



ANNEXURE G

GUIDELINES FOR INCAPACITY ASSESSMENT



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INTRODUCTION

1. This section contains guidelines to the assessment of incapacity based on ill health. These guidelines utilise the published LOA (Life Offices Association of SA) Disability Assessment Guidelines. The complete documents are available in electronic format on the LOA website at www.loa.co.za and consent was obtained from the LOA for these guidelines to be utilised by the Public Service.
2. This section provides an adjusted version of each of five published LOA Disability Assessment Guidelines on specific medical conditions, together with a clinical report format for each, for use by the Public Service, the appointed Health Risk Manager and medical specialists involved in assessing incapacity.



A: INCAPACITY BASED ON PSYCHIATRIC CONDITIONS

A1 Guidelines to the management of incapacity applications based on psychiatric grounds

A2 Clinical report format for incapacity base on psychiatric conditions

A1 GUIDELINES TO THE MANAGEMENT OF INCAPACITY APPLICATIONS BASED ON PSYCHIATRIC GROUNDS

1. FUNDAMENTAL PRINCIPLES

1.1. Certain fundamental principles discussed and accepted, as basic criteria should be distributed to and adhere to by each and every doctor, psychologist or psychiatrist dealing with psychiatric incapacity applications. These are:

1.1.1. All incapacity applications on psychiatric grounds should be assessed and treated by a psychiatrist.

1.1.2. The important work done by general practitioners and/ or clinical psychologists should not be undervalued, but a psychiatric condition is severe enough to warrant permanent incapacity should at least have been optimally treated by a registered psychiatrist.

1.1.3. Psychiatrists should express their professional opinion only on functional impairment, and not on incapacity.

1.1.4. Confidentiality of medical reports should be maintained at all times.

1.2. In view of the sensitive nature of some of the psychiatric reports, and the individual's right in terms of the new Bill of Rights, medical reports should be mailed or faxed directly to the Health Risk Manager only of the Public Service or the employing department involved. Under no circumstances should any medical reports be handed over to an intermediary party, e.g. a broker, manager at work, personnel department, etc.

1.3. The psychiatrist should:

1.3.1. Peruse all medical documentation available

1.3.2. Obtain all relevant collateral information needed

1.3.3. Do a full standard psychiatric evaluation

1.3.4. Make a diagnosis based on DSM IV guidelines, and

1.3.5. Compile a complete clinical report, supplying the maximum detail on the topics discussed.



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- 1.4. It is vital that the psychiatrist informs the employee that:
 - 1.4.1. The final decision on incapacity lies with the Head of Department, on the recommendation of the Health Risk Manager, and not with the doctor or specialist.
 - 1.4.2. By referring to the criteria, the psychiatrist will be able to get a good indication of how the Public Service will approach an incapacity application with a similar diagnosis.
 - 1.4.3. The psychiatrist can then use his own judgement, in cases where it is obvious from the criteria that the application will not be admitted, and either:
 - (a) Inform the patient as such and continue with an adequate treatment regime, or
 - (b) Forward the documentation for the Head of Department to make the final decision and communicate with the employee.
 - 1.4.4. Because of the importance of confidentiality of medical reports, the relevant documents should be forwarded directly to the employing department, who will refer it to the Health Risk Manager for an assessment.
 - 1.4.5. The Health Risk Manager will assess the incapacity application and will then be in a position to either:
 - (a) Make a recommendation to the Head of Department, or
 - (b) Call for another expert opinion, in cases where doubt may still exist.
 - 1.5. In these doubtful cases, a psychiatrist nominated by the Health Risk Manager will be asked to review the case and give his/her objective opinion on the impairment only.
 - 1.6. The relevant psychiatrist will be provided, with the necessary consent, with all relevant documents and information relating to:
 - 1.6.1. The employee and the personal details
 - 1.6.2. Full job description
 - 1.6.3. All relevant medical and psychiatric reports.
 - 1.7. The relevant psychiatrist should then follow the guidelines as set out for the primary treating psychiatrist in compiling a full clinical report. S/he will in most cases also liaise with the treating psychiatrist, (and obtain additional investigations if required, after discussion with and obtaining approval for these investigations, if required, after discussion with an obtaining approval for these investigations, from the Health Risk Manager of the Public Service.



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- 1.8. At all times there should be an open line for discussion between the Health Risk Manager and the relevant psychiatrists, and in some of the more difficult cases a third opinion may even be sought.

2. CRITERIA FOR ASSESSING PSYCHIATRIC DISORDERS

2.1. SOME BASIC PRINCIPLES:

- 2.1.1. Although disagreement may exist with the criteria laid down, the view is held that these are based on current knowledge and sound clinical judgement. They are intended to assist the psychiatrist, who is often placed in a difficult situation when having to assess employees for incapacity applications.
- 2.1.2. These guidelines are intended on the one hand to prevent premature and incorrect decisions being made concerning permanent occupational impairment, and on the other to ensure that genuine cases are not discriminated against. This is the best way of safeguarding the rights of psychiatric patients.
- 2.1.3. No specific psychiatric disorder is in itself an indication for permanent incapacity. Degrees of functional impairment vary widely among individuals, and among all the psychiatric disorders.
- 2.1.4. Decisions regarding the irreversibility of impairment cannot be made hastily. A condition can only be declared non-responsive after optimal treatment has been applied - i.e. sufficiently high dosages of medication for a long enough period of time. Treatments applied need to be those generally recognised as appropriate for the psychiatric disorder in question (N.B. sleep therapy is not a generally accepted form of treatment for any psychiatric disorder). Patient compliance is also important - a patient who does not keep psychotherapy appointments, or who does not take medication regularly, cannot be said to be non-responsive to treatment.
- 2.1.5. The psychiatrist should never lead a patient to believe that s/he will be declared permanently medically unfit on the basis of a psychiatric report. Remember - the psychiatrist's job is to assess the degree of impairment and to indicate whether this permanent or not - the Health Risk Manager of the Public Service will make recommendations to the Head of Department, who will take the actual decision regarding the employee's incapacity.
- 2.1.6. Whenever possible collateral information should be obtained before motivating for total and permanent incapacity on psychiatric grounds. This is particularly so when incapacity is applied for due purely to subjective symptoms and reactions.

2.2. SPECIFIC DISORDERS COMMONLY LEADING TO INCAPACITY APPLICATIONS

2.2.1. MAJOR DEPRESSIVE DISORDER



- (a) The majority of cases of major depressive disorder there are a complete remission of symptoms, and functioning returns to the pre-morbid level. There are, however, significant minorities who do have residual symptoms that may persist for months to years. The degree and duration of impairment vary widely.
- (b) The disorder can be specified as chronic only after full criteria have been met continuously for at least the past 2 years.
- (c) The condition can only be regarded as refractory after optimal treatment has failed. Optimal treatment comprises:
 - i. Adequate dosages (close to the manufacturer's recommended maximum dose, or the highest dose that the patient can tolerate) of different classes of antidepressants, for an extended period of time (e.g. 6 weeks each)
 - ii. Electroconvulsive therapy is safe and effective in refractory depression. If not applied for this disorder, reason should be given why not.
 - iii. Psychotherapy is usually indicated as adjunctive treatment in refractory depression. Patients need to be compliant.
- (d) Suicidal ideation as such is not an indication of medical incapacity.

2.3. **DYSTHYMIC DISORDER**

Although this disorder follows a chronic course and is often not dramatically responsive to treatment, the degree of associated impairment is usually not sufficient to cause permanent occupational impairment.

2.4. **ADJUSTMENT DISORDER**

The degree of impairment is usually not severe enough to consider permanent incapacity. When symptoms related to stress are more severe or protracted, the patient will usually meet criteria for a major depressive disorder, or another psychiatric disorder, and the guidelines for that disorder will then apply.

2.5. **POST-TRAUMATIC STRESS DISORDER**

2.5.1. This has become one of the more common diagnoses given for patients applying for medical incapacity in South Africa. There have been several cases of patients grossly misrepresenting the severity of stressors to which they were allegedly exposed, as well as the symptoms of this disorder. The diagnosis is often applied, both by lay-people and professionals.

2.5.2. For these reasons, psychiatrist should adhere to the criteria as laid down for this diagnosis. Note that criterion A. (2) of the DSM IV requires that the person's response to the initial traumatic event, this criterion should be enquired after.



- 2.5.3. Post-traumatic stress disorder usually resolves with time, so the majority of patients should not come into consideration for permanent occupational impairment. Duration of the symptoms varies, with complete recovery occurring within 3 months in approximately half the cases. For the rest, various degrees of persistence of symptoms occur. Approximately 10% remain unchanged or become worse.
- 2.5.4. Treatment options are: Pharmacotherapy (antidepressants); individual psychotherapy (especially behavioural, cognitive, crisis intervention and psychodynamic); and group therapy mutual self-help and family).
- 2.5.5. An extended period of appropriate treatment is necessary before the condition can be regarded as permanent. It is not usually possible to declare an individual treatment-resistance after only a few months of treatment.
- 2.5.6. The return of the patient to a work situation where s/he is exposed to danger, or is reminded of past traumatic events, can often exacerbate the condition. However, this does not preclude the patient from working in a different environment, where these factors are not present.

