

# Medical Aspects of Fitness for Work Offshore: Guidance for Examining Physicians

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## **Section 2**

# **Determination of Risk for Specific Medical Conditions**

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## **1 Introduction**

The assessment of an individual's fitness to travel and work offshore involves making an assessment of the risk which may be posed either to themselves or to others by any underlying medical condition(s) which they may have.

In order to be fit to travel and to work offshore an individual must:

- Be able to carry out their normal assigned duties without compromise to the safety of themselves or others
- Be able to escape from the platform or helicopter in event of an emergency
- Be able to take part in offshore survival training
- Pose no significant risk to the safety or health of others on the installation by virtue of any underlying medical condition
- Require no ongoing medical treatment which cannot be effectively delivered in the offshore environment
- Require no medical treatment which has significant side effects incompatible with offshore work
- Have no significant liability to sudden illness requiring medical intervention which cannot be delivered in the offshore environment

If an individual is unable to meet these seven criteria then they should not normally be considered fit for unrestricted offshore work. An individual who is declared temporarily unfit for offshore work should be reassessed after an appropriate length of time.

In some cases, on an individual basis, it may be possible to mitigate the risk to a level which is deemed acceptable such that the individual may be allowed to travel and work offshore. In all such cases, the condition and measures put in place to mitigate the risk should be discussed and agreed with the operator's medical adviser. The individual should then be issued with an offshore fitness certificate limited to travel to such installations as have been agreed with the operating company's medical adviser.

To ensure uniformity of approach, in each of the following sections there is a description of potential concerns related to that organ system followed by guidance on assessing the individual and specific guidance on commonly encountered conditions.

## 2 Cardiovascular System

### 2.1 Risk

Cardiovascular conditions may affect the following requirements and hence examining doctors should focus on assessing that the individual:

- Is able to carry out their normal assigned duties without compromise to the safety of themselves or others
- Is able to escape from the platform or helicopter in event of an emergency
- Is able to take part in offshore survival training
- Requires no ongoing medical treatment which cannot be effectively delivered in the offshore environment
- Does not require treatment which has significant side effects incompatible with offshore work
- Poses no significant risk of sudden incapacitating illness requiring medical intervention which cannot be delivered in the offshore environment

### 2.2 Assessment

In making an assessment it should be noted that cardiovascular disease is one of the commonest causes of emergency evacuation from an offshore installation. The individual must be assessed with regard to:

- Exercise tolerance with specific reference to general mobility around the platform (including climbing stairs), ability to perform normal job functions, ability to respond to emergency situations and in particular to successfully take part in evacuations
- Risk of developing sudden life-threatening complications and the likelihood of successful medical evacuation
- Ability to take part in survival training including exposure to smoke-filled environments, wearing smoke hoods and Breathing Apparatus (BA) equipment, helicopter underwater escape training and use of underwater rebreather equipment
- Side effects of medication

## 2.3 Notes on Specific Conditions

### *Ischaemic Heart Disease*

Individuals with a history of myocardial ischaemia, including myocardial infarction, angioplasty and Coronary Artery Bypass Graft (CABG), must meet the following criteria for the risk to be compatible with offshore work:

- The examining doctor must obtain a report from the treating physician
- The individual must have been free of cardiac symptoms for at least 3 months
- The individual must undertake a Bruce Protocol exercise test and complete Stage III without cardiac symptoms or signs of ischaemia

Initially, a certificate restricted to a maximum of one year should be issued, with reassessment by a consultant in cardiology (including successful completion to Stage III of the Bruce Protocol exercise test) at the end of this period.

Thereafter, the requirement for re-examination will be determined by conducting a risk factor assessment which may take into account information from specialist reports and/or the process described in Addendum 7 or 8. A new assessment must be performed at each medical examination, the results of which should be used to determine the timing and scope of the next medical, together with any other clinical information the examining doctor regards as relevant.

### *Cardiac Arrhythmias*

If these produce symptoms, interfere with function, cause temporary incapacitation or require anti-arrhythmic medication then expert cardiac opinion must be obtained. The detail of the cardiology report must be considered when assessing the resultant risk.

### *Pacemakers*

For individuals with pacemakers it must be demonstrated that they are not likely to suffer any significant symptoms related to the pacemaker. In addition, it must be demonstrated that their pacemaker is not likely to be adversely affected by electromagnetic energy likely to be encountered. Therefore the examining doctor must have:

- A written assessment from the employer/operator detailing the strength of any magnetic field and circumstances with which the individual may come into contact
- A written statement from either the cardiologist or the technical representative of the pacemaker manufacturer detailing the risks of exposure to the magnetic field in the circumstances in which it may be encountered
- A cardiologist's report confirming that the individual is free of syncope or pre-syncope as a result of the pacemaker insertion

- A cardiologist's report confirming that the individual is experiencing no complications related to the pacemaker insertion
- Individuals with overdrive anti-tachycardia pacemakers or implantable defibrillators must be assessed by a consultant cardiologist to confirm that there is no risk of developing syncope

Individuals with pacemakers require annual review by a cardiologist to ensure continued correct functioning of the device.

### **Hypertension**

Hypertension would not normally give rise to a significant risk during work offshore provided it is uncomplicated and well-controlled by treatment. The National Institute for Clinical Excellence (NICE) Guidelines are a useful reference for this condition and should be consulted for further guidance on management.

In respect of work offshore, the following guides the appropriate course of action:

- Individuals with accelerated (malignant) hypertension (Blood Pressure (BP) more than 180/110mmHg with signs of papilloedema and/or retinal haemorrhage) or suspected pheochromocytoma (possible signs include labile or postural hypotension, headache, palpitations, pallor and diaphoresis) should be referred immediately for investigation and treatment. Certification of fitness should be deferred until the individual is stabilised on appropriate treatment when a full certificate may be issued
- All other individuals with blood pressure above 140/90 should be referred to their GP for further investigation and treatment, where appropriate. Uncomplicated hypertension is unlikely to be a reason for refusal to issue a certificate of fitness although individuals may require short periods of sickness absence while being stabilised on treatment

### **Congenital Heart Disease**

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

### **Valvular Heart Disease**

In all cases of valvular heart disease, a cardiology report must be obtained in order to fully understand the condition, its haemodynamic effects and impact upon exercise tolerance.

Patients who remain on Warfarin may be at significant risk of prolonged bleeding time associated with trauma and this must be factored into the risk assessment process (refer to Paragraph 22 – Medications (Warfarin)).

### **Peripheral Circulation**

Individuals with Deep-vein Thrombosis (DVT) should be assessed with regard to the risk of developing complications, particularly pulmonary embolism and side effects of medications, such as anticoagulant regimes (refer to Paragraph 22 – Medications (Warfarin)).

### **Pulmonary Circulation**

A history of more than one pulmonary embolism indicates a significant underlying condition predisposing to further incidents. Therefore the examining doctor must obtain a specialist report to determine the risk of recurrence. Individuals with other than a low risk of recurrence will not be fit to return to unrestricted work offshore.

