



Phlebotomists Association of Ireland Ltd

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PHLEBOTOMY GUIDELINES

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FOREWORD

The goal of these Guidelines is to provide accurate and up to date information for phlebotomists in Irish hospitals and other facilities offering phlebotomy services. Our aim is to ensure that every patient who presents for a blood test can do so with the knowledge that they are being treated to the highest standards possible.

References:

Clinical and Laboratory Standards Institute Documents.
(formerly NCCLS)

Disclaimer

These guidelines are intended to guide and facilitate members of the PAI in caring for patients. While every reasonable effort has been made to ensure the accuracy of these guidelines, the PAI can give no guarantee that the information is free from error or omission. The guidelines do not indicate an exclusive course of action or serve as a definitive mode of patient care. Variations, which take into account individual circumstances, clinical judgement and patient choice, may also be appropriate. Phlebotomists are strongly recommended to confirm by way of independent sources that the information contained within the guidelines is correct.

The PAI accepts no liability for any act or omission occurring in reliance on these guidelines or for any consequences of any such act or omission.

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Introduction

The Phlebotomist's Association of Ireland was set up in 1995 by the members of the Phlebotomy profession, to look at and address various issues of concern to the profession and to meet the needs of phlebotomists throughout the country.

Aims

- To establish uniformity of standards within the profession.
- To formalize a recognized training programme for phlebotomists leading to professional accreditation, and to regulate entry into the profession.
- To impose standards of behaviour and conduct on members of the association and to provide for accreditation for those already working in the profession, provided that they satisfy a minimum requirement criterion.
- To provide ongoing education through organized lectures, seminars and exchange of information.
- To liaise with the HSE (with the aid of representatives of the major Unions) in order to improve conditions, status and salary.
- To negotiate with employers for support and recognition for phlebotomy as a profession in its own right.

Vision Statement

“The vision of Phlebotomists Association of Ireland is for phlebotomy to be recognised as a stand-alone profession where each phlebotomist is certified and registered and is seen as a skilled professional in his/her own right, working to national guidelines and subject to a strict code of practice.

Through seminars and study days, we aim to provide ongoing education to enable members to remain updated in developments within the profession.

Our members endeavour to provide the highest possible standard of phlebotomy service to our patients and clients, helping them to overcome fear or anxiety towards the procedure. This is achieved by ensuring that the practitioner is certified as skilled and competent to perform the task, keeping in mind, at all times, the safety of patient, practitioner and colleagues”.

Section 1: Code of Practice and Ethics

This Code of Practice is intended as a framework for each phlebotomist to ensure high standards of conduct in his/her individual practice. It is intended for practitioners working in hospitals, clinics or other environment. Any circumstances which could have adverse consequences for the patient/practitioner or colleagues, or which are not in accordance with safe standards of practice, should be made known to the appropriate person or authority.

Definitions

Patient

The person presenting for a phlebotomy procedure, regardless of health or status.

Phlebotomist

The person carrying out the phlebotomy procedure, whether a dedicated phlebotomist or a nurse/phlebotomist.

1. Professionalism And Accountability

- 1.1** The Phlebotomists Association of Ireland (P.A.I.) demands a high standard of professional behaviour from its members and requires members to conform to the National Guidelines for phlebotomy.
- 1.2** Although the employer is liable for the wrongs of his employees if they are committed within the scope of their employment, the phlebotomist remains accountable individually for his/her actions. He/she should therefore, comply with the accepted standards of his/her profession. This standard is based on conformity with a responsible body of opinion within the profession and is outlined in National Guidelines. The trained and practiced phlebotomist holds him/herself out as being proficient in a particular skill. The standard expected is that he/she exercises the skill of a competent person exercising that skill.