2.6. OTHER ANXIETY DISORDERS

- 2.6.1. Panic disorder with agoraphobia, social phobia and generalised anxiety disorder are often associated with avoidance behaviour to such an extent that significant impairment of occupational and social functioning occurs. However, once again these disorders often respond favourably to treatment, so that optimal treatment needs to be applied for an extended period before the condition can be considered irreversible.
- 2.6.2. Obsessive-compulsive disorder. Although sometimes severely incapacitating, modern treatment (in the form of anti-obsessional drugs such as clomipramine or fluoxetine together with specific behavioural therapy techniques) often provides effective relief.

2.7. PSYCHOTIC DISORDERS

(Schizophrenia; bipolar disorder; schizo-affective disorder; delusional disorder; psychotic disorder due to a general medical condition; substance-induced psychosis)

These conditions are usually associated with severe functional impairment during psychotic episodes. Any decision regarding permanent incapacity should, however, be delayed until optimal recovery has taken place. Factors such as the presence of residual symptoms, degree of insight, nature of employment and likelihood of relapse need to be considered when assessing long-term impairment.

2.8. COGNITIVE DISORDERS

(Dementia, amnesic disorder and personality change due to general medical condition)



2.8.1. It is essential that these patients undergo full assessment. This should include the appropriate special investigations, including neuroradiological (CT or MRI scan) and neuropsychological testing.

2.8.2. In the case of brain injury, a sufficient period of time should be allowed for recovery to occur. This may be 2 years or more.

2.9. **PERSONALITY DISORDERS**

On their own, these are not usually regarded as indicating permanent occupational impairment.

2.10. **Chronic fatigue syndrome**

Because this is not a psychiatric disorder, psychiatrists should not be primarily involved in assessment of impairment. However, depression is often present, and the opinion of a psychiatrist may be sought.

2.11. **EPILEPSY**

Again, this is not a psychiatric disorder. Psychiatric grounds for incapacity may, however, arise if psychiatric sequelae (e.g. psychotic disorder or cognitive disorder) were to occur.



A2: CLINICAL REPORT FORMAT FOR INCAPACITY BASE ON PSYCHIATRIC CONDITIONS

1. Identification of employee

Name		
ID No		
Age		
Gender		
Date of birth		
PERSAL No		
Employing department		
Occupation		
Anthropometry	Height:	Weight:

2. The psychiatric assessment should include:

- 2.1. A full psychiatric history and mental status examination
- 2.2. Collateral information – from family, employer, and any other appropriate sources.
- 2.3. Perusal of previous medical documentation.
- 2.4. Appropriate special investigations.

3. The psychiatric report should include:

- 3.1. Date of onset of the disorder
- 3.2. Precipitating factors
- 3.3. Course
- 3.4. Severity of symptoms
- 3.5. Perpetuating factors
- 3.6. Special investigations



3.7. Diagnosis according to DSM or ICD criteria

3.8. Treatment applied:

3.8.1. Medication – specify:

- (a) drugs used
- (b) duration
- (c) close
- (d) compliance

3.8.2. Psychotherapy – specify:

- (a) Type
- (b) Frequency
- (c) Duration
- (d) compliance

3.8.3. Hospitalisation (or reasons why not)

- (a) ECT
- (b) Other

3.9. Response to treatment

3.10. Complications

3.11. Impact on occupational and social functioning

3.12. Prognosis



B: INCAPACITY BASED ON LOWER BACKACHE

B1 Guidelines to the management of incapacity applications based on lower backache

B2 Clinical report format on lower backache

B1: GUIDELINES TO THE MANAGEMENT OF INCAPACITY APPLICATIONS BASED ON LOWER BACKACHE

1. ASSESSING FUNCTIONAL IMPAIRMENT

This should include:

- 1.1. A backache questionnaire completed by the employee.
- 1.2. An attempt to measure the degree of pain of the employee by obtaining an accurate history of analgesic use. The Oswestry pain questionnaire should be included to get optimal information on the degree of pain and its limitations on daily activities of the employee.
- 1.3. A complete systematic physical examination of the employee.
- 1.4. Completing a full medical report, which should meet the minimum standards as described later.

2. THE BACKACHE QUESTIONNAIRE

This questionnaire should be standardised, printed and supplied by the Health Risk Manager to the employee in every case of lower backache.

3. EVALUATION OF PAIN

- 3.1. Although pain is a difficult entity to quantify objectively, the medical examiner should be able to classify employees by using a pain scale. To achieve this, data obtained from the back pain questionnaire and the Oswestry pain questionnaire, as well as details of analgesic use, should be used.
- 3.2. A very practical pain scale is recommended:
 - Grade 1:** The employee does not use any analgesics and can ignore the pain.
 - Grade 2:** The employee occasionally needs pain medication but can continue with normal activities.
 - Grade 3:** The employee is in constant need of analgesics and is often incapable of performing his normal duties.



Grade 4: The employee needs hospitalisation, bed rest and/or injections for his/her pain.

4. COMPLETE SYSTEMATIC PHYSICAL EXAMINATION

- 4.1. It is important to document any abnormal findings during the assessment, which should include:
 - 4.1.1. a good clinical history;
 - 4.1.2. a systematic clinical examination, which may need to be repeated to check for consistency; and
 - 4.1.3. well-planned special investigations.
- 4.2. The clinical assessment should focus on:
 - 4.2.1. gait
 - 4.2.2. loss of function
 - 4.2.3. range of movement
 - 4.2.4. neurological status
- 4.3. Careful consideration must be given to the correlation between symptoms and pathology identified, and this fact should be commented on in the final clinical report.
- 4.4. Discrepancies in the above can usually be explained either by psychological disturbances or by exaggeration related to applications for compensation. More detailed assessment must then include:
 - 4.4.1. full psychological evaluation
 - 4.4.2. occupational therapist evaluation
 - 4.4.3. sometimes a social worker report
- 4.5. If an indication for any of the above reports is identified during the assessment, this fact should be reflected in the clinical report for the Health Risk Manager to arrange.

5. PAIN AND IMPAIRMENT

- 5.1. The poor relationship between pain, objective clinical findings and radiological abnormalities has been well documented. The question of when pain is a cause of incapacity is not always straightforward, and the following should be considered:
 - 5.1.1. *Pain, with no objective clinical findings and no abnormal radiological findings.* The consensus opinion is that this scenario is a cause of neither incapacity nor impairment. These patients can usually cope with slight adjustments in their workplace or with better pain control. In these cases other socio-economic



causes of backache should be considered and eliminated, and very often a psychological analysis can be of great value.

- 5.1.2. *Pain with objective clinical findings, but no abnormal radiological findings.* These constitute the majority of acute backache syndromes seen frequently. The cause is usually a soft-tissue injury, which responds well to conservative treatment. These patients virtually never progress to chronic backache.
- 5.1.3. *Pain, without objective clinical findings, but with abnormal radiological findings.* These patients may have functional impairment, which may lead to incapacity under certain conditions. It is important, however, that the radiological findings should be outside the normal range of findings for the specific age group in question, and correlate with the reported symptomatology. These cases may well lead to incapacity in cases of manual or physical labour.
- 5.1.4. *Pain, with both objective clinical signs and abnormal radiological findings.* Employees in this category may have sufficient functional impairment to warrant an incapacity application, and should be fully assessed as described in this protocol.



B2: FORMAT OF CLINICAL REPORT ON LOWER BACKACHE

A comprehensive clinical report by the examining medical specialist should include the following:

1. Identification of employee:

Name		
ID No		
Age		
Gender		
Date of birth		
PERSAL No		
Employing department		
Occupation		
Anthropometry	Height:	Weight:

2. Clinical history, dates on onset and progress of spinal condition
3. Cause/aetiology of spinal condition
4. Diagnosis
5. Severity of back condition
 - 5.1. Grade of pain
 - 5.2. Aggravating factors
 - 5.3. Relieving factors
 - 5.4. Secondary gain factors
6. Comprehensive clinical examination findings
7. Treatment given:
 - 7.1. Medication (duration, dosages, brand names)
 - 7.2. Hospitalisation



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- 7.3. Paramedical:
 - 7.3.1. Occupational therapist
 - 7.3.2. Physiotherapist
 - 7.3.3. Biokinetician
 - 7.4. Surgery
 - 7.5. Other:
 - 7.5.1. Rehabilitation programmes
 - 7.5.2. Traction
 - 7.5.3. Braces
 - 7.6. Response to treatment
 - 7.7. Complications
 - 7.8. Perceived prognosis:
 - 7.8.1. Reassessment necessary
 - 7.8.2. Alternative treatment suggested
 - 7.9. Effect on work and activities of daily living
 - 7.10. Special investigations (supply copies)
 - 7.10.1. Those done, and results thereof
 - 7.10.2. Those suggested to be done
 - 7.11. Additional factors which may influence outcome:
 - 7.12. Comments on emotional state of patient
 - 7.13. Comments on concurrent illnesses



ADDENDUM 1

BACK PAIN QUESTIONNAIRE

1. PERSONAL DETAILS

Surname		First names	
Date of birth		ID Number	
PERSAL No			
Residential address		Work address	
Telephone numbers:			
Office hours		Home	
Alternative contact number		Cell	
Medical Aid		Medical Aid No	
Occupation		Qualifications	
Marital status		No dependants	
Job description			



2. CLINICAL HISTORY OF BACKACHE

2.1. Main complaint:

.....