### **Cerebro-vascular Disorders**

Individuals who have suffered stroke due to occlusive vascular disease, spontaneous intracerebral haemorrhage, Transient Ischaemic Attack (TIA) or amaurosis fugax within the past 6 months should be considered at high risk and therefore should not be allowed to work offshore. 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 offshore work and may require more frequent review.

## **3 Diseases of the Nervous System**

### **3.1 Risk**

Nervous system conditions may affect the following requirements and hence examining doctors should focus on assessing that the individual:

- Is able to carry out their normal assigned duties without compromise to the safety of themselves or others
- Is able to escape from the platform or helicopter in event of an emergency
- Is able to take part in offshore survival training
- Requires no ongoing medical treatment which cannot be effectively delivered in the offshore environment
- Does not require treatment which has significant side effects incompatible with offshore work
- Poses no significant risk of sudden incapacitating illness requiring medical intervention which cannot be delivered in the offshore environment

### 3.2 Assessment

The individual must be assessed with regard to:

- Potential for altered levels of consciousness
- Changes in cognitive function, particularly memory and concentration
- Loss of muscle power
- Disturbances of balance or co-ordination
- Disturbances of mobility causing impairment in ability to move around the installation either during normal work or during emergencies
- Loss of sensation causing functional deficit related to job requirements or emergency evacuation

Reference should be made, where appropriate, to the specific notes below, but individuals exhibiting significant problems in any of the above areas are unlikely to be able to meet the requirements referred to above. The risks may, in certain circumstances, be able to be mitigated sufficiently such that the individual may be considered for travel to a specific, named location following discussion with the employer's and operator's medical advisers.

### 3.3 Notes on Specific Conditions

#### *Epilepsy*

The diagnosis of epilepsy with persisting epileptic seizures of any type will normally give a risk profile incompatible with unrestricted work offshore. Those with a history of epilepsy but who are able to meet the criteria below may be considered for offshore work.

For the purposes of an assessment of fitness for offshore work, individuals should be categorised by their job function:

- Category 1 – individuals whose job function is such that sudden impairment of consciousness may adversely affect the safety of, or result in serious injury to or death of, either themselves or others. Examples of such job functions include crane operators, rope access personnel, scaffolders and drill crew
- Category 2 – all other individuals

In making an assessment of fitness for work the examining doctor must have:

- A written statement from the employer determining which of the above categories the individual is in
- A report from the individual's GP and/or specialist in order to verify the medical history and establish facts on which the individual risk assessment can be based

Based on this:

- Category 1 occupations require the individual to have been seizure-free for the last 10 years without taking anti-convulsant medication during that period or have an assessed risk of further seizures of less than 2%
- Category 2 occupations must be:
  - Seizure-free for a minimum of 6 months, whether taking medication or not. Individuals who stop medication must demonstrate a seizure-free period of 6 months before returning to offshore work
  - If taking medication, free from significant side effects
  - If taking medication, demonstrate from the GP/specialist report that they have no indications of subtherapeutic levels on clinical monitoring (where appropriate), nor any indication of poor compliance with treatment

For alcohol-related seizures, individuals in Category 2 must be seizure-free (by day and night) and off all medication for at least 6 months before returning to any offshore employment. Those in increased risk (ie Category 1) occupations must be seizure-free for a minimum period of 2 years by day and night and off all medication. Individuals must also be in full compliance with the requirements of Paragraph 5.

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 low (normally accepted to mean as being below 2%) in Category 1 occupations (see above). For Category 2 occupations, if the risk cannot be determined to be less than 2%, individuals may be considered fit after a minimum seizure-free period of 6 months. Individuals stopping prophylactic anticonvulsant medication must either have a risk less than 2% or demonstrate a seizure-free period of 6 months after stopping medication. Specialist neurological opinion should be obtained in all cases.

### **Single Seizure**

The above guidelines 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 for offshore work after 6 months if there has been no further recurrence.

### **Chronic Neurological Disorders**

Individuals with conditions such as multiple sclerosis, Parkinson's disease, motor neurone disease and other disorders of muscle and movement should be assessed with regard to the factors described above. Those with mild or predominantly sensory symptoms are likely to be at minimal risk and therefore may be fit for offshore work. More severely affected individuals may be fit to travel to specific, named locations if specific measures can be put in place to mitigate the risk to a level deemed acceptable by the operating company's medical adviser. An increased frequency of medical review may be appropriate, dependent on the rate of progression.

### **Migraine**

The majority of cases are straightforward in symptomatology and treatment, and are unlikely to give rise to an unacceptable risk for offshore work. Some more severe cases may result in episodic protracted incapacity or unusual neurological features. In such cases, examining doctors must obtain a neurological report confirming the condition and optimum treatment to enable an informed risk assessment to be made.

### **Narcolepsy/Sleep Disorders**

It is likely that individuals with unpredictable drowsiness during periods of normal wakefulness, as a result of narcolepsy/sleep disorders, will pose a risk incompatible with offshore 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.

## **4 Psychiatric Disorders**

### **4.1 Risk**

Psychiatric conditions may affect the following requirements and hence examining doctors should focus on assessing that the individual:

- Is able to carry out their normal assigned duties without compromise to the safety of themselves or others
- Is able to escape from the platform or helicopter in event of an emergency
- Poses no significant risk to others on the installation by virtue of any underlying disease
- Does not require treatment which has significant side effects incompatible with offshore work
- Poses no significant risk of sudden incapacitating illness requiring medical intervention which cannot be delivered in the offshore environment

## 4.2 Assessment

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 of offshore installations, 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
- Behavioural disturbance
- Side effects of medication

Reference should be made, where appropriate, to the specific notes below but individuals exhibiting significant problems in any of the areas above are likely to pose a risk which would be incompatible with unrestricted offshore work. They may, in certain circumstances, be considered for travel to a specific, named location following discussion with the employer's and operator's medical adviser.

## 4.3 Notes on Specific Conditions

### *Mild Anxiety or Depressive Disorders*

When assessing the risk of mild anxiety or depressive disorders, the examining doctor must be satisfied that the individual has no significant memory or concentration problems, no suicidal thoughts, no behavioural 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 behavioural disturbances, agitation or suicidal thoughts, the risk is likely to be high enough to be incompatible with offshore work until stabilised on medication.

### ***Psychoses (including Bipolar Disease and Schizophrenic Disorders)***

The risks associated with acute psychotic episodes are incompatible with offshore work. 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 (eg effects on alertness, concentration, motor performance)
- Has a low risk of recurrence

All cases must be discussed and agreed with the employer's and operating company's medical adviser before being allowed to travel and work offshore.

The risk associated with individuals who have exhibited extreme violent tendencies in the past is unlikely to be compatible with offshore work.

### ***Personality and Behavioural Disorders***

The risk associated with those personality and behavioural disorders which are characterised by violence or serious anti-social behaviour is unlikely to be compatible with offshore work.

### ***Developmental Disorders (including Asperger's Syndrome, Autism and Attention Deficit Hyperactivity Disorder)***

Individuals need to be assessed with regard to impulsivity and lack of awareness of the effects of their behaviour on others. These risks may be significant such that they are incompatible with the safety requirements of offshore work or the ability to live in a community.