- 1.3** The phlebotomist should follow the safe practice specified in the National Guidelines, while taking account of local requirements in his/her employing institution. Where these diverge, the phlebotomist should bring the National Guidelines to the attention of the employer. All policies should be in writing.
- 1.4** The phlebotomist should be conversant and compliant with all health and safety and infection control guidelines laid down by his/her employing authority.
- 1.5** The phlebotomist should be satisfied that he/she is adequately trained and assessed to be competent to carry out a particular procedure, before carrying out that procedure. He/she should not carry out procedure that he/she has not been trained for or that he/she does not feel competent to perform.
- 1.6** The phlebotomist should be aware of the legal and ethical principles applicable to his/her profession. The Phlebotomist should also be aware of and consult local Ethics Guidelines.
- 1.7** The phlebotomist should be familiar with the ethical principles applicable to the healthcare profession and behave in a professional manner at all times.
- 1.8** Where a phlebotomist suspects or recognizes a discrepancy or error in instructions or orders given, he/she should bring this to the attention of the healthcare worker ordering the test or giving the instruction.
- 1.9** The phlebotomist should take reasonable precautions to ensure that he/she is not rendered incompetent by reason of health to carry out duties. Where any condition exists to impede proper standards of procedure, he/she should not proceed with the task. Under no circumstances can the phlebotomist practice while under the influence of alcohol or non-prescribed or non-approved drugs.
- 1.10** The phlebotomist should not behave in a manner which members of his/her profession would consider inappropriate, dishonourable or disgraceful.
- 1.11** Any form of sexual advance to a patient with whom there exists a professional relationship will be regarded as professional misconduct.

- 1.12** It is not within the scope of the phlebotomist's practice to discuss a patient's condition or to inform him/her of the nature of the tests to be carried out or the implications or results of any test that he/she may have had. However, the phlebotomist should interact with the patient and can clarify the tests ordered in order to help the patient to give informed consent and to promote compliance with necessary instructions. Detailed queries should be referred to the appropriate medical staff.
- 1.13** The Phlebotomist may at times be asked to partake in Research Blood Sampling. He/she should ensure the Local Ethics Committee has given approval and follow approved protocol.

2. Confidentiality

- 2.1** The phlebotomist should be aware of the ethical considerations of disclosure of information about a patient.
- 2.2** The patient imparts information to the healthcare worker in good faith and on the understanding of confidentiality.
- 2.3** Information regarding the patient's history, treatment or state of health or any privileged information disclosed to the phlebotomist in his/her professional capacity should be regarded as confidential. Professional judgment should be exercised in sharing this information with professional colleagues.
- 2.4** The phlebotomist is closely involved in diagnostic tests and monitoring of treatment in a variety of condition. Confidentiality is of the utmost importance.
- 2.5** Relevant information should not be withheld from medical personnel directly concerned with patient care.
- 2.6** The phlebotomist should be aware of the potential for computers and electronic processing of information to breach patient privacy.

- 2.7 Local Computer Usage Policy to be followed at all times.
- 2.8 The potential for careless handling of request forms to breach patient privacy should be considered. Request forms should be treated as confidential documents. All material with personal details or information on a patient should be shredded before discarding.

3. Consent

- 3.1 To touch a person without consent constitutes battery or trespass to the person. Therefore consent should be obtained prior to carrying out any treatment or procedure.
- 3.2 For consent to be valid, the patient should have the capacity to give consent (i.e. be of adult years and be of sound mind). The doctor ordering the test should inform him/her as to the nature and purpose of the test. The phlebotomist should then explain the procedure and gain the patient's consent. Consent may be expressed or implied.

Implied consent is where the patient indicates consent e.g. by holding out an arm or pulling up a sleeve.

- 3.3 The patient has the right to refuse to have a procedure carried out. This refusal should be respected and documented. The nursing/medical staff should be informed according to the employer's policy.
- 3.4 Patients under 16 years require parental consent, or consent of legal guardian prior to venepuncture procedure.

Mental Illness:

Given that the law respects the right of a patient even with reduced mental capacity to refuse treatment, a phlebotomist should attempt to gain the consent of such a patient to venepuncture, either by verbal consent or implied consent. If the patient is unable to give consent, the phlebotomist should consult the referring doctor or nurse. Under Irish law, the next of kin cannot consent on behalf of such a patient but can only advise the treating doctor or nurse about what may be in the patient's best interests. It is then up

to the treating doctor or nurse to decide whether to prescribe venepuncture on the basis of the patient's best interests.

