Safety rules in the biological teaching laboratory

This document contains the set of general rules for action (procedures, safety and behaviour) for staff taking part in the teaching practices in a biological laboratory, and aims to improve safety conditions and practical training of students against general and specific risks deriving from the activities carried out in the laboratory.

The person responsible for the practical must inform participants of these rules and ensure safe conditions to students, as well as obtaining their agreement through a signed document.

OBJECTIVES

— Ensure that the practicals are carried out correctly.
— Make available the material necessary to carry out the practicals and ensure its conservation.
— Ensure the safety of students and other users to prevent potential accidents.
— Have the necessary tools to minimise damage in the case of an accident.

STUDENT RESPONSIBILITIES

— Carefully read the safety rules in the teaching laboratories and always be aware of them.

— Register their agreement to follow the rules by signing the test for the online training course in "Laboratory Safety" (available on the Campus Virtual) once it has been passed. The lecturer in charge of the practicals may request this document.

— Be responsible for the safety materials used in the practicals and undertake to return it at the end in the same condition in which it was received.

— Report any incident that occurs to the member of staff responsible for the practicals or to the laboratory administrative and services staff (PAS) immediately.

— Inform the teaching team of any personal circumstances that may make students more vulnerable or sensitive to possible risks (e.g. pregnancy or desire to become pregnant, allergies, etc.).

Failure to follow and observe these rules by students may lead to their suspension from the activities and a fail in the practicals as part of the subject assessment.

INTRODUCTION TO BIOSAFETY

Biological safety or *biosafety* is defined as the set of measures (organisation, best practices, facilities design, safety equipment, etc.) aimed at preventing risks and protecting health and the environment from all potentially dangerous biological agents.

Biological agents are defined as organisms, including those which have been genetically modified, that are susceptible to any type of infection, allergy or toxicity in humans, animals or plants, or which may cause toxic effects in the environment. They also include the allergens and toxins which may be produced by them.

Biological agents can penetrate the organism and cause disease in different ways:

— *Ingestion* (touching the mouth with contaminated hands or engaging in the prohibited practice of mouth pipetting, etc.).
— *Inhalation* of bioaerosols.
— *Contact* with wounds or *punctures* (parenteral).
— *Contact* with mucous membranes (e.g. with contaminated hands).

There are many incidents and accidents that can cause infection such as:

— Spills and splashes.
— Punctures by needles.
— Cuts by sharp objects or broken glass.
— Bites or scratches by animals or parasites.
— Aspirating contaminated liquids through a pipette (even though this practice is prohibited).
— Centrifugation accidents.
— Exposure to infectious aerosols.
— Accidental dissemination of biological agents into the environment.

RISK GROUPS

Royal Decree 664/97 sets out a list of biological agents classified by risk group, based on factors such as: pathogenicity, the mode of transmission and the possibility of prevention or the effectiveness of treatment, among others. This classification assumes the existence of normal laboratory conditions, the possible effects on healthy individuals and the volume of cultures produced in experimental or diagnostic procedures. There are four risk groups or categories:

Biological agent in Group 1. Unlikely to cause disease (e.g. *Bacillus subtilis*).

Biological agent in Group 2. May cause disease but this is unlikely to spread to other members of the group and for which preventive or therapeutic interventions are often available (e.g. *Salmonella enterica,* serotype *typhimurium*).

Biological agent in Group 3. May cause serious disease, with a risk of this spreading to other members of the group, and for which preventive or therapeutic interventions may be available (e.g. *Brucella abortus*).

Biological agent in Group 4. Causes serious disease with high probability of spreading to other members of the group and for which preventive or therapeutic interventions are not usually available (e.g. Ebola virus).

BIOSAFETY LEVELS (BSL)

Both Royal Decree 664/1997 (biological agents in general) and Royal Decree 178/2004 (genetically modified organisms) set out levels of containment or minimum working conditions for working with any of the risk groups. There are also other requirements which, although not mandatory under the regulations, should be taken into account according to the risk assessment.

There are therefore four levels described for biological containment or biosafety in laboratories:

Biosafety Level 1 (BSL-1)

This level is appropriate for teaching practicals laboratories and for other laboratories using defined and characterised strains of microorganisms which are not known to be generators of diseases (risk group 1). BSL-1 does not have any special characteristics outside those which would be expected of a well-designed laboratory. operations can be carried out on an open bench top and containment is achieved by applying standard microbiological practices.

