

Guidelines for Medical Aspects of Fitness to Work in the Oil Industry

A Guide for Examining Physicians

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Adapted from the Oil & Gas UK (ex-UKOOA) Medical Advisory Committee (2003 & 2008)

Guidance of Specific Conditions which May Affect Medical Fitness to Work.

For the purpose of this document, the term "work" or "employment" refers to any professional activity taking place in remote locations, offshore or land rigs, ships or in high health risk conditions (extremes in climate, living conditions, isolation, etc.).

Objectives of the Medical Assessment

The worksite may be located in a remote and potentially hostile environment, which may be isolated from qualified medical assistance. Adverse weather may cause long delays in medical evacuation, and thereby exacerbate a minor medical problem. In conducting the medical assessment, the Examining Doctor or Medical Provider is responsible for carefully assessing the physical and mental health of employees in order to:

- Anticipate and, where possible, prevent the avoidable occurrence of ill-health which could place the individual, their colleagues and the emergency rescue services, at undue risk.
- And ensure that so far as is reasonably practicable, designated location personnel are medically fit to work at a remote and isolated location.

The Working Environment

The examining physician or medical provider should conduct the assessment in accordance with recognized occupational health standards. In common with good occupational medicine practice, the examining physician must ensure that the medical assessment of a prospective employee relates to the particular work factors and environment of the worksite. The examining physician should, therefore, have an appropriate knowledge of these factors, which include, but are not limited to the following:

- Physical exertion (climbing walkways, stairs, work tasks, etc.) and exposure to heights.
- Shift work, with long hours, e.g. 12-hour shifts, and changes in routine.
- Absence from home for prolonged periods, which may be up 2 or 3 weeks or more in duration.
- Adverse weather.
- Helicopter and boat travel.
- Smoke, heat and cold exposure.
- Potential involvement in emergency situations, which may involve the individual being exposed to extremes of physical

exertion, to thermal and smoke exposure as well as cold water immersion.

- Certain categories of personnel, such as offshore personnel must undergo training in firefighting and sea survival/helicopter escape training which simulate the situations and conditions described above.
- Claustrophobia, e.g. in relation to helicopter travel or in a totally enclosed motor-propelled survival craft.
- Limited privacy.
- Peer group pressure.
- The need for the physical and mental health of an individual to be such that it does not cause an additional hazard, whether to the individual or his or her colleagues, in an emergency situation
- Remoteness from medical services.
- Adverse weather conditions, which may prohibit or delay medical access to or evacuation from the location.

These factors combine to distinguish the workplace. Episodes of ill-health or disability which may be wholly compatible with “normal” employment may debar the individual from work for Schlumberger – either temporarily or permanently, where the condition places the affected individual, and/or his/her colleagues at risk.

The Medical Examination Process

Age should not be a bar to fitness to work for Schlumberger, but must be taken into account with all the other findings in the assessment. If a disability as defined within the Disability Discrimination Act (U.K.) is identified at the examination, the examining doctor should ensure that the actual or potential employer is in a position to consider reasonable workplace accommodation prior to the final fitness assessment. However, consideration of the person’s ability to undertake the necessary actions to evacuate and escape from an installation in an emergency situation is of paramount importance. Workplace safety should not be compromised when considering reasonable accommodation.

Infectious Diseases

Active infectious disease is unacceptable. Re-examination following successful resolution of infection may be appropriate if there is significant impact on capacity for work or there are any public health considerations.

Catering staff require special examination to exclude acute or chronic disease involving gastrointestinal tract, chest, ear, nose, throat and skin due to the risk of food-borne spread of the diseases.

Open Pulmonary Tuberculosis – The risk posed to others by individuals with active pulmonary tuberculosis is not compatible with work. Once an individual is being treated examining doctors must obtain a specialist report to confirm that they are no longer infectious and that they are not suffering from significant treatment side effects.

Human Immunodeficiency Virus (HIV) and Acquired Immune Deficiency Syndrome (AIDS) – A diagnosis of HIV positive need not debar from employment. Individuals with AIDS-related illness should be assessed with regard to the specific functional effects and the risks associated with such illness and its treatment.

Malignant Neoplasms

Frank malignant disease is usually unacceptable for work. Each case should be considered individually and the natural history and prognosis of the neoplasm taken into account. In reaching a recommendation, the impact of the condition, the treatment and the ability to function normally must be considered.

Where appropriate, relevant medical information should be requested from the individual's general practitioner and/or specialist before making a final decision.

Individuals taking cytotoxic drugs, immunosuppressants and/or steroids in acute phases of illness or for relapse should be considered unsuitable for employment until the condition has been resolved or is in complete remission.

Diseases of Gastrointestinal System

Clinical assessment of any gastrointestinal system disturbance should consider the impact of the condition on an individual's function as well as any medication taken. Reference should be made to the individual's specialist where appropriate.

Peptic ulceration. Active peptic ulcer disease is unacceptable. Where there is a past history of ulceration, a person may be acceptable provided that the examining physician is satisfied that the risk of recurrence or complications is reduced to a minimum by the use of appropriate treatment. An employee should not be allowed to work until asymptomatic and on acid suppression therapy and/or they have undergone successful helicobacter eradication therapy. Proven active gastric ulceration is unacceptable and individuals should only be allowed to work once asymptomatic and they have had a negative endoscopy.

