Occupational Medicine

The Employment Medical Advisory Service

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Summary: The historical development of the Employment Medical Advisory Service is described, and the Service's present organization is related to its range of activities, including its role as a source of information and advice on occupational health. The Employment Medical Advisory Service's influence on the development of occupational health practice, the collection of new knowledge and its adaptability in changing social and employment conditions is described, and examples of its work are given.

The history of the service

In the early 1970s, there took place a rationalization of the medical services related to employment. Up to that time there had existed the Medical Inspectorate of Factories, a specialist branch of HM Factory Inspectorate (HMFI), which dated from 1898. The Medical Inspectors had acted as support for HMFI and had advised on the appointment of Appointed Factor Doctors (AFDs) who carried out statutory medical examinations on all young persons under 18 years of age in factories, and on persons covered by specific Regulations on certain occupational hazards.

The changes which took place, and which have resulted in the creation of the present Employment Medical Advisory Service (EMAS) were suggested by the 1966 report of the Ministry of Labour's Health Advisory Committee on the review of the Appointed Factory Doctor Service. The Committee advised the elimination of unnecessary examinations, especially on young people, and the replacement of the AFD Service by a new service, with more specialized knowledge and a greater experience of occupational health problems. The new service was given a wide range of duties and responsibilities for advising the whole of the Department of Employment on medical problems relating to employment, and was to be available to all who needed advice on the relationship between work and health.

The Employment Medical Advisory Service Act received the Royal Assent on 11 May 1972. The Act described the purpose of EMAS as being to ensure that all concerned with the health of employed persons, and of persons training for employment can be kept informed and advised on matters of which they ought to be aware concerning the safeguarding and improvement of the health of those persons.

The new service also became responsible for carrying out statutory medical examinations (or appointing doctors to do them) and for providing medical and nursing services to Government Training Centres (now Skillcentres) and Industrial Rehabilitation Units (now Employment Rehabilitation Centres – ERCs).

The EMAS Act came into force on 1 February 1973, and an important modification was made to the original plan for professional staff in that a proportion of nurses was to be included to complement the work of the medical staff. At present there is a complement of 65 doctors and 21 nurses (in addition to those working in ERCs).

A further organizational change took place on 1 January 1975 when the Health and Safety Executive (HSE) was created as a non-departmental public body answerable to the Health & Safety Commission (HSC) and EMAS became part of that larger organization.

A major consequence of the inclusion of EMAS in HSE was that over time it developed a larger headquarters cadre of staff, providing a medical and scientific input into the work of other divisions of HSE. This change of balance of responsibilities led to the division being renamed HSE's Medical Division, with the title 'EMAS' being reserved for the field force. One other important policy change from the original plans was a deliberate decision to withdraw as far as possible from routine statutory
medical examinations, and to delegate these to local appointed doctors, thus freeing the service to concentrate on other work.

The purpose, functions and organization of EMAS

EMAS has the duty of acting as a source of information and advice, and of initiating and carrying out investigations and studies into occupational health problems. The work of the service is, therefore, a mix of reactive work responding to the needs of a large number of client groups, and pro-active work which can be planned as a series of programmes of investigations where there are suspicions of health risks.

The work done therefore, includes a substantial proportion resulting from the needs of clients, such as the Health and Safety Executive and Commission, Local Authority Environmental Health Officers, the Employment Department’s Training Agency, employers, employees and their representatives, as well as the health and safety professions. EMAS is also responsible for a range of educational activities aimed at improving standards of occupational health advice, training and services.

In order to be an effective and readily available source of advice, EMAS is organized as a unit within each of HSEs Area Offices. The medical and nursing staff can therefore work closely and in co-ordination with their colleagues in other HSE divisions such as the Factory and Agricultural Inspectorate Division. Again, by being sited at 20 main centres throughout England, Scotland and Wales, EMAS staff became knowledgeable about the types of industry and occupations as well as conditions of work in their respective areas.

The EMAS area team varies in numbers of staff depending on the local workload, but usually consists of a senior medical officer, at least one medical officer and one nursing officer. These officers have the titles of Employment, Medical, and Nursing Adviser, respectively, a deliberate choice in preference to the title ‘inspector’. Secretarial and clerical support staff are also part of the area teams, as are the doctors and nurses giving services to the local Employment Rehabilitation Centres.

