EMERGING OCCUPATONAL DISEASES
PRESENTATION TO THE LONDON UNDERWRITERS GROUP
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INTRODUCTION

Let sleeping dogs lie.

One of the defining characteristics of occupational diseases is the length of time between allegedly negligent working conditions and the emergence of any injury, called the latent period. The absence of immediate signs of pain and complaints in the workplace fails to alert the employer to sub-standard working practices. Even when a risk is clear, as exemplified by the regulations governing exposure to asbestos in the 1930s and earlier, the overwhelming temptation of the employer may be to let sleeping dogs lie.

The Management of Health and Safety at Work Regulations of the 1990s are designed to encourage employers to be pro-active and to assess the risks before an injury occurs. However, they are based on knowledge of risk. Where there is no knowledge of a risk, there is no assessment. In any negligence action the question for the court becomes "Should the employer have known of the risk and so taken steps to avoid it?" Some time before this stage is reached the question for insurers is "What are the likely known risks of the future?"

In answering this question, three "emerging" occupational diseases will be considered;

1. Injury as a result of the use of mobile phones;
2. Acceleration of osteoarthritis as a result of kneeling and carrying heavy loads;
3. Psychiatric injury as a result of bullying at work.

Consideration of causation, apportionment and limitation arguments follows, since substantial discounts can be achieved on these grounds, where liability is established.

MOBILE PHONES

The most uncertain of the three scenarios under review is mobile phones. Although the implications are likely to be greater for product liability insurers, (over 27 million people in the UK have or frequently use a mobile phone), it is obvious that employer's liability insurers may be significantly affected. Employers provide many employees with mobile phones as a matter of course.

Mobile phones emit radio waves or radio frequency in the microwave range. Radio frequency is not radioactive. The energy emitted is insufficient to disrupt molecules in the body. However, it can cause heating at high powers. The specific absorption rate, or SAR, is the unit of measurement of the amount of radio frequency energy absorbed by the body when using a mobile phone handset. The International Commission on Non Ionising Radiation Protection (ICNRP) guidelines provide a limit of 2 watts per kilogram in a mass of 10 grams. This is the guideline adopted in Europe.

Phones are tested using a phantom head. It is filled with liquid that simulates human head tissue and SAR values are measured with the phone at maximum power and placed in a number of positions to simulate normal use. This includes tests with the antenna in or out and at the different frequencies the

model of phone can operate at. A probe inside the liquid measures the electric field strength inside the phantom head and shows the maximum SAR value for that model of mobile phone.

There is ongoing national and international commitment to research into the possible adverse effects of mobile phone use.

The first significant report commissioned by the UK Government was the Stewart report, published in May 2000. It stated "The balance of the evidence does not suggest mobile phone technologies put the health of the general public of the UK at risk. There is some preliminary evidence that outputs from mobile phone technologies may cause, in some cases, subtle biological effects, although importantly, these do not necessarily mean that health is effected…a precautionary approach should be adopted until more robust scientific information becomes available."

The precautionary principle is enshrined in the Treaty of Rome and applies in all countries of the European Union. It is a risk management policy applied in circumstances with a high degree of scientific uncertainty, reflecting the need to take action for a potentially serious risk without waiting for the results of scientific research. A fairly recent instance of the adoption of the precautionary principle was the European Community decision to ban UK beef with a view to limiting the risk of transmission of BSE.

In line with the precautionary approach, the Stewart report recommended the ICNRP guidelines for public exposure to mobile phone frequencies be adopted for use in the UK, in line with other European countries. The recommendation was implemented and resulted in a five fold reduction in exposure.

In 2001 the British Medical Association recommended that mobile phone manufacturers should provide an indication of the power/radiation output from their handsets. Information on the specific absorption rates of new phones has been made available by the main manufacturers from October 2001.The rates for a large range of phones can be found at the Mobile Manufacturers Forum website www.mmfai.org.