Esophagitis and gastritis are unlikely to cause severe symptoms or complications and individuals are acceptable on appropriate treatment. Other non-specific upper gastrointestinal disorders including "dyspepsia" and diaphragmatic hernia are acceptable provided they are non-disabling and the physician is satisfied they are not indicative of a more serious underlying disorder.

Inflammatory bowel disease is unacceptable in the acute phases until individual is stable and controlled on medication compatible with work. Where the condition is in remission and symptoms are under control, a case can be made for return to work following consultation with appropriate specialist advice.

Hernia should be assessed with regard to the risk of strangulation and its effects on an individual's ability to carry out their normal assigned tasks. Those considered to be of high risk of strangulation are unacceptable until surgically repaired. Those with hernia of low risk who are assessed as able to carry out their normal assigned tasks should be given a time restricted certificate while awaiting surgical assessment and repair if appropriate.

Hemorrhoids, fistulae and fissures are unlikely to cause significant risk unless causing sufficient pain as to limit an individual's mobility and ability to perform their duties. Perianal abscess will normally cause acute pain and require treatment before being compatible with work.

Uncomplicated stoma is usually acceptable but the examining physician should be satisfied that the underlying cause is compatible with work and that the personal management of the condition is acceptable within the confines of the work community.

Liver Diseases are unacceptable where the condition is serious or progressive and/or where complications such as esophageal varices or ascites are present. Those with chronic active hepatitis requiring Interferon need to be carefully assessed with regard to the potential side effects of treatment. Assessment of all individuals with a significant history of liver disease should include an update from their clinical specialist and a recent (within 3 months) prothrombin time.

Chronic or recurring pancreatitis is unacceptable.

Cardiovascular System

The cardiovascular system should be free from acute or chronic disease that causes significant symptoms, incapacitation or interference with function.

Congenital Heart Disease. Other than atrial septal defects or small ventricular septal defects with no hemodynamic significance, all congenital heart disease should be individually assessed by a cardiologist and the resulting report used in the risk assessment process.

Valvular Heart Disease with significant hemodynamic change, as assessed by a cardiologist, is unacceptable. An individual who has undergone successful cardiac surgery for valvular or congenital heart disease may be fit for employment, if free of all symptoms and off all therapy. It should be noted that patients who remain on Warfarin are at significant risk related to prolonged bleeding time associated with trauma.

Ischemic Heart Disease. A history of myocardial ischemia including myocardial infarction, angioplasty and Coronary Artery Bypass Graft (CABG) may be considered acceptable, but certain conditions must be applied in considering suitability for work:

- All patients with documented coronary artery disease and not treated surgically should be taking optimal medication and must have been symptom-free for at least 6 months,
- and
- They must be able to complete a Bruce Protocol exercise test and complete Stage III without cardiac symptoms or signs of reversible ischemia. Those who exhibit changes above Stage III should undergo further assessment by a cardiologist.

Those individuals who wish to return to work but who do not meet the above (e.g. persistent symptoms despite medication, or those with signs of reversible ischemia) must undergo formal assessment by a cardiologist on occupational grounds. A decision to return the individual to work should then be taken following discussion with the company's medical advisor. Annual reassessment by a consultant in cardiology should take place in these cases and each review should include successful completion of a symptom minuted Bruce Protocol exercise test.

Myocardial Infarction. An individual may be considered fit to return to work 3 months after myocardial infarction providing at cardiologic assessment he/she:

- Is symptom-free
- and
- Has no evidence of reversible ischemia by successful completion of a Bruce Protocol exercise test to Stage III without cardiac symptoms or ischemic changes.

Note: Angiography should be pursued only where clinically indicated and there is no need in a post MI candidate who is symptom-free and meets the exercise tolerance test criteria to proceed to angiography for work certification purposes.

Following **angioplasty or coronary artery bypass graft (CABG)**, an individual may be considered fit to return to work 4 months after the procedure has been successfully completed, and after consultant

reassessment, providing they can complete Stage III of the Bruce Protocol without evidence of ischemia and remain symptom-free.

Myocardial infarction and CABG Follow-up. A restricted certificate for one year and annual reassessment by a consultant in cardiology should take place in all post MI cases and each review should include successful completion to Stage III of the Bruce Protocol exercise test. In addition, steps should be taken to ensure compliance with currently agreed good clinical practice relating to general measures, e.g. smoking cessation, BMI, cholesterol lowering medication.

Cardiac transplantation. Individuals with cardiac transplants will not usually be acceptable due to the nature of the associated medication required to suppress tissue rejection.

Cardiac Arrhythmias. If these produce symptoms, interfere with function or cause temporary incapacitation, then expert cardiac opinion should be sought. Individuals on anti arrhythmic medication may be acceptable following a cardiologist's assessment and report.

Pacemakers. The presence of a permanent pacemaker should not preclude employment. However, written assurance from a cardiologist should be obtained, that the patient is free of syncope or pre syncope as a result of the pacemaker insertion and that he is experiencing no complications related to its insertion. Employees with permanent pacemakers require, and would normally undergo, annual cardiological review.

Employees with pacemakers who are pacemaker dependent, and who may come into contact with powerful electromagnetic fields, need to demonstrate that their pacemaker generator is not inhibited by electromagnetic energy before being certified to work.