Unconscious Patient:

When a blood test has been ordered by a medical doctor for an unconscious patient, a phlebotomist may presume that the consent has been given or that the venepuncture has been deemed medically necessary in the patient's best interests. If, however, the patient has some level of consciousness, the procedure of venepuncture should be explained to the patient.

- 3.5** In cases of emergency/urgent necessity, the procedure may be carried out under general consent for treatment, in accordance with the directions of the ordering doctor.

4. Training And Education

- 4.1** Should it be required, the phlebotomist should assist in mentoring, training and continuing education by co-operating in the training of phlebotomy students.
- 4.2** The phlebotomist should be aware of his/her responsibilities towards trainees and ensure that any tasks delegated to them are appropriate to their skill, experience and competency.
- 4.3** Members of the profession should keep themselves informed of current advances that affect their profession. It is the personal responsibility of each practitioner to maintain his/her level of competency in practice to remain updated.
- 4.4** To maintain the highest standards, it is expected that each phlebotomist will adopt this code of Practice and will adhere to the National Guidelines in Phlebotomy.
- 4.5** The Certificate in Phlebotomy course is the National Training Course for the certification of phlebotomists. This will provide for a measurable standard and certification for all practicing phlebotomists. It is envisaged that this or equivalent will be the minimum requirement for new phlebotomy employees in all healthcare facilities in the future.

- 4.6** The phlebotomist should be aware that there are different Phlebotomy systems and needs to be familiar with the properties of those used locally.

5. Health and Safety

- 5.1** Each employer has a duty of care towards an employee. Safety in the workplace is governed by the Safety, Health and Welfare at Work Act 2005. The healthcare facility should have a Safety Statement available in the workplace. Each phlebotomist should be familiar with the elements of the Safety Statement which govern his/her practice. It is the responsibility of the phlebotomist to read the Safety Statement. Each employing facility should have a regularly updated policy on infection control which should be easily available and understood by the phlebotomist. The policy should deal with blood spillage, reporting of incidents and accidents as well as the management of high risk patients. It should also include advice, counselling and follow up services. Management should have a sharps policy. Hepatitis B vaccination should be available for all at risk healthcare workers. Standard precautions should always be observed when dealing with blood and bodily fluids.
- 5.2** The phlebotomist also has responsibilities as an employee under the 1989 legislation. The phlebotomist should recognize that there is a potential risk associated with the phlebotomy procedure. He/she should take all reasonable precautions to protect against such risk. The phlebotomist has a duty of care for his/her own safety at work and also that of co-workers, patients and any persons who may be affected by his/her acts or omissions while at work.
- 5.3** The employee should co-operate with the employer and any other person to such an extent as will enable his/her employer/other person to comply with the relevant statutory provisions.
- 5.4** The employee should use any protective clothing or equipment provided for use by him/her alone or in common with others in the manner intended in order to secure his/her safety, health and welfare while at work.
- 5.5** The employee has an obligation to report to his/her employer or immediate supervisor, without unreasonable delay, any defect in equipment, place of work or system of work that might endanger safety, health or welfare, of which he/she becomes aware.

SECTION 2: INTRODUCTION TO PHLEBOTOMY

WHAT IS PHLEBOTOMY?

Phlebotomy/venesection: Opening of a vein to drain off a quantity of blood via a wide bore needle:

Blood analysis is an important part of the diagnosis and treatment of the patient and great care should be taken in ensuring that a suitable specimen is obtained.

It is of the utmost importance that the patient receives a quality service.

The need for accuracy in all aspects of identification, procedure, labelling and handling cannot be over emphasised.

Venepuncture is the most commonly performed invasive procedure for patients in hospital and outpatient clinics. Blood collection has become one of the major diagnostic tools available.

