

NIHR Imperial CRF (ICRF) Laboratory Code of Practice

Reference Number	ICRF-LE-COP01.02	
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Date COP becomes Live:	26 Nov 2017	
Due date for revision:	26 Nov 2020	
Target Audience:	ICRF Staff, Investigators using the ICRF laboratories	
Location of COP:	<p><u>Electronic:</u> https://sites.google.com/a/nih.ac.uk/imperial-clinical-research-facility/home</p> <p><u>Paper:</u> ICRF Master File, Nurses' Station, Staff lounge, Laboratory File</p>	
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Document version numbering

Version	Date	Updated by	Reason for change
1	Apr 2013	D Johnson	New Code of Practice
2	Oct 2017	O Kaur	Scheduled review and update of procedures

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1.0 INTRODUCTION

This Code of Practice must be read in full before commencing work in the NIHR Imperial CRF (ICRF) Laboratories. Any questions should be directed to the Laboratory Manager or their delegate. No person may work in the laboratories without their prior permission. All users of the laboratories must have documented evidence of training and the relevant level of occupational health clearance prior to undertaking any work in the laboratory. Master students using the laboratories as part of their training must be supervised at all times. Their supervisor is responsible for ensuring they work in a safe manner. Access to the laboratories is controlled by Imperial College swipe cards; only approved users will be given access.

Everyone must take all reasonable care for their own health and safety, and that of others who may be affected by their activities. Anyone using the ICRF laboratories must, at all times, comply with this Code of Practice and with relevant Standard Operating Procedures (SOPs), Imperial College Healthcare NHS Trust (ICHNT) and Imperial College London (ICL) policies and any other local health and safety rules. ICRF management may remove access to the laboratories for anyone failing to comply.

Any quality, health and safety issues should be brought to the attention of the Laboratory Manager or their delegate in the first instance.

The ICRF has a level 2 containment laboratory for the preparation and storage of samples, Room G27, and a -80°C freezer room, G40A, both accessed via G25. In addition there is a level 2 containment facility in room G13A, where Genetically Modified Organism (GMO) study bookings have priority.

The analysis of samples collected from patients and healthy volunteers participating in clinical trials form an essential part of the clinical trials process. **Good Clinical Laboratory Practice (GCLP)** applies the principles of Good Laboratory Practice (GLP) to data generation from the analysis of samples from clinical research studies. It also ensures that the Good Clinical Practice (GCP) principles are adhered to, ensuring the reliability and integrity of the data generated.

All samples stored in the ICRF repository must be logged into the Biological Specimen Inventory (BSI) database. See SOP ICRF-LE11 Using BSI (LIMS). Any lab protocol deviations must be reported via the forms kept in G25.

2.0 SCOPE

This Code of Practice covers the main laboratory G25/G27, the Gene Therapy Suite preparation room G13A when used for laboratory work, and the freezer room G40A.

3.0 GLOSSARY

ACDP	Advisory Committee on Dangerous Pathogens
BSI	Biological Specimen Inventory
COSHH	Control of Substances Hazardous to Health
GCLP	Good Clinical Laboratory Practice
GCP	Good Clinical Practice
GLP	Good Laboratory Practice as defined by the GLP Regulations 1999

GMO	Genetically Modified Organism
HTA	Human Tissue Act
ICHNT	Imperial College Healthcare NHS Trust
ICL	Imperial College London
ICRF	NIHR Imperial CRF
MSC	Microbiology Safety Cabinet
MSDS	Material Safety Data Sheet
PPE	Personal Protective Equipment
SOP	Standard Operating Procedure
TLV	Threshold Limit Value
WEL	Workplace Exposure Limit