Patients with overdrive anti-tachycardia pacemakers or implantable defibrillators should not be employed as their condition may involve syncope.

Hypertension. As a general rule, hypertension is acceptable provided it is uncomplicated and well controlled by treatment. The British Hypertension Society Guidelines are a useful reference for this condition and should be consulted for further guidance on management.

In respect of employment, the following guides appropriate course of action

- $\geq 180/110$ mmHg - decline certificate and refer for investigation and treatment. Full certificate may be issued once stabilized on any required medication.
- $< 180/110$ but $> 140/90$ - issues fitness for work certificate but refer to general practitioner for lifestyle advice and investigation if above desired level of $140/90$ (particularly important if there is any evidence of end organ damage).
- $< 140/90$ - optimal blood pressure control, fit for work and no further action required.

Peripheral circulation. Conditions of the peripheral circulation should be actively sought and particular note taken of the following:

- Current or recent history (within 3 months) of **thrombophlebitis** or **phlebothrombosis** (DVT) with or without embolization are not acceptable. Recurrent conditions are not acceptable without further investigation.
- **Varicose veins** are acceptable other than when associated with varicose eczema, ulcers or other complications.
- **Arteriosclerotic or other vascular disease** with evidence of circulatory embarrassment, for example intermittent claudication, or thoracic or aortic aneurysm are all unacceptable. Symptomatic peripheral vascular disease is unacceptable.
- Carotid disease if detected should be fully investigated to assess the extent of the disease and associated risk.

Pulmonary circulation. A history of more than one pulmonary embolism is normally unacceptable and requires full investigation. A single episode requires careful assessment and specialist report.

Cerebro-vascular disorders. Individuals who have suffered stroke due to occlusive vascular disease, spontaneous intracerebral hemorrhage, Transient Ischemic Attack (TIA) or amaurosis fugax within the past 6 months should be considered at high risk and therefore should not be

allowed to work in remote and potentially hostile or isolated environments. They may be reconsidered after this time if there is a satisfactory clinical recovery with particular respect to impaired limb function and cognitive defects. Individuals in safety critical jobs may require more than 6 months post event before returning to work in remote and potentially hostile or isolated environments and may require more frequent review.

Diseases of Blood or Blood Forming Organs

Due to the complex nature of hematological disease, certifying physicians should consider obtaining a specialist opinion before issuing or refusing certification. In some cases, it is inappropriate to issue a certificate of normal duration and the use of restricted duration certificates is encouraged to permit active monitoring of the individual's condition and continuing fitness for work.

Anemia severe enough to cause symptoms is unacceptable until satisfactorily investigated and treated. Mild, asymptomatic anemia may be acceptable provided the cause is known and any appropriate treatment is in place.

Thalassemia trait and Sickle Cell trait should not disbar an individual from employment. However, the symptoms associated with Thalassemia Major and Sickle Cell disease and complications arising from the treatment of Thalassemia Major are likely to render an individual unfit for work.

Polycythemia. Primary polycythemia (Polycythemia Rubra Vera) is acceptable provided treatment is not interrupted by the work cycle and blood indices are within the normal range. In secondary polycythemia the causative condition is likely to be the limiting factor and full assessment of this should be made.

Coagulation disorders. An individual with a low platelet count is at increased risk of hemorrhagic problems following trauma and, in severe cases, spontaneous hemorrhage can occur. This would disbar an

individual from employment. Specialist advice should be sought where appropriate.

Hemophilia and related bleeding disorders are not acceptable.

Malignancy of the blood forming organs. Individuals with **leukemia** are unlikely to be fit to work while undergoing treatment or while receiving immunosuppressive therapy. If in remission, (no signs of active disease detected clinically or by laboratory methods) an individual may be considered fit to work. In **Hodgkin's Disease** an individual may remain fit enough to work during treatment - a detailed clinical assessment of the case with specialist input is required.

In **Non-Hodgkin's Lymphoma** it is unlikely that an individual will be fit to work during treatment.

Chemotherapy schedules may make it difficult to maintain a regular work cycle. The side effects, actual or potential, of any treatment should be considered carefully along with the frequency of administration and monitoring of chemotherapy before allowing an individual to work.

Any **medication** which is likely to significantly inhibit or increase **blood coagulation** will render an individual unfit for work for the duration of treatment and for a period following this until it can be demonstrated that the individual is no longer at significant risk of bleeding/thrombosis. Any medication which causes significant **immunosuppression** will render an individual unfit for work for the duration of treatment and for a period following this until it can be demonstrated that the individual is no longer at significant risk of infection.

Psychiatric Disorders

Mental disorders are amongst the most commonly encountered conditions in those presenting for work. If a condition is identified an assessment should be made of the current mental state, the impact of medication and the impact on effective functioning in the work environment. Where appropriate, specialist advice should be sought from the individual's specialist and/or general practitioner.

In assessing individuals with psychiatric disorders, examining doctors must consider the potential for exacerbation or precipitation of the condition by factors such as the remote location, the possible social isolation, disruption of normal social patterns, the impact of shift working and the potential for perception of the environment as being stressful in some individuals.

Examining doctors should make clinical assessment of the functional effect of symptoms of the condition such as:

- Mood
- Memory
- Concentration
- Agitation
- Psychotic symptoms
- Behavioral disturbance
- Side effects of medication

Individuals exhibiting significant problems in any of the areas above are likely to pose a risk which would be incompatible with unrestricted work.