In order to carry out blood collection safely the phlebotomist should have a basic knowledge of the following:

- (a) The relevant anatomy and physiology.*
- (b) The criteria for choosing the most suitable vein.*
- (c) Factors governing sample suitability.*
- (d) Use of the various blood collection devices.*
- (e) Procedure for labelling, handling, and transporting the sample.*
- (f) Complications of phlebotomy.*
- (g) Disposal of used equipment.*

Many patients fear the prospect of undergoing phlebotomy. The phlebotomist can, with skill and experience, minimise the discomfort and reassure the patient.

SECTION 3: GUIDELINES FOR PHLEBOTOMY

Patients presenting for phlebotomy should have a valid request with:

- Patients name.
- Date of birth.
- Date of test.
- Location.
- Doctors name.
- Tests required.

PATIENT IDENTIFICATION

Accurate identification of the patient is essential.

Identification Requirements.

- Patients name.
- Date of birth.
- Medical Record number (M.R.N.)
- Address.

Identifying The Conscious/Coherent Patient.

In-Patient.

1. Ask patient to state name.
2. Ask patient to state Date of Birth.
3. Check MRN on request form with wrist- band.

All data is checked with the request form. Where any detail is incorrect nursing/medical staff should correct it prior to procedure.

Outpatient identification.

1. Ask patient to state name.
2. To state date of birth.
3. To state address.

All data is checked with the request form or G.P. letter. Where any detail is incorrect or unspecific the phlebotomist may need to contact G.P. to verify request prior to procedure.

Identifying the Unconscious/Incoherent Patient.

Name, D.O.B. and M.R.N. on request form should be checked with wrist- band. Carer, relative or nursing staff should verify details.

Phlebotomy should not proceed until phlebotomist is satisfied as to correct identity of patient.

PREPARATION

All equipment to be used in the collection of the sample should be prepared in advance.

This includes:

- Gloves/standard precaution equipment
- Alcohol hand gel.
- Disinfectant wipes.
- The request forms for the patient / computer generated labels
- Pen.

I.V. tray with

- Tourniquet
- Needles/ butterfly sets.
- Relevant collection system.
- Necessary Blood Tubes
- Alcohol Swabs
- gauze/cotton balls
- Tape/Plasters
- Signed and dated Sharps Bin, within reach.

All equipment should have expiry dates and sterility seals checked before usage.

USE OF TOURNIQUET

- The tourniquet should be applied to the area approximately 10cm above the intended site of venepuncture.
- It should be tight enough to restrict venous flow but not tight enough to obstruct arterial circulation. The pulse should be palpable below the level of the tourniquet.
- The tourniquet should not be left in situ for more than one minute. Where more time is required to find a suitable vein the tourniquet may be released and reapplied.
- When vein is selected following tourniquet application, tourniquet is released, skin cleansed and allowed to dry, then tourniquet re-tightened to proceed with venepuncture.
- Once blood flow commences, tourniquet is released. Should flow diminish or cease before sufficient blood is obtained, the tourniquet may be reapplied lightly.
- Tourniquet should not cause pain or discomfort to patient.

Proper use of tourniquet reduces the risk of samples being haemolysed or giving misleading results.

Disposable Tourniquets.

These are used where transmission based precautions are required.

For example; elasticised strap with Velcro fastening or Latex strip.

A disposable glove should never be used as a tourniquet.

CHOICE OF A SITE FOR VENEPUNCTURE

Phlebotomists are restricted to accessing the veins of the arms and dorsal hand veins. Veins of the lower limbs and the anterior area of the wrist are not approved sites for access by phlebotomists under PAI guidelines.

The **antecubital** area is the preferred site for venepuncture. Here, **the median cubital, cephalic and basilic** veins lie close to the surface. This area should be examined first and then the **dorsal veins** of the hand are considered.

The **metacarpal veins** may be suitable where no other access is available.

Venepuncture Sites To Be Avoided.

- The anterior veins in the wrist.
- Sclerosed or thrombosed veins.
- Veins close to the site of infection, bruising or Haematoma.
- Site of i.v. therapy. (May be turned off by nursing staff for 5 mins. prior to venepuncture)
- Affected side of previous mastectomy/axillary clearance, stroke, oedema fracture, burns, amputation and fistula.

