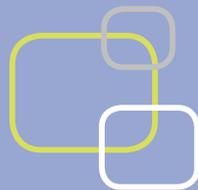


provision of health screening to employees

in the context of the new employment equality
(age) regulations 2006



RoodlaneMedical

Introduction

Health screening is a popular benefit which many employers provide to their workforce. The content of screening varies from a simple examination and blood testing through to more elaborate tests. Within a single employee benefits scheme, the level of screening is generally determined by considerations of screening cost plus the age of those being screened. Simple screens cost less than more comprehensive ones. Some companies offer simple screens across all employee groups whilst others may offer more comprehensive screens to all groups. A more common approach is to offer more comprehensive and costly screens to more senior staff. The second determinant of the content of a screen is that of age. The content of each type of screen varies according to the age of the employee receiving the screen. This is not determined by the seniority of the employee but by clinical criteria which form the evidence base for all population based screening. Put simply, certain tests are not offered to younger employees because there is little or no benefit to their having the test. This document outlines the basis on which age criteria determine the appropriateness of screening tests.

THE NEW EMPLOYMENT EQUALITY (AGE) REGULATIONS 2006

This legislation will come into force on October 1st 2006. Part 4 of the Act lays out General Exceptions from Parts 2 and 3 on the basis of "objective justification."

Regulation 32

112. The primary rationale for regulation 32 derives from article 6.1 of the Directive "...Member States may provide that differences of treatment on grounds of age shall not constitute discrimination, if, within the context of national law, they are objectively and reasonably justified by a legitimate aim, including legitimate employment policy..., and if the means of achieving the aim are appropriate and necessary. Such differences of treatment may include.....(b) the fixing of minimum conditions of....seniority in service for access...to certain advantages linked to employment": see Article 6.1(b).

(Guidance Notes on Regulations)

The regulations say that to justify discrimination, the employer or trustee must be able to show that the treatment (for direct discrimination) or provision, criterion or practice (for indirect discrimination) is a 'proportionate means of achieving a legitimate aim'.

(Age discrimination: using objective justification. Employment Pensions and Benefits: Briefing 155. Freshfields Bruckhaus Deringer June 2006.)

Roodlane Health Screens

THE BASIC CONTENT OF SCREENING EXAMINATIONS

The basic structure of all health screens offered by Roodlane Medical (RLM) is similar. A standard comprehensive medical questionnaire is followed by a full physical examination. A standard battery of blood tests is also included as part of this. This basic medical is called a **Well Person Medical**. The core content of screens offered by RLM is appropriate to any age group and addresses the impact of lifestyle on health and focuses on basic health promotional messages. It is interesting to note that NHS providers are increasingly being encouraged to offer similar interventions across all age groups (see Choosing Health: Making healthy choices easier, the Governments 2004 Public Health White Paper).

The **Executive Screen** includes additional tests for eye-sight, hearing, lung function and resting ECG heart tracing.

The **Premier Screen** includes additional features as for the Executive Screen except that the resting ECG is replaced by an exercise ECG on a bicycle ergometer.

Companies vary in their approach to determining which staff are eligible for which level of screening. Many companies, however, offer higher levels of screening to older personnel. Often **Executive Screening** is offered to employees older than 35 or 40. Likewise, **Premier Screening** is often offered to older staff. As a medical provider we would recommend the following approach when considering which screens to offer to staff of different ages:

Well Person screening is intended to detect significant and readily detectable health problems across all age groups.

Executive Screening - The inclusion of eye sight testing, pure tone audiometry hearing tests and vitalograph lung function testing makes this screen more appropriate for individuals over the age of 40. Age related hearing loss (presbycusis) and age related vision changes (presbyopia) begin to manifest in the fifth decade of life. Lung function screening is intended to detect changes of smoking related lung disease. Even in lifelong smokers these changes will generally not become detectable until the fifth decade and beyond.