"Health Effects from Radiofrequency Electromagnetic Fields 2003", a report compiled by the Independent Advisory Group on Non Ionising Radiation (AGNIR) provides a good summary of research undertaken in the three years since the Stewart report:

"In aggregate the research published ….does not give cause for concern. The weight of evidence now available does not suggest that there are adverse health effects from exposure to radio frequency fields below guideline levels, but the published research on radio frequency exposures and health has limitations, and mobile phones have only been in widespread use for a relatively short period of time. The possibility therefore remains open that there could be health effects from exposure to radio frequency fields below guideline levels, hence continued research is needed."

The report suggested that radiofrequency fields can interfere with biological systems. It also referred to an increase in the risk of acoustic neuroma found in a recent Swedish study with ten or more years of mobile phone use. Acoustic neuroma is a benign tumour of the auditory nerve that usually grows slowly over a period of years before it is diagnosed. The risk was confined to the side of the head where the phone was usually held and was double for a person who started to use the phone at least ten years prior to diagnosis. At the time when the study was conducted only anologue phones had been in use for this amount of time. It was not possible to determine whether the results were confined to use of analogue phones, with their higher SAR values or if the results would be similar after long term use of digital phones.

The results of this study may be discounted to some extent by a subsequent Danish study in 2005 which found no link between cell phones, frequency of use or number of years of use and the risk of developing a brain tumour. The researchers also found that brain tumours did not occur more frequently on the side of the head where the phone was typically used. The Swedish study was one of those criticised for problems with the study design.

In 2004 the UK's National Radiological Protection Board (NRPB) noted

"A recent paper has suggested possible effects on brain functioning form the use of 3G or third generation mobile phones. Populations are not homogenous and people can vary in their susceptibility to environmental and other challenges. It was considered that children might be more vulnerable to any effects arising from the use of mobile phones because of their developing nervous system, the greater absorption of energy in the tissues of the head and a longer lifetime exposure."

The Board updated the Stewart report in 2005. There was no hard evidence at present that the health of the public is being affected adversely by the use of mobile phones. However, as uncertainties remained, it was recommended that the precautionary approach be continued. The various other recommendations included the following:-

1. Comparative information on SAR values of different phones should be made readily available to better inform consumer choice;
2. Particular attention should be given to how best to minimise exposure of potentially vulnerable sub-groups such as children and to consider the possibility that there may be other sub-groups who may be particularly sensitive to radio waves
3. A continuing research programme on the possible health effects of mobile phone technologies should be strongly supported.

A human volunteer study in 2005 investigated the effect of short term exposure to radio frequency on brain function. Those exposed changed their performance on several tests. Reaction time decreased but memory function increased. The results are particularly interesting because several reports now support the view that using a cellular phone while driving leads to a reaction time similar to that achieved after several alcoholic drinks. It is possible that not only talking on the phone but the radiation itself lowers the reaction time.

The National Health Service has produced a pamphlet on mobile phones further to the recommendation of the Stewart report. The NHS recommends:

1. Keep calls as short as possible;
2. Children and young people should be encouraged to use mobile phones for essential purposes only;
3. Consider relative absorption rates when buying a mobile phone;

Other recommendations made as a result of research reports:

4. Keep the phone away from the body when in standby mode;
5. Only use the phone when the reception is strong. Weak reception causes the phone to use more energy to communicate with base station;
6. Use a mobile that has an antenna. This reduces the level of radio frequencies entering the head.

In the USA a small number of personal injury law suits has been filed by individuals against mobile phone manufacturers such as Motorola, Siemens and Nokia alleging brain cancer and death as a result of mobile phone use. So far, most of these law suits have been dismissed on the grounds of lack of scientific evidence of a causal relationship.

Nevertheless, employers would be wise to adopt a precautionary approach and implement the NHS recommendations. The added costs of doing so are likely to be minimal. Phones with low SARs should be provided to employees with the recommendation that they keep calls as short as possible.