EMAS doctors and nurses have become increasingly well qualified for their work. All nursing advisers must hold the Occupational Health Nursing Certificate (OHNC) while a number of ERC nurses also hold this qualification. The majority of doctors in EMAS are Fellows, Members or Associates of the Faculty of Occupational Medical (FOM). In addition others are in approved training schemes leading to membership.

To ensure that EMAS teams can be efficient sources of information, all offices have electronic communication systems for gaining access to computerized databases, and for providing and exchanging information. The use of such equipment has widened and accelerated EMAS’s ability to provide information and advice, and to gain knowledge. EMAS as the field force of the HSE Medical Division is itself able to draw on the support and specialist expertise available in the Division and in the other parts of HSE.

The work of EMAS

It will be appreciated that EMAS is open to an infinite number of requests for help and advice, the remit, as set out in the EMAS Act, and subsequently incorporated into the Health and Safety at Work Act 1974, being an open ended one. Indeed, the range of enquiries and of sources of enquiry always has been, and remains, very wide. As a result the knowledge and experience of the service has also become correspondingly wide. Consideration of some of the main forms of activity illustrates this.

A large proportion of the work, both pro-active and reactive, results from the relationship with colleagues in the field force of other HSE divisions, most often inspectors in the Factory and Agricultural Division. EMAS staff advise these inspectors when they, during visits to workplaces, become aware or suspect possible health risks or occupational illnesses existing there.

Employment Medical Advisers (EMAs) or Employment Nursing Advisers (ENAs) may hold the information needed by an inspector, or may themselves visit the premises to assess the situation. Such an assessment could include studies of work materials and processes, of taking health histories from the people involved, and of carrying out examinations of people possibly at some risk. Biological monitoring is a frequently used method of assessment, as is clinical assessment of physiological function, in particular lung function, in relation to exposures to fumes and vapours. The HSE’s Occupational Medical and Hygiene Laboratory provides a back-up service for testing biological samples, and for advising on the test results. New problems, and new methods of testing can also be considered in the steadily extending range of occupational hygiene services available to EMAS.

EMAS, besides investigating incidents of occupational ill-health, also undertakes longer term studies, and maintains systems of surveillance of the frequency of occupational disease. These activities together contribute to information systems which are essential for the efficient functioning of the HSE.

Because HSE inspectors have an enforcement role, support for this is also required of EMAS staff. Although titled Advisers, and having no
independent enforcement role. Employment Medical Advisers are expected, when required, to act as expert witnesses and to assist the courts by supplying information on the effects and implications of health hazards in work situations.

In certain industries, enforcement of the Health and Safety at Work Act is the responsibility of the local authorities and much of the enforcement work falls to Environmental Health Officers (EHOs). EMAS advises EHOs in the same way as it advises other health and safety inspectors. EMAS staff therefore experience a range of occupational health conditions and problems existing in service and leisure industries as well as those in manufacturing, agriculture etc.

**Giving advice to clients**

**Advice to employers**

Because the medical and nursing staff of EMAS have training and experience in both clinical and occupational fields, they are able to act as a communication link between the health services and employers. Requests for advice from employers are frequent and wide ranging. A minority of workplaces have a source of occupational health advice, but the smaller workplace seldom has such help. Most people in Britain work in small workplaces, so it is to be expected that the calls to EMAS from such firms will continue at a high rate.

There is in addition a growing awareness of the economic and industrial relations advantages of maintaining the health of employees, thus protecting the investment in their training and experience. Legislation is continuing to place statutory responsibility on the employer to protect the employee. EMAS is therefore in a good position to respond to enquiries and requests, and to take such opportunities to advise not only on the specific problem raised, but also on appropriate systems to improve health generally in the workplace. The investigation of a workplace problem can provide new knowledge, which can be reported to HSE colleagues, and in journals and literature, to those having an interest in occupational health. In other words, this reactive work offers opportunities to learn and to increase knowledge. So too does pro-active, or planned work. To this end EMAS designs co-ordinated programmes of systematic visits to workplaces in order to advise on the risks discovered in particular types of industry. For example, processes which involve di-isocyanates, lead or asbestos, or where noise or the likelihood of dermatitis, are foreseeable risks.

Programmes of ongoing health surveillance may be instigated where they are valid and beneficial, and EMAS may itself carry these out. Again, statutory examinations may be done by EMAS staff if circumstances are such as to make direct control advisable. Generally however, routine work is delegated to either company medical advisers or formally appointed doctors.