Executive Screening in younger age groups: Executive screening is appropriate in younger age groups as a one off screen to give base line measures of hearing, lung function and ECG. It may also be appropriate on an ongoing basis for personnel who work in noisy work environments, are exposed to occupational asthmagens or for whom there are other medical or occupational indications for these additional tests. This would generally form part of an **occupational health surveillance programme** and should be considered separately from general health screening.

We would always suggest that you discuss the screening requirements of your organisation with one of our senior clinicians before deciding on a screening policy.

Premier Screening - The addition of a bicycle ergometer Exercise Stress Test (EST) enables an assessment of cardiac health. In particular, this test can detect significant coronary artery disease. As a screening test, the EST has a number of attendant problems in healthy individuals with no symptoms of heart disease. A significant number of entirely healthy subjects will have false positive results on this test which require further investigation. The likelihood of a positive result being false positive is very much greater in younger individuals because: a) the incidence of disease is lower in this age group; b) young / athletic individuals are more likely to show “physiologically aberrant” results. The EST is not an appropriate screening test in young asymptomatic subjects (i.e. under 30). In those between 30 and 40 it should be interpreted with caution. RLM recommends that Premier Screening is therefore most appropriate to those aged 40 and over.

DETERMINANTS OF THE CONTENT OF HEALTH SCREENING

In addition to the basic content of each of the screens offered by RLM, a number of additional tests are offered to certain groups according to age and sex. These tests screen for specific diseases and their use is governed by best practice with regards to screening interventions. These are described below.

The **UK National Screening Committee** has given guidance on what tests of appropriateness should be applied when considering a screening procedure. Those which are particularly relevant to this discussion include:

- The condition should be an important health problem
- The epidemiology and natural history of the condition, including development from latent to declared disease, should be adequately understood and there should be a detectable risk factor, disease marker, latent period or early symptomatic stage
- The distribution of test values in the target population should be known and a suitable cut-off level defined and agreed
- There should be agreed evidence based policies covering which individuals should be offered treatment and the appropriate treatment to be offered
- The benefit from the screening programme should outweigh the physical and psychological harm (caused by the test, diagnostic procedures and treatment)

(modified from Wilson JMG, Jungner G. Principles and practice of screening for disease. Public Health Paper Number 34. Geneva: WHO, 1968).

Responsible screening interventions should follow the basic tenets outlined above. Screening well people for serious disease may have health consequences even when disease is not present. Screening often raises anxiety.

All tests have a margin of error and there will always be people with the disease who receive negative results (false negative) and those who are disease-free who receive a positive result (false positive). False positive results are a particular concern for programmes which screen well populations. A false positive result will often lead to great anxiety and generally requires further testing to establish whether disease is truly present. A positive result on a prostate cancer blood test will lead to needle biopsy of the prostate. This carries complications of urine infection, perforated bowel, septicaemia and even death in a small number of cases. A positive mammogram may require needle biopsy of the breast as well as causing much anxiety.

The likelihood of a positive screening test being truly positive is called the **Positive Predictive Value** of that test (PPV). The main determinant of PPV is the **prevalence** of disease in the screened population. Prevalence refers to how common or how rare the condition is in the screened group. Put simply this means that in a programme which screens 30 year old men for prostate cancer or 30 year old women for breast cancer, most positive results will be false positive and the effect of the programme will be to subject a certain number of well people to potentially dangerous investigation. This is because the prevalence of each disease is low in this age group. If the screening test is made more stringent (more sensitive) this will reduce false positive results but will also reduce the number of true positive results so that in the rare instance that disease is present it is likely to be missed. This example highlights the importance of each of the points listed above.