Mild Anxiety and Depressive disorders – When assessing the risk of mild anxiety or depression disorders, the examining doctor must be satisfied that the individual has no significant memory or concentration problems, no suicidal thoughts, no behavioral disturbance or agitation and that workplace factors will not exacerbate the condition. If the individual is on medication, the examining doctor should be satisfied that they are stable on medication and not suffering from significant side effects.

More Severe Anxiety or Depressive Disorders – If the individual is exhibiting memory or concentration problems, has behavioral disturbances, agitation or suicidal thoughts, the risk is likely to be high enough to be incompatible with work remote and potentially hostile environments and isolated locations until stabilized on medication.

Psychoses – including Bipolar Disease and Schizophrenic

Disorders – The risks associated with acute psychotic episodes are incompatible with work in remote and potentially hostile environments and isolated locations. Following treatment and recovery, the examining

doctor must in all cases, obtain a specialist report to confirm that the individual:

- Has made a good functional recovery
- Has insight into their problem
- Is fully adherent to the agreed treatment plan
- Is fully engaged with medical services
- Is free from any significant adverse effects of medication (e.g. effects on alertness, concentration motor performance)
- Has a low risk or recurrence

All cases must be discussed and agreed with company's medical adviser before being allowed to travel or work in remote and potentially hostile environments and isolated locations.

The risk associated with individuals who have exhibited extreme violent tendencies in the past is unlikely to be compatible with work in remote and potentially hostile environments and isolated locations.

Personality disorders and Behavioral Disorders – The risk associated with those personality and behavioral disorders which are characterized by violence or serious anti-social behavior is unlikely to be compatible with work in remote and potentially hostile environments and isolated locations.

Other psychological disorders including eating disorders, stress, phobias and childhood behavior disorders need not be a bar to employment unless there is evidence of continued dysfunction or vulnerability, likely to impact on health and well-being in the work environment. Where reasonable doubt exists, the assessing physician should consider the option of a specialist report and opinion.

Alcohol Dependence

Individuals who have a physical dependence on alcohol will not be fit to work in remote and potentially hostile environments and isolated locations until it can be demonstrated that such dependence is under control. In making such determination, the examining physician must confirm compliance with the following:

1. The individual must have completed a recognized initial alcohol treatment program
2. The individual must be participating in and responding to an ongoing alcohol rehabilitation program
3. The examining doctor must obtain a report from the individual's treating healthcare professional(s)
4. The individual must have evidence of an improving trend of liver function test results and MCV
5. The examining doctor must make enquiries to determine continued compliance with established treatment goals
6. The examining doctor will determine the duration of the restriction based on the above information and the results of his risk assessment.

Compliance with the guidelines for alcohol-induced epilepsy is also required for those who have had alcohol related seizures.

Drug Abuse

Individuals who demonstrated, by any means, to be actively misusing illegal or prescription drugs will not be fit for work in remote and potentially hostile environments and isolated locations.

Prior to return to work in remote and potentially hostile environments and isolated locations, the examining physician must ensure that the following criteria are met:

1. If the individual was dependent on drugs then they must have completed a drug abuse treatment program.
2. Where appropriate, the individual must participate in and respond to an ongoing drug rehabilitation program.

3. The examining doctor must obtain a report from the individual's treating healthcare professional.
 4. The individual must be able to provide evidence of completion of a program of unannounced/random drug screening of a minimum of 3 months duration, during which they have had no positive drug screens and at least three negative tests.
 5. The examining doctor will determine the duration of the restriction based on the above information and the results of his risk assessment.
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Diseases of the Nervous System

Organic or functional neurological disorder causing, or likely to cause, any significant defect of consciousness, cognitive function, muscular power, balance, mobility, sensation or coordination is likely to significantly and adversely affect both capability to undertake work and safety of the individual and others. Detailed assessment including, where considered appropriate, specialist referral, should be made.

Epilepsy. The diagnosis of epilepsy with persisting epileptic seizures (one or more per year) of any type is incompatible with work. Those with a history of epilepsy but who are able to meet the criteria below may be considered for work. In all cases, an assessment needs to be made by the examining doctor to determine the likelihood of a seizure occurring and the likely consequences to the individual and others should they have a seizure whilst working.

Doctors will require reports from the examinee's GP and/or specialist in order to verify the medical history, and establish facts on which the individual risk assessment can be based:

- Increased risk occupations (such as crane operators, work at height, scaffolders, drill crew, emergency response teams) require the individual to have been seizure free for the last 10 years, have not taken anti-epileptic medication during that period and not to have a continuing liability to epilepsy.

- Other occupations - an individual with a history of epilepsy or a single unexplained seizure may only work if he is seizure free for a minimum of 6 months, whether taking medication or not. If taking medication he must be free from significant side effects.
- Following significant head injury or cranial surgery, and when there have been no epileptic seizures, the risk of post-surgical or post-injury epilepsy must be below 2% in increased risk occupations (see above). For other occupations a minimum period seizure free by day and night of 6 months is normally required. Specialist neurological opinion should be obtained in all cases.
- For alcohol relates seizures, the individual must be seizure free (by day and night) for at least 6 months and off all medication before returning to any employment. Those in increased risk occupations must be seizure free for a minimum period of 2 years by day and night and off all medication.