**Advice to both employers and trade unions**

The reputation of EMAS and its maintenance of a neutral and objective role, have allowed the service to occupy an acceptable and a clearly independent position. It is therefore influential in helping to resolve disputes and disagreements on possible health problems at work. EMAS gets real problems dealt with and can dispel concerns about imagined problems.

Two examples of areas where advice to employers and unions has been particularly relevant are the first-aid system and the control of toxic substances. The Regulations on first-aid apply to every workplace. EMAS staff, particularly nursing staff, advise on the provisions of workplace first-aid, monitor what is done, and oversee training arrangements. There is continual attention to ways of improving first-aid, and the training, and a close working relationship is maintained between EMAS and the first-aid organisations.

The control of toxic substances is of major and growing importance. Society expects a continuing improvement in this control. EMAS has made an important contribution to the assessment of risk by its field work, on the basis of which improved controls are formulated within HSE.

**Advice to employees**

Enquiries from employees, safety representatives or trade union officers are most often concerned with the possible presence of health risks in places of work, including possible long term risks. Since EMAS staff have right of entry to premises for which the HSE has enforcement responsibility, and the right of access to relevant records and information, the service can visit and assess situations which are causing concern and decide what, if any, risk exists. The service is frequently the only organization capable of defusing, and dealing, with anxieties and tensions that can arise where people fear their work conditions may hazard their health. The help of HSEs technical and inspectorial resources is available to reinforce the advice given by an EMAS officer.

**Advice to people with incapacities**

EMAS has had a major impact on helping people with health problems affecting their employment. Assessments of people with disabilities in relation to particular jobs can lead to reassurance, re-
designed jobs or placement in work where skills can be used and satisfaction still be obtained.

The relationship with the Training Agency (formerly the Manpower Services Commission) is a close one. Doctors and nurses from EMAS work in the 26 Employment Rehabilitation Centres (ERCs) playing an important part in the assessment for employment, the rehabilitation and the training of clients with significant health problems.

The experience and the knowledge which EMAS staff have of actual working conditions across the whole spectrum of employment is a valuable practical asset in advising people on their employability. This is particularly important in the case of young people beginning their careers. EMAS advise these youngsters, their parents and their career advisers on the positive and the adverse aspects of their job prospects. Employment Nursing Advisers are particularly useful in assessing the suitability of the match between a young person’s health state and the job or training.

EMAS’s aim is to help achieve suitable and satisfying employment for people and to assist in allowing them to gain the independence which can follow. Being involved in this work allows EMAS medical and nursing staff to improve safety and to reduce the likelihood of future health problems occurring. Each person seen and each case considered, gives an opportunity to include an aspect of health education. By gaining and maintaining a reputation as an objective source of expertise and skilled guidance, EMAS continues to have a significant effect on occupational health generally.

Developing occupational health practice

Doctors and nurses, both in occupational health and in treatment services, turn to EMAS for advice on the possible occupational causes of ill-health, and the means of preventing such effects. Each EMAS Area Office gradually builds links with other health professionals and is able therefore not only to communicate to and by means of these colleagues, but also to refer problems and enquiries to these other sources of expertise if that is appropriate.

Increasingly, family doctors are becoming aware of EMAS as a source of guidance on occupational illnesses which may be affecting their patients, and the co-operation between such doctors and EMAS is proving beneficial to both.

Of the many activities in which EMAS staff are involved the one with a particularly valuable long term effect is the development of occupational health practice. A central achievement in the 17 years of its existence has been the establishment of EMAS as a central, authoritative source of knowledge and advice in the field of occupational health.

It has developed a body of expertise which is a major source of reference.

Field work in EMAS is an excellent professional training because of the range of experience and because of the support which is available from colleagues and specialists.

EMAS staff are much involved with occupational health training and education. A number of EMAS are, or have been, Regional Speciality Advisers of the Joint Committee on Higher Medical Training. They advise on training standards and trainee’s needs in their own regions, and act as examiners and board members of the FOM. They have helped develop and implement both the AFOM Distance Learning Course, and the more recent introductory courses in Occupational Medicine run to the FOM syllabus. Nursing staff have played an even more significant part in the establishment of distance learning, planning and piloting a course leading to the OHNC with the Royal College of Nursing.

Training has not been confined to the professions. EMAS has contributed significantly to safety representative training, and has a regular involvement in training for a wide range of managers, employees and specialists. This work allows the spread of knowledge and an appreciation of good practice.

