Professionals concerned

These GPG are intended for all health professionals and social workers liable to be involved in caring for patients with AN, and in particular the following: general practitioners, paediatricians, school physicians and nurses, gynaecologists, child psychiatrists, psychiatrists, psychologists, sports physicians, occupational physicians, interns, intensive care professionals, endocrinologists, gastro-enterologists, nutritionists and dieticians.

1.4 Grading of the guidelines

The recommendations proposed are graded in the following manner:

- a grade A recommendation is based on scientific proof established by studies with high levels of evidence, such as powerful randomised controlled trials without major bias, or meta-analyses of randomised controlled trials, with decisional analysis based on well-conducted studies (level of evidence 1)
- a grade B recommendation is based on a scientific assumption derived from studies with an intermediate level of evidence, such as low-powered randomised controlled trials, well-conducted non-randomised controlled studies, cohort studies (level of evidence 2)
- a grade C recommendation is based on studies with a lower level of evidence, such as case-control studies (level of evidence 3), retrospective studies, case series, comparative studies with considerable risk of bias (level of evidence 4).

Where no studies are available, recommendations are based on expert consensus within the working group convened by AFDAS-TCA after consultation of the reviewer group. In the following pages, non-graded recommendations are those that are based on expert consensus. The absence of grading does not mean that the recommendations are not relevant or useful. It should however encourage further study. Proposals in this respect are listed in annex 1.

[1] Denial: the subject disavows or denies thoughts, feelings, wishes or needs that cause distress.

2 Detection, diagnosis, and grounds for instating care

2.1 The importance of early diagnosis

Early detection and instatement of care are recommended to avoid the risk of the condition evolving towards chronic form, with the attendant somatic, psychiatric and psycho-social complications, in particular among adolescents (grade C). Early detection and instatement of care enable information to be provided on AN and its consequences, and facilitate the establishment of a genuine therapeutic alliance with the patient and his/her entourage.

2.2 Populations at risk

Targeted screening is recommended:

- in populations at risk (where incidence is highest):
  - adolescents
  - young women
  - fashion models
  - dancers and sportsmen/women (aesthetic disciplines, or those with weight categories: sports that value or require weight control; disciplines involving low body weight such as endurance sports), especially at competition level.
  - subjects with pathologies that entail dieting, such as type 1 diabetes, family hypercholesterolemia, etc.
- or in case of early signs (see paragraph 1.3).

This concerns physicians issuing non-contra-indication certificates for the practice of different sports (GPs, paediatricians, sports physicians), doctors in schools or higher education establishments, occupational physicians etc. It should be noted that subjects with EDs consult their GPs for different somatic complaints more often than the general population in the years preceding the diagnosis.

2.3 How to target screening for AN

► Questions to ask

For populations at risk, in face-to-face settings the following are recommended:

- Systematically ask one or two questions on the presence of an ED, for instance: "Have you or have you had any problems with your weight or your diet?" or "Does anyone among your family and friends think you have a problem with your diet?
- alternatively, use the SCOFF questionnaire in one-to-one interview with the patient – in this instrument two positive responses are strongly predictive of an ED.

1) Do you make yourself sick because you feel uncomfortably full?
2) Do you worry you have lost control over how much you eat?
3) Have you recently lost more than one stone in a 3-month period?
4) Do you believe yourself to be fat when others say you are too thin?
5) Would you say that food dominates your life?

► Monitoring of anthropometric parameters

The following is recommended:

- systematically monitor growth curves in stature, weight and bodily shape among children and adolescents, to identify any marked change in the curve, and calculate their BMI (Body Mass Index)[2]
- calculate and monitor BMI in adults.

► Signs pointing to possible AN

It is recommended that AN should be looked for in case of the following signs (table 1):

Table 1. Signs indicating possible AN

In children (in absence of specific criteria, and from the age of 8)	• slowing in statural growth • change in band (downwards) on BMI curve • repeated nausea or abdominal pain
In adolescents (in addition to changes in stature or BMI curve)	• adolescent brought to consultation by parents for problems of weight, diet or anorexia • adolescent with delayed puberty • adolescent girl with amenorrhoea (primary or secondary) or irregular cycles (spaniomenorrhoea) more than two years after her first period • physical hyperactivity • intellectual hyper-activity
In adults	• Loss of weight >15% • BMI<18.5kg/m^2 • refusal of weight gain despite low BMI • women with secondary amenorrhoea • men with marked decrease in libido and erections • excessive physical activity • intellectual hyper-activity • infertility

- **AN** in **males** (10% of cases treated) presents the following features:
  - purely restrictive forms (see annex 3) are more unusual
  - initial BMI is higher
  - excessive physical activity is more frequent than intellectual hyper-activity.
- **Late onset AN** often occurs as a reaction to a family event (bereavement, marriage, pregnancy, birth of a child) and is often preceded by an earlier sub-syndromal episode of AN. Depressive symptoms may be quite marked.

2.4 Diagnosis and grounds for instating care

If there are no signs indicating immediate severity, the aims of the first consultations should be to confirm the diagnosis, provide information on AN, and establish a good therapeutic alliance.

► Confirming the diagnosis

The first exchanges are crucial, and they determine subsequent care. We recommend that you adopt an empathetic, genuine, warm and professional attitude so as to enable the patient to express the signs liable to confirm the diagnosis of AN (and if the patient agrees, the family or entourage should take part):

- new concerns about food and diet

[2] BMI = weight (kg)stature^2 (m^2)

- excessive concern about body image
- restrictive eating behaviours: counting calories, selective diet, dietary exclusions, avoidance of meals, hiding food
- purging behaviours: self-induced vomiting, use of laxatives or diuretics
- excessive physical activity, excessive investment in professional or academic work.

These different elements are not always all present, but the existence of several of them, alongside considerable weight loss, should suggest AN. In this case the diagnosis of AN should be confirmed using one of the international classifications (ICD-10 or DSM-IV-TR, see annex 3). The absence of one or more of these criteria points to subthreshold (partial) AN. Once the diagnosis of AN is established, a complete clinical examination is recommended, to look for signs of concern (see section 3.3). This will also help the patient to gain awareness of the overall impact of his/her behaviours. An electrocardiogram, a blood electrolytogram, and a haemogram are recommended at instatement of care.

► Informing the patient and seeking an alliance

The following are recommended:

- naming the illness, tactfully and avoiding stigmatisation, underlining the notion that it is a behavioural adaptation to a pre-existing state of unease or distress
- stating clearly from the start that the illness can become chronic, with potentially serious consequences in the short and long term, and that both medical and psychological care is required
- explaining the objectives of the care to be provided, and specifying that a return to normal weight is essential, and that the broader recovery objective comprises psychological, social and relational dimensions.

Patient denial of the existence of the disorder is common, and a serious obstacle to providing the required care. Here both the entourage and healthcare professionals can help. The priority is to establish a good relationship between the practitioner, the patient and the entourage to enable the development of a therapeutic alliance.

► Role of the practitioner who is consulted first

After detection, and depending on the specific skills and competence of the practitioner first consulted, and his or her ability to establish a therapeutic alliance, this first practitioner can take on the function of coordinator among the different professionals that become involved (see section 3.2.), or else he/she can refer the patient to a colleague for specialised care.

3 First specialised care and care itineraries

3.1 Different levels of care

According to the moment and the severity of the condition, care will be more or less intensive, in outpatient or inpatient setting.

It is recommended that initial care should be on an outpatient basis, except in cases of psychiatric or somatic emergency.

The coherence and the continuity of care should be ensured over time, from one stage to the next in the care itinerary, and from one professional to another. In particular, in case of hospitalisation, the following is recommended:

- hospital care should be followed up by ambulatory care, either sequential, or day care, or at least outpatient consultation, because patients have not completely recovered when they leave hospital
- the hospital healthcare team should return to the outpatient care that was operational before hospitalisation, or they should organise a new multi-disciplinary follow-up. For this purpose, there should be telephone exchanges in the course of the hospitalisation, and review meetings among partners upstream and downstream of hospitalisation are essential, as is the prompt transmission of the hospital report. The patient and his/her entourage should participate in the organisation of the care plan.