### ***Other Psychological Disorders***

Such as eating disorders, phobias and childhood behaviour disorders (including post head injury syndrome and non-epileptic seizure disorder) should be assessed individually with respect to the requirements listed above to determine the individual risk profile. Examining doctors should obtain a psychiatric report if unable to accurately assess the risk.

## 5 Alcohol Dependence

### 5.1 Risk

Alcohol-related conditions may affect the following requirements and hence examining doctors should focus on assessing that the individual:

- Is able to carry out their normal assigned duties without compromise to the safety of themselves or others
- Is able to escape from the platform or helicopter in event of an emergency
- Poses no significant risk to others on the installation by virtue of any underlying disease
- Poses no significant risk of sudden incapacitating illness requiring medical intervention which cannot be delivered in the offshore environment

### 5.2 Assessment

Examining doctors should be aware that employers or operators may have specific alcohol abuse policies which should be referred to in addition to this guidance as appropriate.

Individuals who have a physical dependence on alcohol will not be fit to work offshore 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 recognised initial alcohol treatment programme
- (2) The individual must be participating in and responding to an ongoing alcohol rehabilitation programme
- (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 certificate should be restricted to a maximum of 3 months during the initial 12 months following treatment
- (7) The certificate should be restricted to a maximum of 6 months during the following 12 months
- (8) At each review, the examining doctor must confirm continued compliance with items 2, 4 and 5 above

Individuals who have suffered an alcohol withdrawal induced fit should be assessed in accordance with the guidance given in Paragraph 3.

## 6 Drug Abuse

### 6.1 Risk

Drug abuse may affect the following requirements and hence examining doctors should focus on assessing that the individual:

- Is able to carry out their normal assigned duties without compromise to the safety of themselves or others
- Is able to escape from the platform or helicopter in event of an emergency
- Poses no significant risk to others on the installation by virtue of any underlying disease
- Poses no significant risk of sudden incapacitating illness requiring medical intervention which cannot be delivered in the offshore environment

### 6.2 Assessment

Examining doctors should be aware that employers or operators may have specific drug abuse policies which should be referred to in addition to this guidance as appropriate.

Individuals who are demonstrated, by any means, to be actively misusing illegal or prescription drugs will not be fit for offshore work.

Prior to return to work offshore, the examining physician must ensure that the following criteria are met:

- If the individual is dependent on drugs then they must have completed a drug abuse treatment programme
- Where appropriate, the individual must participate in and respond to an ongoing drug rehabilitation programme
- The examining doctor must obtain a report from the individual's treating healthcare professional(s)
- The individual must be able to provide evidence of completion of a programme of unannounced/random drug screening of a minimum 3 months duration, during which they have had no positive drug screens and at least three negative tests (refer to Addendum 9)
- The certificate should be restricted to a maximum of 3 months for the initial 12 months
- The individual must remain in an ongoing unannounced/random testing programme for 2 years. A positive drug test result during this period will result in a review of the individual's ongoing fitness

## 7 Respiratory System

### 7.1 Risk

Respiratory conditions may affect the following requirements and hence examining doctors should focus on assessing that the individual:

- Is able to carry out their normal assigned duties without compromise to the safety of themselves or others
- Is able to escape from the platform or helicopter in event of an emergency
- Is able to take part in offshore survival training
- Requires no ongoing medical treatment which cannot be effectively delivered in the offshore environment
- Poses no significant risk of sudden incapacitating illness requiring medical intervention which cannot be delivered in the offshore environment

### 7.2 Assessment

In assessing the impact of respiratory disease on an individual's ability to work offshore, the examining physician should consider the following:

- Exercise tolerance with specific reference to general mobility around the platform (including climbing stairs), ability to perform normal job functions, ability to respond to emergency situations and in particular successfully take part in evacuations
- Risk of developing sudden life-threatening complications and the likelihood of successful medical evacuation
- Ability to take part in survival training including exposure to smoke-filled environments, wearing smoke hoods and BA equipment, helicopter underwater escape training and use of underwater rebreather equipment
- Consideration of potential exposure to respiratory irritants and sensitisers

### 7.3 Notes on Specific Conditions

#### *Asthma*

The British Thoracic Society guidelines provide detailed guidance on the management of asthma which should be used by examining doctors to assess the severity of asthma and adequacy of control. The following guidance should be used by examining doctors when assessing the risk:

- Resolved childhood asthma does not present a significant risk
- For the risk profile to be compatible with offshore work, the examining doctor must ensure that the individual has:
  - Infrequent, non-disabling episodes
  - Normal exercise tolerance

- Absence of hospitalising episodes
- Good knowledge and awareness of illness with the ability to modify own treatment as necessary
- Symptoms which do not require high dose inhaled or oral steroids
- Individuals not meeting these criteria will require a specialist report to fully assess the situation and should not be issued with a certificate of fitness without discussion with the operating company's medical adviser

### ***Pneumothorax***

The examining doctor must obtain a specialist report to determine the risk of recurrence. Individuals with other than a low risk of recurrence will not be fit to return to unrestricted work offshore.

### ***Obstructive or Restrictive Pulmonary Disease***

Conditions such as chronic bronchitis, emphysema, and any other pulmonary disease causing significant disability or recurring illness, such as bronchiectasis should be assessed using standard spirometry measurements.

Individuals with an FEV<sub>1</sub> >60% of predicted values and an FVC >75% of predicted values are likely to have sufficient pulmonary reserve to meet the requirements of offshore travel and work.

For individuals who do not meet this standard the examining doctor should, by practical functional assessment, ensure that the individual is able to perform his normal work duties and has the capacity to respond in a platform emergency and evacuation.

## **8 Endocrine Disorders**

### **8.1 Risk**

Endocrine conditions may affect the following requirements and hence examining doctors should focus on assessing that the individual:

- Is fit to carry out their normal assigned duties without risk to themselves or others
- Is fit to escape from the platform in event of an emergency
- Requires no ongoing medical treatment which would not be able to be effectively delivered in the offshore environment
- Does not require treatment which has significant side effects incompatible with offshore work
- Poses no significant risk of sudden illness requiring medical intervention which cannot be delivered in the offshore environment

## 8.2 Assessment

In assessing the impact of endocrine disease on an individual's ability to work offshore, the examining physician should consider the following:

- Risk of developing sudden life-threatening complications and the likelihood of successful medical evacuation
- Side effects of medication
- Ability to take part in survival training including exposure to smoke-filled environments, wearing smoke hoods and BA equipment, helicopter underwater escape training and use of underwater rebreather equipment
- Disturbances of mobility causing impairment in ability to move around the installation either during normal work or during emergencies
- The requirements for lone working, safety critical work and shift work
- The effects of any chronic complications such as visual field defects, muscle weakness, mental disturbances such as anxiety, depression or mania

## 8.3 Notes on Specific Conditions

### ***Non-insulin Dependent Diabetes Mellitus (NIDDM) (Type II)***

Individuals with NIDDM should be assessed with regard to:

- Risk of hypoglycaemic attack
- Presence of complications which may affect mobility or ability to respond in emergency situations

An increased frequency of medical examination may be appropriate to ensure regular review of the overall condition and specifically those issues above. If the individual has secondary complications of their diabetes, these must be assessed under the relevant criteria for that condition.

