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Editorial

The ailing anaesthetist

The medical profession has been described as "*one of the most unattended populations in terms of health*" [1]. There are many probable reasons for this, not least the lack of awareness and understanding of occupational health. The forthcoming publication of *Occupational Health and the Anaesthetist* by the Association of Anaesthetists of Great Britain & Ireland (AAGBI) [2] is to be welcomed, therefore. It provides a comprehensive practical guide to the role and remit of the occupational health services of the

National Health Service (NHS) and how to protect and promote health at work. Importantly, it includes a series of recommendations for anaesthetists that constitute a 'health at work' survival kit. Whilst not exactly bedtime reading, it is a 'must-read' for anaesthetists as part of continuing professional development, filling the gap in the undergraduate and most postgraduate medical curricula.

Why is it important? Healthcare provision is changing. The demands for full 24/7 provision within the constraints of the European Working Time Regulations [3], compliance with medical revalidation [4] and ensuring excellent patient experiences [5] mean that doctors have to be at the top of their game. Changing population demographics will see a lengthening of the usual working lifespan, and further increases in the state pension age means that anaesthetists and other doctors will have to maintain their health and workability for longer [6].

Post-Francis [7] and Keogh [8], NHS Trusts must pay attention to the health and wellbeing of their employees. The NHS Constitution [9], often overlooked before the Francis Report, will come into centre stage. There is a right to a good working environment and to healthy and safe working conditions, free from harassment, bullying and violence. In addition, the NHS pledges to provide a positive working environment for staff and to promote supportive, open cultures that help staff do their job to the best of their ability and to provide support and opportunities for staff to maintain their health, wellbeing and safety. Sir Bruce Keogh has set out a number of ambitions for improving the NHS [8], one of which refers to happy and engaged staff. There is now good evidence from analysis of the NHS staff survey data that staff engagement correlates closely with health and wellbeing [10]. Staff with high levels of engagement were less likely to report work-related stress or presenteeism. Generally speaking, employees who reported higher engagement (in all three dimensions – motivation, involvement and advocacy) were more likely to rate their own health and wellbeing more highly. Importantly, the quality of patient experience, as measured by inpatient satisfaction in acute trusts, is strongly linked with engagement [11]. Engagement is also significantly linked to patient mortality in acute Trusts, and for organisations where engagement is highest, the levels of mortality are lower than for Trusts with lower levels of engagement [12].

The AAGBI guidelines [2] present a framework for health and wellbeing in the workplace and address specific workplace hazards relevant to anaesthetics. They explain the role of occupational health in the NHS and highlight issues that characterise the 'sick doctor'. Thus, they look at the three levels of prevention – primary, secondary and tertiary. A practical organisational model developed by Business in the Community takes an integrated, holistic and strategic approach to health and wellbeing, and facilitates an understanding of its multifactorial components. The Workwell model [13] identifies four main areas for organisations to focus on – good health, good work, good relationships and good support. Good health is concerned with the physical, mental and social determinants of health. Good work refers to job design and the working environment. Good relationships focuses on managers as potential agents of wellbeing and health promotion, whereas good support encompasses occupational health or counselling services. However, support services should not just be concerned with treating the 'casualties' and they should be part of a multi-agent task force that prevents as well as supports illness.

There are a number of workplace hazards that might affect the wellbeing of anaesthetists. Infection prevention and control constitutes a sizeable section of the guidelines, with particular emphasis on inoculation injuries and blood-borne viruses and respiratory infections. Inoculation injuries are, of course, an occupational hazard for anaesthetists. However, this may begin to change as Trusts begin to implement changes in response to a European Directive on needlestick injuries [14] and the subsequent UK legislation [15]. A key feature of the regulations is the introduction of safety-engineered devices. Clinicians and managers must collaborate to review current procurement policies balancing the clinical effectiveness of devices with their safety properties. The risk to health relates to the potential transmission of one or more blood-borne viruses from patient to healthcare worker. Although the risks are low, there are

recorded instances of transmission [16]. The main concern is hepatitis C, of which there have been 20 cases of seroconversions in the period 1997 to 2011. The true prevalence of hepatitis C infection in the general population is unknown, although the incidence of hepatitis C virus infection is believed to have peaked in the late 1980s [2]. Treatment success rates vary between 50% and 80%. There is evidence that treatment started before 12 weeks post-infection may give higher response rates [17]. This underlines the importance of prompt reporting of needlestick injuries to occupational health and of keeping follow-up appointments. Post-exposure prophylactic treatment is not available for hepatitis C infection, but is available for exposure to HIV and hepatitis B. There have been no reported cases of transmission of HIV or hepatitis B to healthcare workers in the UK since 1999 [16].