Biosafety Level 2 (BSL-2)

This applied to laboratories (for research, diagnosis, clinical or other types) where biological agents of moderate risk are handled which are associated with moderately serious diseases (risk group 2). Exposure to these agents mainly takes place through ingestion, inoculation and absorption through mucous membranes. These agents are rarely airborne but the formation of aerosols should be avoided (as they may settle on surfaces and present a risk of ingestion through contaminated hands) or splashes. The hygiene rules must be explained to all laboratory personnel and the universal decontamination equipment (autoclave) should be used. It may also be necessary to use biosafety cabinets and wear the appropriate personal protective equipment (gloves, goggles, etc.).

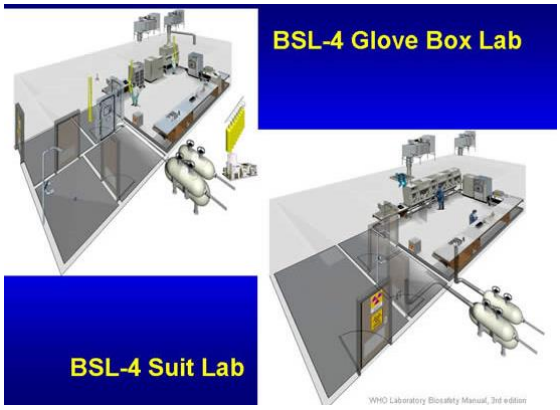
Pathogenic microorganisms or those capable of causing disease (Risk group 2 or above) are not appropriate for use in teaching practicals and it is therefore recommended that are not handled.

Biosafety Level 3 (BSL-3)

This is the biocontainment level applied in laboratories for diagnosis, research, clinical work and production where risk group 3 biological agents are handled. These agents can be transmitted by aerosols, usually have a low infective dose and can cause very serious or fatal diseases. This level may require primary and secondary supplementary barriers such as HEPA filters for outgoing air, access restricted to authorised personnel, the use of respiratory protective equipment, etc.

Biosafety Level 4 (BSL-4)

This is the maximum biocontainment level and is applied in laboratories where biological agents are handled which may be transmitted by aerosols, have a low infective dose and produce very serious or fatal diseases for which there is generally no treatment or vaccination. This level corresponds to isolated units in both structural and functional terms. The laboratory is completely sealed and any loss of pressure can be detected. Personnel must wear a positive pressure supplied air protective suit or the use of class III biosafety cabinet, and both the air and the waste are pre-treated before being disposal.



GENERAL SAFETY RULES IN THE LABORATORY

1. First-time use of the laboratory

Before beginning to work in the laboratory:

— Read the guide and practice protocol carefully before starting and also take into account these rules for teaching laboratories.

— Locate the safety elements and familiarise yourself with them (fire extinguishers, fire blanket, safety showers, eyewash station, sink for hand washing, safety cabinets, etc.).

— Locate the emergency exits.

2. General use of the laboratory

Personal behaviour, hygiene rules and personal protection

— Safety goggles and protective clothing (e.g. lab coat, always buttoned up, overalls, scrubs, etc.) specific to the space are mandatory, in accordance with the instructions of the teaching staff.

— Wear leg and foot protection. Synthetic tights, skirts, shorts and open footwear are prohibited (e.g. sandals, flip-flops, etc.).

— Always wear long hair tied back as it may be the cause of an accident.

— Take off any objects which could get caught, pulled or make personal hygiene difficult (e.g. necklaces, pendants, bracelets, scarves, foulards, rings, etc.).

— Avoid wearing contact lenses as in the case of accidents involving chemical products or their fumes they could make eye injury worse. If unavoidable always wear close-fitting safety goggles.

— Do not eat, drink (including water) or chew anything in the laboratory. Do not bring food or drink into the laboratory.

— Avoid placing anything that has been on the bench in your mouth (e.g. pens, etc.) or biting your nails.

— The practicals guide must be printed on paper. No electronic devices are allowed for following the protocols for the practicals.