### ***Insulin Dependent Diabetes Mellitus (IDDM) (Type I)***

The risks associated with IDDM are not compatible with unrestricted fitness to work on the UKCS. However, an individual may be considered for restricted certification of fitness to work offshore if the following requirements are met:

- The examining doctor must obtain a report from the individual's treating physician
- The individual must have had good control of their diabetes as defined by accepted clinical criteria for a minimum of the prior 6 months
- The individual must be able to self-manage their insulin requirements
- The examining doctor must satisfy himself that the individual does not suffer from hypoglycaemia unawareness
- If the individual has secondary complications of their diabetes, these must be assessed under the relevant criteria for that condition

- The operator's medical adviser must be consulted regarding the individual case and must agree with the proposal to allow the individual to work on the installation
- The installation Medic must be competent in the management of diabetic emergencies
- There must be a supply of glucagon and intravenous dextrose on board the platform
- Certification must be restricted to named platform(s)
- Certification must be restricted to a maximum of 1 year

All individuals with IDDM working offshore must be reviewed at least annually to ensure control remains acceptable and the above stipulations continue to be met.

## 9 Obesity

### 9.1 Risk

Obesity may affect the following requirements and hence examining doctors should focus on assessing that the individual:

- Is able to carry out their normal assigned duties without compromise to the safety of themselves or others
- Is able to escape from the platform or helicopter in event of an emergency

### 9.2 Assessment

The individual must be assessed solely with regard to their fitness and capability to perform the duties required. Although obesity may predispose to conditions such as cardiovascular disease or diabetes, the presence of obesity as a risk factor should not be considered unless such co-morbidity is demonstrably present.

In most obese individuals the limiting factor relating to fitness for offshore work is likely to relate to safety rather than medical issues. Therefore, individuals with a BMI less than 40 are likely to be fit for unrestricted offshore work unless there is significant co-morbidity or disability present.

For all individuals, but particularly for those with a BMI greater than 40, the examining doctor must determine that the individual has an appropriate level of physical fitness:

- To adequately perform his normal job functions
- For general mobility around the platform (including climbing stairs)
- To respond to emergency situations and in particular successfully take part in evacuations without compromising either their own safety or that of others

In addition, all individuals with a BMI greater than 40 must be able to provide written confirmation from either their employer or the operating company to whose platform they intend to travel that he/she can:

- Escape from a helicopter through a standard sized escape hatch
- Don and fasten standard Civil Aviation Authority (CAA) approved and marine issue lifejackets over a survival suit
- Sit in a standard helicopter seat and fasten a three-point harness
- Comply with any other specific requirements of the employing or operating company

Examining doctors must not issue any certificate of fitness until such written confirmation is provided and may consider it necessary to issue a time restricted certificate if there are co-existing medical issues.

Should any additional weight increase be noted at subsequent assessments, the individual must provide further written confirmation that he/she can meet the above criteria and, in any event, such confirmation will be required at a maximum of 4-yearly intervals.

## **10 Diseases of the Gastrointestinal System**

### **10.1 Risk**

Gastrointestinal system conditions may affect the following requirements and hence examining doctors should focus on assessing that the individual:

- Is able to carry out their normal assigned duties without compromise to the safety of themselves or others
- Is able to escape from the platform or helicopter in event of an emergency
- Poses no significant risk of sudden incapacitating illness requiring medical intervention which cannot be delivered in the offshore environment

### **10.2 Assessment**

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. In particular, the examining physician should consider the following:

- The risk the individual may develop sudden life-threatening complications such as acute bleeding, perforation or obstruction
- The effects of chronic complications such as anaemia, fistulae or malabsorption syndromes
- Side effects of medication

## 10.3 Notes on Specific Conditions

### ***Peptic Ulceration***

The risks associated with active peptic ulcer disease are unacceptable for offshore work. Where there is a past history of ulceration, an individual may be deemed fit for work offshore 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. For risks to be considered acceptable, the individual must be asymptomatic and, if required, be on maintenance acid suppression therapy and/or have undergone successful helicobacter eradication therapy.

### ***Oesophagitis and Gastritis***

Oesophagitis and gastritis are unlikely to cause significant complications, hence the risk should be considered low and individuals are acceptable on appropriate treatment. Other non-specific upper GI disorders including 'dyspepsia' and diaphragmatic hernia are unlikely to give rise to significant risk provided they are non-disabling and the physician is satisfied they are not indicative of a more serious underlying disorder.

### ***Inflammatory Bowel Disease***

Inflammatory bowel disease is unacceptable in the acute phases until the individual is stable and controlled on medication compatible with offshore work. Where the condition is in remission and symptoms are under control the individual may be fit for return to offshore work if, following consultation with the treating specialist, the risk of sudden disabling relapse is considered to be minimal.

### ***Hernia***

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.

### ***Haemorrhoids, Fistulae and Fissures***

Haemorrhoids, 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 offshore work.

### **Uncomplicated Stoma**

Uncomplicated stoma will not normally give rise to significant risk but the examining physician should be satisfied that the underlying cause is compatible with offshore work and that the personal management of the condition is acceptable within the confines of the offshore community.

### **Liver Diseases**

Liver diseases where the condition is serious or progressive and/or where complications such as oesophageal varices or ascites are present will give rise to an unacceptable level of risk. 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**

Chronic or recurring pancreatitis should be assessed regarding the length of periods of remission and frequency of acute attacks. The risks in individuals suffering frequent attacks requiring strong analgesia are not compatible with offshore work.

## **11 Musculoskeletal Conditions**

### **11.1 Risk**

Musculoskeletal conditions may affect the following requirements and hence examining doctors should focus on assessing that the individual:

- Is able to carry out their normal assigned duties without compromise to the safety of themselves or others
- Is able to escape from the platform or helicopter in event of an emergency
- Is able to take part in offshore survival training
- Does not require treatment which has significant side effects incompatible with offshore work

### **11.2 Assessment**

Irrespective of pathology, all musculoskeletal disorders should be assessed according to the following criteria:

- Locomotor function
- Balance and co-ordination
- Stability of joints and risk of subluxation or dislocation

- Disturbances of mobility causing impairment in ability to move around the installation either during normal work or during emergencies
- Ability to don and wear a survival suit
- Side effects of medication

### **11.3 Notes on Specific Conditions**

#### ***Joint Replacements***

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

#### ***Limb Prostheses***

Limb prostheses pose no significant risk so long as an individual can meet the mobility requirements of offshore life. Arrangements for fitting the prosthesis in an emergency must be considered.