Single Seizure. The above guidance for epilepsy should also be followed for individuals who have suffered a single seizure but for whom a diagnosis of epilepsy has not been made.

Loss of Consciousness/Altered Level of Awareness. Individuals must be fully investigated by an appropriate specialist in all cases. Where a specific underlying cause is found, reference should be made to the appropriate section of the guidance, otherwise the individual may be considered fit for work in remote and potentially hostile environments after 6 months if there has been no further recurrence.

Multiple Sclerosis and Parkinson's Disease. Those with mild or predominantly sensory symptoms will be fit for work. A reduced periodicity of medical review may be appropriate given the nature of this condition. Individuals with significant and progressive multiple sclerosis or Parkinson's Disease will not be suitable for work.

Migraine. The majority of cases are straightforward in symptomatology and treatment, and should not result in unfitness for work. Some more severe cases may result in episodic protracted incapacity or unusual neurological features. Such cases should be referred for a neurological opinion and on optimum treatment aimed at minimizing these features, before a decision to refuse a certificate of fitness is made.

Narcolepsy/Sleep Disorders. In view of the increased risk of accidents due to inattention or inability to concentrate sufficiently on the task at hand, individuals suffering from such disorders should be carefully assessed. It is likely that individuals with unpredictable drowsiness during periods of normal wakefulness, consequent on narcolepsy/sleep disorders, will not be fit for work. Individuals who have been successfully treated for such conditions may be fit, but a specialist report is required providing objective evidence of the success of such treatment.

Musculoskeletal System

In assessing disorders of the musculoskeletal system, a careful assessment should be made of the impact on the individual's functional capacity, not only to complete their intended work, but also activities which are an essential part of work-related life, including mobilization by helicopter wearing a survival suit, ability to move up and down flights of stairs easily and repetitively as necessary, emergency response musters and other related drills.

Functional assessments of mobility should be supplemented where necessary by a specialist report of the current stability and future prognosis of the condition.

- Conditions significantly affecting locomotor function or balance to the point that an individual could not self rescue during a muster will normally be unacceptable.
- The medication used to treat symptoms musts also be considered. Significant immunocompromise will normally be unacceptable.

Chronic musculoskeletal disease which is prone to remission and relapse need not immediately disbar from work but an appropriate and, if necessary, shortened review cycle should be employed. Where medivac is required following a relapse of any such condition then re-examination will be mandatory before a return to employment is permitted.

Limb prostheses are acceptable where an individual can meet the mobility requirements of for his work.

Joint replacements pose no significant risk so long as the individual can meet the mobility requirements and there is low risk of dislocation.

Skin

Skin disorders should be assessed for suitability and any task-specific requirements. A detailed understanding of the specific task is required before declining certification for work related skin disease. The probability of exposure to substances which may act as allergens or irritants should be understood and taken into account when making the assessment.

Psoriasis controlled by topical medication is acceptable. More serious disease requiring inpatient treatment and chemotherapy should be carefully assessed, including the compatibility of rotational duties with treatment regimes. Specialist advice should be sought. Skin disease complicated by joint disorder should be carefully assessed.

Eczema of a mild local nature is acceptable, but extensive disease requiring complex treatment regimes is generally not acceptable.

Allergic dermatitis should be carefully assessed with specialist referral and patch testing as indicated. Where avoidance is practicably possible, working will be possible.

Irritant dermatitis can usually be treated and prevented but, if persistent, may not be compatible with work.

Infectious skin disease, including scabies and impetigo, is unacceptable until successfully treated.

Endocrine and Metabolic Disorders

All cases of endocrine and metabolic disorder require comprehensive investigation prior to assessment of fitness to work.

Non Insulin Dependent Diabetes Mellitus (Type II). Stable well-controlled cases (6 months or more) of NIDDM will normally be acceptable providing that there are no complications causing other restrictions on capacity or safety. Of particular importance is visual acuity which must meet the standard. An increased frequency of medical examination may also be appropriate to ensure regular review and continuing fitness to work (at least annually).

Insulin Dependent Diabetes Mellitus (Type I). Individuals with IDDM will not be accepted for unrestricted fitness to work. However, those who can demonstrate long established good control (at least 6 months), who can self manage their insulin requirements and have no secondary complications of their illness may be considered on a case-by-case basis and, with the explicit agreement of the company's medical advisor, may be issued with a restricted certificate. This must not be for a period greater than one year and must stipulate the location/type of job which the individual may work on. Unrestricted certification is unacceptable in these cases but, when managed appropriately, well-controlled individuals can operate safely in some locations. All such cases will require a report from the specialist or general practitioner. Those with IDDM are not considered suitable for fire or emergency response duty. Anyone with IDDM must be reviewed at least annually to ensure control remains acceptable.

Thyroid Disease. All cases of thyroid disorder require careful individual assessment. Inadequately controlled thyroid disease is unacceptable but those who are stable on long-term medication will be considered fit. More frequent review will be appropriate and annual review is likely to be appropriate.

Other Endocrine Disorders such as Addison's disease, Cushing's syndrome, acromegaly, diabetes insipidus and hypoglycemia, either functional or due to pancreatic or adrenal pathology, are likely to be unacceptable but should be individually considered and carefully assessed. Specialists' reports should be used where appropriate.