VENEPUNCTURE PROCEDURE

When the patient has been correctly identified:

- Explain the procedure.
- The patient's arm should be supported, kept straight, in a downward position, with the wrist extended.
- Wash Hands/alcohol gel.
- Wear gloves.
- Apply tourniquet and choose site.
- Loosen tourniquet.
- Clean Skin with alcohol swab, in a clockwise direction from within outwards.
- Assemble equipment, and let skin air dry completely....highly important in the decontamination of the site.
- Reapply tourniquet for not more than 1 minute.
- Stretch the skin below the intended site with the free hand to anchor the vein and reduces discomfort.
- Instruct patient to close fist lightly – no pumping.
- Expose the needle and inspect. The needle is held at an angle of 15° to 30° to the patient's arm with the bevel of the needle facing upwards and in line with blood flow direction.

- Warn the patient appropriately.
- When blood flow commences loosen tourniquet and instruct patient to open fist. If flow is inadequate tourniquet may be lightly reapplied.
- The tubes should be filled in a downward position, using correct order of draw, until vacuum is exhausted and blood flow ceases.
- Ensure maximum fill, to correct ratio.
- If using non pre- evacuated tube, the required amount is withdrawn by suction.
- A 21g needle is the recommended size for adult blood collection. However a 22g needle or 23g blood collection set may also be used.
- Avoid changing hands unnecessarily while taking blood as this can displace the needle causing pain and trauma to the patient.
- When blood has been collected, each tube should be gently mixed, by fully inverting 5 to 8 times (or in accordance of manufacturers instructions) avoiding vigorous shaking of the tube.
- Release tourniquet fully prior to removing needle
- The last tube should be removed from the holder before the needle is withdrawn from the vein.
- Place a gauze ball lightly over the site as the needle is withdrawn, with pressure once the needle is fully removed.
- Immediately engage safety device.
- Pressure should be maintained until the bleeding has stopped. Patient may do this if possible.
- Sharps are immediately disposed of in puncture resistant bin.
- Samples are labelled in the presence of the patient. Details should include:

Patient's Name

Hospital Number

Date Of Birth

Phlebotomist's Initials

- Place specimens in leak-proof receptacle following any special handling requirements.
- The arm may be elevated to encourage haemostasis but bending of the arm should be discouraged as it can lead to bruising.
- Inspect for haemostasis and apply gauze over puncture site.
- Wipe tray with disinfectant wipe. (discard if disposable)
- Remove gloves, wash hands/alcohol rub.
- Place specimens in collection area / laboratory.
- **Where electronic labeling/scanning in place follow local requirements.**

DISPOSAL OF EQUIPMENT

- All sharps, both contaminated and unused should be disposed of in a **YELLOW SHARP PROOF** container, properly assembled, signed and dated.
- All non-sharp, clinically contaminated materials should be disposed of in a yellow clinical waste bin.
- General un-contaminated waste, including gloves, should be disposed of in a clear general waste bin.
- Gloves, where visibly contaminated, should be disposed of in a clinical waste bin.
- Protective clothing, aprons, gloves etc from barrier rooms should be disposed of in clinical waste bins, in room.
- When disposing of needles and blood collection sets, ensure the safety protection cap has been engaged fully, before placing in a sharps container. Never separate needle from holder.
- Do not over fill sharps container.

LABELLING OF SAMPLES

General Labelling Requirements

Manual labelling.

When labelling a general sample, the following information is required:

- Patient's surname
- Patient's full forename
- Patient's hospital number
- Patient's date of birth.
- Initials of phlebotomist.

The full forename should be used. An initial for the first name is not sufficient. Blood sample tubes should be labelled in the presence of the patient. The patient's wristband should be checked prior to sampling.

Special Requirements.