## **12 Skin**

### **12.1 Risk**

Dermatological conditions may affect the following requirements and hence examining doctors should focus on assessing that the individual:

- Is able to carry out their normal assigned duties without compromise to the safety of themselves or others
- Requires no ongoing medical treatment which cannot be effectively delivered in the offshore environment
- Does not require treatment which has significant side effects incompatible with offshore work

### **12.2 Assessment**

Individuals with skin disorders should be assessed with regard to:

- The effects the condition may have on an individual's ability to perform their duties, including potential sleep disturbance and possible fatigue
- Side effects of medication
- Compatibility of offshore rotational duties with treatment regimes
- The probability of exposure to substances which may act as allergens or irritants should be understood and taken into account when making the assessment

## 12.3 Notes on Specific Conditions

### *Psoriasis*

Psoriasis which is well-controlled by topical medication poses no significant risk. Assessment of more serious disease requiring inpatient treatment and chemotherapy should include the compatibility of offshore rotational duties with treatment regimes. Psoriatic arthropathy should be assessed according to its effect on musculoskeletal function.

### *Dermatitis*

Accurate assessment may require specialist referral and patch testing, the results of which should be taken into account in the risk assessment process. Offshore working will normally be possible with appropriate use of Personal Protective Equipment (PPE) to mitigate the risk.

## 13 Genitourinary System

### 13.1 Risk

Genitourinary conditions may affect the following requirements and hence examining doctors should focus on assessing that the individual:

- Is able to carry out their normal assigned duties without compromise to the safety of themselves or others
- Requires no ongoing medical treatment which cannot be effectively delivered in the offshore environment
- Does not require treatment which has significant side effects incompatible with offshore work
- Poses no significant risk of sudden incapacitating illness requiring medical intervention which cannot be delivered in the offshore environment

### 13.2 Assessment

A history of a short-term illness will usually present no difficulties for offshore work but chronic or recurrent disease should be carefully considered with particular reference to:

- Risk of developing disabling or life-threatening complications
- Side effects of medication
- Chronic or secondary effects of the disease such as anaemia, lethargy, osteoporosis

### **13.3 Notes on Specific Conditions**

#### ***Renal Calculi***

Following an episode of renal colic, the individual requires assessment with regard to the risk of recurrence. A specialist report should be obtained where appropriate. Only individuals with low risk of recurrence should be considered for unrestricted offshore work. Individuals with high risk of recurrence should be discussed with the employer's and operating company's medical adviser with regard to the acceptability of the increased risk of medivac.

#### ***Chronic Renal Disease***

In addition to considering the chronic effects of the disease on the individual's ability to work offshore, the examining doctor should also obtain a specialist report to determine the risk of developing acute renal failure.

#### ***Haematuria***

Asymptomatic haematuria may be found on routine urinalysis at the medical examination. Although this will usually require further investigation to determine the underlying pathology, the examining doctor should make an adequate risk assessment with regard to the factors above to determine the fitness of the individual to continue working offshore pending further investigation. Dependent upon the outcome of the risk assessment the issue of a full, restricted or failure certificate may be appropriate.

## **14 Diseases of Blood or Blood Forming Organs**

### **14.1 Risk**

Haematological conditions may affect the following requirements and hence examining doctors should focus on assessing that the individual:

- Is able to carry out their normal assigned duties without compromise to the safety of themselves or others
- Is able to escape from the platform or helicopter in event of an emergency
- Is able to take part in offshore survival training
- Requires no ongoing medical treatment which cannot be effectively delivered in the offshore environment
- Does not require treatment which has significant side effects incompatible with offshore work
- Poses no significant risk of sudden incapacitating illness requiring medical intervention which cannot be delivered in the offshore environment

## 14.2 Assessment

Individuals with haematological disease should be assessed with particular reference to the following:

- Exercise tolerance with specific reference to general mobility around the platform (including climbing stairs), ability to perform normal job functions, ability to respond to emergency situations and in particular successfully take part in evacuations
- Risk of developing sudden life-threatening complications and the likelihood of successful medical evacuation
- Ability to take part in survival training including cold water immersion, helicopter underwater escape training and use of underwater rebreather equipment

Due to the complex nature of haematological disease, examining doctors should consider obtaining a specialist opinion before issuing or refusing certification. In chronic conditions, it is frequently inappropriate to issue a certificate of normal duration and the use of restricted duration certificates is appropriate to permit active monitoring of the individual's condition and continuing fitness for work.

## 14.3 Notes on Specific Conditions

### **Anaemia**

Anaemia should be assessed with regard to the underlying cause as well as any specific symptoms related to the anaemia.

### **Thalassaemia Trait and Sickle Cell Trait**

Thalassaemia trait and sickle cell trait are unlikely to pose significant risk for offshore work. However, the symptoms associated with Thalassaemia Major and Sickle Cell Disease are likely to give significant risk and cases should be considered individually in conjunction with the employer's and operator's medical adviser.

### **Polycythaemia**

Primary polycythaemia (Polycythaemia Rubra Vera) is normally asymptomatic and, provided the individual is receiving appropriate treatment, it is unlikely to pose significant risk. In secondary polycythaemia the causative condition is likely to be the limiting factor and full assessment of this should be made.

### **Haemophilia and Other Bleeding Disorders**

Must be assessed with regard to the risk of acute bleeding offshore and the availability of appropriate treatment offshore. A specialist report and discussion with the operator's medical adviser will always be required.

## 15 Organ Transplants

### 15.1 Risk

Organ transplants may affect the following requirements and hence examining doctors should focus on assessing that the individual:

- Is able to carry out their normal assigned duties without compromise to the safety of themselves or others
- Is able to escape from the platform or helicopter in event of an emergency
- Is able to take part in offshore survival training
- Requires no ongoing medical treatment which cannot be effectively delivered in the offshore environment
- Does not require treatment which has significant side effects incompatible with offshore work
- Poses no significant risk of sudden incapacitating illness requiring medical intervention which cannot be delivered in the offshore environment

#### *Organ Transplant*

Organ transplant in itself will not be a bar to offshore 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.

## 16 Malignant Neoplasms

### 16.1 Risk

Malignant neoplasm may affect the following requirements and hence examining doctors should focus on assessing that the individual:

- Is able to carry out their normal assigned duties without compromise to the safety of themselves or others
- Is able to escape from the platform or helicopter in event of an emergency
- Is able to take part in offshore survival training
- Requires no ongoing medical treatment which cannot be effectively delivered in the offshore environment
- Does not require treatment which has significant side effects incompatible with offshore work
- Poses no significant risk of sudden incapacitating illness requiring medical intervention which cannot be delivered in the offshore environment

## 16.2 Assessment

Assessment of an individual with malignancy should consider both the effect of the neoplasm on the individual's function and the effect of any treatment. In all cases, the following should be considered:

- The nature and location of the neoplasm and any disability caused
- The likelihood of sudden complication such as haemorrhage, seizure or sudden loss of consciousness
- The compatibility of treatment programmes with offshore rotation patterns
- Side effects and other complications of treatment
- The psychological impact of the illness and availability of appropriate support

It will normally be appropriate to issue a restricted duration certificate during the initial phases of the disease process in order to provide appropriate review of the condition. Individuals in remission should be issued with certificates based on the length of remission and requirements for clinical follow-up.

