CoP Substances Hazardous to Health  July 2004

Code of Practice for
THE SAFE USE OF
SUBSTANCES HAZARDOUS TO HEALTH
July 2004

Royal Free Hampstead NHS Trust

&

Royal Free & University College Medical School
(Royal Free Campus)
CONTENTS

1. Introduction

2. Responsibilities
   2.1 general management responsibilities
   2.2 specific responsibilities

3. COSHH requirements
   3.1 risk assessment
   3.2 prevention and control of exposure
   3.3 maintenance, testing and examination of control measures
   3.4 monitoring of exposure
   3.5 health surveillance
   3.6 information, instruction, training and supervision
   3.7 accidents and emergency measures

4. References

Appendix A: Summary of responsibilities
1. INTRODUCTION

Status of this document
This Code of Practice is concerned with compliance with the Control of Substances Hazardous to Health Regulations 2002.

This code explains how the general duties of managers and employees, as set out in the Trust Health and Safety Policy, apply to the use of substances hazardous to health. The Medical School has its own policies which are similar to this document.

Scope of COSHH Regulations
The COSHH Regulations cover the use at work of almost any substance (chemical or biological agent) in any form (eg gas, vapour, liquid, solid) that is hazardous to health. They cover work in laboratories, use of cleaning agents, use of anaesthetic gases and handling of human blood/tissues and body fluids. The regulations are supported by a general Approved Code of Practice (ACOP)\(^1\) and several specialist ACOPs.

There are a few exceptions, the main one being lead and asbestos which have their own regulations with similar requirements\(^{(2,3)}\) and flammability hazards, which are covered by the Dangerous Substances and Explosive Atmospheres Regulations 2002.

Medical and dental treatments in terms of effects on patients are not covered by the COSHH Regulations. However, the preparation, dispensing and use drugs for experimental purposes are covered. Also, there are requirements to limit the exposure of staff to certain anaesthetic gases\(^{(4)}\).

2. RESPONSIBILITIES

The ultimate responsibility for compliance with the Regulations rests with the employer, (Board for RFH and Council for UCL). Managers from both institutions are assigned specific duties as detailed below.

Duties are also summarised in Appendix A.

2.1 General Management Responsibilities
Managers who control work with hazardous chemicals or micro-organisms have a duty to ensure that all of the specific requirements listed below in this document are complied with (where they apply to their areas of work):

- To carry out a risk assessment
- To provide control measures to prevent exposure to hazardous substances.
- To ensure that control measures are properly maintained, examined and tested at the appropriate intervals. (Note, this duty applies even if the control measures are physically maintained, inspected, etc by a third party.)
- To inform the Occupational Health Department about employees who may need health surveillance, and ensure that the health surveillance takes place.
- To provide information, instruction, training and supervision in relation to work with hazardous substances
• To ensure that a person does not work with hazardous substances alone unless training has proven they are competent to do so.
• To ensure that any personal protective equipment provided is suitable for the person and the job, and is properly used and maintained.
• To be prepared for any possible emergencies involving the hazardous substances in their area
• To register with the HSE first time use and consignment of certain biological agents used for laboratory work

2.2 Specific responsibilities

Director of Projects
The Director of Projects has a duty to ensure that where control measures are provided at the request of a Department, the maintenance, testing and inspection requirements as required by COSHH or as described in the relevant British or European Standard are complied with and that adequate methods of testing the control exist.

Director of Works Operations
The Director of Works Operations will ensure that any plant with control measures that comes under the control of Projects / Works is given a thorough examination and test at minimum specified frequency set out in their PPM (planned preventative maintenance) schedule or at least once every 14 months, and that records of all such examination and testing are kept for at least 5 years.

Director of the Occupational Health Department
The Director of the trust’s OH Department is responsible for carrying out suitable health surveillance on trust employees exposed to hazardous substances. (The University College OH Department has a similar responsibility for Medical School employees.)

3. COSHH requirements
The following discussion applies to all hazardous substances. There are additional requirements for certain types of hazardous substance:
• Carcinogens: see the COSHH ACOP\textsuperscript{1} - Appendix 1
• Asthmagens: see the COSHH ACOP - Appendix 3
• Biological agents: see the COSHH ACOP - Appendix 2, paragraphs 109-117, and Schedule 3.