Whatever the level of care, the environment should be age-appropriate, with particular attention to the educational and social needs of children and adolescents, so as not to compromise their futures.

3.2 Multi-disciplinarity and outpatient care

Because of the multi-factor aetiology of this disorder, and its wide range of consequences, multidisciplinary involvement is recommended for optimal care provision in AN.

► Professional involvement

It is recommended that:
- health professionals who have no experience in EDs should seek the advice of more experienced colleagues; this also applies if the practitioner is uncertain as to the therapeutic course to adopt
- the professional who was first consulted can organise multidisciplinary ambulatory care once the diagnosis has been established, taking care to preserve the therapeutic alliance.

It is recommended that care be provided by a team of at least two practitioners, the core members of which are:
- a psychiatrist or child psychiatrist or a psychologist, on account of the mental distress and the frequent psychiatric comorbidities
- a physician, who can be the first physician who was consulted (GP or paediatrician) if he or she is prepared to take on this role.

► Organisation of the multidisciplinary care provision

The coordination of care is ensured by the coordinating physician, whose role is:
- to prescribe the specific procedures required at any given time
- to keep an overall view of the therapeutic itinerary
- to link up with the different professionals involved.

The choice of the coordinating physician from the team of healthcare professionals should be decided on the basis of the following:
- the patient's situation (age, course and severity of the illness, care itinerary, and the patient's wishes
- the person in the multidisciplinary healthcare team with the most experience and the greatest availability.

It is recommended that the coordination of care should be backed up by regular exchanges among the different professionals involved. Exchanges can be direct (informal, by telephone, or in clinical review meetings) or by secure mail and email. The use of health networks

involving different professionals should facilitate the functioning of the multidisciplinary team, in particular by way of shared medical files.
Should the care setting change, and for each transition, the new team should be identified and the patient should be able to meet the team beforehand. The existence of institutional facilities with several levels of health care provision can facilitate transition, in particular for children and adolescents.

3.3 Evaluation of severity

A global evaluation of the patient should be performed, including somatic, nutritional and mental assessments, and it should also consider family and social dynamics (see tables 2a and 2b). This evaluation should enable detection of elements signalling the severity of the condition, in particular those that are grounds for hospitalisation (see section 4.2). The evaluation should be reiterated over time, at least monthly for established diagnoses, and all the more frequently when the condition is fluctuating or progressing.

Table 2a. Clinical evaluation

Clinical evaluation	
Interview data	• Weight history: percentage weight loss, kinetics and duration of weight loss (minimum BMI, maximum BMI and stabilisation weight) • Restrictive eating behaviours: onset, type of restriction (quantitative, qualitative) • Associated purging behaviours: bulimia/vomiting, over-consumption of laxatives, diuretics or other substances, parotid hypertrophy, roughness or irritation on fingers linked to vomiting, evaluation of bucco-dental condition • Excessive fluid intake (quantification in litres per day) • Physical activity (detection of excessive exercising) • Addictive behaviours: alcohol, tobacco, other substances (in particular psychotropic medication) • Known associated pathologies: diabetes, thyroid, digestive • Psychiatric examination: psychiatric history, current features (depression, anxiety, OCD, suicidality, self-harm, psychotic symptoms (rare), history of sexual abuse, psychotropic treatment...) • Evaluation of family functioning, in particular in the area of food and eating, possibly linked to the maintenance of the disturbances • Social evaluation (assisted by a social worker), professional or academic hyper-investment, withdrawal from friendships or social relationships, which may require special provisions - reduction in school timetable, leave from work, group therapy etc).
Evaluation of nutritional state and its consequences	• Weight, stature, BMI, BMI percentile for age and growth curve for children and adolescents • Evaluation of pubertal stage (Tanner) in adolescents (detection of delayed puberty) • Body temperature • Full cardio-vascular examination to look for signs of heart failure and/or heart-rate abnormalities, including pulse, blood pressure and screening for orthostatic hypotension • Condition of the skin, nails, hair etc (including self-mutilation) oedema, acrosyndrome • Hydration • Neurological and muscular examination: psychomotor slowing, muscle mass loss, axial hypotonia, major asthenia and difficulty performing ordinary gestures • Digestive examination: salivary glands, upper digestive tract, transit • Evaluation of dietary intake (by experienced dietician)

Table 2b. Paraclinical evaluation

Paraclinical evaluation (once the diagnosis is complete)	
Biological review	• Haemogram • Blood electrolytogram • Evaluation of renal function (urea, creatinine, creatinine clearance) • Evaluation of hepatic function (ALAT, ASAT, ALP, prothrombine • Albumin, pre-albumin • CRP • TSH titration is not recommended except in presence of persistent suspicion of hyperthyroidism
Complementary analyses	• Electrocardiogram: screen for LQTS (risk of torsades), for supra-ventricular or ventricular tachycardia, sinus pause, junctional bradycardia, negative T-wave beyond V3, and a modification of the ST segment • Osteodensitometry (after 6 months' amenorrhoea, and every two years in case of anomalies or persistent amenorrhoea)

3.4 Therapeutic care

► Nutritional and dietary issues

Aims of refeeding

The final nutritional objectives are as follows:

- reaching and maintaining appropriate weight and nutritional status for adults, or an acceptable growth rate for children and adolescents
- achieving spontaneous, regular and diversified eating patterns, with a return of more suitable behaviours, dietary choices and carbohydrate intake, and an ability to partake of food in social settings
- achieving a relaxed and flexible attitude towards food
- obtaining a return of the feelings of hunger and satiety, and providing appropriate responses to the patient's experiences
- avoiding the potential complications of re-establishing nourishment in cases of extreme malnutrition.

Determining a weight objective

Discussion should be undertaken with the patient concerning the weight objectives to be progressively reached, taking care to reassure him/her. The weight objective should be decided according to the following:

- age
- weight history
- for women, the weight required to restore menstruation and ovulation.

For most patients, the cessation of weight loss is the initial objective, before considering weight gain. In the weight gain phase, an increase of 1kg per month in ambulatory care seems a reasonable and acceptable target.

The positive aspects of weight gain should be emphasised. It is important to avoid fixing a minimum target weight that could become too great a challenge for the patient.

For children and adolescents, weight objectives should be regularly reviewed according to BMI percentiles, on the basis of the following:

- age
- stature
- pubertal stage
- pre-morbid weight
- growth curves.

Refeeding and its management

The frequency of weighing is determined by the clinical state. Depending on the nutritional status (see table 3) a twice-weekly weight check is recommended – daily if malnutrition is severe (grade III) and weekly once the nutritional state stabilises.

Table 3. Definition of nutritional status according to WHO in adults up to age 70 (in absence of oedema)

BMI	Classification
< 10	Grade V under-nutrition
10 to 12.9	Grade IV under-nutrition
13 to 14.9	Grade III under-nutrition
15 to16.9	Grade II under-nutrition
17 to 18.4	Grade I under-nutrition
18.5 to 24.9	Normal

Meals should be re-introduced and/or improved in quantity and quality in stages and cautiously, to ensure adequate intake. Nutritional intake under 1 600 kcal/d (for an adult) does not cover requirements in microelements. Complementation can be provided as a transitional measure to obtain a higher calorie intake.

Particular surveillance during refeeding

At the start of the process electrolyte parameters should be monitored, including phosphoremia, so as to avoid potential cardio-vascular complications.

In case of severe under-nutrition the following recommendations can be made:
- initiate the refeeding progressively and cautiously
- provide phosphorous, vitamin and trace element oral complementation to avoid refeeding syndrome (see paragraph 4.5)
- perform clinical monitoring several times daily (pulse, blood pressure, temperature).

► Somatic aspects

The job of the physician is to monitor the patient's clinical state, and to prevent, screen for, or treat any complications, remaining within the overall objectives of the care plan.

Self-induced vomiting and other purging behaviours

For patients with purging behaviours (self-induced vomiting, use of laxatives and diuretics) the following are recommended:
- regular measures of serum electrolytes, in particular kalaemia, so as to supplement if required
- evaluation and treatment of the dental and digestive repercussions of these behaviours. To guard against dental complications, teeth should not be brushed immediately after vomiting, it is better to rinse the mouth out with water so as to reduce acidity.