Investigations of occupational health problems

A few examples of the subjects which have been studied will illustrate the broad range of problems, and how the availability of EMAS in the field allows such problems to be identified and assessed.

EMAS field staff suspected that exposures to the dust and aerosol droplets of reactive dyes were causing respiratory irritation and asthma. This was shown to be so and visits to all users of reactive dyes ensured that the hazards were understood and that effective precautions were taken.

Following an HSE investigation which showed epidemiological evidence of excess lung and stomach cancer in the rubber industry, EMAS contributed to guidance on the health risks as was also done for isocyanates in printing, and on ink fly in newspaper press rooms.

A health education programme was conducted to encourage workers in the cutlery industry to wear hearing protection. The effects of waste anaesthetic gases and the health risks of handling specimens from hepatitis B or human immunodeficiency virus infected patients were studied and guidance prepared.

A project was completed on the occupational health needs of prison staff and advice was prepared on the health care of firemen exposed to chemicals. Visits were paid to advise mill workers.
on hearing protection from noise, and a survey was done on the prevalence of byssinosis in the waste cotton industry.

These are a few examples of EMAS field studies and illustrate the trend away from the original plans for statutory medical examinations and advice to young people and towards a wider investigative role.

Achievements

Over the span of its relatively short existence EMAS has come to hold an accepted position as a central source of advice and information, and as an organization with considerable resources of expertise. The wide range of pooled experience gained by EMAS staff, co-ordinated and supported by other specialized services in HSE has created an important, growing and respected source of occupational health knowledge.

The service has proved to be adaptable and flexible to the organizational changes which it has experienced and to the changes in society and the employment pattern in this country. There have been changes in occupational organizations in the UK, and an increasingly greater statutory obligation on the employer for health protection. EMAS has shown itself capable of understanding and of advising on the conditions and health problems in the newer service and leisure industries as well as in the older traditional industries.

These trends and adaptations have been occurring at a period of time when there has also been increasing use of environmental measurement and investigative research as means of assessment with less reliance on traditional clinical examinations. There has also been greater emphasis on centralized risk assessment, the setting of standards and the development of experimental models. In addition there is a changing political climate with experts much more likely to be questioned, with the employer having to accept responsibilities and the making of decisions on health protection, as well as a much greater public concern about health standards and health risks. There is particular concern about the possible and longer term effects of work activities on members of the public.

By remaining directly involved with practical occupational health, being capable of collecting and interpreting all manner of information on the subject, and by being prepared to change its style and its administrative structure, EMAS has adapted and matured and has remained an effective investigative and advisory service in changing times and in relation to the whole range of occupational health.

The future role of EMAS

From its central position in the range of occupational health interests, and in its relationship to the responsibility of HSE for setting and monitoring standards, EMAS will inevitably be expected to be an influence on the future use of occupational health knowledge and techniques, and to be actively involved in investigating problems and solutions in that area of need.

The service will therefore need as its most essential resource, professional staff with the necessary skills and knowledge, and with the ability to question, investigate and interpret. At the same time, EMAS will, as it has always, act as a training ground for occupational health practitioners who will later apply their skills in other organizations. In addition to being actively concerned with occupational problems and their solutions, EMAS will also be an important part of the medical and nursing professions' ability to teach and train, and to do so not only for the professions alone but for the many client groups it serves.

By having these responsibilities and the ongoing experience of seeing, learning about and assessing all manner of work related health effects and influences, EMAS is in the happy position of functioning in a stimulating and satisfactory professional situation. It also has the organizational structure needed to provide the support, adaptability and strength required to function effectively in a rapidly changing world.

The nature of the social structure of work inevitably distinguishes the occupational physicians work from that of his colleagues, in particular the fact of the uneven relationship where those who are at risk are not usually those who create the conditions of work. The position of occupational physician is, at the present time being even more affected by the changes in the styles of company organization, by the changes which new technology is having on both occupational and on social conditions, and by the need for complex assessments of risk to be assessed not by one, but by several experts in combination.

EMAS has the additional professional complication of being part of an enforcement organization as well as having the role of a helpful source of advice. The juxtaposition of these two responsibilities can and does create problems, but equally has helped to develop a style of response, and a form of relationship with managements, employees and the general public, which is of a high professional standard and one which has gained respect. The need for a service having this special dual responsibility will remain and, if the history of EMAS so far is an indicator, its effectiveness will continue to develop and mature, to the benefit of those it serves.
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