.....

.....

.....

2.2. Regarding backache:

2.2.1. When did it start?

.....

2.2.2. How did it start?

.....

.....

2.2.3. Describe the injury.

.....

.....

2.3. Progress of backache:

Treatment received	Yes/No	Dates	By whom
Medication			
Physiotherapy			
Hospitalisation			
Corset			
Traction			
Operations			
Response to treatment			



2.4. Rehabilitation:

2.4.1. Did you receive any formal physical rehabilitation?

.....
.....
.....

2.4.2. If so, when and by whom?

.....
.....
.....

3. CURRENT STATUS OF BACKACHE

3.1. Describe the pain:

3.1.1. Type of pain

.....
.....

3.1.2. Exact site of pain

.....
.....

3.1.3. Spreading of pain

.....
.....

3.2. Influence on daily activities:

3.2.1. How long can you

(a) Stand

.....

(b) Sit

.....

(c) Walk

.....



(d) Travel
.....

(e) Drove a car
.....

3.2.2. Can you bend?
.....
.....

3.2.3. Is your sleeping pattern affected? Describe fully.
.....
.....

3.2.4. Can you dress yourself?
.....
.....

3.2.5. Is your sex life affected?
.....
.....

3.3. Analgesic use

3.3.1. Which brands of painkillers are you currently using?
.....
.....

3.3.2. Supply dosages.
.....
.....

3.3.3. How many do you take daily of each?
.....
.....



3.4. Physiotherapy

Supply dates of treatment and by whom.

.....
.....

3.5. Social activities

Which sport and social activities are you currently still partaking in?

.....
.....

3.6. Future planning:

3.6.1. How do you plan to spend your future?

.....
.....

3.6.2. What is your expected outcome of your backache?

.....
.....

3.6.3. Are you planning to do any part-time or sessional alternative work?

.....
.....

3.7. General medical history

3.7.1. Do you suffer from any diseases that warrant regular medication or follow-up?
Please supply details.

.....
.....

3.7.2. What other medication are you currently taking (excluding painkillers)?

.....
.....



3.7.3. Do you suffer from any

	Yes	No
Heart disease		
Lung disease		
Gastrointestinal tract disorders		
Kidney or bladder problems		
Central nervous system disorders		
Any other bone/joint pain		
Any psychiatric or mental condition		

3.7.4. If yes, please supply details:

.....
.....

3.8. **Social activities:**

3.8.1. Supply details of any sport participation

(a) Before back problem

.....
.....

(b) After back problem

.....
.....

3.8.2. Details of hobbies, club membership, committees, etc.

.....



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3.9. Habits:

3.9.1. Smoking

.....

3.9.2. Alcohol

.....

3.10. Family history:

Please supply details of any serious diseases in the family, e.g. diabetes, heart diseases, disabling lower backache, etc.

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ADDENDUM 2

THE OSWESTRY LOW BACK PAIN INCAPACITY QUESTIONNAIRE

Surname		First names	
Date of birth		ID Number	
PERSAL No			
Residential address		Work address	
Telephone numbers:			
Office hours		Home	
Alternative contact number		Cell	
Medical Aid		Medical Aid No	
Occupation		Qualifications	
Marital status		No dependants	
Job description			



1. How long have you had back pain?

Years	
Months	
Weeks	

2. How long have you had leg pain?

Years	
Months	
Weeks	

Mark with an X in the applicable blocks

SECTION 1: PAIN INTENSITY

- I can tolerate the pain I have without having to use painkillers.
- The pain is bad but I manage without taking painkillers.
- Painkillers give complete relief from pain.
- Painkillers give moderate relief from pain.
- Painkillers give very little relief from pain.
- Painkillers have no effect on the pain and I do not use them.

SECTION 2: PERSONAL CARE (WASHING, DRESSING, ETC.)

- I can look after myself normally without causing extra pain.
- I can look after myself normally but it causes extra pain.
- It is painful to look after myself and I am slow and careful.
- I need some help but manage most of my personal care.
- I need help every day in most aspects of self-care.
- I do not get dressed, wash with difficulty and stay in bed.



SECTION 3: LIFTING

- I can lift weights without extra pain.
- I can lift heavy weights but it gives extra pain.
- Pain prevents me from lifting heavy weights off the floor, but I can manage if they are conveniently positioned, e.g. on a table.
- Pain prevents me from lifting heavy weights but I can manage light to medium weights if they are conveniently positioned.
- I can lift only very light weights.
- I cannot lift or carry anything at all.

SECTION 4: WALKING

- Pain does not prevent me walking any distances.
- Pain prevents my walking more than 1 km.
- Pain prevents my walking more than 800 m.
- Pain prevents my walking more than 400 m.
- I can only walk using a stick or crutches.
- I am in bed most of the time and have to crawl to the toilet.

SECTION 5: SITTING

- I can sit in any chair as long as I like.
- I can only sit in my favourite chair as long as I like.
- Pain prevents my sitting for longer than 1 hour.
- Pain prevents my sitting for longer than 30 minutes.
- Pain prevents my sitting for longer than 10 minutes.
- Pain prevents my sitting at all.

SECTION 6: STANDING

- I can stand as long as I want without extra pain.
- I can stand as long as I want but it gives me extra pain.
- Pain prevents my standing for more than 1 hour.



-
- Pain prevents my standing for more than 30 minutes.
 - Pain prevents my standing for more than 101 minutes.
 - Pain prevents my standing at all.

SECTION 7: SLEEPING

- Pain does not prevent my sleeping at all.
- I can sleep well only by using tablets.
- Even when I take tables I have less than 6 hours' sleep.
- Even when I take tablets I have less than 4 hours' sleep.
- Even when I take tablets I have less than 2 hours' sleep.
- Pain prevents my sleeping at all.

SECTION 8. SEX LIFE

- My sex life is normal and causes no extra pain.
- My sex life is normal but causes some extra pain.
- My sex my sex life is nearly normal but is very painful.
- My sex life is severely restricted by pain.
- My sex life is nearly absent because of pain.
- Pain prevents any sex life at all.

SECTION 9: SOCIAL LIFE

- My social life is normal and gives me no extra pain.
- My social life is normal but increases the degree of pan.
- Pain has no significant effect on my social life apart from limiting any more energetic interests, e.g. dancing, etc.
- Pain has restricted my social life and I do not go out as often.
- Pain has restricted my social life to my home.
- I have no social life because of pain.



SECTION 10: TRAVELLING

- I can travel anywhere without extra pain.
- I can travel anywhere but it gives me extra pain.
- Pain is bad but I manage journeys over 2 hours.
- Pain restricts me to journeys of less than 1 hour.
- Pain restricts me to short necessary journeys under 30 minutes
- Pain prevents me from traveling except to the doctor or hospital.

COMMENTS:

.....

.....

.....

SIGNATURE:

DATE:



C: INCAPACITY BASED ON CARDIAC DISEASE

- C1 Guidelines to the management of incapacity applications based on cardiac disease**
 - C2 Clinical report format on cardiac disease**
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C1: GUIDELINES TO THE MANAGEMENT OF INCAPACITY APPLICATIONS BASED ON CARDIAC DISEASE

1. ASSESSING CARDIAC FUNCTIONAL IMPAIRMENT

1.1. This evaluation should include:

- 1.1.1. A complete systematic cardiological examination of the patient. Other systemic conditions, which may contribute to the employee's current cardiac limitations, should be determined and mentioned in the final report.
- 1.1.2. Certain routine special investigations needed, as well as additional special investigations as indicated by specified criteria. More details are described below.
- 1.1.3. Categorisation of functional impairment according to guidelines and parameters provided.
- 1.1.4. Completing a full medical report, which should meet the minimum standards as described below.

2. COMPLETE CARDIOLOGICAL EXAMINATION

- 2.1. It is important to document any abnormal findings during the assessment, which should include:
 - 2.1.1. A comprehensive clinical history, and
 - 2.1.2. A systematic clinical examination, with the emphasis on the cardiovascular system.
- 2.2. Careful consideration should be given to the correlation between symptoms and pathology identified, and any discrepancies should be elaborated upon in the final report.
- 2.3. If the cardiologist finds any indication for an evaluation by a psychologist/ psychiatrist and / or occupational therapist, this should be recommended in the report for the Health Risk Manager to arrange.



3. SPECIAL INVESTIGATIONS

- 3.1. The following investigations should be available for all cardiological evaluations:
 - 3.1.1. Chest X-rays
 - 3.1.2. Bruce protocol (or similar) effort ECG, and
 - 3.1.3. 2D echocardiogram
- 3.2. The Head of Department should therefore ensure that the Health Risk Manager is supplied with the results of the above investigation.
- 3.3. Any additional investigations that may be indicated should be authorised by the Head of Department.

4. LUNG FUNCTION

Lung function tests are indicated when there is normal cardiac function (i.e. left ventricular ejection fraction (LVEF) > 45%) in the presence of severe symptoms of functional impairment (e.g. New York Heart Association (NYHA) grade II or III). They are also indicated in the patient with a low voltage ECG with right axis deviation. Metacholine challenge should be included in the patient or family has a history of atopy or asthma.