OSTEOARTHRITIS OF THE KNEE

A more imminent threat of significant outlays from insurers is liability for the acceleration of osteoarthritis of the knee. It seems there has been only one case that has proceeded to trial. That concerned a dockyard worker where negligent exposure was admitted and the case was fought on causation alone in the Truro County Court. Liability was established.

The current litigation funded by the National Union of Mineworkers (NUM) concerns the alleged acceleration of osteoarthritis of the knees caused by working conditions. It is inaccurately known as the "Beat Knee Litigation". Beat knee is another term for bursitis, the condition caused by too much fluid in the bursa as a result of repeated movement or pressure. The knee becomes swollen, hot, painful and red. For example, Housemaids Knee is a chronic inflammation of the patellar bursa in front of the knee due to too much kneeling.

Knee pads are known to reduce the risk of bursitis and they have been provided to miners since the late 1920s. Perhaps this explains why a claim for bursitis has not been included in the litigation which focuses solely on the alleged acceleration of osteoarthritis. During the 1950s to 1970s, experiments conducted by Sharrad revealed a miner moved his shovel every two to five seconds, setting up a repeated cycle of immense shearing strains and loads in alternate knees. It is no doubt alleged that this work accelerated the onset of osteoarthritis.

At any trial on liability the court will ask: "Is there a risk of the acceleration of osteoarthritis as a result of working conditions involving kneeling, squatting and carrying heavy weights? If such a risk is foreseeable when did or should the employer have known about it? What steps could he have taken to reduce the risk once he knew about it?"

Engineering evidence in osteoarthritis cases involving dockyard workers indicates there was a growing consensus that unusual stress of the joints (usually prolonged compression with or without high shock loads) was associated with osteoarthritis in the 1990s. By comparison, kneeling, distances walked, heavy lifting and wet conditions in isolation were found not to increase the risk of osteoarthritis

Even if a judge were to find there was an established risk of osteoarthritis from squatting while wielding heavy tools at some point in the 1990s or before, there were no recognised recommendations for reducing the risk. In vibration white finger cases for example, there is a known action level above which exposure to vibration becomes dangerous and below which employers have a duty to lower their employees' exposure. There are no such action levels in relation to osteoarthritis to date, although knowledge of the risk has become clearer in the last decade.

In 2000 a study by Southampton University commissioned by the NUM (see "Osteoarthritis and meniscus disorders of the knee as occupational disease of miners" published in the British Medical Journal in 2005) concluded there is now strong evidence for an occupational hazard of knee

osteoarthritis resulting from prolonged kneeling and squatting. There was also evidence to suggest that lifting, in combination with keeling/squatting is associated with an excess risk of osteoarthritis above that attributed to keeling/squatting alone.

The report did not recommend prescription since the studies reviewed were not unanimous in assessing the risk at double the general risk of prolonged osteoarthritis of the knees found in the population at large.

Most importantly, the report noted "the demonstration of dose-response … poses a problem in both meniscus damage and osteoarthritis. The former is usually an acute event; the latter becomes increasingly common with age in the general population. No evidence has been found which allows separation of age from time employed as a miner – it is possible that the two run so closely together that they are inseparable."

One of the difficulties in assessing exposure and action levels is that psychological variables can greatly influence the effects of knee disorders. There is a high degree of discordance between the presence of persistent knee pain and radiographic evidence of degenerative disease. How can a realistic action level be devised based on an assessment of how much osteoarthritis is likely to be disabling when the same degree of injury may lead to symptoms in one person and not the other?

The writers of the Southampton report observe: "One approach to reducing this risk may lie in the avoidance of obesity in people who perform this sort of work." This is likely to be of little assistance to employers in real terms, although it may give rise to a contributory negligence argument in any litigation.