Other metabolic disorders such as inborn errors of carbohydrate or amino acid metabolism, amyloidosis and porphyrias are likely to be

unacceptable but should be individually considered and carefully assessed.

Obesity. All cases of gross obesity require careful individual assessment. Those in whom exercise tolerance, mobility or general health is adversely affected or whose obesity is likely to impair safe performance are unacceptable. Individual decisions regarding fitness for work in the overweight should be made on a case-by-case basis. As a guide:

- BMI 25 to 30 - Fit for work, counsel about weight management
 - BMI 31 to 40 - Consider other risk factors, mobility and general health. Usually fit for work. Consider restricted period of certification if appropriate.
 - BMI >40 - Consider other risk factors, mobility, general health and safety. Individuals in this category are normally not fit for work because of the impact on mobility and general health. Physicians should only certify anyone in this category fit for work after carefully considering all pertinent risk factors. Restricted certification not exceeding 6 months will always be appropriate.
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Genitourinary System

Genitourinary disease should be carefully assessed. A history of a short-term illness will usually present no difficulties for work but chronic or recurrent disease should be carefully considered with referral, as necessary, to appropriate specialists.

Renal Calculi. The presence of renal, ureteric or vesical calculi is generally unacceptable until successfully treated by surgery or lithotripsy. Recurrent renal colic without demonstrable calculi requires careful assessment. Only individuals with a low risk of recurrence should be considered for unrestricted work.

Recurring Urinary Infections are unacceptable until investigated, and treated.

Renal Failure. Any renal disease which could lead to acute renal failure, i.e. nephritis, nephrosis, is unacceptable. Polycystic disease,

hydronephrosis or unilateral nephrectomy with disease in the remaining kidney, is unacceptable, unless otherwise indicated by a nephrologist. Patients using ambulatory peritoneal dialysis are not normally suitable for work.

Enuresis, recent or active, is unacceptable. Mild post-operative incontinence which can be managed by the individual may not pose significant problems but those with more significant incontinence will normally be unsuitable for work.

Prostatitis where active is unacceptable until successfully treated.

Prostatic hypertrophy, or urethral stricture interfering with adequate bladder evacuation is unacceptable until successfully treated.

Gynecological disorders, such as menorrhagia, disabling dysmenorrhea, pelvic inflammatory disease or prolapse, are unacceptable until successfully treated.

Hydrocele, or painful conditions of the testicles, require careful assessment but unless disabling may be considered fit.

Sexually transmitted disease where active is unacceptable until treated.

HIV and AIDS. A diagnosis of "HIV positive" need not debar from employment. Such employees should receive regular surveillance. Persistent Glandular Lymphadenopathy and AIDS related illnesses with a decreased CD4 count will normally be unacceptable.

Respiratory System

Assessment of the respiratory system can normally be made on clinical grounds alone unless there is a history of specific respiratory illness in which case some limited respiratory function testing should be conducted. Where the need for investigation is beyond that available to the examining physician, specialist reports should be obtained.

Pneumothorax. A history of spontaneous pneumothorax is generally unacceptable, except for a single episode without recurrence for one year, or after a successful surgical procedure.

Obstructive or restrictive pulmonary disease, such as chronic bronchitis, emphysema, and any other pulmonary disease causing significant disability or recurring illness, such as bronchiectasis, is unacceptable. The severity of chronic conditions should be assessed using standard spirometry measurements using the following guidance:

- $FEV_1 > 60\%$ of predicted value - mild disease with minimal symptoms likely to be considered fit.
- FEV_1 between 40 and 59% predicted - moderate disease may be fit for sedentary duties but with ability to respond to an emergency compromised. Consider very carefully especially if FEV_1 is less than 50% predicted.
- FEV_1 less than 40% predicted - severe disease with significant reduction in pulmonary reserve. Not likely to be fit for work.

Open Pulmonary tuberculosis is unacceptable until treatment is concluded and the attending physician has certified that the patient is no longer infectious. Foreign nationals should be assessed and screened in accordance with the British Thoracic Society Guidelines on the Control and Prevention of Tuberculosis. Routine chest radiography is not required by UKOOA, NOGPA or OLF guidelines unless clinically indicated.

Asthma. As a clinical entity, asthma has a wide spectrum from infrequent mild episodes causing little if any impact on functional capacity through to major life threatening events. In assessing an individual's suitability for work, a number of factors must be considered and a risk-based approach adopted. The British Thoracic Society guidelines provide detailed guidance on the management of asthma and may also assist with the assessment of fitness for work. In assessing the degree of impact of the condition, reference should be made to control over the last 2 years or more and the frequency of complications or functional limitation during that period.

- Resolved childhood asthma does not prevent successful employment.

- Mild asthma (Level 1 or 2 on the BTS scale) is usually compatible with work (unless there is a specific occupational exacerbating factor). Mild asthma is characterized by :
 - Infrequent non-disabling episodes
 - Normal exercise tolerance
 - Absence of hospitalizing episodes
 - Good knowledge and awareness of illness with ability to modify own treatment as necessary
 - Symptoms do not require high dose inhaled or oral steroids
- Moderate or severe asthma (Level 3, 4 and 5 on the BTS scale) are normally incompatible with work. Specialist referral may assist in the decision-making process.