## 17 Infectious Diseases

### 17.1 Risk

Infectious disease may affect the following requirements and hence examining doctors should focus on assessing that the individual:

- Is able to carry out their normal assigned duties without compromise to the safety of themselves or others
- Is able to escape from the platform or helicopter in event of an emergency
- Is able to take part in offshore survival training
- Poses no significant risk to the safety or health of others on the installation by virtue of any underlying medical condition
- Poses no significant risk of sudden incapacitating illness requiring medical intervention which cannot be delivered in the offshore environment

### 17.2 Assessment

Individuals suffering from minor infectious disease should not be refused a certificate of fitness. However, all individuals should be restricted from travel offshore during the active stages of an infectious disease if there is significant risk of spread within the offshore community.

Catering staff require special consideration to exclude acute or chronic disease involving the gastrointestinal tract, chest, ear, nose, throat and skin due to the risk of food-borne spread of the disease. (Refer to Section 3 Paragraph 3 – Catering Crews.)

Individuals suffering from chronic communicable disease should be assessed to determine:

- The risk of transmission to other individuals
- Any effects of the condition which may adversely affect the individual's ability to perform their duties or effectively participate in emergency evacuation
- The requirements for long-term therapy and side effects of such therapy

### **17.3 Notes on Specific Conditions**

#### ***Open Pulmonary Tuberculosis***

The risk posed to others by individuals with active pulmonary tuberculosis is not compatible with offshore 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.

## **18 Ear, Nose and Throat**

### **18.1 Risk**

Ear, Nose and Throat (ENT) conditions may affect the following requirements and hence examining doctors should focus on assessing that the individual:

- Is able to carry out their normal assigned duties without compromise to the safety of themselves or others
- Is able to escape from the platform or helicopter in event of an emergency
- Is able to take part in offshore survival training
- Poses no significant risk of sudden incapacitating illness requiring medical intervention which cannot be delivered in the offshore environment

### **18.2 Assessment**

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

### **Hearing**

If an individual requires a hearing aid for normal conversational speech then the examining doctor must obtain confirmation that they are able to hear essential safety announcements in flight or on board a platform without a hearing aid.

**Note:** Hearing aids must be certified as intrinsically safe.

### **Balance**

Where an individual has a history of a balance disorder sufficient to affect normal movement around the platform or impair ability to take part in emergency evacuation procedures, they should be considered unfit for offshore working until such time as symptoms have resolved or are controlled by medication.

## **19 Eyes**

### **19.1 Risk**

Ophthalmological conditions may affect the following requirements and hence examining doctors should focus on assessing that the individual:

- Is able to carry out their normal assigned duties without compromise to the safety of themselves or others
- Is able to escape from the platform or helicopter in event of an emergency
- Poses no significant risk of sudden incapacitating illness requiring medical intervention which cannot be delivered in the offshore environment

### **19.2 Assessment**

#### **Visual Acuity**

Visual acuity adequate to permit the individual to mobilise and work safely in the offshore environment 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, gives rise to an unacceptable risk.

Corrected visual acuity must be sufficient to perform normal work duties. In addition, individuals should have an uncorrected visual acuity sufficient to permit emergency mobilisation around a location. Individuals with an acuity of at least 6/60 will normally meet this requirement. For individuals with an uncorrected acuity less than this the examining doctor must satisfy himself, by practical testing, that they have a sufficient acuity to effectively mobilise around the platform and escape in case of emergency without the use of corrective spectacles.

### **Monocular Vision**

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.

### **Diplopia**

Diplopia may pose a safety hazard and requires assessment in conjunction with the employer's and operator's medical adviser.

### **Visual Fields**

Individuals with significant field deficits should undergo a practical determination of their ability to perform their normal job function and ability to evacuate the platform in an emergency.

### **Colour Vision**

Colour 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 colour-dependent task.

## **20 Dental Health**

### **20.1 Risk**

Dental conditions may affect the following requirements and hence examining doctors should focus on assessing that the individual:

- Poses no significant risk of sudden incapacitating illness requiring medical intervention which cannot be delivered in the offshore environment

### **20.2 Assessment**

Dental problems are a frequent cause of medivac from offshore, causing significant disruption to platform operations. Consequently, a dental screening process is an important part of the offshore fitness for work certification process. The examining physician must make specific examination of the oral cavity to determine 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 to present a risk of acute dental pain requiring emergency treatment, then certification of fitness for offshore work should be withheld pending a dental opinion and treatment if necessary.

Individuals medivaced for dental reasons must have a letter from a treating dentist confirming resolution of the dental pathology before they are considered fit to return offshore.

## **21 Allergies and Anaphylaxis**

### **21.1 Risk**

Allergies and consequent anaphylactoid reactions may affect the following requirements and hence examining doctors should focus on assessing that the individual:

- Requires no ongoing medical treatment which cannot be effectively delivered in the offshore environment
- Does not require treatment which has significant side effects incompatible with offshore work
- Poses no significant risk of sudden incapacitating illness requiring medical intervention which cannot be delivered in the offshore environment

### **21.2 Assessment**

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

- The nature of the allergen, the likelihood of exposure offshore 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

## 21.3 Specific Conditions

### *Nut Allergy*

Although there are significant potential risks associated with nut allergy, it need not always be a bar to offshore 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 operating company's medical adviser 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.

## 22 Medications

Individuals taking regular medication either prescription or non-prescription (including Chinese herbal and health supplements) should be assessed with regard to:

- The nature of the underlying condition, whether this is fully controlled by the medication or whether there are residual symptoms which may affect the individual's fitness to work offshore (refer to notes under the relevant category)
- The nature of any side effects, paying particular attention to altered levels of consciousness, impairment of memory, concentration or alertness or extrapyramidal side effects
- The nature of any therapeutic or side effects which may result in a medical emergency (eg prolonged bleeding time leading to haemorrhage), the ability of the installation to deal with such emergency and likelihood of successful evacuation
- Issues surrounding compliance in taking medication and the likely effects of sudden withdrawal

Individuals with significant issues in any of the above categories will not normally be fit for unrestricted offshore work but may be considered for travel to specific installations following discussion with the medical adviser of the employer and operator.

## 22.1 Specific Considerations for Medication

### *Warfarin*

If an individual is taking Warfarin and the underlying condition does not preclude them from offshore work then the following considerations should be taken into account when deciding whether an individual is fit for offshore 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 operating company's medical adviser may wish to consider the need for use of a near patient test system where there is any doubt over the stability of the individual's long-term control
- The platform Medic must be aware of the medication and competent in the management of a Warfarin induced bleeding emergency
- The platform Medic must have a supply of intravenous vitamin K<sub>1</sub> on board

### *Tranquilisers and Hypnotics*

Both tranquilisers 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 offshore work. Rarely, individuals taking tranquilisers in whom objective testing demonstrates minimal side effects may be considered fit for restricted offshore work following discussion with the operating company's medical adviser.