Retarded growth

For children and adolescents, growth curves should be closely monitored in terms of weight and stature. The analysis of these curves and their dynamics is essential.

When development is delayed or growth has come to a standstill, the opinion of a paediatrician should be sought.

Infertility and pregnancy

Most anorexic females present amenorrhoea. It is nevertheless important not to overlook the possibility of a return of ovulation and the occurrence of pregnancy.

If pregnancy is not desired, the following are recommended:
- inform the patient of the risk of pregnancy (even if it is very small) in case of sexual intercourse
- inform patients of the different contraceptive options, so as to select the best suited method.

The combined oestrogen-progestin oral contraceptive pill can lead to uterine bleeding that can mask amenorrhoea, which is an essential element for the detection of AN and for the assessment of its course.

Should the patient desire a pregnancy, extreme caution is required: the patient should be informed of the risks for her and her child. There should be screening for sub threshold (partial) forms of AN among women applying for medically assisted procreation, and any woman diagnosed with AN should receive treatment for AN before embarking on the process.

Pregnant women with AN or a history of AN require tailored multi-disciplinary follow-up both during pregnancy and in the post partum period (risk of depression) with the following objectives:
- to ensure that the foetus is developing normally
- to avoid any deterioration in the mother's nutritional or mental condition
- to ensure that a good-quality mother-infant relationship becomes established.

Osteoporosis, osteopenia

Osteodensitometry examination enables diagnosis and assessment of the extent of osteopenia/osteoporosis. It should be performed for the first time after six months' amenorrhoea, and repeated every two years in case of any anomaly, or if amenorrhoea persists.

Bone re-mineralisation depends on weight gain and a return of the menstrual cycle. It is not recommended to treat non-complicated osteoporosis in anorexic patients. The usefulness of the different drug therapies, in particular oestrogen-progestin, for bone density has not been demonstrated in this pathology.

► Psychological and social aspects

Objectives of the psychological interventions

The psychological interventions target both individual and family objectives. The global care plan of ED patients should include a psychological component with the following aims:

- helping the patient to understand and cooperate in his/her physical and nutritional rehabilitation, so as to reduce physical risks

- helping the patient to understand and alter the dysfunctional attitudes arising from his/her eating disorder, so as to encourage weight gain and move towards balanced eating habits
- helping to improve the patient's social and interpersonal relationships, so as to enable him/her to feel generally more confident and secure to get on with his/her life
- treating any psychiatric comorbidity, personality disorder personality dimension, or mental conflict that might contribute to reinforcing or sustaining disordered eating behaviours.

When the patient is severely under-nourished, the psychological approach should emphasise compliance with treatment and provide incentive to do so.

Comorbid disorders, especially depression, anxiety, OCD and addictions, should be taken into account. In case of a history of sexual abuse, a specific approach should be envisaged.

Role of the family and the entourage

The family should be reinforced in their supportive role. The younger the patient the greater is the importance of this support. This aims to address all the difficulties that the patient may encounter, not solely the eating symptoms.

The involvement of the family should be suited to the patient's age and degree of intimacy with his/her family, and to the intensity of any conflict, family dysfunction or family distress. This involvement consists in regular family sessions, and family therapy or participation in family or parent support groups. It concerns the parents, and also siblings, often in a state of distress, and partners of adult patients.

Choice of psychotherapy

The different types of psychotherapy, which vary according to their theoretical foundations, all provide a working framework, and an understanding of the disorder and the objectives of care: they are both different and complementary.

The choice of psychotherapy is done according to the patient or his entourage, age, motivation and stage of disease progression.

The psychotherapies most frequently chosen (individual, family, group) are:
- support therapies
- psychodynamic therapies, or those related to psychoanalysis
- behavioural and cognitive-behavioural therapies (CBT)
- systemic and strategic therapies.

Family therapies are recommended for children and adolescents (grade B). Motivational approaches have shown their value at the start of treatment. Bodily approaches, art therapy, music therapy etc. can be offered in conjunction.

Particular moments in the care itinerary

When the patient is too severely undernourished, and the condition is life-threatening in the short term, priority should be given to somatic care. The psychotherapeutic approach in this case should be solely supportive.
For patients with chronic AN (see annex 2) the treatment should focus on improving quality-of-life and maintaining a stable or safe weight, rather than on reaching an optimal weight target. Late remissions or recovery are always a possibility.

Any absence of improvement or clinical aggravation should lead to a complete review of the therapeutic plan.

Duration

Whatever the psychotherapeutic approach chosen, it should last at least one year following significant clinical improvement. Because of the chronic dimension of AN, care often extends over a period of several years.

► Pharmacological treatment

There is no specific medication to treat AN. It should be added that certain drugs, such as antipsychotics and tricyclic antidepressants, should be used cautiously on account of their side effects in severely undernourished subjects (longer QT).

However, antidepressants can be used to treat specific concomitant syndromes (depressive disorders, anxious disorders, OCD) if these symptoms are not improved by the weight gain.

3.5 Facilities for specific care provision

Where available, specific care can be offered alongside the classic three-pronged care pattern -somatic, nutritional and psychological - , in particular facilities that provide an alternative to full-time hospitalisation for the most severe cases. They can enable the patient to cope with certain difficulties (in interpersonal relationships, in gaining autonomy, in eating and diet, in the expression of emotions, etc). These facilities are particularly valuable if they are generally intended for this type of patient. They include:

- part-time therapeutic centres
- post-therapy residential facilities
- educational and care facilities
- foster families.

Organising care in a health network is of valuable assistance in the task of coordinating existing care resources and training the staff involved.

3.6 Information to the patient and entourage

► Legal aspects and information

The patient and his/her entourage (parents, siblings, partner etc) should be informed of the etio-pathological components of eating disorders, how they are sustained, their clinical profiles, the physical risks incurred, and what to do in case of life-threatening situation; information should also be provided on how the illness evolves, and the therapeutic strategies.

The particular instance of information to minors

The legal representatives of minors should be given information, but the patient should also be given information as appropriate to his/her psycho-emotional development.

Legislation on this issue will vary from country to country. According to the terms of French legislation passed on March 4th 2002, under-age subjects can refuse to allow their legal representatives to be informed about treatment they receive. It is then for the practitioner to decide on the relevance of this refusal, and he/she can over-ride this request if it seems necessary for the safety of the minor.

The particular instance of confidentiality

The nature of this particular illness should not be used to justify a breach of confidentiality. Nevertheless, since the parents (or the entourage) are often implicated in the therapy, it is

often important for them to be informed about certain aspects relating to the patient's health; however this should be done in presence of the patient, or with his/her agreement.

In the particular instance where the severity of the patient's physical or mental state requires immediate care in hospital setting, and the patient refuses (in particular as a result of denial of the existence of the disorder), the physician can decide on compulsory hospitalisation (see paragraph 4.7), and thus call on the closest members of the entourage, against the will of the patient.

► Useful information resources

In addition to care, it may be helpful for the patients to have the support of other patients by way of patient organisations, self-help groups or psycho-educative groups. Family organisations provide support groups that are often close to people's homes[3].

4 Hospital care for AN

4.1 Day-care

Admission to specialised day care should be seen as one possible stage in the AN patient's care itinerary. It can take the following forms:

- an initial period, used for in-depth evaluation
- an intensification stage, following ambulatory care if this has proved insufficient. Day-hospital can be an alternative to fulltime hospitalisation, or it can lead on to full time hospitalisation if it fails
- a stage in the winding-down of care, following on from full time hospitalisation.

Day-care hospital is not a substitute for full-time hospitalisation.

4.2 Full-time hospitalisation

Full-time hospitalisation is indicated in case of emergency, whether somatic or mental (suicide risk, severe self-harm), before a life-threatening condition develops in case of family exhaustion or crisis, or in case of failure of outpatient care (aggravation or chronic condition).

Full-time hospitalisation is decided on an individual basis, according to medical, psychiatric, behavioural and environmental criteria, always considering the patient and his/her family, and the care facilities available. The indication for hospitalisation is not usually justified by a single criterion, since it is above all their association and their tendency to evolve that make hospitalisation the option.