In 1990 the European Commission recommended that meniscus lesions following extended periods of working in a kneeling or squatting position be included in a European Schedule of Occupational Diseases. The recommendation was repeated in 2003. In the United States of America, the Mines Safety and Health Administration appears to accept that kneepads may usefully contribute to the prevention of not only bursitis but also damages to other structures of the unprotected knee and it encourages the use of knee pads to prevent damage to the menisci and ligaments. Neither organisation is envisaging osteoarthritis.

An important issue in any litigation in this country, where knee pads have not been provided, is likely to be whether the provision of knee pads, a simple measure, was indicated and whether their provision would have prevented or reduced any acceleration of osteoarthritis. This is a matter for expert evidence. The initial indications are pads may make some difference, although it is reasonably clear there was no meaningful knowledge of a risk of injury, in dockyard workers at least, until the 1990s at the earliest.

The assessment of liability is further complicated by the possibility of various non work related causes of osteoarthritis:

> ageing, obesity, diabetes, individual susceptibility, unequal leg length, mechanical deficiencies in the joints, and previous joint injuries.

These factors will be considered in relation to causation and apportionment below. In the meantime, carpet layers are the occupation currently most at risk. In the absence of any official guidance from the Health and Safety Executive or others, it is difficult to advise on steps to limit liability. In occupations involving a lot of kneeling where there have been complaints of discomfort, a risk assessment should try and address any risk of injury to the knee.

PSYCHIATRIC INJURY DUE TO STRESS CAUSED BY HARASSMENT AND BULLYING

The judgement in Hatton v Sutherland [2002] 2 All ER 1 has been quoted to such an extent that it is becoming trite law. The principles to be applied when assessing liability in a stress at work claim are clear in themselves but can be difficult to apply on the facts of the individual case. The courts have repeatedly emphasised that stress cases are decided on the facts and the way the principles may be applied has been elucidated over various cases.

Rather than provide on overview of the factual scenarios and decisions in recent cases, a new development in this field will be considered: reliance on the Working Time Regulations 1998. The cause of action arising under the Protection from Harassment Act 1997 will then be explored.

Regulation 4 of the Working Time Regulations stipulates a person's working hours shall not exceed 48 hours over seven days, including overtime. The regulations impose a duty on the employer to take all reasonable steps to ensure compliance with that limit in respect of each employee. Regulation 5 provides that Regulation 4 shall not apply where an employee agrees.

In **Lois Angela Sayers v Cambridgeshire County Council** [2006] EWHC 2029 QB, the claimant, an operations manager, brought an action against her employer for work related stress. She was responsible for managing a large number of team managers, attending meetings and carrying out substantial project work. Although the defendant had breached the regulations the claimant had not worked much in excess of the 48 hour limit. The judge considered there was no separate civil cause of action for breach of statutory duty under regulation 4. The regulations provided a criminal cause of action to the Health and Safety Executive and that was sufficient implementation of the Working Time Directive.

It is clear that breach of regulation 4 and the 48 hour limit does not automatically give rise to a cause of action. The Working Time Regulations are only relevant in so far as they provide a benchmark of what an acceptable number of hours is. Breach of the regulations may be strong evidence in support of negligence where the number of hours worked is manifestly excessive (see for example Hone v Six Continents Rail [2005] EWCA Civ 922 where a pub manager was averaging 90 hours per week and liability was established). The regulations are relevant to the standards to be expected of employers but they still must be considered in the context of the factors identified in Hatton v Sutherland.

There has been a significant extension of liability in harassment and bullying cases.Where harassment or bullying is alleged reliance may be place on the Protection from Harassment Act 1997. Section 1 provides a person must not pursue a course of conduct which amounts to harassment of another and which he knows or ought to know amounts to harassment of another. This invokes the reasonable person test. Section 3 creates a civil cause of action and compensation may be awarded for any anxiety or financial loss caused by any harassment. Unlike the cause of action in negligence, it is not necessary to establish a clinically recognised psychiatric injury to recover compensation. Nor is it necessary to establish forseeability of harm. Furthermore, the limitation period for these claims is 6 years and not three.