— Keep personal objects away from the working area (e.g. garments, sweets, bags, wallets, mobile phones, laptops, tablets, MP3, etc.).

— Take care when handling chemical or biological products and do not touch your eyes, mouth or skin.

— If the practical requires it, use adequate personal protective equipment (goggles, gloves, etc.).

— Wash your hands with soap and water before and after the practical and whenever they have been in contact with potentially contaminating material. Dry your hands with a disposable paper towel or the warm air dryer.

— Before leaving the laboratory take of your lab coat and put it away.

— Even when you are not working with particularly dangerous substances it is recommended that you wash your lab coats separately.

— Any cuts and wounds you had before entering the laboratory should be covered with waterproof dressings and gloves. Your doctor may recommend that you do not use the laboratory. If the injury took place in the laboratory, you should report it to the teaching staff who will register it with a description of the circumstances. Would and cuts should be properly dressed and gloves must be worn.

— Report any personal circumstances to the teaching staff beforehand (e.g. pregnancy, allergies, medicaments, etc.) which could make you more susceptible to risk of exposure to contaminating agents.

—Tetanus vaccination is recommended.

Behaviour in the laboratory

— You must behave responsibly. Do not play, run, shout, make jokes, etc.

— Access to the laboratory is restricted to the students who are doing practicals there.

— You may not leave the laboratory without justification.

— If you need to move around in the laboratory, do so carefully and try not to interrupt the work of your colleagues.

— Use the equipment and instruments responsibly and do not carry out experiments that have not been authorised by the person responsible for the practical. Ensure that all the materials are in perfect condition for use and that they are correctly assembled.

— Do not work hurriedly. Think about what you are doing and what you have to do at all times. Plan your tasks in advance.

— Always work close to the lab bench.

— Do not handle lighters or matches unnecessarily.

— If you notice any risk or in the case of an accident or incident, report it to the teaching staff responsible for the practical.

— When you have finished the experiment make sure you disconnect the apparatus, water and gas and clear up the materials, reagents, equipment, etc.

Conditions for order and cleanliness in the working space

— The laboratory must be clean and tidy at all times as untidiness means risk.

— Keep the working area clear of personal objects (folders, books, telephones, etc.) which are not strictly necessary for the practical.

— Hang coats, bags and other possessions on the hooks or put them in the allocated place. Never put them on the laboratory benches.

— Keep the benches and the safety cabinets clean and tidy. Untidiness means risk.

— All materials and apparatus used must always be clean and ready for use.

— Any spills must be cleaned up immediately under the supervision of the teaching staff responsible.

3. Use of chemical agents

— Never substitute one chemical product in an experiment for another unless you have been told to do so by the teaching staff responsible for the practical or under their supervision.

— Never place chemical products in your pockets.

Identification

You must be able to recognise the meanings of the following pictograms on labels of dangerous chemical products.

Former labelling:

Present labelling:

Physical danger	Danger for human health	Environmental danger	Gases
			

— Read the label carefully before opening and using a product. If you need more information about the level of danger and the way of controlling risk consult the material safety data sheet (MSDS).

— Carefully identify the solutions prepared in the laboratory (e.g. name of product, level of danger, date of preparation, where necessary).

— Never use an unlabelled product.

Handling

— Handling all products with extreme care. Do not handle, inhale, taste or smell any chemical product that you have not been told about by the person responsible.
— Mouth pipetting is prohibited. Always use the most appropriate transfer device in each case (test tube, mechanical pipettes, dispensers, etc.).
— Products that give off toxic, corrosive, irritant, lacrimogenous or inflammable fumes must be handled under a safety cabinet.

— Avoid handling dangerous products higher than eye level.

— Open the reagents employed only at the time of use. Afterward close the containers properly.

— Use the appropriate personal protective equipment when handling products that carry a risk:

- Use safety goggles if there is a risk of splashes from dangerous liquids or a face shield if splashes are bigger.
- Always use latex or nitrile gloves to protect against contact with these products.
- In cases of products of low or high temperatures use thermal protection gloves.

— Do not heat inflammable products or bring any chemical product in general close to a Bunsen burner. Close the gas tap when not in use.
— For liquids do not submerge the pipette lower than necessary for extractions. Pour an amount of the reagent into a smaller receptacle which should be correctly labelled.
— Do not pour any remaining liquid back into the bottle. Treat it as waste.
— Never heat a completely closed receptacle. Avoid pointing the receptacle at anyone. Make sure there are no inflammable products around, especially solvents.