Determining an indication for hospitalisation should be based on a full clinical examination – somatic (see table 4), psychiatric (see table 5) and on an evaluation of environmental factors (see table 6).

[3] AFDAS-TCA lists family associations on its website: www.anorexiboulimie-afdas.fr (also given in annex 2 to the Evidence Report for these Guidelines).

Table 4. Somatic criteria for hospitalisation

Children and adolescents	
History	• Rapid loss of weight: more than 2kg/week • Refusal to eat: total aphagia • Refusal to drink • Lipothymia or fainting appearing to be orthostatic • Fatigue or exhaustion reported by the patient
Clinical criteria	• BMI <14kg/m^2 at 17 yrs or over, or BMI < 13.2kg/m^2 at ages 15 and 16, or BMI <12.7kg/m^2 at ages 13 and 14 • Slowness in ideation and speaking, confusion • Occlusive syndrome • Extreme bradycardia: pulse<40/min, irrespective of time of day • Tachycardia • Low systolic blood pressure (<80 mmHg) • BP <80/50mmhg, orthostatic hypotension measured by an increase in heart rate >20/min or decrease in BP >10-20 mmHg • Hypothermia <35.5°C • Hyperthermia
Paraclinical criteria	• Acetonuria (urine test strip), hypoglycaemia <0.6g/L • Severe hydroeletrolytic or metabolic disturbances, in particular: hypoalkalaemia, hyponatremia, hypo-phosphoremia, hypomagnesemia (threshold levels non-specified for children and adolescents). • Creatinine elevation (>100µmol/L) • Cytolysis (>4xN) • Leuconeutropenia (<1000/mm^3) • Thrombopenia(<60 000/mm^3)
Adults	
History	• Scale and speed of weight loss: loss of 30% of body weight in 3 months • Fainting, falls and loss of consciousness • Uncontrollable vomiting • Failure of ambulatory refeeding
Clinical criteria	• Clinical signs of dehydration • BMI<14kg/m^2 • Marked amyotrophy with axis hypotonia • Hypothermia <35.5°C • Hypotension <90/60mmHg • Heart rate: o sinus bradycardia HR <40/min o tachycardia at rest >60/min if BMI <13kg/m^2
Paraclinical criteria	• ECG anomalies other than heart rate • Symptomatic hypoglycaemia <0.6g/L or asymptomatic if <0.3g/L • Hepatic cytolysis >10xN • Hypokalaemia <3mEq/L • Hypophosphoremia <0.5 mmol/L • Renal failure, creatinine clearance <40mL/min • Natraemia: o <125mmol/L (excessive fluid intake, risk of convulsions), o >150mmol/l (dehydration) • Leucopenia <1000/mm^3 (or neutrophiles <500/mm^3)

Table 5. Psychiatric criteria for hospitalisation

Suicide risk	• Suicide attempt or failed attempt • Precise suicide plan • Repeated self-injury
Co-morbidity	Any co-occurring psychiatric disturbance where severity warrants hospitalisation: • Depression • Substance abuse • Anxiety • Psychotic symptoms • Obsessive-compulsive disorder
Anorexia nervosa	• Intrusive, constant, obsessive ideations, inability to control obsessive thoughts • Refeeding – the need to refeed by nasogastric intubation or other feeding mode that is not possible in ambulatory care • Physical activity: excessive, compulsive physical activity (in association with another indication for hospitalisation) • Purging behaviours (vomiting, laxative and diuretic use): inability of the patient to control intense purging activities
Motivation, cooperation	• Previous failure of satisfactorily managed ambulatory care • Uncooperative patient, or cooperating solely in highly structured care setting • Insufficient motivation, hindering compliance with ambulatory care

The association between AN and suicide risk is stronger in cases with comorbid depression, or when the patient is in a transition period between restrictive anorexia and a bulimic form.

Table 6. Environmental criteria for hospitalisation

Availability of entourage	• Family problems or absence of family to accompany ambulatory care • Family exhaustion
Environmental stress	• Serious family conflict • High levels of parental criticism • Severe social isolation
Availability of care facilities	• No ambulatory care available for lack of facilities (distance may be an obstacle)
Previous treatment	• Failure of ambulatory care (aggravation or development of chronic illness)

4.3 Hospitalisation facilities

► Somatic emergencies

In case of somatic emergency, medical care should be instated first of all:

- in medical intensive care unit if there are serious metabolic disturbances or life-threatening organ failure:
  - severe hypokalaemia with disturbed heart rate on ECG
  - marked hepatic cytolysis with biological signs of hepato-cellular failure
  - decompensated heart failure
  - multi-organ failure in a context of refeeding syndrome

  - other somatic complications linked to starvation or under-nourishment: septicaemia, hypoxemic lung infections, central or peripheral nervous system disorder
- in a medical ward, preferably specialised in clinical nutrition, or in a paediatric ward.

Contact and referral should subsequently be organised towards a specialised team in ambulatory care or in hospital, depending on the patient's condition and situation.

► Psychiatric and environmental emergencies

In case of psychiatric emergency with concurrent AN, hospitalisation is justified in a general adult psychiatry ward or a specialised child and adolescent ward. The therapeutic team should establish the care procedures that are appropriate to the situation, and should then evaluate the requirements for a care plan more specifically centred on AN in a department that has experience in the care of EDs. A department specialised in the care of EDs should be the priority choice of facility. If none is available, the orientation should be made according to resources available, maintaining collaboration between psychiatric and somatic teams.

A situation of family crisis (see table 6) can also motivate emergency hospitalisation, which will be implemented according to availability wherever it can be found.

► Outside emergency situations

In this case, hospitalisation should occur in a department providing multidisciplinary care, associating refeeding techniques, somatic monitoring, and psycho-social support. Whatever the facility chosen, to provide optimal care the following should be involved: medical doctor or paediatrician, dietician or nutritionist, psychiatrist, psychologist, nurse, other health professionals, and social worker.

Hospitalisation close to home is recommended to favour continuity of care at discharge, to implicate the family, and to sustain the patient's social and occupational links in his or her usual environment.

4.4 The aims of care

A complete review at admission should be performed. It should comprise a complete clinical examination (somatic, nutritional and mental condition, alongside complementary analyses as required). This enables the orientation of the care instated (see paragraph 3.3).

The aims of hospital treatment in AN are the remediation of the various factors that serve as criteria for severity – somatic, weight-related, nutritional, psychological and social factors – and that underpinned the decision to hospitalise.

► Somatic, weight and nutritional objectives

The first issue in situations of emergency is somatic, and care should target the normalisation of hydro-electrolytic disorders, and any related complications, whether or not they are life-threatening.

The weight objective in hospital settings should be fixed as a particular weight, or a weight range. The weight gain should be determined in agreement with the patient immediately on admission (and with the legal guardian for minors) so as to facilitate care procedures by establishing a relationship of trust. In certain cases it may nevertheless be preferable to delay the determination of a target weight, and to wait until the patient is in a sufficiently receptive state of mind to discuss it.

Assuming that the metabolic disorders have receded, a BMI of around 13 kg/m^2 is recommended among adults for a transfer from medical ward to a psychiatric ward

specialised in ED. It is nevertheless possible to transfer the most under-nourished subjects to psychiatric ward so long as their condition has stabilised.

The weight reached by the patient should be stabilised within the hospital setting before discharge, so as to decrease the risk of relapse.

The nutritional objectives are defined in paragraph 3.4 (Nutritional and dietary issues).

► Objectives of psychological and social care

The objectives of psychological care are defined in paragraph 3.4 (Psychological and social issues)

One of the main objectives of treatment in AN is to help patients improve their social and relational adaptation, whether family, educational or professional.

Social and educational follow-up and support should be suited to age among children and adolescents. The potential benefit of hospitalisation in specialised settings can be outweighed by problems relating to the distance of the patient's living environment from the specialised facility (this can be problematic for the involvement of the family in therapy, for the maintenance of social ties, and for continuity between hospital care and post-hospitalisation ambulatory care.