The recent House of Lords case, **Majrowski v Guys and St Thomas's NHS Trust,** July 2006, the claimant did not make any claim against the Trust for negligence or breach of his contract of employment. Nor did he make any claim against the manager alleged to have harassed him. His claim was based exclusively on the Act and the Trust's vicarious liability for his manager's alleged breach of a statutory prohibition against harassment. The Law Lords ruled that employers could be vicariously liable for breaches of the Act.

Vicarious liability is a common law principle of strict no fault liability. Under the principle a blameless employer is liable for a wrong committed by his employee while "acting in the course of his employment". It can be described as a secondary liability. Lord Nicholls quoted the policy reasons as:

"All forms of economic activity carry a risk of harm to others, and fairness requires that those responsible for those activities should be liable to persons suffering loss form wrongs committed in the conduct of the enterprise. This is fair because it means injured persons can look for recompense to a source better place financially than individual wrong doing employees. In addition, and importantly, imposing strict liability on employers encourages them to maintain standards of "good practice" by their employees. For these reasons employers are to be held liable for wrongs committed by their employees in the course of their employment."

The Trust argued that the Act was a legislative response to the public order problem of stalking. Vicarious liability would increase very considerably the volume of claims based on stress, anxiety and other emotional problems at work. The defendant would be deprived of the reasonable practicable steps defence set out in the discrimination legislation.

These arguments were put to one side when it was discovered that section 10 of the Act, concerning limitation in Scotland, referred to time starting to run when it would have been reasonably practicable for the pursuer to be aware that the defender was the person responsible for the alleged harassment or the employer or principal of such a person. It was clear that Parliament intended the imposition of the vicarious liability on the employer when the legislation was passed.

There is no definition of harassment within the Act beyond the apprehension of distress and alarm. However their Lordships recognised there is a line to be drawn. According to Lord Nicholls the behaviour must be "oppressive and unacceptable" and Lady Hale considered it needed to be "genuinely offensive and unacceptable behaviour".

Gina Satvir Singh illustrates the unexpected breadth of the act and the cases that can arise under it. The claimant recovered damages against her former mother – in law whose conduct towards her amounted to a campaign of harassment. Majorwski was considered and the judge observed he should be very slow to refuse on policy grounds to grant a statutory remedy if the provisions of that statute applied to the facts of the case. The claimant had suffered a depressive disorder as a result of her treatment and recovered £35,000.

Helen Green v DB Group Services Limited [2006] EWHC 1898 (QB)

The claimant, a company secretary with Deutsche Bank, was subjected to walls of silence and raspberries from other company secretaries who sat near her. She was admitted to hospital where she was diagnosed as suffering from a major depressive disorder. The claimant returned to work on a part-time basis, but suffered a relapse of her psychiatric injury, and then she stopped work. She alleged her psychiatric injury was the result of harassment and bullying by her fellow employees. It was common ground that the claimant had been vulnerable to psychiatric illness before taking up her employment with the bank. She recovered £35,000 general damages as compensation for both depressive episodes and £25,000 for loss of earning capacity. Loss of earnings were agreed at £750,000, based on annual gross earnings in the region of £45,000.

Owen J gave a useful definition of harassment:-

"To constitute harassment within the meaning of the Act there must have been conduct:-

(a) occurring on at least two occasions;
(b) targeted at the claimant;
(c) calculated in an objective sense to cause distress;
(d) which is objectively judged to be oppressive and unreasonable

To compound the situation, only last month the Civil Justice Council announced agreement to 100% success fees in claims arising from occupational stress. It is clearly essential that employers take positive steps to implement their anti harassment and bullying policies.

CAUSATION AND APPORTIONMENT

A defendant is only liable for such damage as his tort has caused. If damage sustained by a claimant is divisible to the extent that one can isolate and identify the damage caused by a particular defendant or period of negligence, the outlay of the insurer may be significantly reduced, even where liability is established.