Those with mild asthma who are considered suitable for work may also be required to wear breathing apparatus during emergencies. The exercise, dry nature of the air breathed and environmental conditions can all cause an exacerbation of asthma. In general terms, only those with mild asthma requiring only infrequent use of a bronchodilator should normally be considered for breathing apparatus work (refer to Section 3, Paragraph 6).

Ear, Nose and Throat

Conditions of the ear, nose and throat if chronic, can impact on an individual's ability to perform safely in a working environment. The functional impact on the individuals' ability to hear and communicate, as well as any impact on balance, must be carefully assessed in addition to considering any underlying pathological process.

Hearing. Where the average hearing loss at low frequencies (0.5, 1, 2kHz) is documented at greater than 35dB in the better ear then the individual may have difficulty hearing safety warnings, and further assessment to confirm their ability to hear a safety announcement should be conducted. Where it is established by practical field-testing that the individual can hear such warnings then they may be certified fit. An intrinsically safe hearing aid may be used to improve hearing but the individual must not be dependent upon it to achieve these standards.

The examining doctor must obtain confirmation that they are able to hear essential safety announcements etc. without a hearing aid.

Balance. Where an individual has a chronic history of a balance disorder, they should be considered unfit for work until such time as symptoms have resolved or have been controlled for a minimum period of 3 months on medication. Any precipitant factors must also be considered when addressing a return to work, including flying and transfer by boat.

Chronic suppurative ear infections will normally be unacceptable until adequately treated. Particular care must be taken in respect of food handlers.

Motion sickness where recurrent and incapacitating may be reason to restrict from work.

Acute and chronic sinusitis causing discomfort during flying may be a reason to restrict from certain work environments until adequately resolved.

Eyes

Visual acuity adequate to permit the individual to mobilize and work safely is essential and should be confirmed at each medical examination. Any eye disease or visual defect rendering, or likely to render, the applicant incapable of carrying out job duties efficiently and safely, is unacceptable.

Visual acuity. Visual acuity in the better eye should be at least 6/12 using corrective lenses as necessary. Higher standards of visual acuity are required for some specific roles, including crane operators and certain emergency response roles. An uncorrected visual acuity of 6/60 is recommended to permit emergency mobilization around a location without corrective lenses if necessary. Individuals who require lenses to meet the visual standard should be encouraged to carry two pairs.

Monocular vision is acceptable provided the above minimum standard of acuity is met and the individual shows appropriate adaptation to the

loss of binocular vision. Special attention should be given to protecting the monocular eye from high hazard operations.

Diplopia, if persistent, poses a safety hazard and is unacceptable for working.

Visual Fields should be full and unrestricted, and should be tested by confrontation. Where this suggests a deficit then referral for mapping may be necessary. Significant field deficits as a result of progressive eye disease, diabetes, or cerebrovascular events should be referred for a specialist opinion.

Color vision is only required for specialist tasks such as electrical work and need not be assessed unless specifically required for this purpose or a similar color dependent task.

Stereoscopic vision is not required for normal tasks unless the individual is also required to operate cranes.

Glaucoma which is adequately controlled and has not compromised visual acuity may be acceptable but specialist referral and restricted periods of certification not exceeding one year will normally be required.

Uveitis. Acute cases usually resolve and need not restrict employment once resolved. Chronic uveitis will normally cause significant impact on vision and will normally prevent working.

Dental Health

Whilst the company does not wish to impose a mandatory dental certification process on employees, experience has shown that dental problems continue to be a frequent cause of medivac. Consequently a dental screening process is an important part of the fitness for work certification process. The examining physician should take reasonable steps to assure that an examinee's dental health is adequate for work. As a minimum, it should be established that the candidate is free from:

- Bleeding gums or periodontal disease
- Broken teeth exposing root canals

- Large missing fillings

If the examiner thinks that there is sufficient dental pathology present, then certification of fitness for work should be withheld pending a dental opinion and treatment if necessary.

Individuals medicated for dental reasons must have a letter from a treating dentist confirming resolution of the dental pathology before they are allowed to return to work.

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Medications

Any medication taken by an individual on a prescribed or self-medicated basis should be carefully assessed prior to certifying an individual fit to work. The medication may:

- Indicate serious underlying pathology incompatible with work (although care must be taken where medication is used for multiple conditions e.g. prochlorperazine)
- Have a side effect which may seriously compromise an individual's health and/or safety in a work environment e.g. methotrexate or benzodiazepines. It is important to pay particular attention to altered levels of consciousness, impairment of memory, concentration or alertness or extrapyramidal side effects.
- Have significant interactions with other medications e.g. macrolide antibiotics. In some cases, more suitable alternatives may be available
- Have serious side effects if the medication were suddenly to be withdrawn in the event of delays, e.g. oral steroids.

Individuals with significant issues in any of the above categories will not normally be fit for unrestricted work but may be considered for travel to specific locations following discussion with the company's medical advisor.

a) Restricted Medications

All cases must be assessed on an individual basis. However, those who require the following medications for an underlying medical condition will not normally be suitable for unrestricted work.