4.5 Modes and patterns of care

The type of care provision varies with the severity of a patient's condition and the targets fixed. The organisation of care should be clearly explained to the patient, and as far as possible his or her cooperation should be sought. Explanations concerning treatment should be presented in a way that is suited to the patient's age and his or her ability to understand.

► Refeeding

Nutritional strategy

An objective of regular weight gain of 0.5 to 1kg per week is recommended for hospitalised patients. Weight gains should not occur too fast.

With the exception of very extreme states of under-nourishment (BMI<11kg/m^2) or somatic complications, intake by mouth should be offered, with return to a suitable diet. If this does not prove possible, dietary complementation should be provided, and in some cases enteral feeding.

The reinstatement of meals varies from team to team. Dietary monitoring and support is recommended, to facilitate the progressive reinstatement of oral intake.

The indication for enteral feeding should be envisaged in a multi-disciplinary manner in two situations:
- life-threatening extreme under-nourishment/starvation
- severe under-nutrition accompanied by prolonged weight stagnation.

The final objective is to enable the patient to return to appropriate eating patterns on his or her own initiative. Enteral nutrition should be:
- conducted by an experienced team
- established in such a way that it is perceived as help in getting through a period of transition

- started up very progressively, commensurate with the severity of the malnutrition (see below, Patient follow-up during refeeding); only standard isotonic substances (1mL=1kcal) are recommended.

Since malnutrition in AN results from a refusal to eat, and not from absorption disorders in the digestive tract, parenteral methods are not relevant therapeutic strategies for AN. In addition, the risk of infection via venous catheter is considerable in severely undernourished patients.

Patient follow-up during refeeding

Initial clinical monitoring several times a day is recommended (pulse, blood pressure, temperature), and is all the more useful because it plays a part in establishing a therapeutic relationship. The patient should be weighed frequently at outset, and then on a weekly basis.

A biological review should be performed (see paragraph 3.3 Outside emergency setting), the frequency being variable, depending on the course of the patient's condition.

Refeeding syndrome (cardiac, respiratory and metabolic complications) can occur at the start of a refeeding procedure that is not sufficiently progressive, especially in case of chronic or very severe malnutrition. To prevent this, the following are recommended:

- restriction in energy-rich foods at the start of refeeding
- phosphorus, vitamin and trace element complements orally from the start of the procedure
- postponement by 24 to 48 hours for energy-rich foods in case of metabolic disturbances (hypo-phosphoremia, hepatic cytolysis etc) with intravenous phosphorus, vitamin and trace element complementation before re-starting nutrition. Complementation should be continued at the start of refeeding, even if there was no initial hypo-phosphoraemia
- avoidance of intravenous glucose administration.

The appearance or the aggravation of hepatic complications can be avoided by cautious refeeding. Hepato-toxic drugs and alcohol should be banned.

Weight stagnation occurring at BMI 15kg/m^2 can be explained by the remediation of salt and water retention, which counterbalances gains in dry mass. Below this threshold, however, it is wise to look for behaviours intended to neutralise or eliminate intake, such as purging or excessive exercising.

The return to food intake *per os* is recommended before transfer to psychiatric facilities that are not trained in the application of enteral feeding.

► Psychological care

Psychotherapy alone cannot treat severe AN. Conjoint psychotherapy and refeeding are however recommended (see paragraph 3.4. Psychological and social issues). It should be noted that group approaches are frequently used during hospitalisation as a complement to individual therapy (psycho-educational groups, support or exchange groups, thematic groups).

Patient or family groups help families to become less isolated, they raise awareness, and they lead participants to think about their attitudes towards eating symptoms, and about family issues and parental roles.

The teams should accompany and support families, showing empathy and helping to reduce guilty feelings, and working to establish a therapeutic alliance.

Certain teams are in favour of a period of separation from the usual environment at the start of hospitalisation, alongside close therapeutic support of the parents (encounters, telephone exchanges, support groups). In this context, the following recommendations can be made:

- the patient should not be isolated as a result of the separation
- he/she should be accommodated in an environment where there are numerous social interactions
- the patient should have news of the family through the care team members

For children, it is important to preserve a direct parent-child link, even if contacts are infrequent.

For children and adolescents, family therapy is recommended in ambulatory settings after hospitalisation. Family groups can also be offered.

In the case of adult patients, family interactions should be approached by way of family sessions or family therapy.

For patients living with a partner, support should be provided for the partner, with particular attention to any children and to their education, particularly on dietary matters.

► Dealing with eating symptoms and associated manifestations

Putting a stop to self-induced vomiting, when relevant, is one of the objectives of hospital care, and this is facilitated among other things by post-prandial accompaniment.

The patient should be weaned off laxatives, diuretics and psycho-stimulants from the start of hospitalisation, alongside a monitoring of digestive transit and biological status (electrolytogram).

Adolescents exhibiting excessive exercising should be brought to realise that it is a symptom (gymnastic drills, long periods standing, incessant movement, etc) and that it is directly associated with anorexic functioning, so as to encourage the patient to decrease the level of physical activity. The approach will be similar for patients actively exposing themselves to cold, or drinking excessive amounts of fluid

► The therapeutic contract

Specialised multidisciplinary hospital care plans should integrate both the objectives and the means to achieve them. These care plans should be set out in a care contract, written or verbal, and may or may not provide for a period of separation.

4.6 Duration of hospitalisation

Hospitalisation should last as long as proves necessary. Adequate weight gain and multidisciplinary care procedures require several months. If sufficient time is not allowed, the illness is liable to become chronic.

However, hospitalisation should not last for ever, since it can become iatrogenic in terms of social integration and development, in particular among children and adolescents.

How to manage discharge from hospital is discussed in paragraph 3.1.

4.7 Specific situations

► Premature discharge or dropout

When preparing for hospitalisation, the risk of premature discharge or dropout should be considered:

- very severe AN (low BMI is recognised and sought by the patient, bulimic forms, comorbid psychiatric disorders)
- psycho-social factors (e.g. patient with children)
- inadequate therapeutic alliance.

Generally it is worth planning for motivational enhancement interventions before or at the start of hospitalisation, to reduce ambivalence and resistance to change, and to increase involvement in the therapy, so as to reduce the number of early discharges or dropout.

► Compulsory hospitalisation

Compulsory hospitalisation procedures should be used only when the patient's condition is life-threatening and obtaining compliance with care procedures is impossible. Depending on legislation, for adults it can take the form of hospitalisation requested by a third party (in France HDT) in a community-based psychiatric ward which, in case of somatic emergency, can delegate care to the competent department.

For minors who refuse hospitalisation, it is the parents as the child's legal representatives that make the decision. Should one of the parents refuse care, the physicians can apply to the legal authority (in France the *procureur*) for a provisional placement order (OPP – *Ordonnance de placement provisoire*)).

In case of compulsory hospitalisation, care strategies are the same, and the objective is not solely a particular target weight, but also a shift towards compliance with treatment.

Annex 1. “Clinical Practice Guidelines” method

Professional recommendations or guidelines are defined as proposals “that are developed using a clearly established method to help the clinician and the patient identify the best-suited care in a given clinical setting”.

The “Clinical Practice Guidelines” method (*méthode RPC - Recommandations pour la Pratique Clinique*) is one of the methods used by HAS (*Haute Autorité de la Santé*) to elaborate professional guidelines. It is based on the one hand on critical analysis and synthesis of the medical literature available, and on the other hand on the opinion of a multidisciplinary group of professionals concerned by the theme of the said guidelines.

► The choice of theme

The themes of professional guidelines are chosen by the HAS Board (a collegiate body with 8 state-appointed members). Choices are made in relation to public health priorities and proposals by Ministers in charge of health and social insurance. The Board can also select themes suggested by academic bodies, the national cancer institute, the national Union of health insurance systems, the national Union of medical professions, bodies representing health professionals or health establishments, and approved user associations.

For each theme selected, the working method comprises the following stages.

► Organisation Committee

An Organisation Committee is convened by HAS. It is made up of representatives from academic societies, professional or user organisations, and if required the health agencies and institutions concerned. This committee sets out a precise definition of the theme, the issues to be broached, and the populations of patients and professionals involved. It identifies relevant research, in particular guidelines already in existence. It suggests the professionals that are liable to take part in the working group and review group.