DETERMINANTS OF THE FREQUENCY OF HEALTH SCREENING

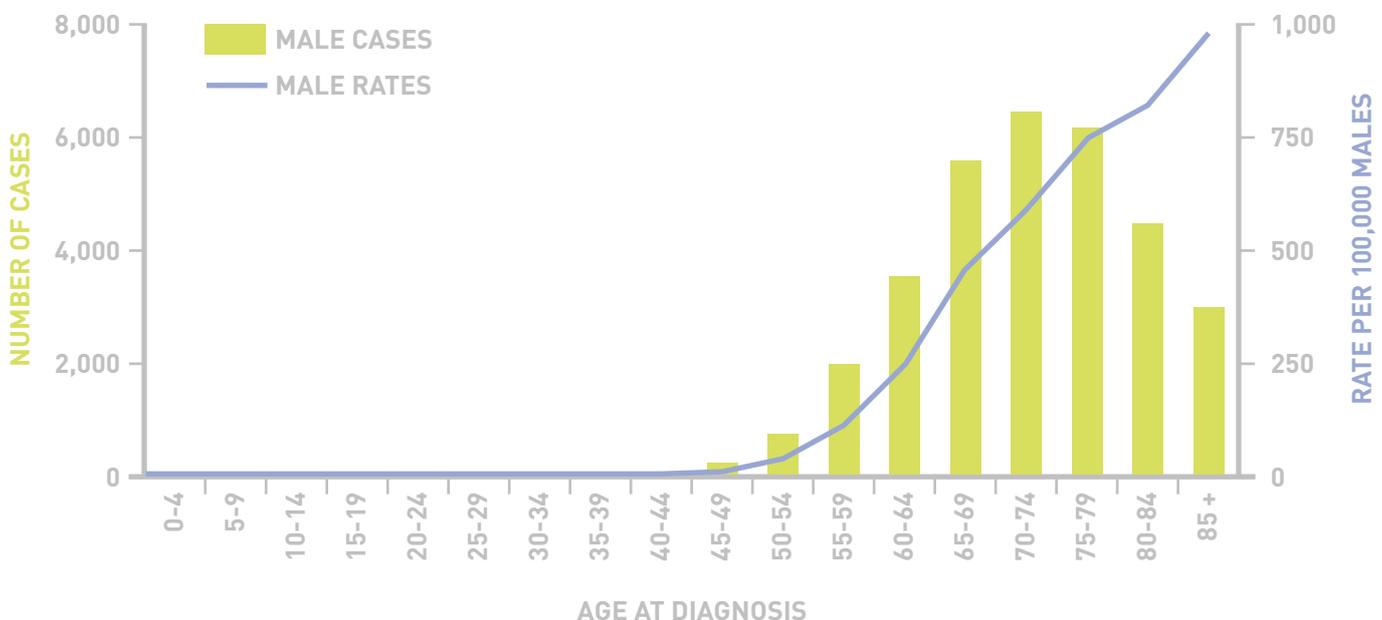
Where health screening is being undertaken as a benefit to employees or is part of a programme required by their terms of employment, then we suggest that there is no justification for offering different frequencies of screening according to age. Where screening is being offered as part of a formal Health Surveillance Programme then frequency will usually be laid down by appropriate regulations and Roodlane will be able to advise on this e.g. medical surveillance for aviation or maritime purposes. There is no medical rationale for offering more frequent screening to older employees and we suggest that all employees are offered the same frequency of screening within an organization.

Specific Content of Screening Examinations According to Age

Within each of the standard RLM screens additional components are added according to the age of the subject undergoing screening in accordance with the discussion above on best practice.

SCREENING FOR PROSTATE CANCER – PSA BLOOD TEST AND RECTAL EXAMINATION

In 2002 there were 31,923 new cases of prostate cancer diagnosed in the UK. Prostate cancer risk is strongly related to age: very few cases are registered in men under 50 and more than 60% of cases occur in men over 70 years old.