- Cytotoxics
- Oral steroids
- Antipsychotics
- Tricyclic antidepressants
- **Anticoagulants** – Warfarin – If an individual is taking Warfarin and the underlying condition does not preclude them from work, then the following considerations should be taken into account when deciding whether an individual is fit for work:
 - The nature of work must present a low risk of acute injury
 - The INR must have been stable for a minimum of 1 month
 - The dose of Warfarin must have been stable for a minimum of 1 month
 - The location's healthcare professional must be aware of the medication and competent in the management of a Warfarin induced bleeding emergency
 - The location's healthcare professional must have a supply of intravenous vitamin K₁.
- **Tranquilizers and hypnotics** – Both tranquilizers and hypnotics may cause side effects such as drowsiness, impaired alertness, impaired dexterity and confusion. Hypnotics are particularly prone to hangover effects whereby adverse effects of the drug are still present for some time after the therapeutic effect has worn off. Individuals taking these classes of drug will therefore not normally be fit for unrestricted work.
- **Immunosuppressant's** – Immunosuppressant drugs may be used for a variety of reasons including suppression of rejection following organ transplant, the treatment of a range of autoimmune diseases such as rheumatoid arthritis, Crohn's disease, ulcerative colitis and the treatment of some non-autoimmune diseases such as asthma and eczema. In determining the fitness of an individual to work the examining doctor must:
 - Assess the underlying disease and process according to the criteria in the appropriate section of guidance

- Assess the likelihood of the drug to increase susceptibility to infection, which may be dependent on both dose and class of drug prescribed
- Assess the risk of other side effects such as hypertension, hyperglycemia, peptic ulceration, hepatic and renal damage
- Consider treatment and monitoring regime compatibility with work location.

Proposed exceptions to this rule must be considered in detail with appropriate specialist reports and should normally entail a discussion with the company's medical advisor.

b) Other Medication

Other medication (both prescription and non-prescription) may potentially cause significant side effects and applicants for work should be specifically questioned about this at screening medical examinations.

c) General Considerations for Medication

- All medication (both prescription and non-prescription) must be reported to the location's company approved health professional (e.g., medic) on arrival at the location.
- All workers must take sufficient medication for their requirements for the duration of their trip plus a small contingency supply in the event of a delay in leaving the location.
- Unidentified substances such as Chinese herbal medications, dietary supplements or similar are liable to confiscation by security under the industry substance abuse control measures. Where these substances are being legitimately used, the individual should carry appropriate identification and prescription details to verify legal and appropriate use thereof.

Allergies and Anaphylaxis

Individuals with diagnosed allergies cover a wide range of allergens and potential reactions. In making an assessment the examining doctor should therefore consider the following:

- The nature of the allergen, the likelihood of exposure at the specified work site and the potential for preventing exposure
- The nature and severity of the reaction
- The frequency of attacks and time since last attack
- The medication required and the ability of the individual to self administer

Nut Allergy – Although there are significant potential risks associated with nut allergy, it need not always be a bar to work. Many individuals have a diagnosis made on the basis of a single episode and suffer no further reactions. If an individual needs to carry an Epipen, Anapen or similar device, examining doctors should note these have a relatively short shelf life and should check to ensure that the individual's device remains in date at each review. It is essential that in all cases where an individual plans to travel offshore and needs to carry an Epipen, Anapen or similar device there is full prior discussion and agreement with the client's medical advisor and that the installation Medic is made aware of this. Examining doctors should be aware of the particular issues relating to nut allergy in individuals with concomitant asthma and always obtain a specialist report in such cases.

Organ Transplants

Organ transplant in itself will not be a bar to work provided the organ is functioning adequately but this will need to be assessed with particular regard to the potential complications and side effects of medication.

Pregnancy and Work

The purpose of these medical guidelines is to protect individuals and employers from predictable medical emergencies which may arise in an isolated location. Schlumberger clearly recognizes that pregnancy is not

a medical condition and is a normal physiological state. It is, however, appropriate to consider any additional medical risks faced by the pregnant employee in a remote or high risk environment.

Factors to consider during the risk assessment include:

- Previous obstetric history, particularly any risk factors or history of ectopic pregnancy, hyperemesis, pre-eclampsia, premature labor or pregnancy induced diabetes
- Any relevant medical conditions which may complicate pregnancy including endocrine disease, cardiovascular disease or epilepsy
- Proposed location and means of medical evacuation should this be necessary
- The nature of the work and potential for exposure to physical, biological or chemical agents which could be harmful to the fetus
- The need for regular clinical review of the employee and any additional logistical requirements this imposes

Contraindications to working in remote or high risk locations whilst pregnant include:

- Active complication of current pregnancy, including threatened miscarriage, hyperemesis, and multiple pregnancy.
- Any relevant medical conditions which may complicate pregnancy, including particularly endocrine disease, cardiovascular disease or epilepsy.

Schlumberger recommends that pregnant women do not normally work in remote or high risk locations and that, where appropriate and possible, adapted work in a suitable location is offered. Following the medical examination and discussion with the employee and her manager, and after a proper risk assessment, it may be reasonable to consider work in a remote or high risk location, but in all cases the following must be satisfied:

- The pregnancy has been assessed by a physician as low risk and confirmed at ultrasound as intrauterine
- The employee understands and accepts the additional risks entailed in working in a remote or high risk location whilst pregnant.

- The Schlumberger approved health advisor has been informed and agrees to remote or high risk location work for the named employee.

Under no circumstances should any pregnant women work on or visit a remote or high risk location beyond 24 weeks of gestation.