► Working Group

A multi-disciplinary, multi-profession Working Group is formed by HAS. It comprises health professionals in public and private practice, from different geographical areas, and belonging to different schools of thought; if need be it also includes other professionals concerned by the topic, and representatives from patient and user organisations. A president is nominated by HAS to coordinate work in the Group in collaboration with a HAS project head. A project manager is also appointed by HAS to select, analyse and synthesise the relevant scientific and medical literature. This person then drafts the Evidence Report for the Guidelines, defining the level of evidence of the studies selected. This work is performed under the supervision of the HAS project head and the president.

► Drafting of the first version of the Guidelines

A first version of the Guidelines is drafted by the Working Group on the basis of the Evidence Report and opinions expressed in the course of the working sessions (generally two meetings). This first version of the Guidelines is submitted to a Review Panel.

► Review Panel

The Review panel is formed by HAS on the same criteria as the Working Group. It is consulted by mail, and issues an opinion on content and form of the Evidence Report and the Guidelines, in particular readability and applicability for the Guidelines. This external Review panel is completed by reviewers in the Committee in charge of validation of guidelines within HAS.

► Final version of the Guidelines

The comments of the Review panel are then analysed and discussed in the Working Group, which can, if required, alter the Evidence Report, and the Working Group then drafts the final version of the Guidelines and a Synthesis in the course of a working session.

The final version of the Evidence Report and the Guidelines, and the process of implementation are discussed by the guidelines Validation Committee in HAS. The Validation Committee can return either or both of these documents for revision by the Working Group. The Committee issues its decision to the HAS Board.

► Validation by the HAS Board

According to proposal by the guidelines Validation Committee, the HAS College validates the final report and authorises diffusion.

► Diffusion

HAS publishes the complete Evidence Report, the Guidelines and the Synthesis on its website (www.has-sante.fr). The Synthesis and the Guidelines can be published by HAS.

► Internal functioning of HAS

The HAS project head guarantees conformity and ensures coordination of all the different tasks according to HAS methodological principles.

In-depth bibliographic research is carried out by systematic search of medical and scientific databases over the period that is suited to the particular theme. Depending on the topic, this can be completed by searches in other specific databases. One stage that is common to all studies consists in systematically looking for clinical practice guidelines, consensus conferences, articles on medical decision, systematic reviews, meta-analyses and other evaluation work published nationally and internationally. All the relevant websites are searched (government agencies, academic societies etc). Documents that are not accessible through the usual information channels (grey literature) are searched for by any means available. In addition, regulatory and legislative texts that might be relevant to the theme are consulted. The initial searches are performed at the outset, and help to construct the Evidence Report. They are updated regularly through to the end of the project. Examination of the references quoted in the articles analysed enables identification of article not selected by the first search of data sources. Finally, Working and Review Group members can suggest articles from their own bibliographic resources. The languages retained are French and English.

► Grading of recommendations in the guidelines

Each selected article is analysed according to the principles of critical review, using a review grid, and this enables each to be allocated a level of scientific evidence. According to the level of proof of the different studies on which the different recommendations are based, they are graded from A to C according to a scale proposed by HAS (see §1.4.).

If there are no studies, recommendations are based on professional agreement in the Working Group convened by HAS, after consultation with the Review Group. In the present Guidelines, the recommendations that are not graded are those based on agreement among professionals. The absence of any grading does not mean that the recommendations are not relevant or useful. It should however provide incentive for implementing further study.

To know more about this method for developing Guidelines for clinical practice, reference can be made to the manual published by ANAES in 1999: *Les recommandations pour la pratique clinique – Base méthodologique pour leur réalisation en France*". This manual can be downloaded from the HAS website www.has-sante.fr.

Annex 2. Literature search

Extracts from the Evidence report - for details see: http://www.has-sante.fr/portail/upload/docs/application/pdf/2010-09/argu_anorexie_mentale.pdf

- **4.2 Bibliographic search strategy (page 10)**

The literature search consisted first in identifying international guidelines on eating disorders published between 1998 and 2009.

The second step was a search of the Medline database in order to update the data contained in these guidelines. Only publications issued between January 2004 and the end of 2009 in French or English language were retained. The search strategy was developed using terms from a thesaurus (MeSH descriptors). They were combined into as many steps as required via the operators "AND", "OR" and "EXCEPT". They were also linked to descriptors for the type of study. The MeSH terms were selected according to a set of keywords determined by the working group.

Finally a search of the French-language literature was performed on the basis of expert recommendations in each sub-section of the working group, and using French-language databases (Psydoc and Pascal)

Table 2 provides a synthesis of the successive steps, and gives results in terms of the number of references per subject over a given period.

Table 2 Documentary research strategy on Medline database

Type of study/ topic	Terms used	Period of research	Number of references
Recommendations		1998- 2009	68
Step 1	“Anorexia Nervosa"[Mesh]) OR “Eating Disorders"[Mesh:noexp]		
AND			
Step 2	“Practice Guideline” [Publication Type] OR "Guideline"[Publication Type] OR "Health Planning Guidelines"[MeSH] OR "Consensus Development Conference, NIH"[Publication Type] OR "Consensus Development Conference"[Publication Type] OR "Practice Guidelines as topic"[MeSH] OR "Guidelines as topic"[MeSH] OR "Consensus Development Conferences as topic"[MeSH] OR "Consensus Development Conferences, NIH as topic"[MeSH]		
Population at risk		2004-2009	9
Step 1			
AND			
Step 3	"Primary Health Care"[Mesh] OR "Family Practice"[Mesh]) AND "Anorexia Nervosa"[Mesh]		
Screening		2004-2009	151
Step 1			
AND			
Step 4	"diagnosis"[Subheading] OR "diagnosis"[All Fields] OR "screening"[All Fields] OR "mass screening"[MeSH Terms] OR "mass"[All Fields] AND "screening"[All Fields] OR "mass screening"[All Fields] OR "screening"[All Fields]		
Therapeutic alliance		2004-2009	15
Step 1			
AND			
Step 5	“motivational” [Mesh] (change OR therapy OR		

	interviewing) OR “therapeutic alliance” OR “motivation to change”		
Denial		2004-2009	7
Step 1 AND Step 6	“Denial”[Mesh]		
Outpatient care Step 1 AND Step 7	"Outpatient Clinics, Hospital"[Mesh:noexp] OR "Outpatients"[Mesh] OR "Ambulatory Care"[Mesh:noexp] OR "Ambulatory Care Facilities"[Mesh:noexp]	2004-2009	118
Coordination of care Step 1 AND Step 8	"Disease Management"[Mesh] OR "Case Management"[Mesh]	2004-2009	9
Step 1 AND Step 9	"Continuity of Patient Care"[Mesh]	2004-2009	6
Psychological aspects **Psychoanalytical therapy** Step 1 AND Step 10	« Psychoanalytic Therapy"[Mesh]	2004-2009	17
Psychological aspects **Group therapy** Step 1 AND Step 11	« Psychotherapy, Group"[Mesh]	2004-2009	94
Psychological aspects **Cognitive therapy** Step 1 AND Step 12	« Cognitive Therapy"[Mesh]	2004-2009	120
Psychological aspects **Other therapies** Step 1 AND Step 13	"massage"[Mesh] OR "Art Therapy” OR "MusicTherapy” [Mesh] OR “Relaxation Therapy” [Mesh] OR “play therapy” [Mesh] OR “Acupuncture” [Mesh] OR “Dance therapy” [Mesh]	2004-2009	8
Nutritional aspects Step 1 AND Step 14	“nutritional intervention [Mesh] OR “nutritional assessment”[Mesh]	2004-2009	232
Pregnancy Step 1 AND Step 15	“pregnancy” [Mesh] OR “woman pregnant”[Mesh] OR “maternal fetal relations” [Mesh]	2004-2009	107
Inpatient care Step 1 AND Step 16	"hospitalization" AND/OR “inpatient”	2004-2009	204

For inpatient care, the following aspects were particularly looked for with the corresponding keywords: **Hospitalisation criteria:** "criteria" **Where to hospitalise:** "specialised care" AND "non specialised" **Organisational models of care:** "inpatient programme" **Duration of hospitalisation:** "length of stay" **Somatic objectives:** "goal weight" OR "target weight" **Premature discharge/dropout:** "drop-out" OR "compliance" **Refeeding:** "nutrition therapy" OR "refeeding syndrome" OR "enteral" or "parenteral" **Pharmacotherapy:** "pharmacotherapy" OR "medication" OR "neuroleptic" OR "antidepressant" OR "anxiolytic" OR "hypnotic" **Associated symptoms:** "hyperactivity" OR "diuretic" OR "laxative" OR "potomania" OR "family" OR "social adaptation" **Compulsory treatment:** "coercion" OR "the involuntary treatment" OR "the compulsory treatment"	
Number of articles selected	**347**

- **1.4 Methodological issues (page 18)**

From a methodological viewpoint, it should be noted that, while the working group formed set out to measure the convergence of international recommendations published on the theme over the last 10 years, it noted that validity of the data varied somewhat across a wide bibliographic search of scientific publications over the period.