5. DOPPLER STUDIES

- 5.1. Valvular heart disease is common in South Africa. While its quantification has improved dramatically as echocardiography techniques have become more refined. These patients may be physically impaired not just due to the primary valvular involvement, but also due to pulmonary hypertension or arrhythmias.
- 5.2. For assessment purposes valve areas of >1.2 cm² in the aortic position and 1.5 cm² in the mitral position are generally regarded as mild. However, the degree of regurgitation is frequently as important a factor in determining functional capacity, and should be assessed equally carefully.
- 5.3. Doppler assessment is indicated in all cases where impairment due to valvular heart disease is suspected, with measurement of diastolic flow patterns and pulmonary pressure.

6. EFFORT ECG

- 6.1. The end-point of any exercise regimen when doing an effort ECG is based on the patient's subjective clinical symptoms (tiredness, palpitations, shortness of breath, tired legs). This could lead to deceptively low target workloads (metabolic equivalents (METS), Bruce stage) achieved, especially if there is a substantial financial incentive for being declared disabled.



- 6.2. It is therefore vital that the cardiologist records blood pressure and pulse rate responses at each stage of the exercise protocol in order to verify patient co-operation and motivation.

7. CATEGORISATION OF FUNCTIONAL IMPAIRMENT PARAMETERS

- 7.1. Different degrees of impairment will produce different levels of incapacity, which should be assessed, with the requirements of the employee's job description and the incapacity clause specifications.
- 7.2. It is necessary to quantify impairment, categorise it and link it to the level of physical effort required in a specific occupation.

8. ASSESSMENT OF FUNCTIONAL IMPAIRMENT

- 8.1. Quantification of functional impairment is fraught with apparent discrepancies. Frequently the physician's assessment of functional capacity or a patient's ability to perform his or her duties is not in line with what the body of objective data from invasive and non-invasive tests performed, such as the LVEF, wedge pressure or echo measurements, would suggest. This makes objective assessment of the patient's right to apply for incapacity extremely difficult.
- 8.2. If, for instance, the application is genuine and founded upon the fact that the employee truly finds it impossible to perform his or her duties, even after a maximal effort to return to work, it is surely fair to grant it promptly. However, if the application reflects underlying depression or a perceived inability to return to work, stemming from emotional inability to come to grips with the disease, caution is indicated. The prospects of a comfortable early retirement or being able to start a new career are clearly not grounds for recommending incapacity. In this case the intent of a set of guidelines for incapacity should be to address the underlying misconception and to encourage the employee to return to a productive life. The reality is that few patients who do receive incapacity are emotionally stable and well adapted after a number of years.
- 8.3. The questions that need to be addressed are whether the functional assessment is fair both to the applicant, who indeed has a right to compensation if his or her quality of life is severely impaired, and to the employing department, which needs to restrict such payments to those who are truly in need of them.
- 8.4. There are three grounds that could be considered for incapacity:
- 8.4.1. Objective severe impairment of cardiac function:
- (a) Impaired LVEF as assessed by 2-D echo, MUGA or angiography
 - (b) Impaired functional capacity, i.e. high NYHA functional class
 - (c) Disabling (life-threatening) arrhythmias, and
 - (d) Refractory angina in patients not amenable to corrective procedures.



8.4.2. Non-suitability for current work (client work mismatch):

- (a) High-risk profession, e.g. commercial airline pilot, diver, air traffic controller, locomotive, bus or taxi driver, machine operator, etc.
- (b) Physically demanding profession, e.g. artisan, and
- (c) Emotionally demanding profession, e.g. actor, teacher.

8.4.3. Increased mortality:

- (a) Widespread atherosclerotic disease, i.e. multiple myocardial infarctions in the presence of peripheral vascular disease, bruits or claudication
- (b) Repetitive life-threatening arrhythmias, e.g. recurrent ventricular fibrillation or syncope due to arrhythmias that cannot be corrected
- (c) End-stage valvular disease, and
- (d) Cor pulmonale or irreversible pulmonary hypertension.

9. CARDIAC EVALUATION

9.1. The following parameters of risk assessment have been found to identify patients at high risk:

- 9.1.1. **LVEF** is the widest accepted single indicator of future cardiac prognosis. There does not seem to be a magic cut-off point (e.g. 35%), but the risk increases progressively as the LVEF decreases. LV end-diastolic volume (or volume index) is an additional factor that may be considered, but is less sensitive
- 9.1.2. **NYHA functional class.** This is a widely used assessment. It is an additional and independent predictor of mortality and prognosis. However, it depends on the patient's perception and therefore tends to be subjective.
- 9.1.3. **Stress exercise capacity.** This does not give much additional data, but it is a better predictor of mortality than NYHA class. The two measurement used are an exercise duration in excess of 4 minutes, and a pulse rate increase of $+>35$ beats per minute.
- 9.1.4. **Exercise capacity.** The ability to perform in excess of 10 METS confers an excellent risk in any population group. (Bruce stage 1=3 METS, stage III=10 METS). Exercise capacity may also be expressed as maximal oxygen uptake (VO^a), but these evaluations are not freely available and are therefore unlikely to find wide application.
- 9.1.5. **Pulmonary congestion.** X-rays are readily available and give valuable information. The predictive value is enhanced if the findings are graded as follows:

0 = no pulmonary congestion



- 1 = congestion of the upper lobes
- 2 = interstitial oedema (septal, perivascular or subpleural) and
- 3 = alveolar oedema.

9.1.6. **Biochemical evaluation.** Raised urea and creatinine values and a sodium level below 135 mmol/l were all associated with increased mortality.

9.1.7. **Furosemide dose.** Use of more than 80 mg furosemide (Lasix) per day identifies patients at high risk.

9.1.8. **Hypotension.** A systolic BP below 90mmHg is associated with an increased mortality.

9.1.9. **Endothelin-1 levels.** This radio-immunoassay (RISA) is available commercially, and seems to identify patients at high risk of sudden death (21% v. 4%). It is the most potent vasoconstrictor known, and is significantly associated with outcome. As an indicator of neurohormonal activation, it may become the gold standard of identification of patients at high risk.

9.1.10. **Autonomic function.** Baroreceptor sensitivity and heart rate variability reflect the loss of the protective parasympathetic tone, and have been studied extensively, especially in the post-infarction population. Difficulty in execution, difficulty in interpretation and lack of standards, prohibit the widespread use of these techniques.

9.1.11. **Ventricular late potentials.** These reflect the electrophysiological substrate for re-entrant ventricular arrhythmias. The negative predictive values attained are in excess of 85%, which is excellent. However, positive predictive accuracy remains poor, in the order of 23%, which severely limits their practicality in selecting the high-risk patient.

10. PROPOSED GUIDELINES FOR EXTENT OF INCAPACITY

10.1. It is proposed the following classification of sub-normal functional parameters:

10.1.1. Category 1: Fit for physical work

- (a) LVEF greater than 45%
- (b) Bruce stage III, or 10 METS
- (c) Normal chest X-ray, and
- (d) NYHA class I

10.1.2. Category 2. Unfit for physical work but fit for sedentary work

- (a) LVEF 40 – 45%



- (b) Bruce stage II. Or 8 METS
- (c) grade 1 changes on X-ray, and
- (d) NYHA class II

10.1.3. Category 3: Unfit for work

- (a) LVEF less than 40%
- (b) Bruce stage I, or 5 METS
- (c) Furosemide 80 mg/ day
- (d) NYHA class II+
- (e) biochemical changes (sodium, urea, creatinine), and
- (f) cachexia

10.2. In cases where the objective evaluation does not satisfy the criteria, evaluation by psychologist and an in depth evaluation of the patient's personal profile may be indicated. In some cases periodic re-evaluation may be necessary with proof that the suggestions of the practising cardiologist have been adhered to (e.g. invasive cardiac procedures, cardiac rehabilitation, blood pressure control, adequate anticoagulation if indicated and adherence to treatment regimens). Delayed and partial payments over an extended period of time may have considerable impact on the opportunistic use of these facilities.

11. THE ROLE OF CARDIAC RISK FACTORS

11.1. Although it is generally accepted that cardiac risk factors worsen the prognosis of the disease, this cannot play a major role in incapacity assessment. As described before, incapacity only arises when there is an incompatibility between the remaining functional abilities on the patient and his job description. This should be measured objectively, and is not adversely affected by risk factors, although the latter may cause a rapid decline in functional abilities over time.

11.2. A patient should therefore not be boarded due to risk factors that are added to the presence of mild heart disease. Such patients should be followed up regularly, and only boarded when the functional parameters have reached the criteria described earlier.

11.3. The presence of stress should be noted in the clinical report. Owing to the fact that patient's stress managing mechanisms may differ, coping mechanisms, as well as the level of stress present, need to be established through psychological assessment when indicated. The cardiologist should indicate in his or her report to the health risk manager which patients need a psychological assessment.