- Time of sampling.
- Fasting/non-fasting.
- Posture of patient.
- Site of sampling.(Blood Culture, or I.V. infusion side)

Pre-Transfusion Sample Labelling Requirements

The labelling requirements for a pre-transfusion sample are:

- Patient's surname (in block capitals)
- Patient's full forename (in block capitals, an initial is not sufficient)
- Patient's unique hospital number.
- Signature of the person taking the sample.
- Patients date of birth.
- Date and time of sampling.
- Location of patient (ward or department).
- Patients Home Address is also desirable.

***Transfusion samples should be labelled by hand at patient's bedside.
They should never be pre labelled or have addressographs applied.***

Outpatient samples

The following information is required:

1. Patient's full name.
2. Patient's Date of Birth.

It is essential that this information is provided on the sample, otherwise the relevant laboratory will not process the sample.

Where a minor mistake occurs, correction may be acceptable.

Correction can only be done by the phlebotomist who takes the sample.

All corrections should be initialled.

Where **electronic** labelling system is in place phlebotomist follows local procedures. It is the responsibility of the phlebotomist to ensure that all samples are correctly identified and labelled or scanned.

The utmost care should be taken when labelling samples, as incorrectly labelled samples may potentially have dangerous effects.

N.B. The person who draws the blood sample is the only person who is authorised to label sample.

Sample bottles should be labelled immediately they are drawn

Bottles should not be pre-labelled under any circumstances.

PRE ANALYTICAL VARIABLES

There are a number of factors that may render the sample unsuitable for testing or which may interfere with accuracy of results. These are known as pre-analytical variables. They can occur at any time from phlebotomy procedure to the testing of the sample.

MIXING OF BOTTLE CONTENTS

Immediately following blood collection, all tubes should be inverted 5 to 10 times or as per manufacturer's instructions, at approximately 180°. For a complete inversion, the air bubble should move from the top to the bottom of the tube. Inverting the tubes will lead to adequate mixing of the blood and the tube additives and give more accurate results.

ORDER OF DRAW

When taking blood, the tubes should be filled in a specific sequence in order to reduce the risk of the additives in the bottles contaminating each other and falsifying the results of the test. The recommended order is as follows:

1. Blood culture tubes.
2. Sodium citrate tubes – Coagulation Studies.
3. Sodium citrate tubes – E.S.R. Studies.
4. Serum tubes /dry and gel separator.
5. Heparin tubes.
6. All other anticoagulants - EDTA.
7. Fluoride/Oxalate tubes - Glucose tests.

MINIMUM FILL LEVEL

Each evacuated specimen bottle contains a pre-measured amount of vacuum. This allows the tubes to fill a definite point, marked on the bottle with use of an arrow or dot. Suction tubes should be filled to the mark.

If there is difficulty in obtaining the sample, it is desirable that note should be made of it on request form. This alerts laboratory staff to check for micro clots prior to testing.

While it may be possible to test blood at a level below this line, the results will not be as accurate.

For this reason, the sample may be unsuitable for testing.

Coagulation tubes which are not filled to the maximum level can not be processed as the ratio of citrate to blood is incorrect.

Where a butterfly system is used for coagulation sampling, the tubing should be primed with a non additive discard tube or a citrate tube. This ensures adequate fill in sample tube.

HAEMOLYSIS

Haemolysis, the process by which the red blood cells disintegrate and release their pigment, occurs normally at the end of the life cycle of the cell. This effect is undesirable when testing the blood, as it renders the sample unsuitable. Haemolysis usually occurs for the following reasons:

1. Using a needle with a small diameter (23g or smaller)
2. Using a small needle with a large evacuated tube.
3. Improper mixing of the tube contents and blood
4. Blood flowing too slowly into the tubes
5. Shaking or vigorous mixing of the specimen tubes.
6. Drawing from indwelling lines.
7. Drawing from site of haematoma or bruising.
8. Incorrect use of the tourniquet.

Strict adherence to protocols will reduce risk of haemolysis.

INTRAVENOUS THERAPY

If the patient requiring blood collection is receiving IV therapy in one arm, the other arm, if possible, should be used.