4.0 HEALTH AND SAFETY

4.1 General Points

- Users are responsible for the laboratory they use and must leave the area and apparatus in a safe and clean condition. Additionally, care towards other users' samples is essential at all times to avoid unnecessary protocol deviations.
- Tidy bench tops promote good safety practices. Keep the benches uncluttered. Bench surfaces must be cleared and cleaned with Virkon when work is completed.
- Always wash hands before leaving a laboratory, or if there has been any possibility of contamination. NEVER use hand-basins for anything other than washing hands. Hand wash gel is also provided in the laboratories.
- Food and drink are not allowed in the laboratories. Avoid any action that could transfer contamination to the mouth e.g. labels must be self-adhesive.
- No bags, coats etc. are allowed in the labs.
- Do not store flammable solvents in fridges/freezers, no matter how small the volume.
- All spillages must be dealt with immediately in an appropriate manner. Clearly mark any wet floor areas. The cleaners can provide warning stands but do not leave a spillage unattended; if you are alone in the laboratory go to the door and ask someone to collect a stand and/or inform the Laboratory Manager or their delegate.
- Cardboard boxes constitute a trip and fire hazard. They must be removed from the laboratory, collapsed and taken to the end of the main corridor nearest the back door for collection by the cleaners.
- All containers and trays used for samples should be suitable for decontamination.
- Do not plug in any device that has not passed a recent PAT test. Mobile phones should never be charged in the laboratories.
- No personal electronic equipment to be used in the lab.

4.2 Personal Protective Equipment (PPE)

- Yellow aprons and gloves are available in G25 and G13A. These must be put on when entering G27 or G13A. Eye protection and full lab coats must be worn for a task if

stipulated by the risk assessment, such as when handling liquid nitrogen. All PPE must be removed when before leaving G25 or G13A.

- Under no circumstances should the lab telephones or mobile phones be handled while wearing gloves.
- The keyboard and mouse in the laboratory can only be used without gloves if they have been decontaminated first, such as with a Clinell wipe.
- Personal music players must not be used in the laboratories.

Selection of Laboratory Gloves

- Chemical resistant gloves are provided in the laboratories. Users must ensure that they wear gloves that afford sufficient resistance to the chemicals they are using. Material Safety Data Sheets (MSDS) will state which gloves are recommended for each chemical. Nitrile and vinyl gloves generally provide a higher level of chemical protection. Latex gloves are inappropriate for handling some chemicals. It is the responsibility of the end-user to ensure that they are wearing appropriate protection for chemicals used.
- Allergic reactions and skin sensitivity are known risk factors when using latex or nitrile gloves which must be considered when completing a risk assessment for any activity requiring the use of protective gloves. Latex gloves should only be used where the risk assessment indicates that there is no suitable alternative. Where latex gloves are unavoidable they must be powder free and have low levels of extractable protein.
- Users who have a known sensitivity to a particular glove type or develop a skin reaction at work should contact Occupational Health to discuss alternatives. The College policy can be found at <http://www.imperial.ac.uk/occupational-health/health-protection-at-work/gloves/>
More information about latex allergy is available via the HSE website at <http://www.hse.gov.uk/healthservices/latex/>.

Other Hand Protection

- Cryoprotective gloves must be worn when handling material stored at -80°C , using dry ice or liquid nitrogen.
- The blue gloves provided in the freezer room and laboratory are porous and not suitable for handling liquid nitrogen. Specific leather gloves are kept in room G13A for this purpose.
- Heavy-duty gloves are included in yellow chemical spillage kits for each laboratory and must be worn when handling spillages.

Eye Protection

- British standard approved safety spectacles must be worn where there is a chance of droplets being generated and/or if stipulated by the risk assessment. This includes while using cryogenic materials. Re-useable and disposable options can be found in G27.

Foot Protection

- To reduce the risk of injury from dropping things on your foot, such as chemicals or sharp instruments, laboratory workers must wear footwear that is robust and covers the whole foot.

More information about the Personal Protective Equipment at Work Regulations 1992 and relevant guidance is available via the HSE website at <http://www.hse.gov.uk/pubns/ppeindex.htm>

4.3 Sharps

- Sharp instruments and equipment present a major hazard in any laboratory. It is the responsibility of the individual who has used any sharp equipment to dispose of it safely in an approved container. Some general points are listed below:
 - Stab wounds and cuts are amongst the most dangerous laboratory accidents
 - Avoid the use of sharps where possible; replace glass with plastic
 - When the use of sharps is unavoidable, handle with extreme caution
 - Do not leave sharps lying around; put them in a safe container or dispose of them in a sharps bin.

- If you cut or puncture your skin while working, or have any sharps-related accident the ICHNT Sharp Policy must be followed.
 - The wound should be encouraged to bleed by washing with running water
 - Do not scrub the wound as this may encourage any chemical or infectious agent to enter the circulation
 - All wounds must be properly treated and dressed
 - All such accidents must be reported to the Lead Nurse (or delegate) and to the Laboratory Manager
 - The incident must be reported on DATIX (ICHNT) or Salus (ICL) as appropriate.