— Do not move reagents and/or products unnecessarily from one place to another. If you must move them always use test tube racks or other supports. Never directly in your hand or in your pocket.

4. Use of biological agents

Whenever we handle biological agents, samples for diagnosis, cell cultures, body parts, sick people and animals etc. there is always a risk of exposure to biological agents. When working with blood, tissues and other human body fluids (e.g. semen, vaginal secretions, cerebrospinal synovial, pleural, peritoneal or amniotic fluid) these must always be considered potentially contaminating and the appropriate measures should be taken (*universal precautions*) which principally aim to prevent pathogens transmitted by blood such as the human immunodeficiency virus (HIV), hepatitis B or C virus (HBV, HCV) and others such as herpes (SHV) or Epstein-Barr virus (EBV), bacteria such as *Mycobacterium tuberculosis*, *Haemophilus, influenzae* or parasites. It is not necessary to take these measures when handling faeces, nasal secretions, phlegm, saliva, urine or vomit unless it visibly contains blood.

— Teaching staff responsible for the practical must demonstrate the procedure for handling the biological agents used in the practical and student must scrupulously follow their instructions.

— Minimise the movement of people and materials in the corridors during the practical.

— Inform teaching staff in advance if the sight of blood or needles makes you faint.

— All microorganisms must be handled as though they were pathogens.

— Human samples must not be used as a source of bacteria, viruses or fungi.

— Students are not permitted to take mediums or specimens out of the laboratory.

— Do not ever aspirate liquid cultures up into the pipette using your mouth. Always use the special equipment (e.g. mechanical pipettes, dispensers, micropipettes, etc.). Micropipettes should be used for the transfer of small amounts of inoculum. For larger volumes use a pipette with mechanical suction.

— Never mix a liquid containing infectious agents using alternating vigorous suction and expulsion with the pipette.

— The expulsion of the liquid contained at the end of the pipette should be done gently, allowing it to slide down the inner wall of the receptacle.

— To count the colonies of an infectious agent always use a closed petri dish sealed with Parafilm.

— Unless it is disposable, the inoculating loop should be sterilized, preferably in a microincinerator before and after the transfer of a microorganism and after storage.

— After sterilizing the inoculating loop, check that it is cold by touching part of the solid medium or the inside of the petri dish lid and never waving it in the air, before picking up the inoculum – this prevents aerosols from forming.

— Carefully identify the receptacles containing samples or cultures (e.g. species, date, group, etc.).

— Report any spills or contact with the skin or mucous membranes to the teaching staff.

— Avoid doing anything that might mean hand to mouth, face, nose, hair or other parts of the body contact (with or without gloves).

— Use waterproof aprons, especially when producing large amounts of blood or other organic liquids may be splashed.

— Latex or nitrile gloves must be used in all work involving contact with blood and body fluids,

potentially infectious samples or infected animals, or if you have cuts, scratches or other skin wounds.

— Always check that the gloves have no holes or tears. Gloves must be taken off and thrown away before leaving the laboratory. While wearing gloves never answer the phone or touch books or pens, or type on the computer or touch parts of your body, etc. as this will only spread the contamination.

— Gloves are an important means of protection, despite the fact that they will not prevent punctures or cuts (latex gloves reduce the amount of fluid transferred by around 50%).

— When taking off contaminated gloves avoid contact with your skin by the outer part and turn the gloves inside out as shown in the following photographs:

— Whenever there are risks of splashes by liquid cultures, blood or other body fluids reaching the nasal, oral or ocular membranes, safety glasses or goggles, face shields or other protection must be used.

— To avoid cuts it is better to use plastic materials and not glass.

— The production of aerosols must be minimised in all techniques carried out such as: centrifugal processes, trituration, mixing, shaking, ultrasound scattering, opening containers, fitting hot handles or needles, brusque injections of fluids using pipettes of syringes, etc.

— Do not lean over Bunsen burners or move your arms over them when they are lit. The probability of getting burnt is reduced by working seated in front of the flame.