Hypnotic use should only be considered in exceptional circumstances and subject to the following criteria:

- Medication to be taken under the direct supervision of the Medic
- Individual must have no emergency role on the installation
- The OIM must be aware that an individual has been administered medication which may affect his ability to respond during a platform emergency
- Another individual must be tasked with assisting the individual in the case of platform emergency to ensure the correct muster procedure

### **Immunosuppressants**

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 offshore the examining doctor must:

- Assess the underlying disease process according to the criteria in the appropriate section of the 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, hyperglycaemia, peptic ulceration, hepatic and renal damage
- Consider treatment and monitoring regime compatibility with offshore work rotas

### **22.2 General Considerations for Medication**

- All medication (both prescription and non-prescription) must be reported to the offshore Medic on arrival at a platform or location
- All offshore workers must take sufficient medication for their requirements for the duration of their trip plus a small contingency supply in the event of a location becoming fog bound
- 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

## Section 3

# Special Employment Groups

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## 1 Pregnancy and Offshore Work

The purpose of the Oil & Gas UK medical guidelines is to protect individuals and employers from predictable medical emergencies which may arise in an isolated location. Oil & Gas UK clearly recognises 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 worker in an offshore environment. The employer of any employee who wishes to work offshore whilst pregnant should conduct a risk assessment and discuss the findings with the employee. On the basis of the consideration of this risk, a decision about the suitability of offshore working whilst pregnant should be recorded in writing. Factors to be considered during this risk assessment include:

- Previous obstetric history, particularly any risk factors or history of ectopic pregnancy, hyperemesis, pre-eclampsia, premature labour or pregnancy induced diabetes
- Any relevant medical conditions which may complicate pregnancy including endocrine disease, cardiovascular disease or epilepsy
- Proposed location and means of medivac 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 foetus
- The need for regular clinical review of the employee and any additional logistical requirements this imposes

Contraindications to working offshore whilst pregnant include:

- Active complication of current pregnancy including threatened miscarriage and hyperemesis
- Any concomitant complicating medical condition such as cardiac disease or diabetes which would preclude offshore work when assessed under the relevant section above

After a risk assessment it may be reasonable to consider offshore working 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 offshore whilst pregnant
- The operator's medical adviser has been informed and agrees to offshore working for the named worker

## 2 Emergency Response Teams

### 2.1 Introduction

Duty holders are required to have arrangements in place to provide for an effective response in the event of an offshore emergency. This is achieved by a series of measures summarised in the Safety Case and includes preventive and reactive measures.

One element of the response is a trained Emergency Response Team (ERT), some of whom will have a range of duties including firefighting, assisting with a controlled platform evacuation and casualty search and rescue.

Participation in emergency response could require engaging in significant physical activity suddenly and without warning, working in a variety of potentially stressful environmental conditions, sometimes with long hours and extended physical demands in situations significantly beyond the individual's routine job duties.

The roles of some of the ERT members will involve wearing protective clothing and breathing apparatus that further add to the physical load. Such activities are likely to put additional physiological burdens on the individual and therefore require higher standards of medical fitness.

Some designated team members will have sedentary functions such as Radio Operator and Control Room Operator and would not require this higher standard of physical fitness beyond the standard Oil & Gas UK medical assessment.

Because the duties required of ERT members may involve a higher level of physical exertion than that required in their normal job function, employers need to establish that such individuals will be physically capable of carrying out such duties.

Oil & Gas UK therefore recommend that ERT members tasked with physically strenuous activities undergo regular:

- Medical Examination
- Aerobic Capacity Assessment

#### **Medical Examination**

A medical evaluation should be conducted to ensure that the individual does not have a medical or physical condition that would preclude them from safely performing the essential job functions, and is able to safely complete the essential physical requirements of their emergency response role.

The examination requires the attainment of standards specific to the ERT function, as described in Paragraph 2.2.

### **Aerobic Capacity Assessment**

ERT members will be required to undergo aerobic capacity assessment to ensure they have the stamina to engage in sudden and sustained physical activity. The standards are related to the physical requirements of the various emergency responder groups related to the risk-assessment for each installation or location.

The standards detailed in Paragraph 2.3 relate to those required for installations or locations using fixed firefighting apparatus. For other types of firefighting on installations or locations whose risk assessment identifies more extensive response, a higher aerobic capacity standard will be required to match the essential physical requirements of each role.

## **2.2 Medical Fitness Standards**

Examining doctors must satisfy themselves that the individual does not have any medical condition which is likely to impair his ability to perform the essential duties required for their emergency response role, and that the performance of such duties is unlikely to have a significant adverse effect on the medical condition. The examining physician should, in particular, consider the following when making their assessment:

### **Respiratory Function**

All emergency response team members who may wear BA must have their respiratory function tested and meet the minimum standards as defined in the IP Standards Guidance for Physicians for Respiratory Protective Equipment (RPE) Use and specifically:

- Measured FEV<sub>1</sub> and FVC must be 80% of predicted values. Measured FEV<sub>1</sub>/FVC ratio must be at least 70%

### **Cardiovascular System**

Any form of cardiac pathology including dysfunction or myocardial insufficiency will normally render an individual unacceptable for ERT duty. Mild hypertension, controlled if necessary by medication, may be acceptable providing the medication does not limit exercise tolerance.

Note that the use of some drugs, for example beta blockers, may interfere with the standard evaluation of cardiovascular aerobic function and therefore alternative methods may need to be considered (refer to Paragraph 2.7).

### **Nervous System**

A history of epilepsy, recurrent impaired consciousness, vertigo or impaired co-ordination is unacceptable for ERT members.

### **Psychological Disorders**

Phobic anxiety relating to heights or confined spaces is unacceptable. Evidence of current alcohol and or substance abuse is unacceptable. A history of significant/recurrent anxiety and/or depression would normally be unacceptable.

### **Vision**

A minimum standard of 6/9 with both eyes open is required if necessary using appropriate corrective lenses compatible with BA use. If visual correction is required, an uncorrected visual acuity of 6/60 with both eyes open is appropriate to allow the safe escape of the individual following an event. Visual fields must be normal. Monocular vision is unacceptable.

### **Hearing Impairment**

Individuals should be able to hear conversational speech without difficulty. A hearing impairment in excess of 35dB in the better ear (averaged over 0.5, 1, 2kHz) may raise doubts about the ability of an individual to hear in a hazardous environment. Such cases should be individually assessed by the examining physician but are normally unlikely to be fit for unrestricted ERT membership.

### **Endocrine Disease**

Significant endocrine disease requiring ongoing treatment will normally render an individual unfit to participate in an ERT.

### **Medication**

Individuals dependent on medication required to control an identified medical condition that would deteriorate significantly should a dose be missed will normally be unfit for ERT membership as will those taking medication that causes side effects that would interfere with any of the ERT functions.

### **Musculoskeletal System**

The examining physician should examine the musculoskeletal system to exclude any pathology that would interfere with the execution of the individual's essential job functions in the ERT. At a minimum, this evaluation will include confirmation that the following are within the normal range: active range of motion, limb strength, reflexes, flexibility, joint integrity. In addition, particular attention should be paid to any history of back disorders.

## 2.3 Aerobic Capacity Standards

It is appropriate to use the measurement of maximal oxygen uptake ( $VO_2$  max) to predict aerobic capability and resistance to fatigue. This  $VO_2$  max may be determined either by performing a 'shuttle run', by cycle ergometer, or by using the Chester Step Test or formally by physiological laboratory testing. Experience in the offshore oil industry has shown the Chester Step Test is an acceptable and reasonably reproducible method.