More information about the safe use of sharps is available via the International Sharps Injury Prevention Society website at <http://www.isips.org/>. Also refer to ICHNT Sharps policy at http://source/cs/groups/intranet/@corporate/@policies/documents/ppgs/id_020804.pdf

4.4 Maintenance Staff, Contractors and Visitors

- Maintenance staff, contractors and other visitors are not permitted to work in the laboratory until they have reported to the Laboratory Manager or their delegate. Where appropriate, a brief induction will be required to highlight relevant hazards and control measures.
- PPE must be provided as necessary.
- Visiting workers and students etc. must be introduced to the Laboratory Manager. They must be given access to this Code of Practice and other relevant health and safety documentation. Pls must ensure that these individuals are fully aware of the rules and regulations and remain responsible for the visitors at all times.
- The ICRF does not permit anyone under 18 years to work in the laboratories. A risk assessment for visitors, including 16-17 year olds, has been carried out and is available in G25 (laboratory safety manual folder).
- Equipment or facilities requiring service or repair must be decontaminated before commencement of work. A certificate of decontamination must be signed and made available to the engineer/worker.
- Forms are available at <https://www.imperial.ac.uk/safety/safety-by-topic/laboratory-safety/decontamination-of-equipment--areas/> (ICL equipment) and through the Trust for ICHNT equipment.
- A Permit to Work is required to carry out maintenance work in the laboratory. Contact the Laboratory Manager or their delegate for further information.

4.5 Laboratory Books and Documents

- Laboratory books and paper documents must not be moved between the laboratories and clinical areas.

- For all new studies a copy of the protocol or lab manual should be filed in the laboratory manuals' folder in G25. Lab manuals for ICRF-led studies and self-contained studies are filed in separate folders.
- A complete list of controlled laboratory SOPs and risk assessments are also kept in G25 for reference, therefore it is unnecessary to transfer these documents.
- Ensure that the area where you are using documentation is free of spillages, contamination etc.
- Immediately clean off any liquid spillages or powder contamination with paper towels.
- Check your laboratory book for any contamination before leaving the laboratory.
- Never bring health care records into the laboratories.
- Do not transfer blue trays, pens, pencils or other items from the laboratories, unless they have been decontaminated. You should designate and clearly label any such equipment for laboratory use, and ensure that it stays in the laboratory.

4.6 Lone Working

- It is ICL policy to ensure that all lone working is avoided where reasonably practicable to do so. No one may work alone outside ICRF core hours without prior agreement from their manager or supervisor and authorised by ICRF management. This agreement will be dependent on a risk assessment that will take into account the level of competence of the person intending to work alone and the type of work undertaken. Note: if the nature of your work has changed in any way a new laboratory risk assessment form must be completed to reflect this.
- Applications for College employees can be made online via the Lone Work Consent button, where the ICRF General Manager should be included for authorisation. Further guidelines can be found at <http://www.imperial.ac.uk/safety/safety-by-topic/lone-working/>

5.0 RISK MANAGEMENT

5.1 Risk Assessment

Risk assessment is a legal requirement under the Management of Health and Safety at Work Regulations 1999, amongst others. Written risk assessments must be completed before the beginning of each new procedure. It is the responsibility of every member of staff to ensure that a risk assessment has been completed for all activities involved in their research projects, and that they have fully acquainted themselves with, and follow the instructions in the risk assessments.

Laboratory manuals must ensure safe systems of work that include all of the control measures identified in the risk assessments. If procedures are covered by existing risk assessments in the laboratory, it is acceptable for staff to make use of these, as long as the content is fully understood. More information and guidance about risk assessments is available via the HSE website at <http://www.hse.gov.uk/risk/index.htm>.

The full ICRF risk register is available from the QA Manager.

5.2 Control of Substances Hazardous to Health (COSHH)

Substances that are hazardous to health include substances labelled as toxic, harmful, irritant, corrosive etc. and any substances with Workplace Exposure Limits (WEL). They also include microorganisms, materials used at work and mixtures arising from work activities.

Any procedure involving the use of a substance hazardous to health must be covered by a COSHH assessment. Note that COSHH assessment is for the process so a new process with existing chemicals requires a new assessment.