— Fixing and dying samples of blood, sputum and faeces in order to view them through a microscope does not necessarily deactivate all the microorganisms. This material should be handled with tweezers, appropriately stored and decontaminated before throwing away.

— The use of syringes and hypodermic needles is restricted to parenteral injection and the aspiration of liquids from animals. The use of vials with perforable caps is restricted. Extreme precaution must be taken during the use and disposal of these instruments.

— To take blood samples the “Vacutainer- tube rack-protected sterile needs” system should be used to minimise the risk of contact with the blood.

— Intravenous needles should be disposed of by the teaching staff.

— Lancets and needles are for strictly individual use and should be disposed of immediately after use in the sharps container.

— Voluntary donors for the practicals can never be carriers of infectious diseases (e.g. AIDS or hepatitis, etc.) have problems with blood clotting or appear to have symptoms of an infectious disease at the time of donation.

— Student may only handle samples and material if they themselves are the donors.

— The aspiration of liquids is carried out mechanically and the use of glass Pasteur pipettes is not recommended because of their fragility and the risk of self-inoculation.

— To avoid accidental spillages during aspiration use only tip of the pipette.

— The tubes should have a system of sealed tops, especially if they need to be shaken, and when not in use they should be placed in the rack or a similar support.

— Disposable syringes and needles should be disposed of straight away in lab safety sharps containers.

— To separate the needle from the separating system on the sharps containers (do not attempt to separate them using your hands). Never replace the protective cover for the needle or force them.

— Always check that there are no needles in the pockets of your lab coat before washing or disinfecting it.

— The work surfaces must be decontaminated at least at the end of the activity and always when there is a spillage. Ask the teaching staff responsible for the practical what the specific cleaning and disinfection procedure is (e.g. use of bleach).

— All objects which may have become contaminated (e.g. heaters, fridges, freezers, spinners etc.) and the biohazard waste containers must have a biological risk warning sign.

— There must be a clearly labelled space in the laboratory for students to deposit material that requires sterilising.

— All samples containing biological agents must be transported in a double container with a firmly fitting lid to avoid any liquid getting out, and should be clearly labelled. Never carry it in your pocket.

— Take even more care if you see the warning signs for biological risks.

— You are recommended to have an anti-tetanus and hepatitis B vaccination if you are working with human samples.

5. Use of physical agents

In general, most laboratories have equipment to generate ionising, sound, and high and low temperature radiation, non-ionizing radiation and vibrations.

There may be equipment, materials or products at either high or low temperatures. Do not handle these elements without the adequate safety precautions (for example, instruments such as tweezers to hold the objects, thermal protective gloves, cryogenic gloves, etc.).

When working with laser sources avoid looking directly at the beam or its reflection as this can be very dangerous in contact with your eyes or skin (it can cause serious burns). Follow the specific instructions of the teaching staff responsible for the practical and in particular the procedure for use of the individual protection equipment.

In the case of exposure to radiation (e.g. ultraviolet radiation) and before starting the class, the lecturer should tell you about the different types of radiation, the possible genetic and somatic effects, safety distances, protection equipment and safe working methods.

6. Use of glass materials

— Never use imperfect glass material (e.g. chipped, cracked). Reject any glass which is defective, no matter how minor.

— Never pick up broken glass with your hands. Use tweezers or sweep it up with a broom and dustpan.

— Put the pieces of defective or broken glass in the glass waste container.

— Never carry glass in your pockets.

— Pick up the test tubes using tweezers. You cannot tell apart the hot test tubes from the cold ones. Carefully test the temperature of receptacles that have been heated before picking them up with your hands.

— To insert stoppers in glass tubes, wet the tub and the hole with water or silicone and protect your hands with a cloth or a protective glove.

— Never heat a completely closed receptacle. Heat tubes on their side and use tweezers. Do not point them at anyone. Make sure there are no inflammable materials around you, especially not solvents.

— Never force bottle tops, stopcocks, gas taps etc. with your hands if they have got stuck.

7. Handling of equipment and apparatus

— Do not use any equipment or apparatus that it not specified for use in the practical.

— Never use any equipment without knowing perfectly well how it works. If in any doubt ask the teaching staff.

— Never use equipment on which liquid has been spilled or if your hands are damp.

— Never plug in any equipment which is not earthed or if the cables or connections are faulty.