C2: FORMAT FOR CLINICAL REPORT ON CARDIAC DISEASE

1. Identification of employee

Name		
ID No		
Age		
Gender		
Date of birth		
PERSAL/GEPF No		
Employing department		
Occupation		
Anthropometry	Height:	Weight:

2. Patient score 1 – 5 (5 = max, 1 = min)

- 2.1. Co-operation
- 2.2. Compliance
- 2.3. Motivation
- 2.4. Symptom/clinical finding congruity

3. Diagnosis

- 3.1. Date of onset and course of disease thereafter
- 3.2. Family history

4. Severity of illness

- 4.1. Symptoms – NYHA
- 4.2. Risk factors

5. Treatment administered

- 5.1. Dosage and types of medication
- 5.2. Duration



-
- 5.3. Surgery/procedures
 - 5.4. Hospital admissions last 2 years
 - 5.5. Other modalities i.e. physiotherapy, rehabilitation programmes, etc
 6. Response to treatment
 7. Complications/Target organ involvement – other systemic diseases
 8. Prognosis
 9. Influence on lifestyle
 10. Current abilities/Activities/Social functioning/ Hobbies
 11. Other sources of income
 12. Special investigations



D: INCAPACITY BASED ON PULMONARY DISORDERS

D1 Guidelines for assessing incapacity due to pulmonary disorders

D2 Clinical report format on cardiac disease

D1: GUIDELINES FOR ASSESSING INCAPACITY DUE TO PULMONARY DISORDERS

1. ASSESSING RESPIRATORY FUNCTIONAL IMPAIRMENT

- 1.1. The examining doctor will be expected to do a thorough and objective evaluation of the patient's condition and its effect on functional capacity and in all cases he should refrain from expressing an opinion on incapacity.
- 1.2. This evaluation should include:
 - 1.2.1. A detailed history of the patient's pulmonary condition, including, the symptoms associated with respiratory dysfunction as well as a history of tobacco use, usually give in pack-years of cigarette smoking and an occupational and environmental history of exposure to substances that could affect the lungs.
 - 1.2.2. A complete systemic respiratory examination of the patient. Other systemic conditions that may contribute to the patient's respiratory problems should be described in the report.
 - 1.2.3. Basic special investigations to help assess the degree of pulmonary dysfunction.
 - 1.2.4. Completion of a medical report, which will meet the minimum standards as will be described later. If the doctor finds a need for an evaluation by a different specialist or other therapist, this should be mentioned in the report for the company to consider and arrange.

2. SPECIAL INVESTIGATIONS

- 2.1. When a patient is referred for a second objective opinion, the basic medical examination and special investigations should already have been done to help establish a proper clinical diagnosis and the degree of respiratory dysfunction. The following investigations may need to be carried out in order to make a judgement on the degree of functional impairment.
 - 2.1.1. Chest X-Ray.
 - 2.1.2. The initial examination should include postero-anterior and lateral views of the chest taken in full inspiration. It should be noted that chest x-rays often



correlate poorly with physiologic findings in diseases with air flow obstruction such as asthma and emphysema.

2.1.3. Lung function testing

- (a) The quantitative basis on which an evaluation of the respiratory impairment rests is physiological testing of pulmonary function. Simple spirometry should be performed on equipment that has been calibrated according to acceptable standards. (6)
- (b) It must be noted that respiratory impairment may not necessarily be related to lung function. This is true in cases of occupational asthma, sleep disorders, disease, recurrent pneumothorax, lung cancer or pneumoconiosis.
- (c) At least 3 spirometric tracings should be taken during forced expiration with the results of the 2 best readings being within 5% of each other. The forced vital capacity (FVC) and forced expiratory volume in the first second (FEV_1) should be measured. The range of normal values can be found in the “Guides to the Evaluation of Permanent Impairment” of the American Medical Association.
- (d) If the FEV_1/FVC is below 0.7, the spirometry should be repeated after the patient has used an inhaled bronchodilator.
- (e) The FEV_1/FVC ratio is helpful in the diagnosis of obstructive airways disease. The severity is judged on the basis of the absolute value of the FEV_1 or the percentage of predicted of the FEV_1 .

2.1.4. Diffusing capacity of carbon monoxide (Dco).

- (a) A single breath Dco should be used for the evaluation of impairment in those conditions when the diffusing capacity may be diminished. Measurement is particularly important in patients who have dyspnoea with relatively normal spirometry.
- (b) It is important that the patient should not have smoked for at least 8 hours before the test as carbon monoxide reduces the saturation of haemoglobin and causes a decrease in the Dco.

2.1.5. Measured exercise capacity (VO_2)

This may be undertaken under certain circumstances and often helps differentiate between pulmonary and cardiac conditions. Generally, exercise capacity measurement should not be undertaken in patients with normal pulmonary function tests or those with severe impairments, as the additional information will not be useful in assessing the ability to carry out daily activities. Exercise capacity may also be useful to exclude malingering.

2.1.6. Arterial oxygenation (PO_2)



This is rarely undertaken because of its invasive nature and because other factors may affect the arterial PO₂.

3. REASONABLE TREATMENT

- 3.1. Reasonable treatment will depend on the risks attached to such treatment, the degree of success that can be expected undergoing such treatment and what the average reasonable patient with a similar condition would be prepared to undergo.
- 3.2. The following forms of treatment are considered “reasonable” for chronic pulmonary disorders:

3.2.1. Chronic Obstructive Pulmonary Disease (COPD)

The Guidelines for COPD as suggested by the South African Thoracic Society (SATS) should be followed. (4)

- 3.2.1.1. The FEV₁ is measured and documented according to the method given in 5.1.
- 3.2.1.2. The following bronchodilators are used:
 - (a) Ipratropium bromide MDI: 2 puffs 4 – 6 hourly, plus
 - (b) Beta – 2 agonist MDI, or
 - (c) Combination of the above two in a single MDI, plus
 - (d) Oral slow-release theophylline: 200-400mg twice daily or 400 – 800 mg at night
- 3.2.1.3. A trial of steroids should be given, starting with 40mg Prednisolone for 14 days, after which the patient is re-evaluated to determine the degree of reversibility. Where there is not reversible airway obstruction, and where the patient has never previously received steroids, the steroid can be stopped without tapering. In cases with reversibility the steroid is tapered to the lowest maintenance dose.
- 3.2.1.4. The FEV₁ is repeated and documented. An impairment may only be considered permanent if there is no objective improvement, i.e. the FEV₁ improves less than 15% or 200ml. If there is greater improvement, a diagnosis of asthma should be considered.

3.2.2. Asthma

- 3.2.2.1. The guidelines for chronic asthma suggested by the South African Thoracic Society (SATS) should be used as a basis for recommended treatment
- 3.2.2.2. In assessing “optimal treatment” for asthma, the following aspects have to be considered:



-
- (a) The diagnosis of asthma should be confirmed and should be well distinguished from COPD.
 - (b) The condition should be classified as mild intermittent or chronic persistent.
 - (c) Severity of chronic persistent asthma should be assessed as mild, moderate or severe.
- 3.2.2.3. The agents used in the treatments of asthma can be grouped as:
- (a) Preventors – Including inhaled and oral corticosteroids
 - (b) Controllers: - Long acting B2 agonist inhaler
Slow release theophylline
Leukotrine receptor antagonists
 - (c) Relievers - Short acting Beta2 agonist
Anti-cholinergics
- 3.2.2.4. The following guidelines would be considered to constitute reasonable treatment for all cases:
- (a) Intermittent asthma:
 - i) combined low dose inhaled corticosteroids; and
 - ii) long acting Beta2 agonist or slow release theophylline

or

 - iii) inhaled corticosteroids 500-1000 ugm per day.
 - (b) Chronic persistent asthma:
 - i) short acting Beta2 agonist used as necessary, with inhaled corticosteroids > 1000 ugm per day; and
 - ii) oral corticosteroids and long acting Beta2 agonist
 - iii) with or without slow release theophylline

or

 - i) Inhaled corticosteroids >1000 ugm per day; and
 - ii) long acting Beta2 agonist
 - iii) with or without slow release theophylline



Treatment should follow a stepwise approach based on severity.

- (c) Leukotrine receptor antagonists should be used in combination with inhaled corticosteroids, but not necessarily in all cases, until such time that efficacy can be judged with long-term clinical data.

4. EVALUATING PERMANENT PULMONARY IMPAIRMENT

4.1. It has been agreed to use the criteria as defined in the American Medical Association's "Guides to the Evaluation of Permanent Impairment" as presented in the following table.

	Class 1:	Class 2:	Class 3:	Class 4:
	0% no impairment of the whole person	10-25%, mild impairment of the whole person	26-50%, moderate impairment of the whole person	51-100%, severe impairment of the whole person
FVC	FVC>80% of predicted;	FVC between 60% and 79% of predicted;	FVC between 51% and 59% of predicted;	FVC<50% of predicted;
	And FEV ₁ >80% of predicted;	Or FEV ₁ between 60% and 79% of predicted;	or FEV ₁ between 41% and 59% of predicted;	or FEV ₁ <40% of predicted;
FEV ₁	and FEV ₁ /FVC>70%			
FEV ₁ /FVC (%)	And Dco>70% of predicted;	or Dco between 60% and 69% of predicted;	or Dco between 41% and 59% of predicted;	or Dco <40% of predicted;
	or	or	or	or
Dco	>25mL/(kg.min)	Between 20 and 25mL/(kg.min)	Between 15 and 20mL/kg.min)	<15mL/(kg.min) or <1.05L/min,
VO ₂ Max	or >7.1 METS	or 5.7-7.1 METS	or 4.3-5.7 METS	or <4.3 METS

4.2. Asthma may present particular problems in assessing impairment due to its variable nature. Lung function tests may be normal between attacks. It may be necessary to do repeated tests over a period of time, and take the frequency of attacks into consideration. Where occupational exposure is thought to cause the impairment tests should be performed before and after work on at least 3 occasions. Careful documentation is necessary and referral to an asthma expert may be indicated.