Hazardous substances must not be used without the knowledge required to handle and dispose of them safely. Safety instructions and hazard warnings provided with each chemical must be read and taken into account in any experiment using them. SOPs must be written to incorporate all of the appropriate precautions to minimise the risk from hazardous substances.

Material Data Safety Sheets (MSDSs) for chemicals used in the ICRF are kept in G25 (MSDS folder). Anyone wishing to use a new chemical must give a copy of the MSDS to the Laboratory Manager before it is used in the ICRF. Note that some apparently innocuous chemicals could cause hypersensitivity reactions, so treat all chemicals as potentially hazardous.

The ICHNT COSHH Policy and assessment form are available at http://source/cs/groups/intranet/@corporate/@policies/documents/ppgs/id_050934.pdf General information from the HSE is available at <http://www.hse.gov.uk/pubns/indg136.pdf>. A useful web-based COSHH assessment tool and information resource at <http://www.coshh-essentials.org.uk/>

6.0 CHEMICAL HAZARDS

6.1 General Points

- Risk assessments will be held in either the study specific laboratory manuals or in the MSDS folders, both of which are to be kept in G25.
- Always consider the use of safer alternatives when dealing with hazardous chemicals.
- Do not order larger quantities of chemicals than you need. Where possible order chemicals in plastic or plastic-coated bottles.
- Prepared reagents and solutions must be clearly labelled with the full chemical name, primary hazard, study name and date prepared. Unlabelled chemicals will be removed without warning.
- Any chemicals which are out of date or no longer required must be disposed of promptly and safely.
- Hazardous chemicals must be stored in appropriate cabinets, not on bench tops or under sinks. Do not store incompatible substances in the same place.
- Keep containers closed when not in use. Return chemicals to their proper place after use or at the end of the day.
- Always follow the requirements of the relevant risk assessment and wear the recommended PPE.

6.2 Dry Ice

- Dry ice should be transferred to the laboratory immediately on delivery.
- Surplus dry ice must not be stored in the freezers or disposed of in the sinks. It should be placed in the designated insulated container in G27. See SOP ICRF-LE04 Use and Storage of Dry Ice.

6.3 Liquid Nitrogen

- Liquid nitrogen presents a very serious hazard as it will rapidly displace atmospheric oxygen and can cause asphyxiation. It will cause severe cryogenic burns in contact with skin or eyes.

- Liquid nitrogen must not be handled, transported or decanted by anyone who is not appropriately trained and authorised. The Laboratory Manager or delegate should be notified in advance of its use.
- A maximum of 1 litre can be carried in the large service lift of ICTEM.

6.4 Toxic Substances

- The level at which exposure to a hazardous substance is considered unsafe is measured using Workplace Exposure Limits (WEL) which cover both short-term and long-term exposure limits. Approved WELs for chemicals available in the UK (Reference EH40) are available at <http://www.hse.gov.uk/pubns/books/eh40.htm>.

6.5 Poisons

- Section 7 of the Poisons Act (1972) list toxic substances known as Schedule 1 Poisons. The substances which fall under Schedule 1 <https://www.tameside.gov.uk/licensing/poisons> should be kept in a locked cabinet, specific for the purpose within the laboratory. Some toxins require strict security measures if they fall under the Anti-terrorism, Crime and Security Act 2001. The Laboratory Manager must be contacted for approval well in advance if a scheduled poison or toxin is to be used or stored in the ICRF.

6.6 Flammable Substances

- The control of flammable and explosive hazards is covered by the Dangerous Substances and Explosive Atmospheres Regulations (DSEAR) 2002. It is a legal requirement to risk assess the storage, handling, use and disposal of flammable gases and liquids used in the laboratory. The degree of flammability hazard is indicated by the flash point and auto-ignition temperature.
- All flammable liquids must be stored in the approved metal cabinet (fire resistant for at least 30 minutes as required by British Standard 476 with spill trays), exclusively for this purpose in the freezer room (G40A). The contents should be kept updated on the list attached to the outside. Ensure that there are no naked flames or electrical equipment in close proximity, which may cause sparks.
 - Do not store flammable liquids in fridges or freezers.
 - Always decant flammable solvents in a vented cabinet NOT a microbiological safety cabinet!
 - Solvent spillages should be handled using a spill kit if relatively minor, using the appropriate adsorbent material. Major spills, and those evolving harmful fumes or highly flammable vapour must be treated as an emergency.