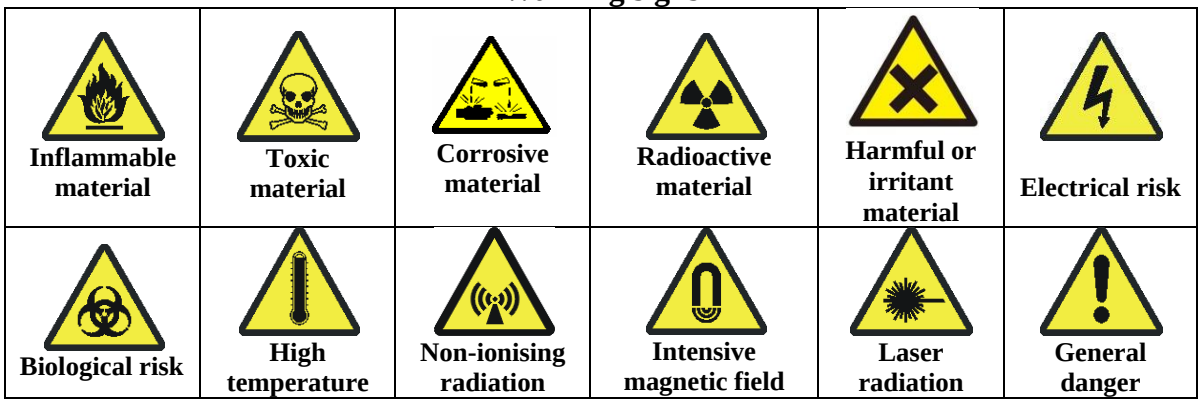
— Do not interfere with or try to open any of the fuse boxes. You do not have authorisation.

— In practicals involving the handling of voltage sources remember that you must never touch the inside unless they are disconnected from the mains.

8. Safety warning signs

The safety warning signs indicate all the risks or dangerous situations which it has been impossible to eradicate or reduce and also the procedure in the case that the risk takes place. They also indicate the location of protection, exits, evacuation routes and emergency first aid equipment.

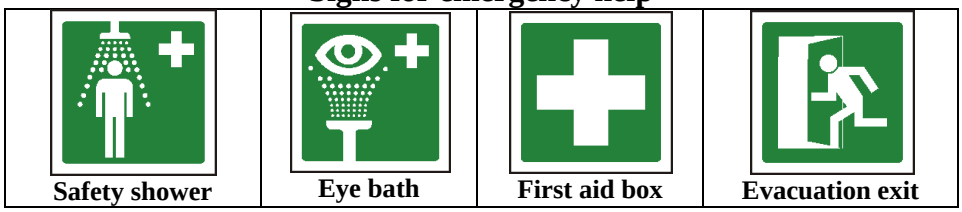
Warning signs



Obligation signs

Prohibition signs

Signs for emergency help



Signs for firefighting equipment

Extinguisher Fire hose Fire blanket Alarm

9. Waste management

— Each type of waste must be disposed of in the correct container, which is labelled.

— Do not leave any containers abandoned.

— Do not mix waste which may be incompatible. If in doubt, ask the teaching staff responsible.

— Place the waste slowly and carefully in the containers. Stop if you notice anything strange, like the appearance of gas or a sharp rise in temperature.

— Do not fill the containers more than 90% full to avoid splashes, spillages and excessive compacting.

— Do not pour down the sink any liquid that reacts with water (sodium, hydrides, amides, acid halides), or inflammable materials (solvents), or anything that smells bad (sulphur derivatives) or affects the eyes (benzylic halides, haloketones), or anything which is difficult to biodegrade (polyhalogenated compounds such as chloroform).

— Do not pour chemical or biological waste down the sink without first consulting the teaching staff responsible for the practical, or anything that could block it.

— Biological waste must be sterilised using some validated method (e.g. autoclaving) before being disposed of and should therefore be put in the place indicated by the teaching staff.

— Liquid biological waste (e.g. blood, secretions, etc.) may be inactivated using domestic bleach at 10% for 30 minutes and then pouring directly down the sink, avoiding splashes and the formation of aerosols.

— Anything sharp (e.g. syringes, needles, Pasteur pipettes, capillary tubes, etc.) must be placed immediately in the validated sharps containers after use.