If this is not possible due to medical reasons, or the patient is receiving bilateral IV therapy, then one of the IV therapies should be stopped for 5 minutes prior to sampling. This allows natural blood levels to recover and gives a more accurate result. Where I.V. potassium or anti-coagulation therapy is progress at access site, I.V. should be stopped for 10 minutes prior to sampling. Nursing staff should be contacted to stop I.V. and to restart it following procedure.

IMPROPER TOURNIQUET USE

Improper usage of the tourniquet may lead to the falsification of the results of the test. If the tourniquet is placed too tightly on the arm, or remains in situ for too long a period of time, then haemo-concentration or haemolysis may occur.

TECHNIQUE

If the overall technique of the phlebotomist is poor, then one or more of the previously mentioned factors may be associated with the unsuitability of a sample.

TIMING

Where special instructions, e.g. time of day, fasting, post prandial, posture, or specified interval following antibiotic or drug levels, are not adhered to, results may be inaccurate.

PATIENTS IN ISOLATION

In addition to standard precautions which should be applied to all patients, transmission based precautions are used for patients suspected or known to be colonised or infected with transmissible micro-organisms.

TRANSMISSION BASED PRECAUTIONS

1. Source Isolation:

- Contact
- Droplet
- Airborne

The patient is colonised or infected with a communicable disease, and needs to be isolated from other patients in order to reduce the risk of the infection spreading. e.g. Chicken Pox, Bacterial Meningitis, MRSA, Tuberculosis etc.

2. Protective Isolation:

The patient has a weak or suppressed immune system, and is highly susceptible to infection. This patient needs to be protected from any infection that staff or other patients may be carrying.

**Information signs are used to denote appropriate precautions.
Follow instructions on sign or check with ward staff.**

Phlebotomist should be familiar with Infection Control Manual.

TRANSMISSION BASED PRECAUTIONS PROCEDURE

- Prepare equipment.
- Injection tray with sharps box, pen, appropriate tubes and blood collection set, alcohol swabs, gauze balls, strip of tape disinfectant wipes, disposable tourniquet or and double sheet disposable towel.. (Patient dedicated tourniquet may be left in room)
- Request form in bio-hazard bag, folded to enable details to be read.
- Wash hands with alcohol gel or soap and water.
- Don appropriate P.P.E.(Personal Protection Equipment)
- Correctly identify the patient verifying against i.d. band and request form.
- Place disposable towel sheets or plastic apron under tray.
- Perform venepuncture as per guidelines.
- When finished, dispose of sharps equipment in the sharps box immediately.
- Label tubes appropriately at bedside, or scan according to local protocol.
- Remove one glove and take out individual request form or label with ungloved hand.
- Place appropriate tube in leak-proof bag and leave outside door, using ungloved hand.
- Repeat as required.
- Remove apron and second glove.
- Dispose of all equipment in room bin.
- Wipe all surfaces of tray, sharps bin, pen and/or scanner with disinfectant wipe.
- When outside room, wipe all surfaces again with fresh disinfectant wipe.
- Wash hands with soap and water or alcohol gel.
- Should any other special precautions be required, i.e. masks, hats, overshoes, goggles etc. please ensure they are worn as directed.

COMPLICATIONS OF BLOOD COLLECTION

A. Haematoma.

A haematoma is a collection of blood under the skin. This can be painful and can potentially cause nerve damage. If a haematoma begins to form while blood is being withdrawn, needle should be removed immediately and pressure maintained over the site.

Incident form should be completed and medical / nursing staff informed.

Causes of haematoma:

- 1 Small fragile vein, needle too large.
- 2 Excessive probing to find vein.
- 3 Removing needle prior to releasing tourniquet.
- 4 Needle going all the way through vein.
- 5 Needle only partially entering vein, allowing leakage.
- 6 Applying Pressure to gauze before the needle is removed

B. Infection

Inadequate cleansing or poor technique can lead to infection.

N.B. Follow Standard and Transmission Based Precautions.

C. Nerve damage.

Inappropriate sites or excessive probing may lead to nerve damage. Patient may complain of severe pain. Procedure should be stopped immediately. If pain persists, incident form should be completed and medical / nursing staff informed.