7.0 BIOLOGICAL HAZARDS

7.1 Risk assessments and containment

The Advisory Committee on Dangerous Pathogens (ACDP) classifies microorganisms into four hazard groups, and appropriate levels of containment are assigned to each group. Information and guidance from ACDP will aid writing risk assessments involving known biological hazards, and determining the appropriate level of containment. Available at <http://www.hse.gov.uk/pubns/misc208.pdf>

For clinical research these risk assessments must be approved by the ICL/ICHNT Joint Clinical Research Safety Committee (JCRSC). The work may then proceed, but must only be performed in laboratories that meet the requirements for the required containment level.

The ICRF laboratories meet the requirements for containment level 1 and 2 but there are no facilities for levels 3 or 4.

Contact the Laboratory Manager for more information about working with biological hazards. More information is available via the HSE website at <http://www.hse.gov.uk/biosafety/laboratories.htm>

7.2 Human Tissue, Blood and Bodily Fluids

Anyone working with human blood or blood products must observe ICHNT infection control precautions. Risk assessments and SOPs should take account of the relevant regulations and recommendations. Personnel must ensure they have been cleared by Occupational Health to work with human samples. In the event of any health changes or concerns it is the responsibility of the individual to contact their line manager or supervisor. Occupational Health may be contacted in confidence for advice.

7.2.1 Human Tissue Act (2004)

The Human Tissues Act (HTA) applies to the use of human tissues for scheduled purposes (including research) in the England, Wales and Northern Ireland <http://www.legislation.gov.uk/ukpga/2004/30/contents>. Scotland has separate legislation, which must be considered for multi-centre studies.

The Act applies to all samples containing human cells. This includes organs, urine, blood, tissue sections and cytopins. Immortalised stem cell lines for human application, gametes and embryos are covered by a separate regulation. Once processed to destroy the cells the material no longer falls under the HTA e.g. DNA, serum which has been processed by validated means to remove or destroy all cells.

- The ICRF does not store tissues beyond study activity in the facility. Tissues to be retained must be transferred to a licenced tissue bank. Further information on licencing and tissue banks at ICHNT and ICL can be obtained at <http://www.imperial.ac.uk/imperial-college-healthcare-tissue-bank/>

7.3 Genetically Modified Organisms (GMOs)

The GMO Contained Use Regulations 2014 and Deliberate Release Regulation 2002 along with the Environmental Protection Act ensure that any work with GMOs must be rigorously assessed and approved prior to any work taking place. Work involving class I containment may be approved by the Local Biological Safety Officer (BSO). Work involving class II or above must be approved by the Imperial Joint Clinical Research Safety Committee (JCRSC) before such organisms are received or stored onsite. Specific GM work clearance from Occupational Health may be required where specified in the risk assessment. JCRSC application forms are available from the Local BSO.

More information is available at <http://www.hse.gov.uk/biosafety/gmo/index.htm> and <http://www.hse.gov.uk/biosafety/gmo/acgm/acgmcomp/part6.pdf> for use of GMOs in clinical settings. The ICRF SOP ICRF-LE08 Work with GMOs must be adhered to.

8.0 LABORATORY WASTE

The Hazardous Waste Regulations came into force in 2005. It is imperative that all laboratory waste is disposed of by the correct route and in accordance with the ICHNT Waste Policy

http://source/cs/groups/intranet/@corporate/@policies/documents/ppgs/hhnt_006298.p

[df](#). Failure to do so can result in injury, disease or environmental contamination and the penalties are severe. It is the responsibility of all laboratory workers to ensure the safe and correct disposal of all waste produced in the course of their work. General waste produced in a laboratory such as gloves and aprons can be discarded directly into a yellow & black tiger striped "Offensive waste" bag. All infectious, non-GM, non-sharp waste must go into orange "Hazardous" bags. Other non-hazardous waste should be placed in the clear "Domestic waste" bags, including all packaging material and plasticware.

Biological waste may be derived from different sources. GM waste includes material derived from GMO's and any equipment contaminated during procedures with GMO's. All GM contaminated material and biohazard waste must be disposed of according to the risk assessment for the work. See SOP ICRF-LE08 Work with GMOs for details.