The recent leading cases on causation and apportionment concern asbestos exposure which is outside the remit of this paper.

In **Thompson v Smiths Shiprepairers Limited** [1984] 1 QB 405, Mustill J divided the claimant's hearing loss into three categories: that which he would have suffered in any event as he aged; that which he suffered non negligently at the hands of his employer and that which he sustained by reason of that employer's negligence. The defendant employer was liable to compensate the claimant only in respect of the hearing loss that came within the third category..

Hale LJ has said: "if it is established that the constellation of symptoms suffered by the claimant stems from a number of different extrinsic causes then in our view a sensible attempt should be made to apportion liability": see **Sutherland and Hatton**

This gives rise to dismay in claimants and also in academic writers. Professor Weir, "The Maddening Effect of Consecutive Torts" has complained;

"The claimant is not half mad because of what the first defendant did and half-made because of what the second defendant did." Claimant lawyers also argue that while general damages may be susceptible to apportionment, other heads of damage are not.

In **Pearce v Lingfield** [2003] EWCA Civ 467, the unfortunate Mrs Pearce had been the victim of no less than three rear end road traffic accidents in the space of nine months. She developed a chronic pain state which lead to her giving up her employment. She accepted she would not have had to give up work had she not suffered the third accident. The first and second defendants argued that they were not liable for her loss of earnings but that the third defendant should be wholly liable for this aspect. The Court of Appeal soundly rejected this argument. The position was summarised by Kay LJ:

"…on the agreed medical evidence it was the claimant's medical state by 1995/1996, two or three years after the accident, that brought her teaching career to an end. By that time her condition was the result of the cumulative effect of the three accidents and not the direct effect of any one of them. Of course the claimant was right when she said she might well have been able to have continued work if the third accident had not occurred, but that was in the sense explained by my Lord Clarke LJ, in argument that

it was the third accident that triggered the situation. But the cause on the medical evidence was not simply that accident but the cumulation of the three accidents"

For example, in the osteoarthritis cases, a discount may be made for any acceleration caused before 1990. There may also have been a degree of inevitable exposure to keeling and consequent injury after 1990. A discount should also be made for injury caused by this non negligent exposure. Discounts may also be made to reflect injury caused during other periods on risk involving other insurers. Finally, discounts may be made to reflect unrelated causes of the injury, for example obesity or previous trauma to the knee.

In order to win discount arguments the work history needs to be fully investigated with detailed statements taken of exposure levels. Expert medical and possibly engineering or ergonomic evidence will be required in order to evaluate the risks, the state of the relevant industry knowledge of any risks, the likelihood or otherwise that any injury was caused by working practices and whether any available steps to reduce the risk are likely to have made any difference.

The proper investigation of emerging diseases is essential and costly. Where there is more than one insurer on risk the costs may be shared.

LIMITATION

A discount may also be made to reflect damage caused outside the limitation period (see **Allen v BREL** [2001] ICR 942)

CONCLUSION

Claimants' solicitors continue to try and push back the boundaries of liability. Rather than let sleeping dogs lie it is important that employers assess the risks and/or take what steps they can to reduce any risks to the health of their employees.

Even in an area as speculative as mobile phones, there are preventative measures which can be taken now at little or no extra cost to the employer. The ongoing osteoarthritis litigation indicates there is a risk this will be a liability of the future in certain industries. Any complaints of discomfort in the knees from those who kneel a great deal should trigger risk assessments, even if there are few meaningful steps that can be taken to reduce the risk at this point. It should be a condition of providing employer's liability cover that the insured can produce a record of monitoring and enforcement of an anti harassment and bullying policy.

In those cases where liability is established, all is not lost. With careful investigation and the relevant expert evidence, substantial discounts can be obtained in the level of damages awarded.

Whether one is considering possible liabilities of the future or trial in the coming year, it is important that the bull is taken by the horns.