On account of various methodological difficulties, in some cases relating to the subject of the study itself, data with a satisfactory level of proof was sparse.

In addition, specific French socio-cultural and historical features, relating in particular to the therapeutic approaches adopted, led the working group to submit a certain number of points to expert consensus, even when there was no full scientific validation.

Annex 3. Definition of Anorexia Nervosa

ICD criteria for Anorexia Nervosa F50.0

For a definite diagnosis, all the following are required:

A.	Body weight is maintained at least 15% below that expected (either lost or never achieved), or Quetelet's body-mass index is 17.5 or less. Prepubertal patients may show failure to make the expected weight gain during the period of growth.
B.	The weight loss is self-induced by avoidance of "fattening foods" and one or more of the following: self-induced vomiting; self-induced purging; excessive exercise; use of appetite suppressants and/or diuretics.
C.	There is body-image distortion in the form of a specific psychopathology whereby a dread of fatness persists as an intrusive, overvalued idea and the patient imposes a low weight threshold on himself or herself.
D.	A widespread endocrine disorder involving the hypothalamic-pituitary-gonadal axis is manifest in women as amenorrhoea and in men as a loss of sexual interest and potency. (An apparent exception is the persistence of vaginal bleeds in anorexic women who are receiving replacement hormonal therapy, most commonly taken as a contraceptive pill.) There may also be elevated levels of growth hormone, raised levels of cortisol, changes in the peripheral metabolism of the thyroid hormone, and abnormalities of insulin secretion.
E.	If onset is prepubertal, the sequence of pubertal events is delayed or even arrested (growth ceases; in girls the breasts do not develop and there is a primary amenorrhoea; in boys the genitals remain juvenile). With recovery, puberty is often completed normally, but the menarche is late.
Differential Diagnosis: There may be associated depressive or obsessional symptoms, as well as features of a personality disorder, which may make differentiation difficult and/or require the use of more than one diagnostic code. Somatic causes of weight loss in young patients that must be distinguished include chronic debilitating diseases, brain tumors, and intestinal disorders such as Crohn's disease or a malabsorption syndrome.	

DSM-IV-TR criteria for Anorexia Nervosa

For a definite diagnosis, all the following are required:

A.	Refusal to maintain body weight at or above a minimally normal weight for age and height, for example, weight loss leading to maintenance of body weight less than 85% of that expected or failure to make expected weight gain during period of growth, leading to body weight less than 85% of that expected.
B.	Intense fear of gaining weight or becoming fat, even though underweight.
C.	Disturbance in the way one's body weight or shape is experienced, undue influence of body weight or shape on self evaluation, or denial of the seriousness of the current low body weight.
D.	In postmenarcheal females, amenorrhea, i.e., the absence of at least 3 consecutive menstrual cycles. A woman having periods only while on hormone medication (e.g. estrogen) still qualifies as having amenorrhea.
Restricting type: During the current episode of Anorexia Nervosa, the person has not regularly engaged in binge-eating or purging behaviors (self-induced vomiting or misuse of laxatives, diuretics, or enemas).	
Binge-eating/purging type: During the current episode of Anorexia Nervosa, the person has regularly engaged in binge-eating or purging behaviors.	

Annex 4. Chronic of Anorexia Nervosa

The course of AN is characterised by two main dangers: death and progression towards a chronic state.

► Chronic illness

Chronic AN is defined by the persistence, after more than five years of evolution of the illness, of restrictive eating behaviours, qualitative and quantitative, with emaciation characterised by BMI under the 17.5kg/m^2 threshold, intense fear of gaining weight, a perception of body shape that is completely unrelated to the patient's current state of emaciation, strategies for weight control involving spontaneous or self-induced vomiting, consumption of laxatives and diuretics, excessive physical activity, and, in one case out of two, bulimic behaviours.

► Physical consequences

Physical consequences are frequently a cause for concern, and they gradually worsen: deficiency oedemas, amyotrophy, numerous disorders: circulatory, cardiac, digestive, renal, metabolic, infectious, skin, dental, gynaecological (inability or difficulty becoming pregnant), and osteoporitic, as well as self-neglect conveying an impression of major physical ill-treatment.

The risk of fatal outcome, always present, is 0.5% per year of AN evolution.

► Psychological manifestations

- Rituals of various sorts, rigid attitudes, impoverishment of relational, affective and sexual life, social isolation, repercussions on professional life.
- Psychiatric complications:
  - depressive episodes
  - phobias, obsessions, hypochondriac complaints
  - personality disorders, lowered self-esteem, poor self-confidence
  - addictive behaviours – alcohol, toxic substances, psychotropic drugs
  - aggressive acting-out against self or others.

The course of the disease is punctuated with frequent relapses from the onset of the condition, without any clear period of remission despite therapies undertaken. Remissions give way to a rapid return to eating rituals and behaviours, and other rituals in daily life.

Annex 5. Future research and action

► 1st point for improvement

The promotion of both multi-centre, multi-disciplinary research involving clinicians (physicians and psychiatrists), methodologists and researchers, and fundamental research is essential in the coming years to improve our understanding of the aetiopathogenicity and the physiopathology of this complex disorder. We need research projects on large samples and cohort follow-ups assessing the efficacy of existing therapies, alongside the development of new approaches.

► 2nd point for improvement

Given the close clinical articulation between AN and bulimia, research on the links between these two disorders and their evolution over time is required (naturalistic and clinical epidemiological studies).

► 3rd point for improvement

The frequency of subthreshold (partial) forms, and the scarcity of precise data on these forms, justify specific research projects in the general population, and in populations that are the most exposed to risk of AN.

► 4th point for improvement

The frequency of bulimia warrants the drafting of specific recommendations

► 5th point for improvement

Legitimate concerns that recommendations in the area of obesity could favour the emergence of anorexic-bulimic behaviours warrant further reflection on the best-suited approaches to prevention.

► 6th point for improvement

Given the limitations of present legislation in France, compulsory hospitalisation should be rendered possible in specialised units

► 7th point for improvement

For each French region, at least one reference centre with an intake capacity commensurate with the regional population should be identified, offering a range of multidisciplinary specialised care adapted to patient age (see level III units or facilities in Schéma Régional d'Organisation Sanitaire SROSS)

► 8th point for improvement

In each *département* (French administrative sub-regional divisions similar to a county) at least one resource centre able to temporarily take in patients presenting anorexic-bulimic disorders should be identified (SROSS levels II or III).
Alongside, practitioners experienced and trained in catering for these patients should be identifiable, for the different disciplines involved (somatic and psychiatric) in public and private practice

► 9th point for improvement

Considerable incentive should be given for the development of health networks grouping the different professionals and care facilities that are experienced in the care of these patients,

so as to improve coordination of multi-disciplinary care within structured, clearly legible and accessible itineraries.

Participants

Declaration of interests by all participants can be consulted on HAS website (www.has-sante.fr).