8.1 Chemical Decontamination

Virkon is a multi-purpose disinfectant typically used for cleaning up hazardous spills, disinfecting surfaces and soaking equipment. Virkon contains an indicator dye which is pink when fresh but discolours with age. Stocks typically remain stable for up to a week at room temperature. It is essential that Virkon solutions are made up exactly according to the manufacturer's instructions, as concentrated solutions and undissolved tablets can liberate chlorine gas in contact with saline solutions.

Virkon powder is a respiratory hazard and must not be used in the ICRF.

- Virkon 1% solution is available on the workbenches in the laboratories.
- A designated person will prepare fresh Virkon 1% solution on the first working day of each week. If the solution loses its pink colour please report this to Laboratory Manager or delegate.
- Virkon 1% solution should be used to clean up small volumes of spillage on the centrifuges, the work bench or the floor in the laboratories.

8.2 Sharps

All laboratory sharps including used syringes, needles, ampoules, blood collection tubes, broken glass and pipettes must be discarded into sharps bins. All laboratory users are responsible for closing and assembling and signing the sharps bins following the ICHNT Waste management and infection control policies

8.3 Laboratory Glass Waste

Any waste glassware must be decontaminated by washing thoroughly before disposal. Discarded bottles must be washed thoroughly and the hazard warning label must be removed or scored out. Caps must be removed and discarded in a yellow and black stripe bag. Small bottles can be discarded into a standard sharps bins. Do not try to wash broken glass; discard into a sharps bin.

9.0 LABORATORY EQUIPMENT

9.1 Refrigerators and Freezers

The laboratory air handling system maintains an ambient temperature of 21°C. The laboratory doors must be kept closed at all times to maintain this temperature. Laboratory users are not permitted to alter the temperature of the air conditioning units in G27 and/or G40A. If the ambient temperature of the laboratory gets above 25°C the fridges and freezers may be at risk of being unable to maintain their temperatures. This must therefore

be reported to the Laboratory Manager or their delegate immediately who will contact Estates.

-80°C freezers should be maintained free of frost to ensure that the doors always close tightly and seal, helping prevent any further build-up of frost. Defrosting and cleaning of fridges and freezers will be scheduled by the Laboratory Manager as required.

All ICRF freezers are connected to the t-Scan alarm system that will automatically alert the relevant staff in the event of a temperature failure outside of normal working hours. If you discover a fridge or freezer with a temperature failure, you must take action to minimise the damage to contents. Refer to the SOP for Use and Maintenance of Freezers, ICRF-LE05. Anyone storing or planning to store samples in the ICRF fridges or freezers must have read this SOP.

Laboratory samples or reagents must never be stored in designated food fridges, drug fridges and drug freezers.

9.2 Microbiological Safety Cabinets

A microbiological safety cabinet (MSC) is a device intended to offer protection to the user and the environment from airborne droplets or particles generated in handling infected and other hazardous biological material. Ensure that you use the correct MSC for your requirements. The safety cabinets in the CRF are Class II (providing operator and sample/product protection). Please refer to SOP ICRF-LE06.

On occasion it will be necessary to decontaminate safety cabinets by fumigation. This would be organised as required by the Laboratory Manager. Contact the Laboratory Manager for procedures or further information about fumigation.

9.3 Centrifuges

Centrifuges suitable for spinning biological samples are available in the laboratories. Details on their use, maintenance and cleaning are described in the local SOP ICRF-LE01 Lab Centrifuges. All users of the centrifuges must have read this SOP.

10.0 TRANSPORT OF DANGEROUS GOODS

Research samples for central laboratories should be prepared, packaged and labelled in the laboratory following the appropriate instructions as stipulated by the study's laboratory manual and in accordance with Carriage of Dangerous Goods regulations 2009 (ADR 2009). <http://www.hse.gov.uk/cdg/index.htm> which classifies:

- Infectious substances - if release of the specimen during transport could result in infection.
- Category A - microorganisms listed in ADR 2009 (label **UN2814** infectious substance affecting humans).
- Category B - infectious substance not meeting criteria for inclusion in category A (label **UN3373**, biological substance, category B).
- Diagnostic specimens - are samples considered unlikely to contain any pathogens in hazard groups 2, 3 or 4.
- Chemicals, solvents and other chemicals classed as hazardous for transport, e.g. a consignment containing dry ice must be labelled **UN1845**.
- Clinical waste - containing Category B infectious substances must be assigned to **UN 3291**.