— Do not fill these containers more than 75% full or put your fingers through the hole at the top. They should be placed close to the working area.


10. Action to take in case of emergency

In each laboratory there is a poster with basic measures to be taken in the case of an accident and it also contains emergency phone numbers.

Report any accident or incident immediately to the teaching staff responsible.

Where necessary call for medical assistance.

Fire in the laboratory

Evacuate the laboratory, even if the fire is small, and keep calm.

Small fire. Remove any inflammable products and materials from the area. Try to smother the fire or use the fire extinguisher. Never use water to put out a fire caused by a solvent.

Large fire. If the fire cannot be controlled raise the alarm with the personal responsible for the practicals and evacuate the laboratory calmly.

Fire on the body. If your clothes catch fire call for help immediately. Use the stop, drop, roll technique to put out the flames. If the safety shower is not right beside you do not run or try to reach it. If a colleague is on fire cover them with the fire blanket and roll them around on the floor. If the safety shower is close take them to it and put them under the water. Never use a fire extinguisher on a person. Once the fire has been put out keep the person on the ground, ensuring that they do not catch cold until medical assistance arrives.

Burns

Burns caused by hot material, baths, plaques, etc. should be treated by immersing the affected areas in cold water for 10-15 minutes. Serious burns require immediate medical attention.

Inhalation of products

Take the person affected to a place with fresh air immediately. Never leave them alone. Call for immediate medical assistance.

Cuts and puncture wounds

Remove the object that has caused the accident. Allow the wound to bleed for 2-3 minutes. Clean the wound well with running water for at least 10 minutes. If the wounds are small and the bleeding stops quickly, clean them with soap and water and apply a waterproof dressing. Wash your hands with soap and water. Report the incident to the teaching staff.

Check the situation regarding tetanus and hepatitis B vaccinations, especially if the contamination has been with blood or biological fluids. Go to the first aid centre and inform them of the cause of the wound and the agent involved.

Splashes in the eyes

The time factor is of the essence. Immediately use the eyewash for at least 15 minutes. Keep the eye open and separate the eyelids with your fingers to make rinsing easier. Report the incident to the teaching staff to find out whether medical assistance is necessary.

Ingestion of corrosive products

Do not make yourself vomit if the product ingested is corrosive. Dilute the corrosive by drinking a large amount of water.

Accidental ingestion of potentially biologically dangerous material

Report to the teaching staff. Do not make yourself vomit. Take the person involved to the first aid centre after removing their lab coat. Tell the doctor which agent has been ingested and follow their instructions.

Spillage of a biological agent

On the body
Remove the contaminated clothes and put them in an autoclave bag.
Wash the exposed area vigorously with plenty of soap and water for at least one minute.
Report the incident to the teaching staff.
The teaching staff may call for medical assistance.

On surfaces or objects
Put on resistant protective gloves. Cover the area with absorbent paper and spray with disinfectant (e.g. 10% bleach). Leave for at least 10 minutes.
Remove the paper and place it in the bin for biohazard waste.
Repeat the disinfection process.
Re-usable cleaning utensils should be hung in an autoclave sterilising receptacle. Take off your gloves and dispose of them. Wash your hands with plenty of soap and water.

Spillage of chemical products on the skin

Wash the affected area immediately under running water for 10-15 minutes. If the laboratory coat or other clothes has been contaminated, remove it quickly. If washing in the sink is not sufficient use the safety shower. Where necessary ask for medical assistance.

11. Evacuation and confinement

If you hear a continuous alarm bell sound or if instructed by the emergency teams, who can be identified by their orange emergency waistcoats, immediately stop what you are doing. Follow the instructions of the persona responsible for the practicals and if ordered to evacuate the laboratory do so as follows:

— Keep calm.
— Do not get distracted or separated from your group, and do not try to get out before the people in front of you.
— Unless instructed otherwise do not take any folders, bags or other voluminous items can could obstruct your exit and that of others.
— Follow the emergency signs.
— Do not use the lifts.

In cases of confinement follow the instructions of the teaching staff or emergency teams.

Useful telephone numbers
Security Service: 93 581 25 25
First Aid Service: 93 581 18 00 / 93 581 19 00