Based on the experience of other occupational groups, it has been determined that a  $VO_2$  max of 35mls/Kg/min is the minimum that would indicate that individuals will have a physical capability adequate for normal ERT duties as described in Paragraph 2.1 (applicable to installations and locations with fixed firefighting apparatus).

Certain installations may, on the basis of risk assessment, define more extensive physical requirements where a higher physical standard is required. In these cases, a  $VO_2$  max of 40mls/Kg/min or greater may be appropriate as assessed by the duty holder.

## 2.4 Frequency of Assessment

Formal medical examinations should follow the normal Oil & Gas UK periodicity whilst aerobic capacity assessment should be undertaken annually. The aerobic capacity assessment must, however, include using the screening tool described in Addendum 1.

## 2.5 Roles and Responsibilities

Medical examination should be performed by an Oil & Gas UK approved physician in possession of a valid Oil & Gas UK PIN.

The aerobic capacity assessment may be carried out by an Oil & Gas UK approved physician or by an offshore Medic, a nurse or other suitably trained person working under the supervision of a Oil & Gas UK approved physician.

## 2.6 Certification of Fitness for ERT Duties

Following successful completion of the medical examination, for candidates whose duties contain a physical component, the examining physician should complete Part 1 of the Certificate of Fitness to Participate in ERT Duties (refer to Addendum 6).

Following successful completion of the aerobic capacity assessment, the responsible person should complete Part 2 of the Certificate of Fitness to Participate in ERT Duties.

Subsequent aerobic capacity assessments between periodic medical examinations should be entered in the remaining sections of Part 2 of the certificate.

In addition to confirming fitness to participate in ERT duties, operating companies may wish to use this certificate as confirmation of fitness for firefighting training. In such circumstances, the operating company's medical adviser should ensure the acceptability of the certificate to the relevant training body.

## **2.7 Implementation**

Guidance based on current industry experience is critical for the successful implementation of any process. Flexibility of application will help to enable individuals to understand, achieve and maintain any required fitness levels for their job function. This will also help maintain the operational availability of the ERT whilst fitness profiles of the individual team members are optimised. Operators should inform contractors of how these guidelines will be implemented on their installations.

### ***Aerobic Capacity Assessment***

It is important to recognise that there is a margin of error associated with all testing methods outside of a physiological laboratory.

Fundamental primary considerations to improve accuracy of results obtained include preparation of the testing location, briefing and reassurance of the participant to avoid behaviours that would affect the result, calibration of testing equipment and training of operating personnel.

When evaluating results it is important that this potential for error be recognised and that any failures to achieve the required standard be considered with this effect in mind. It is recommended that procedures which allow for reasonably rapid retesting (eg within 1 week) of potentially failed candidates be in place.

Where a candidate still fails to achieve the required standard it is recommended that they be advised on participation in a physical fitness training programme prior to formal retest at an appropriate interval (eg 6 to 8 weeks). During this initial period of physical fitness training it would be reasonable to allow the individual to continue as an ERT member unless they are patently unfit.

Further failure, however, would normally result in removal of the individual from the ERT and substitution with a candidate who meets the standard.

Individuals on certain types of medication, including beta blockers, cannot be evaluated by simple on-site methods and, if under consideration for ERT membership, should be assessed either by a shuttle run test or by aerobic capacity evaluation at an appropriate physiological laboratory.

## 2.8 Voluntary Physical Fitness Programme

When there is a physical requirement associated with an emergency response role it is recommended that there be a voluntary formal physical fitness programme available to optimise the physical fitness of these ERT members. This will assist those individuals who have failed to meet the standards of physical fitness to achieve the standard and will also help existing members of the team optimise and maintain their required fitness level.

## 2.9 Notes to Examiners

Aerobic capacity assessment by Chester Step Test or similar means involves in itself a degree of physical exertion. For individuals deemed medically fit for ERT duty as in Paragraph 2.2 above, the physical exertion involved in a step test is extremely unlikely to result in the occurrence of any adverse event. It is recommended, however, that a musculoskeletal/cardiovascular screening should always be performed before proceeding to an aerobic capacity assessment. A suitable screening tool is reproduced in Addendum 5.

Physical capability testing may be carried out at the examining doctor's premises. Alternatively, in certain circumstances, operating companies may wish to perform such testing at an offshore location. In all instances, the responsible doctor (examining physician or company medical adviser) must conduct a written assessment of the clinical risk and suitability of undertaking such testing for each installation/location under their control. At onshore locations, doctors should consider issues including geographical location of premises, lone working, access to emergency aid and availability of resuscitation equipment. At offshore locations, variables such as the location of the installation, weather, offshore Medic skills and training and equipment should be considered.

Responsible physicians should consider the approach contained in the Resuscitation Council (UK) document 'Cardiopulmonary Resuscitation Guidance for Clinical Practice and Training in Primary Care July 2001' found at: [www.resus.org.uk](http://www.resus.org.uk).

## 3 Catering Crews

The following initial health assessment should be undertaken on all catering workers. The assessment can be undertaken by a doctor, nurse or Medic with appropriate experience and should be performed pre-employment and, following a suitable risk assessment, as required thereafter.

A catering worker is someone involved in the preparation of food or who spends a substantial period of time within the galley. This includes those involved in the cleaning of utensils, maintenance of equipment or undertaking supervisory duties.

The assessment will normally consist of the following:

- A questionnaire specifically related to symptoms of enteric illness and communicable disease
- An assessment of current hygiene practices. The assessment also provides an opportunity to re-emphasise the principles of basic food hygiene
- Thorough clinical examination of potential communicable disease sites, eg skin, ears, upper respiratory tract and gastrointestinal tract
- Laboratory examination of stool specimens should only be undertaken where this is considered clinically appropriate

Further assessment of individual catering workers will be required under the following circumstances:

- Frank or suspected infectious gastrointestinal disease
- Close contact with an individual known to be suffering from gastroenteritis
- Upon return from a visit to an area with a known high endemic incidence of infectious gastrointestinal disease

Further investigation requirements should be discussed with a Consultant in Public Health Medicine (CPHM).

## 4 Crane Operators

In addition to the standard Oil & Gas UK requirements, the following standards are required for crane operators:

- Have a minimum corrected visual acuity of 6/9 with both eyes open. In addition, the corrected visual acuity must be no worse than 6/18 in each eye separately
- Monocular vision is unacceptable for crane driving because of the lack of stereoscopic vision and the impact on field of vision
- Candidates should be screened for loss of visual field by confrontation to exclude major defects
- Diplopia is unacceptable
- Colour vision need only be tested if crane operations are colour dependent (eg red/green signal lamps controlling movements)
- Depth perception is necessary for safe crane movements. In most cases this will be effectively established by demonstration of competence during onshore training and consequently medical examination to establish stereoscopic depth perception will not normally be necessary. Medical examiners who choose to use stereoscopic screening procedures prior to attending training should be aware of the potential for false positive results

## **5 Air Crew and Commercial Divers**

Workers subject to the statutory medical examination requirements for air crew and commercial divers and in possession of a valid certificate will satisfy these guidelines and do not require a further specific examination for offshore medical fitness. They should, however, be issued with the appropriate Oil & Gas UK certificate.