These additional requirements are not discussed in this code. The ACOP should be consulted if the work involves any of these substances.

3.1 risk assessment
A COSHH risk assessment must be carried out before a substance hazardous to health is used in the course of work. This applies to all work areas. The risk assessment made under the COSHH Regulations may be combined with assessments required by other health and safety legislation.

The assessment process entails first identifying the nature of any hazard and then
estimating the risk of exposure. The measures needed to prevent exposure also form part of the assessment. The Regulations require the use of control measures to prevent harmful exposure. Prevention of exposure by the use of personal protective equipment, which should generally be chosen as the last option is dealt with in the Royal Free policy[5].

An important part of the risk assessment process is the identification of people who may be especially at risk. The people at risk may include others not directly involved in the work, for example colleagues working in an adjacent area, or cleaners. Of particular relevance to the Royal Free site are new or expectant mothers (a phrase used in the Management of Health and Safety at Work Regulations1999.)

The Head of Department or Manager in charge should decide who will carry out the necessary risk assessment. The person completing the assessment must be competent to carry out this task – this will normally involve some COSHH risk assessment training. Academics may delegate assessments to students, but they remain responsible for the assessment.

A COSHH risk assessment form, with guidance, is available separately on Freenet.

3.2 prevention and control of exposure
Before exposure can be controlled, the way the substance enters the body must be identified (this is known as the route of entry). The main routes of entry are:

- Inhalation
- Skin absorption
- Injection
- Eye contact (e.g. splashes in the eye) – vapours can affect the eyes
- Ingestion

There may be more than one route of entry for a given activity and they all need to be considered during the risk assessment.

Each route of entry should then be compared against the control measures, to make sure that each route is adequately protected. If there is a deficiency in control measures, then additional controls must be provided.

The concentration in air of certain airborne substances is controlled by means of exposure limits. They are set out in HSE publication EH40 “Occupational Exposure Limits”, updated annually. Exposure to a substance with an OES should not exceed the OES value. Exposure to a substance with an MEL must never exceed the set value and must be as low as is reasonably practicable.

Personal Protective Equipment (PPE) must be considered as a measure of last resort. This is because PPE only protects the person who is wearing it. Also, all PPE has limitations and does not give 100% protection. There are also training issues with regard to the use of some PPE, and fit-testing is expected for respiratory protectors to make sure that the mask properly fits the person wearing it.

3.3 maintenance, examination and testing of engineering control measures
All equipment provided for controlling exposure to chemicals or micro-organisms must be given a thorough examination and test at specified intervals:

- Local exhaust ventilation (LEV) – at least once every 14 months
- Non-disposable respiratory protective equipment – at least once a month

Records of all servicing / examinations must be kept for at least 5 years.
Servicing and/or examination would normally be carried out by Works, or an external contractor or in some cases the department themselves. Servicing and examination needs to be carried in accordance with manufacturer’s / supplier’s instructions or in accordance with a national / EU standards.

For local exhaust equipment without a fitted flow alarm, a weekly check needs to be made to establish that the equipment is working. (A tick box system of recording weekly checking should be used).

3.4 monitoring of exposure
For certain airborne hazardous chemicals it may be possible to arrange monitoring. Such checks are a legal requirement if the exposure to people in the workplace is likely to be near of above the legal limits. If you think this may apply to your workplace you should contact the Safety Office.

3.5 health surveillance
The employer is required by COSHH to carry out health surveillance where people may be affected by the chemicals or micro-organisms with which they work. Detailed advice is given in the OH Guidelines for Managers(6). The classes of chemicals where surveillance may be required include the following types:
- where an identifiable disease is associated with exposure to that substance,
- known or suspected carcinogens,
- substances of recognised systemic toxicity (where ingestion, inhalation or absorption are probable),
- substances known to cause sensitisation,
- substances known to cause dermatitis.