5. CORRELATION OF FUNCTIONAL IMPAIRMENT WITH ABILITY TO PERFORM TASKS

5.1. It is clearly difficult to give precise guidelines or statistical correlation between results of measured tests and an individual's ability to function. There are also many other factors that may contribute to a person's functional impairment. The following are general guidelines that may help to assess a person's ability to function.

5.1.1. In general, the FEV₁ correlates better with exercise capacity in persons with obstructive lung disease than the arterial PO₂. In broad terms, persons with an FEV₁ greater than 60% of predicted are able to work whereas those with an FEV₁ of less than 45% are generally unable to work. Most people with an FEV₁ greater than 2 liters are able to work.

5.1.2. Exercise capacity is measured by the uptake of oxygen (VO₂) in mL/(kg.min) or in METS. Exercise VO₂ determination can be undertaken on individuals who have mild or moderate (class 2 or 3) impairments. Those individuals with a VO₂ 25 mL/(kg.min) can perform most jobs. With a VO₂ between 15 and 24 mL/(kg.min) most sedentary and some light manual work can be undertaken whereas with a measurement of less than 15mL/(kg.min) very few, if any tasks can be undertaken. In general, a person can sustain a work level of 40% of measured maximum VO₂ for an 8-hour period. The following table shows a relationship between work capacity and oxygen consumption.



Work intensity for 70kg person	Oxygen consumption	Excess energy expenditure
Light work	7mL/ <0.5L/min	<2 METS
Moderate work	8-15mL/kg 0.6-1.0 /min	2-4 METS
Heavy work	16-20mL/kg 1.1-1.5 /min	5-6 METS
Very heavy work	21-30mL/kg 1.6-2.0 /min	7-8 METS
Arduous work	>30mL/kg >2.0L/min	>8 METS

- 5.1.3. Arterial PO₂ of less than 55 mm Hg is strong evidence of a severe impairment.
- 5.1.4. A 6-minute walk test may be used and the number of exacerbations per year should be noted.



D2: FORMAT FOR CLINICAL REPORT ON PULMONARY DISORDERS

1. Identification of employee

Name		
ID No		
Age		
Gender		
Date of birth		
PERSAL/GEPF No		
Employing department		
Occupation		
Anthropometry	Height:	Weight:

2. The following data needs to be included as a basic framework for a report.

- 2.1. Detailed history and clinical findings
- 2.2. Diagnosis
- 2.3. Severity of the illness
- 2.4. Treatment
 - 2.4.1. Dosage and types of medication.
 - 2.4.2. Duration.
 - 2.4.3. Possible surgical procedures.
 - 2.4.4. Hospital admissions.
 - 2.4.5. Other i.e. physiotherapy, rehabilitation.
- 2.5. Response to treatment.
- 2.6. Complications or other illnesses.



-
- 2.7. Prognosis.
 - 2.8. The influence of the illness of activities of daily living.
 - 2.9. Results of special examinations including lung function testing etc.



E: INCAPACITY BASED ON CONDITIONS PRESENTING WITH CHRONIC FATIGUE

E1 Quantitative incapacity evaluation of syndromes presenting with chronic fatigue

E2 Report forms: Annexures on pain evaluation

E1: QUANTITATIVE INCAPACITY EVALUATION OF SYNDROMES PRESENTING WITH CHRONIC FATIGUE

1. INTRODUCTION

- 1.1. Fibromyalgia (FM) and the chronic fatigue syndrome (CFS) cover a wide spectrum of signs and symptoms, which are virtually exclusively subjective in nature.
- 1.2. The emphasis in FM is on pain, whereas the emphasis in CFS is on persistent fatigue. However there are many similarities between the two conditions.

2. CHRONIC FATIGUE SYNDROME (CFS)

- 2.1. CFS is the current name for a disorder characterised by debilitating fatigue, lasting at least 6 months, and a variety of associated physical, constitutional and neuropsychological complaints (Table II).
- 2.2. It is not a homogeneous abnormality, and there is no single pathogenic mechanism. No physical or laboratory test can be used to confirm the diagnosis of CFS.
- 2.3. CFS often follows an acute flu-like (respiratory or gastro-intestinal) illness, or it may follow a period of physical or emotional stress. In some cases no initiating event can be identified. The symptoms may vary in intensity, but are generally aggravated by stress and exertion.
- 2.4. Table II. Approximately percentage of patients with CFS reporting the specific symptoms

Symptom	Percentage
Fatigue	100
Difficulty concentrating	90
Headache	90
Sore throat	85



Tender lymph nodes	80
Muscle aches	80
Joint aches	75
Feverishness	75
Difficulty sleeping	70
Psychiatric problems	65
Allergies	55
Abdominal cramps	40
Weight loss	20
Rash	10
Rapid pulse	10
Weight gain	5
Chest pain	5
Night sweats	5

3. FIBROMYALGIA (FM)

- 3.1. Fibromyalgia is not a disease and is often not symptomatic of an underlying disease, but it may represent a complex interaction of physical and emotional factors, some understood, but many ill defined.
- 3.2. The fibromyalgia syndrome (FM) is a constellation of symptoms including widespread muscular pain, tenderness, unrefreshing sleep, fatigue, emotional distress along with multiple tender points that are widely and symmetrically distributed and a frequent association with other disorders such as irritable bowel. The classification criteria are those of the American College of Rheumatology as defined in 1990.



4. ASSESSMENT OF FUNCTIONAL IMPAIRMENT

4.1. INTRODUCTION

- 4.1.1. The symptoms of patients suffering from CFS and FM are mainly subjective in nature, which complicates attempts to quantify the degree of impairment objectively. Furthermore, signs and symptoms of FM are found in the normal population who are still actively employed. Hidding et al also reported discordance between self-reported questionnaires and observed functional incapacity as a most striking feature of FM. It is also evident that only a minority of patients are unable to work, and that most patients are able to continue working with workplace adaptation.
- 4.1.2. The above makes it imperative that some form of objective measurement be incorporated into the impairment assessment of these subjective syndromes. This will not only result in increased fairness in distinguishing between non-valid applications and those with merit, but will help to maintain affordable insurance premiums for all.
- 4.1.3. Impairment is defined by the American Medical Association (AMA) as conditions that interfere with an individual's activities of daily living. The World Health Organisation defines it as any loss or abnormality of psychological, physiological, or anatomical structure or function.
- 4.1.4. The assessment of impairment in function is the primary role of the independent medical examiner (IME). The IME should be in possession of all medical documentation to date, and should utilise the assessment tools as described in the following sections to quantify impairment.

4.2. PRE-ASSESSMENT CRITERIA

- 4.2.1. Functional impairment can only be assessed once the patient has received optimal treatment available, the condition has stabilised and the point of maximal medical improvement (MMI) has been reached.
- 4.2.2. According to international literature, no specific period of time could be established which could be regarded as an optimal period of treatment prior to MMI having been reached.
- 4.2.3. However, it is reasonable to assume that no clinician can prescribe all the treatment modalities agreed to constitute optimal treatment during a period of less than 2 years. This time period is necessary in order to allow different classes of medication to take full effect, to adjust dosages if indicated, and to institute a proper rehabilitation and work integration/adaptation programme. The IME must also ensure that the diagnosis was made correctly and according to the CDC criteria for CFS, and the ACR criteria for FM.



4.3. QUANTIFYING FUNCTIONAL IMPAIRMENT

4.3.1. The spectrum of symptoms that may lead to impairment include the following:

4.3.1.1. Pain

- (a) Headache
- (b) Myofascial pain
- (c) Joint pain
- (d) Back pain

4.3.1.2. Fatigue

4.3.1.3. Cognitive impairment, mainly decreased memory, concentration, persistence and pace

4.3.1.4. Sleep disorders

4.3.1.5. Mood disorders

4.3.1.6. Various somatic symptoms such as irritable bowel, syndrome, etc.

4.3.2. The table below summarises the suggested assessment tools to be utilised to quantify impairment severity due to the symptoms experienced, and is adapted from the American Academy of Disability Evaluating Physicians (AADEP) position papers on CFS and FM.

TABLE: EVALUATION OF IMPAIRMENT DUE TO CFS OR FM

SYMPTOMS	ASSESSMENT TOOLS
Pain	Pain intensity / frequency grid
Headache	Pain questionnaire
Myofascial pain	Pain diagram
Joint pain	Objective proof of pain therapy
Back pain	Fibromyalgia impact questionnaire (FIQ) ADL impairment ROM impairment where indicated
Fatigue	ADL impairment



	Exercise capacity
Cognitive impairment	Neuropsychiatric analysis for impairment of memory, concentration, persistence and pace
Mood disorders	Psychiatric evaluation of Social interaction Activities of daily living Task completion (concentration, Adaptation to work stress
Sleep disorders	Assess according to AMA Guides
Somatic symptoms	Assess according to AMA Guides

4.3.3. In addition to the assessment criteria suggested by the AADEP in the table below, our working group has included the following objective parameters:

- (a) Objective proof of pain therapy
- (b) Exercise capacity measurement.

4.3.4. We also propose an overall evaluation of the validity of data, as described here under.

4.3.5. More specific details of the various impairment assessment tools, as specified in the above table, are given below.