Academic societies, professional organisations and institutions

The following academic societies and professional organisations were approached for the elaboration of these guidelines:

- Association française pour le développement des approches spécialisées des troubles du comportement alimentaire (AFDAS-TCA)*
- Fédération française de psychiatrie (FFP)*
- Société française de pédiatrie (SFP)*
- Société française de documentation et de recherche en médecine générale (SFDRMG)*
- Collège national des généralistes enseignants (CNGE)*
- Société française de médecine générale (SFMG)*
- Société française d'endocrinologie (SFE)*
- Fédération nationale des associations liées aux troubles du comportement alimentaire (FNA-TCA)*
- Groupe européen pour les anorexiques, les boulimiques et les familles (GEFAB)*
- Agence française de sécurité sanitaire des produits de santé (Afssaps)*
- Société française de nutrition (SFN)
- Société française d'anesthésie-réanimation (SFAR)
- Association d'aide aux anorexiques et boulimiques (AAAB)

* At least one person from the organisation took part in one of the following groups: Organisation Committee, Working Group, Review Group.

Organisation committee

Dr Abramovici Francis, general practitioner, Lagny-sur-Marne
Mme Chiquet Christine, representative of patients and users, Paris
Dr Chouraqui Jean-Pierre, paediatrician, nutritionist, Grenoble
Dr Costa David, general practitioner, Nîmes
Pr Estour Bruno, endocrinologist, Saint-Étienne
Dr Garret-Gloanec Nicole, child psychiatrist, Nantes
Pr Jeammet Philippe, child psychiatrist, Paris
Dr Santana Pascale, general practitioner, Paris
Dr Stheneur Chantal, paediatrician, Boulogne-Billancourt
Pr Vénisse Jean-Luc, psychiatrist, addictologist, Nantes

Working Group

Pr Jeammet Philippe, child psychiatrist, Paris – co-president of the Working Group
Pr Vénisse Jean-Luc, psychiatrist, addictologist, Nantes – co-president of the Working Group
Dr Samuelian-Massat Catherine, psychiatrist, Marseille – project officer
Mme Rousselet Morgane, clinical study engineer, Nantes – project officer
Mme Mattar Lama, dietician, Paris – project officer
M. Nouyrigat Emmanuel, Saint-Denis – HAS project manager

Dr Archambeaud Marie-Pierre, general practitioner, Paris
Dr Bibette Gilles, psychiatrist, Bayonne
Dr Bronnec Marie, psychiatrist, Nantes
Mme Brun Annick, psychologist, Paris
Dr Cayol Véronique, gynaecologist-obstetrician, Paris
Mme Chiquet Christine, representative of patients and users, Paris
Dr Costa David, general practitioner, Nîmes
Dr De Tournemire Renaud, paediatrician, Poissy
Dr Doyen Catherine, child psychiatrist, Paris
Pr Estour Bruno, endocrinologist, Saint-Étienne
Dr Feur Elisabeth, public health physician, Créteil
Dr Godart Nathalie, child psychiatrist, Paris
Dr Hanachi Mouna, nutritionist, Garches
Dr Huas Caroline, general practitioner, Paris
Dr Lemoine Jean-Louis, general practitioner, Saint-Maur-des-Fossés
Dr Mammar Nadia, child psychiatrist, Paris
Dr Pham-Scottez Alexandra, psychiatrist, Paris
Dr Rémy Brigitte, psychiatrist, Paris
M. Sahuc Nicolas, representative of patients and users, dietician, Nîmes
Dr Stheneur Chantal, paediatrician, Boulogne-Billancourt

Review Group

Dr Afflelou Sabine, psychiatrist, Bordeaux
Dr Barbier Delphine, psychiatrist, Paris
Dr Barrier Marie-France, general practitioner, Royan
Dr Bégu Le-Coroller Audrey, endocrinologist, Marseille
Dr Bioulac Stéphanie, child psychiatrist, Bordeaux
Dr Bligny Dominique, internist, nutritionist, Saint-Grégoire
M. Boutron Bertrand, physiotherapist, Paris
Dr Boyer-Philibert Sylvie, general practitioner, Bayonne
Dr Brosset Nicolas, occupational physician, Mulhouse
Dr Caron Carine, general practitioner, Saintes
Dr Carrot Benjamin, psychiatrist, Paris
Mme Castellotti Danielle, representative of patients and users, Saint-Maur-des-Fossés
M. Cochy Bernard, representative of patients and users, Nantes
Pr Colon Pierre, dental surgeon, Paris
Pr Corcos Maurice, child psychiatrist, Paris
Pr Cortet Bernard, rheumatologist, Lille
Dr Criquillion Sophie, psychiatrist, Paris
M. Darcel Christian, director health network, Bayonne
Dr Deguines Catherine, Afssaps, Saint-Denis
Dr Delorme Marc, child psychiatrist, Bordeaux
Mme Detournay-Hentgen Marie-Carmel, nurse, Paris
Dr Dodin Vincent, psychiatrist, Lomme
Dr Dumarcet Nathalie, Afssaps, Saint-Denis
Dr Fillatre Marc, psychiatrist, Tours
Dr Foulon Christine, psychiatrist, Paris
Mme Gaucher-Hamoudi Odile, psychomotrician, Saint-Étienne
Dr Gérard Marie-France, school physician, Colmar
Dr Gicquel Ludovic, psychiatrist, Paris
Dr Girault-Sacré Antje, school physician Saint-Piat
Dr Guillaume Daniel, internist, endocrinologist, Bayonne
Dr Hakimi Patrick, psychiatrist, Nantes
Dr Hazane Frank, psychiatrist, Toulouse
Dr Honthaas-Maugars Christine, nutritionist, Nantes
Dr Imler-Weber Françoise, school physician, Saint-Étienne
Dr Jacquin Paul, paediatrician, Paris
Dr Kervern Nelly, school physician, Brest
Pr Lang François, psychiatrist, Saint-Étienne
Dr Le Heuzey Marie-France, child psychiatrist, Paris
M. Leboeuf Claude, representative of patients and users, Quimper
Dr Lefebvre Patrick, endocrinologist, Montpellier
Dr Léonard Thierry, psychiatrist, Paris
Dr Lepercq Catherine, school physician, Paris
Mme Macary Céline, psychologist, Nîmes
Pr Massoubre Catherine, psychiatrist, SaintÉtienne
Mme Megglé Virginie, psychoanalyst, Montrouge
Pr Melchior Jean-Claude, internist, Medical intensive care, nutritionist, Garches
Dr N'Guyen Minh, rheumatologist, Paris
Dr Nicolas Isabelle, psychiatrist, Paris
Mme Noël Geneviève, sociologist, Paris
Dr Outin Hervé, medical intensive care, Poissy
Dr Peyrebrune Cécile, general practitioner, Paris,
Dr Picherot Georges, paediatrician, Nantes
Dr Pino Elisabeth, school doctor, Dijon
Dr Ringuenet Damien, psychiatrist, Villejuif
Dr Rocher Bruno, psychiatrist, Nantes
Mme Ruault Chantal, dietician, Paris
Dr Sacheau Véronique, general practitioner, Nantes
M. Saffer Florian, dietician, behaviourist, Bourgoin-Jallieu
Pr Schneider Stéphane, gastro-enterologist, nutritionist, Nice
Mme Scoffier Stéphanie, physical education teacher,
Nice
Dr Sebban Claude-Laurence, school physician, Marseille
Pr Series Claire, internist, Bordeaux
Mme Shankland Rebecca, psychologist, Grenoble
Dr Sultan Jocelyne, psychiatrist, Montpellier
Mme Tamalet Isabelle, psychologist, Nantes
Pr Vialettes Bernard, internist, nutritionist, endocrinologist, Marseille
Dr Vignau Jean, psychiatrist, Lille
Dr Vindreau Christine, psychiatrist, Villejuif

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Dr Bronnec Marie, psychiatrist, Nantes

Dr Godart Nathalie, child psychiatrist, Paris

Mme Mathé Anne-Laure, administrative coordinator, AFDAS-TCA, Nantes

Me Rachet-Darfeuille Véronique, lawyer, Nantes

Mme Fanelli Gaëlle, documentalist, documentation department, HAS