3.6 information, instruction, training, supervision
Information, instruction, training and supervision must be provided for staff (and students) working with hazardous substances. It must be both suitable and sufficient, ie. relevant to the substances being used and the way they are being used, and cover the full extent of identifiable risk. It must also be suitable for the person, taking into account the person’s mental and physical capabilities. Instructions may need to be translated if the person cannot understand because of a poor command of English.

Information should include details of the health risks and the precautions that should be taken. Special attention should be paid to those groups shown in the assessment to be especially at risk (eg young persons and new or expectant mothers). There should be information on the control measures – why they are needed, how and when they should be used. Where health surveillance is indicated, the staff concerned must be told about the procedures and have access to their own records.

Instruction must be given to staff (and students) on how to carry out procedures safely and how to use control measures. They must also be instructed about procedures to be followed in any foreseeable emergency that may arise during work with the substance.

Training must be given to people who also need to use control measures and personal protective equipment (PPE). The training needs to cover the carrying out of risk assessments. In some cases, training in emergency procedures will be necessary.
Supervision is an often-overlooked management duty. It is particularly important for managers to make a critical appraisal of the competence of each employee because this, together with the complexity of the job, will dictate how much supervision should be given.

3.7 accidents & emergency measures
It is a legal requirement to be prepared for emergencies. This will include events such as spillages and any special antidotes that may be required to treat exposure. Guidance is available in the spillage policy (7) and advice on appropriate PPE may be found in the PPE policy (5).

Should the spillage require the intervention of the emergency services (e.g. Fire Brigade), then the person responsible for the process needs to ensure that the appropriate information is available for the emergency services.

4. REFERENCES

1. Control of Substances Hazardous to Health (Fourth Edition); ACOP and guidance, L5; Control of Substances Hazardous to Health Regulations 2002. HSE Books
2. Control of Lead at Work Regulations 2002, ACOP; HSE Books.
3. Control of Asbestos at Work Regulations 2002, ACOP HSE Books

Other Royal Free COSHH-related documents (available on Freenet) are:

- Arrangements for the use of Gluteraldehyde (Cidex)
- Laboratory Fume Cupboards: Arrangements and Guidance
- Liquid nitrogen – code of practice, July 2004
- COSHH risk assessment proforma and guidance, July 2004
- Laboratory Disinfection Policy
## APPENDIX A
### Summary of responsibilities

<table>
<thead>
<tr>
<th>Ref</th>
<th>Subject</th>
<th>Action</th>
<th>Person responsible</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.0</td>
<td>Certain biological agents</td>
<td>Register first-time use</td>
<td>Manager</td>
</tr>
<tr>
<td>3.1</td>
<td>Risk assessment</td>
<td>Appoint trained, competent assessor</td>
<td>Manager</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Carry out assessments</td>
<td>Assessor</td>
</tr>
<tr>
<td>3.2</td>
<td>Exposure prevention/control</td>
<td>Identify control measures</td>
<td>Assessor</td>
</tr>
<tr>
<td>3.3</td>
<td>Control measures</td>
<td>Provide control measures</td>
<td>Manager</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ensure CM are maintained</td>
<td>Manager</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Maintain CM; carry out periodic checks</td>
<td>Manager, employee, Works Dept</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Ensure statutory inspections are carried out</td>
<td>Manager, Works Dept</td>
</tr>
<tr>
<td>3.4</td>
<td>Monitoring exposure</td>
<td>Identify needs</td>
<td>Assessor</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Ensure monitoring is carried out</td>
<td>Manager</td>
</tr>
<tr>
<td>3.5</td>
<td>Health surveillance</td>
<td>Identify health surveillance needs</td>
<td>Assessor</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Ensure H/S is carried out</td>
<td>Manager, employee</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Carry out H/S</td>
<td>OH (RFH/UCL)</td>
</tr>
<tr>
<td>3.6</td>
<td>Information, Instruction, Training Supervision</td>
<td>Identify needs</td>
<td>Assessor</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Ensure IIT needs are met</td>
<td>Manager, employee</td>
</tr>
<tr>
<td>3.7</td>
<td>Emergency actions</td>
<td>Identify</td>
<td>Assessor</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Ensure preparedness (eg Information, Instruction, Training, equipment, practices)</td>
<td>Manager</td>
</tr>
</tbody>
</table>