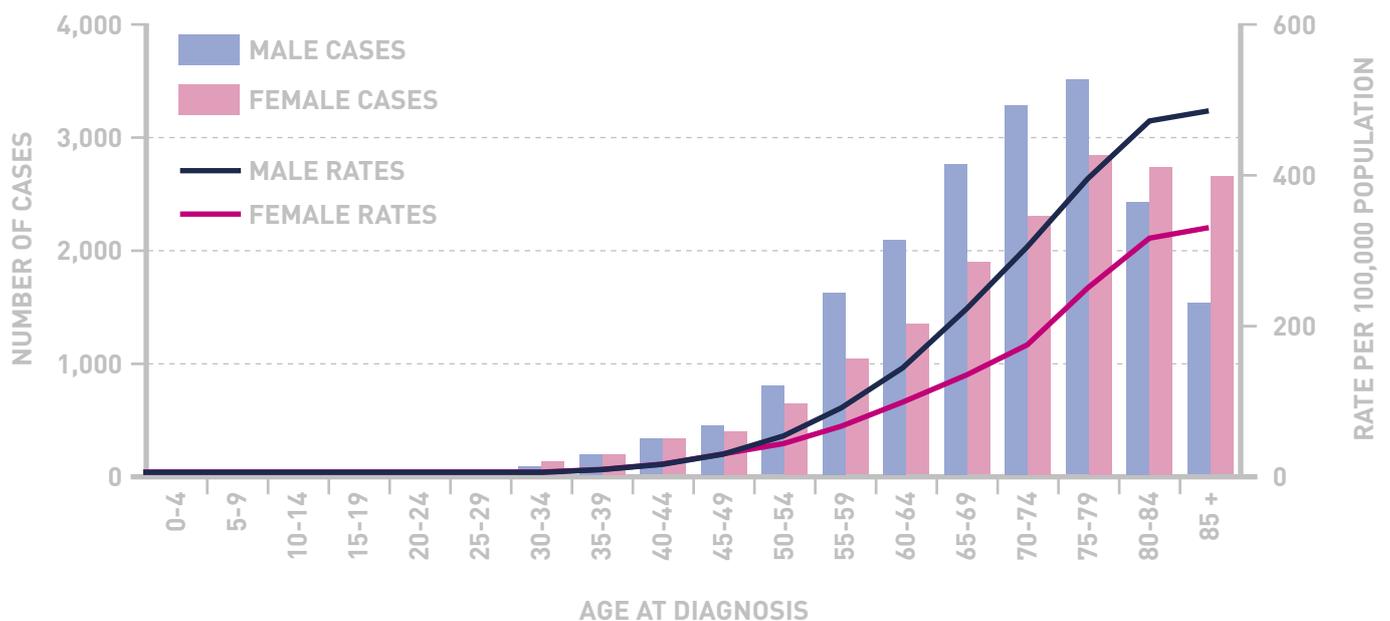


At RLM screening for prostate cancer is recommended from age 45 onwards. Testing younger men may occasionally be appropriate if symptoms are present or if there is a strong family history. This would not fall within the scope of a screening programme.

Screening for Bowel Cancer

Faecal Occult Blood Testing (FOB)

In 2002 there were 34,889 new cases of large bowel cancer in the UK. The NHS was due to introduce a National screening programme in 2006 but this has been postponed for financial reasons. RLM recommends FOB testing from age 45. There are several measures you can take to reduce the risk:



TESTOSTERONE

Testosterone is offered as a blood test for men over the age of 40 in which there is clinical suspicion of low testosterone level. This is consistent with the finding that as men age they are at risk of late onset gonadal failure, sometimes referred to as andropause or "male menopause" (see Tan R.S., Philip P.S. Perceptions of and Risk Factors for Andropause. 1999 Archives of Andrology 43 (2): 97-103.)

Conclusion

Testing healthy populations for the presence of early stage disease should be performed according to established criteria for best practice. This means using safe and validated tests in populations in which there is a sufficiently high prevalence of early disease to ensure adequate Positive Predictive Values. This depends critically on the age of those screened.

RLM age recommendations given in this document are clinically justified and in line with current best practice.

THIS DOCUMENT SETS OUT ROODLANE MEDICAL'S CLINICAL JUSTIFICATION FOR SCREENING CONTENT AND INTERVAL ACCORDING TO AGE.

IT IS INTENDED TO BE USED AS GUIDANCE AND DOES NOT CONSTITUTE LEGAL ADVICE.

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