- (a) Pain intensity/frequency grid (PIFG)
 - (i) Pain intensity should be classified as minimal, slight moderate or marked, according to the criteria used by the AMA and illustrated in the table below. The use of the non-narcotic analgesics serves as an important differentiator. The frequency of pain experienced should also be documented as intermittent, occasional, frequent or constant (Annexure A).
 - (ii) The categorisation of pain intensity and frequency should be done by the examining physician on information received by direct questioning of the patient, as well as on the basis of collateral information received from family, friends and/or the employer.
- (b) Pain questionnaire (Annexure B)



-
- (i) This is a specific psychometric questionnaire to be completed by the patient suffering from chronic pain.
- (ii) Various pain questionnaires are available that have been proven in international research to be useful tools in the quantification of pain intensity.
- (iii) We recommend the pain questionnaire devised by Hyman (paper presented at the AADEP 13th Annual and Scientific Meeting, Tuscon, USA, 18 – November 1999) as it also assesses the patient's:
- Motivation
 - Likelihood of responding to a rehabilitation programme
 - Expectations of disease outcome
 - Work satisfaction.
- (iv) Also, these questions give an indication of the presence and extent of psychiatric overlay. If the pain is made worse by all physical activities, e.g. bending, kneeling, sitting and lying, as indicated by the questionnaire, then the validity of the data should be questioned, as certain movements should have no effect on the pain.
- (c) Pain diagram
- The pain diagram should be completed by the employee (Annexure C). The important data obtained from the type of pain and its distribution should make physiological and pathological sense, and fit the patient's diagnosis. If not, symptom magnification or malingering should be considered.
- (d) Objective proof of pain therapy
- In addition to the pain intensity / frequency grid, impairment in activities of daily living (ADL) and the Fibromyalgia Impact Questionnaire (FIQ), which are subjective measures of pain, the assessor should substantiate the degree of pain by requesting the following objective evidence:
- Extracts from clinical records of the treating family physician to verify the number and frequency of consultations to seek treatment and / or prescriptions for pain relief.
 - Copies of such prescriptions for pain relief medication, or copies of pharmacy bills.
- (e) Self-report questionnaires



- Various self-report questionnaires exist to evaluate subjective complaints such as pain, tiredness, depression, etc.
- Although these questionnaires are of limited value because of a lack of objectivity, it is felt that the information gained can contribute significantly to the assessment of the disabled individual.
- It is recommended that the FIQ be used in all cases (Annexure D).
- Scrutinising the contents of the FIQ after completion may yield valuable information about the extent of the client's symptomatology. A total score for the questions exceeding 70 out of a possible total of 82, may indicate symptom magnification, somatisation or malingering.

(f) Impairment in activities of daily living (ADL)

Employees should be requested to complete a questionnaire (Annexure E) on the impact of the disease on their ability to cope with ADL. Examples of ADL are given in the table below.

TABLE: ACTIVITIES OF DAILY LIVING

ACTIVITY	EXAMPLE
Self-care, personal hygiene	Bathing, grooming, dressing, eating
Communication	Hearing, speaking, reading, writing, using keyboard
Physical activity	Intrinsic: Standing, sitting, reclining, walking, stooping, squatting, kneeling, reaching, bending, twisting, leaning Functional: Carrying, lifting, pushing, pulling, climbing, exercising.
Sensory function	Hearing, seeing, tactile feeling, tasting, smelling
Hand functions	Grasping, holding, pinching, percussive movements, sensory discrimination
Travel	Riding, driving, travelling by aeroplane, train or car
Sexual function	Participating in desired sexual activity



Sleep	Having a restful sleep pattern
Social and recreational activities	Participating in individual or group activities, sports, hobbies

The employee's level of impairment in certain ADL should be quantified as follows:

<p>Category</p> <ul style="list-style-type: none">• No impairment. Functions as any normal person.• Mild impairment. Has difficulty with the specific activity, but can cope.• Moderate impairment. Can only do the specific activity with discomfort and effort.• Marked impairment. Needs assistance with the activity.• Extreme impairment. The specific activities are impossible to do.

(g) Range of movement (ROM) impairment

- (i) FM may cause joint or back pain, which may limit the normal range of motion of certain joints or the spine.
- (ii) This ROM impairment should be recorded with a goniometer inclinometer as described in the AMA Guides. Pain with no ROM limitation constitutes no impairment.

(h) Exercise capacity testing

- (i) The AMA Guides suggest that fatigue as a symptom of respiratory or cardiac disease should be objectively assessed by quantifying impairment in exercise capacity. This is done by using one of various graded exercise protocols on either a treadmill or cycle ergometer, to determine maximal energy expenditure in metabolic equivalents (METS)
- (ii) METS represent the multiples of resting metabolic energy that the patient can achieve with maximum effort exercise testing, with one MET being equal to an oxygen consumption of 3.5ml/kg/min.
- (iii) Research has shown that it is reasonable to expect a person to maintain 40% of his or her maximal exercise capacity for an 8-hour working day. Therefore, calculating 40% of the patients maximal



workload, and comparing it with the work descriptions that could be maintained (Table below), would classify the employee's abilities on physical grounds into capable of doing light work, moderate work, heavy, very heavy, or arduous work.

- (iv) The definitions of these different work intensities can be obtained from the US Dictionary of Occupational Titles.
- (v) It is recommended that exercise capacity testing be utilised to quantify the physical fatigue, or lack of energy, of an FM or CFS patient in the manner described above.
- (vi) Because of the fluctuating nature of FM and CFS symptoms, the client should undergo exercise testing on at least two occasions at least 1 month apart.
- (vii) Clients who meet the minimum recommended METS level for their type of work (table below) should not be considered disabled on the basis fatigue, but should be evaluated according to any other criteria applicable (under point 16).
- (viii) The table below provides a translation from different exercise protocols to METS.

TABLE: OXYGEN AND ENERGY REQUIREMENTS FOR DIFFERENT WORK INTENSITIES

Work intensity for 70 kg person	Oxygen consumption 9ml/kg/min	METS
Light work	7	< 2
Moderate work	8 – 15	2 - 4
Heavy work	16 – 20	5 - 6
Very heavy	21 – 30	7 - 8
Arduous work	> 30	> 8

5. OTHER IMPAIRMENTS

Should the client suffer from significant impairment due to other symptoms of these syndromes, e.g. cognitive impairment, mood or sleep disorder, these impairments should be evaluated according to the appropriate section in the AMA Guides.

6. VALIDITY OF DATA



-
- 6.1. Because of the subjective nature of the symptoms of CFS and FM, the examining physician should always, before deciding on the extent of permanent impairment. Attempt to validate the authenticity of the data obtained.
 - 6.2. This could be compared to the Waddell signs, which indicate non-organic causes for low backache. If two or more of the following are present, symptom magnification or malingering may be considered.
 - 6.2.1. A normal clinical examination, with specific reference to the minimum number of tender points needed to diagnose FM according to the ACR criteria.
 - 6.2.2. Positive distraction test. This refers to (a) specific tender point(s) eliciting pain upon direct pressure, but failure to produce the same response when the same pressure is applied while the patient's attention is distracted.
 - 6.2.3. A normal psychometric evaluation.
 - 6.3. Total non-physiological or non-pathological pain distribution or type of pain as evidenced by the pain questionnaire and / or pain diagram. This should also apply when the pain distribution and nature do not fit the clinical diagnosis.
 - 6.4. Non-correlation of exercise capacity (METs) achieved with pulse rate response and workload achieved. A patient complaining of excessive tiredness at low workloads and low pulse rate acceleration should be viewed with suspicion, in the absence of cardiological and / or pulmonological disease. Patients with true impairment in exercise capacity will show excessive pulse rate acceleration at low workloads.
 - 6.5. Total FIQ score exceeding 70 out of a possible total of 82 points.
 - 6.6. The percentage of time spent supervising, sitting down, standing or doing manual labour should be specified by the employer.
 - 6.7. The METs requirements for the specific type of job in question are matched with that of the exercise capacity test achieved by the employee.



E2: REPORT FORMS: ANNEXURES ON PAIN EVALUATION

ANNEXURE A: PAIN INTENSITY-FREQUENCY GRID

		Frequency			
		Intermittent	Occasional	Frequent	Constant
Intensity	Minimal				
	Slight				
	Moderate				
	Marked				

The pain intensity-frequency grid should be interpreted according to the following guidelines.

1. INTENSITY

- 1.1. **Minimal:** The pain is annoying, but it has not been documented medically to cause appreciable diminution in an individual's capacity to carry out daily activities. The pain does not interfere with sleep, and it requires only occasional use of non-narcotic medication.
- 1.2. **Slight:** The pain is tolerated by the individual but has been documented medically to cause diminution in an individual's capacity to carry out some specified daily activities. The pain may interfere with sleep. Non-narcotic medication may be consumed regularly, and occasional narcotic medication may be required.
- 1.3. **Moderate:** The pain has been documented medically to result in extensive diminution in an individual's capacity to carry out specific activities of daily living. The pain may be tolerable, but it interferes with sleep. It frequently requires use of narcotic medication, or it may require invasive procedures. Recreation and socialisation are severely limited.
- 1.4. **Marked:** The pain precludes carrying out most activities of daily living. Sleep is disrupted. Recreation and socialisation are impossible. Narcotic medication or invasive procedures are required and may not result in complete pain control.