D. Pain

While some discomfort is to be expected, the needle should be removed immediately if the patient complains of excessive or severe pain. If pain continues, medical/nursing staff should be informed and an incident form completed.

E. Arterial Puncture

Failure to properly identify the vein by lack of pulse and by collapse on removal of tourniquet can result in inadvertent arterial puncture.

Where this occurs pressure should be maintained on the site for at least 5 minutes.

Nursing / medical staff should be informed and an incident form completed.

F. Syncope

Should the patient complain of weakness or suffer a syncope, the phlebotomist should immediately withdraw and dispose of the needle. If appropriate, sips of water can be given and patient should be reassured.

Phlebotomy chair should be fully reclined or patient lowered to supine position.

Phlebotomist stays with patient until he/she recovers.

Patient may be advised/ transferred to **E.D.** according to hospital protocol.

If Syncope occurs, incident form should be completed and medical/nursing staff informed.

HEALTH AND SAFETY ISSUES

SHARPS/SPLASH/INOCULATION INJURIES

A sharps/inoculation injury occurs when a clinically unclean or contaminated, or potentially unclean or contaminated sharp e.g. needle, specimen bottle, vial etc penetrates the skin, and exposes the recipient to risk of blood/body fluid borne diseases.

A splash injury occurs when blood/body fluid comes in contact with the skin or mucous membranes i.e. eyes or mouth, and exposes the recipient to risk of disease.

Despite all precautions, sharps/splash and inoculation injuries do occur. Prevention of these is far more desirable than treating one. Use of safety devices for blood collection reduces the risk of sharps injury. Sharps Containers are effective methods of disposal of sharp clinical waste material, as they are perforation proof. However they are not leak proof, and so, should exposed blood products be placed in them, the risk of splash injury is increased.

The Infection Control Manual should contain the policy on treating a sharps injury. Action packs should be available.

Phlebotomists should ensure that they are familiar with procedure for dealing with sharps injury in their workplace.

To minimise the risk of a sharp/splash injury associated with phlebotomy procedure, the following rules apply.

1. Patient is in a safe position with arm well supported.
2. Seek help if patient is restless or un-cooperative.
3. Ensure that vacuum bottles are disconnected from the multisampler area prior to removing needle from vein.
4. Lightly cover venepuncture site with gauze when removing needle.
5. Engage the safety needle cover immediately upon removing the needle, and dispose into a sharps box.
6. Never attempt to re-sheath a needle.
7. Should a sample bottle break, never attempt to pick it up. Avail of the nearest spillage kit and use appropriately to clean the hazardous material.
8. Gloves should be worn for procedure. While this will not prevent sharp injury, the glove has a wiping action and will reduce the amount of blood inoculated.
9. Cover all exposed cuts and abrasions with sterile waterproof dressings.
10. Should an injury occur, avoid contact of affected area with the mouth.

All sharp injuries should be reported to the head of department. A risk management occurrence form should be completed, and other necessary paper work also. Early treatment is vital and so every phlebotomist should familiarise themselves with the action packs, and especially the first-aid instructions they contain.

Spill kit should be available in all phlebotomy areas.

HANDLING OF SPECIMENS

Care should always be taken when handling blood specimens. All specimens are potentially infectious.

Standard precautions should always be used.

1. Gloves should always be worn.
2. Exposed cuts and abrasions should be covered with suitable waterproof dressings.
3. Hands should be washed/ alcohol gel before and after each procedure.
4. All staff should be familiar with the Infection Control Manual.

External transport

Specialised containers are available to transport samples to outside laboratories. The phlebotomist should be familiar with legislation and local arrangements.

PATHOLOGY SAFETY STATEMENT

The Pathology Department Safety Statement

This is the hospital management's written policy for safeguarding and maintaining health and safety standards. It specifies the manner, organisation and resources provided for that purpose.

It is the responsibility of each member of staff to read and become familiar with the safety statement.

A copy of the Safety Statement should be available to all Phlebotomists.

ANY DEVIATION FROM THESE GUIDELINES SHOULD BE DOCUMENTED AND KEPT ON RECORD.