Packaged samples should be kept at reception until collected by a courier. All scheduled collections must be recorded in the courier diary held at reception once the booking has been confirmed. See SOP ICRF-LE04 Use and Storage of Dry Ice. More information is available at <http://www.imperial.ac.uk/safety/safety-by-topic/laboratory-safety/dangerous-goods-transportation/>.

Samples can be taken to/from the ICRF via the College Hopper bus only if its packaging conforms to the Dangerous Goods Regulations, and only if classified as Category B or exempt clinical samples, not Category A. If dry ice is required as a coolant, it must be limited to small quantities.

11.0 DOCUMENTS AND REFERENCES

References

- Quality Research Association GCLP guidelines <https://www.therqa.com/good-practices/good-laboratory-practice/regulations-guidelines/>
- The Good Laboratory Practice Regulations 1999 <http://www.legislation.gov.uk/uksi/1999/3106/contents/made>
- National Blood Service: Laboratory health and safety information and training booklet http://hospital.blood.co.uk/library/pdf/training_education/hs_train.pdf
- Latex <http://www.hse.gov.uk/healthservices/latex/>
- PPE <http://www.hse.gov.uk/pubns/ppeindex.htm>
- Sharps <http://www.isips.org/>
- Chemicals and COSHH
 - <http://www.hse.gov.uk/pubns/indg136.pdf>
 - <http://www.coshh-essentials.org.uk/>
 - <http://www.hse.gov.uk/coshh/index.htm>
- Poisons <http://www.tameside.gov.uk/licensing/poisons>
- Dangerous pathogens <http://www.hse.gov.uk/pubns/misc208.pdf>
- Biological hazards <http://www.hse.gov.uk/biosafety/laboratories.htm>
- GMOs
 - <http://www.hse.gov.uk/biosafety/gmo/index.htm>
 - <http://www.hse.gov.uk/biosafety/gmo/acgm/acgmcomp/part6.pdf>
- Sample transport <http://www.hse.gov.uk/cdg/index.htm>
- Human Tissue Act
 - <http://www.legislation.gov.uk/ukpga/2004/30/contents>
 - http://www.hta.gov.uk/db/documents/Supplementary_list_of_materials_200811252407.pdf

ICHNT Policies and information

- PPE policy http://source/cs/groups/intranet/@corporate/@policies/documents/ppgs/id_038739.pdf
- Waste management policy http://source/prdcont/groups/intranet/@corporate/@policies/documents/ppgs/hhnt_006298.pdf
- Decontamination of equipment http://source/cs/groups/intranet/@corporate/@policies/documents/ppgs/id_033447.pdf

- Sharps policy http://source/cs/groups/intranet/@corporate/@policies/documents/ppgs/id_020804.pdf
- DATIX <http://source/source/resource/datix/index.htm>
- Infection Control http://source/infection_prevention_control/ipccpolicy/index.htm
- Sample transport (Pathology User Guide) http://source/cs/groups/intranet/@clinical/@guidelines/documents/ppgs/id_053423.pdf

ICL Policies and information

- Occupational Health <http://www.imperial.ac.uk/occupational-health/health-protection-at-work/gloves/>
- Laboratory safety policy <http://www.imperial.ac.uk/safety/safety-by-topic/laboratory-safety/>
- Risk assessment forms <http://www.imperial.ac.uk/safety/forms/>
- SALUS <http://www.imperial.ac.uk/safety/safety-by-topic/accidents--incidents/>
- Decontamination of equipment <http://www.imperial.ac.uk/estates-projects/project-procedures/processes/health-safety/decontamination-certificate/>
- Lone working <http://www.imperial.ac.uk/safety/safety-by-topic/lone-working/>
- Liquid nitrogen Code of Practice <http://www.imperial.ac.uk/safety/safety-by-topic/laboratory-safety/gases--cryogenics/cryogenic-liquids/>
- Sample transport <http://www.imperial.ac.uk/safety/safety-by-topic/laboratory-safety/dangerous-goods-transportation/>
- Human Tissues in research <http://www.imperial.ac.uk/imperial-college-healthcare-tissue-bank/>

Imperial CRF SOPs

<https://sites.google.com/a/nhr.ac.uk/imperial-clinical-research-facility/home>

12.0 APPENDICES

Appendix 1 Contact list.

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Occupational Health (ICL)		0207 5949401	