2. FREQUENCY

- 2.1. **Intermittent:** The pain has been documented medically to occur less than one-fourth of the time when the individual is awake.



-
- 2.2. **Occasional:** The pain has been documented medically to occur between one-fourth and one-half of the time when the individual is awake.
 - 2.3. **Frequent:** The pain has been documented medically to occur between one-half and three-fourths of the time when the individual is awake.
 - 2.4. **Constant:** The pain has been documented medically to occur between three-fourths and all of the time when the individual is awake.



ANNEXURE B: CHRONIC PAIN INITIAL QUESTIONNAIRE

For completion and signature by the patient

PATIENT DATA

NAME: _____

DATE OF BIRTH _____

PERSAL NO: _____

SIGNATURE: _____

DATE: _____

To the patient

Please fill this out prior to seeing the doctor. This helps us to help you.

When did your current problem begin?

What were you doing when you first hurt yourself?

Where was your pain / problem at the beginning?

Since the beginning, has your pain / problem been constant or intermittent?

How many previous episodes of this problem have you had?

If you have been seen at any other office/clinic/hospital/emergency room, please answer the following:

When and by whom were you previously treated?

What tests of X-rays were done for this?



What were the diagnoses given for your problem?

List any medicines, which you have tried for this problem

Did anything that you have previously tried, help or hurt your pain/problem?

For each of the next three questions, please indicate on the line the number between 0 and 100 that best describes your pain. A zero (0) would mean 'no pain' and a one hundred (100) would mean 'pain as bad as it could be'. *Only write one number on each line.*

Your pain right now _____

Your typical or average pain _____

Your pain at its worst _____

For the questions below **select only one number:**

Please indicate how anxious (e.g. tense, uptight, irritable, fearful, difficulty in concentrating / relaxing) you have been feeling **during the last week:**

Not at all anxious	1	2	3	4	5	6	7	8	9	10	Extremely anxious
-----------------------	---	---	---	---	---	---	---	---	---	----	-------------------

Please indicate how depressed (e.g. down-in-the-dumps, sad, downhearted, in low spirits, pessimistic, feelings of hopelessness) you have been feeling during the last week.

Not at all depressed	1	2	3	4	5	6	7	8	9	10	Extremely depressed
-------------------------	---	---	---	---	---	---	---	---	---	----	---------------------

Please indicate how much you agree with the statement 'If I become sick, I have the power to make myself well again':

Completely disagree	1	2	3	4	5	6	7	8	9	10	Completely agree
------------------------	---	---	---	---	---	---	---	---	---	----	------------------



Please indicate how much you agree with the statement 'Health professionals, like my doctor, control my health':

Completely disagree	1	2	3	4	5	6	7	8	9	10	Completely agree
---------------------	---	---	---	---	---	---	---	---	---	----	------------------

Please indicate how much you agree with the statement 'I cannot do physical activities which might make my pain worse':

Completely disagree	1	2	3	4	5	6	7	8	9	10	Completely agree
---------------------	---	---	---	---	---	---	---	---	---	----	------------------

If you are currently employed or out on sick leave, please complete the following questions:

Please indicate how much you enjoy the tasks involved in your job:

Hardly ever	1	2	3	4	5	6	7	8	9	10	Almost always
-------------	---	---	---	---	---	---	---	---	---	----	---------------

Please indicate how well you get along with your fellow workers:

Don't get along well at all	1	2	3	4	5	6	7	8	9	10	Get along very well
-----------------------------	---	---	---	---	---	---	---	---	---	----	---------------------

Please indicate how certain you are that you will be able to do your normal work within 3 months:

Not at all certain	1	2	3	4	5	6	7	8	9	10	Very certain
--------------------	---	---	---	---	---	---	---	---	---	----	--------------

In the table below, place a checkmark into each box that identifies where your pain is and how it feels:

	Head	Neck	Back	Arms	Legs
--	-------------	-------------	-------------	-------------	-------------



Right side					
Left side					
Both sides					
Sharp					
Dull					
Aching					
Throb					
Burning					
Stabbing					
Pins and needles					

How often does your pain occur? (Circle only one)

- a) constant (90% of the time)

- b) frequent (75% of the time)

- c) intermittent (50% of the time)

- d) occasional (25% of the time)

Would you describe your pain as: (circle only one)

- a) minimal – an annoyance

- b) slight-tolerable – some limitation in activities that produce pain



c) moderate – a marked limitation in all activities that produce pain

d) severe – precludes all activities that produce pain

If you have numbness, how often? (Circle only one)

a) constant (90% of the time)

b) frequent (75% of the time)

c) intermittent (50% of the time)

d) occasional (25% of the time)

Are you currently: (circle only one)

a) working at your regular job

b) working at home



-
- c) going to school
 - d) working in a modified capacity at your job/home/school
 - e) unemployed
 - f) retired
 - g) out on incapacity from work (if so, for how long _____)

In the table below, indicate with a checkmark whether any of these activities has an effect on your symptoms:

	Better	Worse	No effect
Bending			
Squatting			
Crawling			
Climbing			
Crouching			
Kneeling			
Reaching			
Pushing			
Pulling			
Sitting			
Standing			
Rising from sitting			
Rising from lying			



Turning			
Lying on back			
Lying on stomach			
Sex			
Sleeping			
Coughing			
Sneezing			
Walking			
Running			
Lifting			
Morning			
Evening			



ANNEXURE C: PAIN DIAGRAM

In the diagrams below, mark the areas of the body, using the symbols, where you have experienced any of the following symptoms this past week.

Aching	Burning	Stabbing	Pins & needles	Numbness
XXXXXX	=====	////////////////	oooooooooo	-----

Body drawings: anterior and posterior views



ANNEXURE D: THE FIBROMYALGIA IMPACT QUESTIONNAIRE

Where you able		Always	Most times	Occasionally	Never
A	Do shopping	0	1	2	3
B	Do laundry with a washer and dryer	0	1	2	3
C	Prepare meals	0	1	2	3
D	Wash dishes/cooking utensils by hand	0	1	2	3
E	Vacuum a rug	0	1	2	3
F	Make beds	0	1	2	3
G	Walk several blocks	0	1	2	3
H	Visit friends / relatives	0	1	2	3
I	Do yard work	0	1	2	3
J	Drive a car	0	1	2	3

Of the 7 days in the past week, how many days did you feel good?

1 2 3 4 5 6 7

How many days in the past week did you miss work because of your fibromyalgia? If you don't have a job outside the home leave this item blank).

2 3 4 5

When did you go to work, how much did pain or other symptoms of your fibromyalgia interfere with your ability to do your job?

1 2 3 4 5 6 7 8 9 10

No problem

Great difficulty

How bad has your pain been?

1 2 3 4 5 6 7 8 9 10

No pain

Very severe pain



How tired have you been?

1 2 3 4 5 6 7 8 9 10

No tiredness

Very tired

How have you felt when you got up in the morning?

1 2 3 4 5 6 7 8 9 10

Awoke well rested

Awoke very tired

How bad has your stiffness been?

1 2 3 4 5 6 7 8 9 10

No stiffness

Very stiff

How tense, nervous or anxious have you felt?

1 2 3 4 5 6 7 8 9 10

Not tense

Very tense

How depressed or blue have you felt?

1 2 3 4 5 6 7 8 9 10

Not depressed

Very depressed



ANNEXURE E:

REPORT SHEET – IMPAIRMENT IN ACTIVITIES OF DAILY LIVING

LEVELS OF IMPAIRMENT

Areas of function	Impairment category
1. Activities of daily living	
1.1. Self care and hygiene (dressing, bathing, eating, cooking)	
1.2. Normal living postures / ambulation (sitting, lying, walking)	
1.3. Travel (driving, riding, flying)	
1.4. Non-specialised hand activities (grasping, lifting, tactile)	
1.5. Discrimination	
1.6. Sexual function (participating in usual sexual activities)	
1.7. Sleep (restful sleep pattern)	
1.8. Social and recreational activities (consider pre-injury activities of the patient))	
1.9. Average impairment	
2. Social Functioning	
2.1. Get along with others without behavioural extremes	
2.2. Initiate social contacts, negotiate and compromise	
2.3. Communicate clearly and effectively with others	
2.4. Interact and actively participate in group activities	
2.5. Average impairment	
3. Thinking, concentration, persistence and pace (task completion)	
3.1. Comprehend / follow simple commands	
3.2. Apply common sense to carry out a task	
3.3. Ask simple questions, request assistance when needed	



3.4. Perform simple, routine, repetitive task	
3.5. Ability to abstract or understand concepts	
3.6. Maintain attention, concentration on a specific task and complete in a timely manner	
3.7. Memory, immediate and remote	
3.8. Judgement	
3.9. Problem solving and conceptual reasoning ability	
3.10. Perform daily tasks (including work) the patient performed before the injury or illness at a reasonable pace without special supervision	
3.11. Ability to initiate decisions and perform planned action	
3.12. Average impairment	
4. Adaptation to stress	
4.1. Perform activities on schedule, be punctual	
4.2. Adapt to limits or standards – complete a normal workday without interruptions from psychological symptoms	
4.3. Manage conflicts with other – negotiate, compromise	
4.4. Set realistic goals, has good autonomous judgement	
4.5. Average impairment	

Signature: Physician:

Date: