Occupational hygiene issues in healthcare

Ian Kellie
Chief Examiner, BOHS
Occupational hygiene issues in healthcare

- What is occupational hygiene?
- How do you recognise an occupational hygienist?
- The British Occupational Hygiene Society
- Case studies in the healthcare sector
- Current issues in the healthcare sector
What is occupational hygiene?

• The science behind minimising the risk of ill health due to the workplace
• Recognising potential hazards to health
• Assessing and evaluating risks to health
• Recommending measures to eliminate or minimise risks
• Communicating the message to management and the workforce
What does a hygienist do?

• Monitors exposure to agents that can cause harm if inhaled: dusts, fumes, vapours, gases
• Monitors physical agents in the workplace: noise, vibration, non-ionising radiations, thermal factors, etc
• Evaluates risks from exposure to workplace agents
• Advises on risk reduction measures
• Helps management to comply with legislation
• Communicates with those potentially at risk
How do you recognise a hygienist?

• Usually holds a degree in a scientific discipline
• Holds a professional qualification in occupational hygiene
• Has facilities to monitor the work environment
• Has experience to recommend workable risk reduction measures
BOHS – our professional body

BOHS is:

• A learned society open to anyone with an interest in workplace health and safety

• A professional body that develops and maintains the standards of qualified occupational hygienists

• The publisher of an international research journal

• A founder member of the International Occupational Hygiene Association
BOHS qualifications

- Proficiency modules in specialist areas (asbestos, legionella, ventilation testing, etc)
- Certificate of operational competence in occupational hygiene
- Certificate of competence in a specialist area
- Diploma of professional competence in occupational hygiene
- Chartered occupational hygienist
My experience in the healthcare sector

• 40 years experience in occupational hygiene
• 5 years in a major teaching hospital
• 20 years as an independent occupational hygiene consultant
  ❖ investigating health hazards at work
  ❖ acting as an expert in civil claims for damages
Case study 1: The lab technician

Background:

• Mr A worked as a hospital laboratory technician 1967-69
• Used chemicals now known to be carcinogenic
• Developed bladder cancer which he associated with his work as a lab technician
• Claimed damages from his former employer
• Was his claim credible?
Case study 1: The lab technician
Case study 2: The maintenance engineer

Background:

• Mr B worked as a hospital maintenance engineer for ca. 30 years

• He had a small workshop attached to his office with basic machining equipment

• He developed extrinsic allergic alveolitis which he associated with the substances he worked with

• Was there any basis for his claim?
Case study 2: The maintenance engineer
Case study 3: The nurse

Background

• Mrs C was a staff nurse in a surgical ward
• Incident during visiting hours when a confused patient fouled the ward toilet
• Mrs C used a powerful disinfectant in the toilet to clean up
• She was exposed to noxious fumes and suffered breathing difficulties
• She claimed compensation from her employer
Case study 3: The nurse
Case study 4: The orthotics department

Background

- Mrs D worked as a technician making footwear insoles
- She used machinery to cut, shape and buff polymer
- She alleged exposure to dust caused development of occupational asthma
- Was her claim credible?
Case study 4: The orthotics department
What are the current issues?

What are the current issues?

Top 5 Annals topics:

1. Work with antineoplastic drugs
2. Effectiveness of respiratory protection for healthcare workers
3. Effectiveness of protective gloves for healthcare workers
4. Exposure to bioaerosols
5. Exposure to magnetic fields
Antineoplastic drugs (1)

• Also known as *cytotoxic* drugs
• Used in treatment of cancers and other diseases
• Chemicals are toxic to cells
• Potential for occupational exposure to handlers:
  - Skin contact and/or absorption
  - Inhalation of aerosols
  - Ingestion
  - Needle stick injuries
Antineoplastic drugs (2)

Potential risk activities:
- Drug preparation
- Drug administration
- Handling patient waste
- Waste disposal
- Spill cleanup
Bioaerosols: Surgical smoke (1)

Hazard:
• Smoke from diathermy, laser surgery etc.
• May contain toxic gases and vapours + bioaerosols
• Causes irritation to eyes and respiratory tract
• Surgical staff potentially at risk
Bioaerosols: surgical smoke (2)

Control of smoke by local extract ventilation:

• At tip of tool
• Close to point of treatment
Any questions?