The nature of anaesthetic practice means that exposure to respiratory secretions and, thus respiratory infections, is another recognised occupational hazard. Three important safety measures may be taken to protect anaesthetists – immunisation, personal protective equipment and hand hygiene. The UK Department of Health recommends vaccination of healthcare workers against the following infectious diseases: mumps; measles; rubella; varicella; polio; tetanus; meningitis A and C; and tuberculosis [18]. There have been recent concerns about the exposure of healthcare staff to *Bordetella pertussis*. Although vaccination against whooping cough infection during the early years of life is advocated, it is not currently policy to offer it to healthcare workers, except for pregnant workers who have been exposed [19]. The UK lags behind recommendations from the USA [20] to offer a booster to all healthcare workers, every ten years. However, it has been reported that the offer of whooping cough vaccine to healthcare workers who have close contact with children under three months old is being considered [21]. The importance of vaccination against influenza has been highlighted by the Chief Medical Officer for England [22]. Vaccination rates in NHS Trusts remain unacceptably low [23] and nosocomial transmission of this potentially fatal, yet preventable, infection remains a reality.

However, many infections that may be transmitted via respiratory secretions do not have a vaccine against them. Coronavirus, the cause of severe acute respiratory syndrome (SARS) and most recently, Middle East respiratory syndrome (MERS), is an example. This highlights the importance of wearing appropriate personal protective equipment (PPE) and scrupulous hand hygiene. The level of PPE should be appropriate for the risk. For example, if aerosol generating procedures are being undertaken, such as intubation, it is recommended that a filtering face piece mask be used (FFP3). This level of protection can only be achieved if the mask fits snugly and the mask should be 'fit tested'. Occupational health services may be involved in this. If exposure to infectious diseases occurs in the absence of suitable PPE or vaccination, occupational health services should be contacted to ascertain the need for post-exposure protection or the need to carry out population screening if further transmission of infection might have occurred.

Protection of the pregnant anaesthetist is an important section of the AAGBI's guidelines [2]. Over 30% of the consultant anaesthetic workforce is female and approximately one quarter of these are in the age range 30-39 years. Amongst trainees, about 60% are female and nearly all are less than 40 years of age [2]. Because anaesthetists are potentially exposed to a wide range of chemicals, infections and physical agents, such as ionising radiations, a risk assessment of all pregnant anaesthetists is essential: it is a legal requirement [24] and is good practice. In addition, the ergonomics of practice should be considered, since adjustments may be required as pregnancy progresses, or if pregnancy-related conditions develop. The psychological aspects of work should not be forgotten. The Health and Safety Executive has published management standards for stress at work [25]. The impact of working hours and shift work on pregnancy should be considered. Evidence-based guidance is available [26] and a recent revision has been has been published [27].

The other key area of the AAGBI guidelines [2] relates to assessment of fitness for work. Here, the relationship between anaesthetists and occupational health services needs to be explained and understood. The role of occupational health is to advise about fit-

ness for work. This is done by assessing the impact of underlying health conditions on the ability to work using medical knowledge to understand disease, knowledge of different types of job and their functional requirements, and knowledge of legal or policy frameworks that impose restrictions or constraints on fitness for work. As such, it forms part of the governance arrangements for NHS Trusts. The advent of medical revalidation has reinforced the importance of this role. There are explicit relationships between an occupational physician and an anaesthetist referred to the occupational health service, and between the occupational physician and the manager who has made the referral. This might be a Clinical Director, Medical Director or someone else with managerial responsibilities within the organisation. The guidelines make clear the ethical code of practice underpinning referrals to an occupational physician. In essence, they emphasise the normal rules around confidentiality for consultations with an occupational physician. Communication between an occupational physician and a medical manager is on a need-to-know basis and relates to answering questions that will enable the manager to manage. Examples would be describing functional impairment in relation to job requirements, including fatigue [28], and suggesting adjustments to help anaesthetists return to or continue at work. The guidelines rightly highlight the need to support people with long-term conditions. Doctors are affected by the same range of conditions as others of similar age. Musculoskeletal and mental health conditions are the main causes of sickness absence in the NHS, although a long list of conditions may impact on the ability to work, such as diabetes, epilepsy, inflammatory bowel disease and multiple sclerosis [29]. If doctors have concerns about any medical condition and its impact on their ability to work, they can self-refer to an occupational physician. In such circumstances, there is no requirement for the occupational physician to write a report to management. Such consultations are for the benefit of staff, allowing a confidential discussion of the issue of concern in a safe setting.

Doctors are sometimes referred to external regulatory agencies, such as the National Clinical Assessment Service (NCAS) or the General Medical Council (GMC) [30]. These referrals are to ascertain fitness to practise, rather than fitness to work. Nonetheless, occupational health services can play an important role. Illness in a doctor does not necessarily require referral to the GMC. The AAGBI guidelines highlight the importance of managing illness at a local level, unless there is evidence that the doctor is not following medical advice or modifying practice appropriately. Occupational physicians may be asked to provide evidence to either NCAS or the GMC to assist investigations. This is normally done with consent.

Occupational health services have an important role in promoting and protecting the health and wellbeing of anaesthetists. The AAGBI guidelines demonstrate the wide range of issues that may need to be addressed. However, the quality of such services is known to be variable [31]. The medical profession in general, and anaesthetists in particular, should demand provision of occupational health that meets accreditation [32] and commissioning [33] standards.

Competing interests

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