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1.0 POLICY

This policy covers the following areas:

- **Annual Medical Guidelines & Health Screening**
- **Baseline Observations**
- **Care Plan Development and Implementation**
- **End of Life Care and DNR**
- **Epilepsy & Swimming**
- **General Swimming and Hydrotherapy**
- **Mental Health**
- **Needlestick Injury & Other Exposure Incidents**
- **Oxygen Administration**
- **Peg Tube Management and Care**
- **Physiotherapy**
- **Subcutaneous Fluids Administration**
- **Subcutaneous Infusion Driver (Morphine Pump)**
- **Subcutaneous, Prefilled and Intramuscular Injections**
- **Venepuncture**

2.0 SCOPE

This policy applies to all Sunbeam House Services (SHS) employees.

3.0 ROLES AND RESPONSIBILITIES

Organisation

- SHS to facilitate training for all employees where necessary.
- Guidelines are up to date, evidence based and available to staff.
- Recognise the need for best practice requirements in relation to National Standards.

Senior Services Manager and Client Services Manager

- SHS Client Service Managers (CSM) to ensure that all SHS employees are aware of and comply with the Health and Wellbeing guidelines.
- It is the responsibility of the Senior Services Manager (SSM) to review and monitor the implementation of Health & Wellbeing guidelines and to ensure that they meet the requirements of legislation, regulations and good practice.

SHS Staff

- All staff are familiar with and adhere to the guidelines.
- All SHS employees are accountable for their practice in line with each Health & Wellbeing guidelines.
- Nursing staff have an obligation to practice according to the legislation and professional codes of practice governing nursing and midwifery practice and to the current standards, policies and guidelines of An Bord Altranais and SHS.

Risks and Considerations

- When a potential risk is identified, staff must report to their CSM and a risk assessment must be carried out in line with SHS risk assessment guidelines.
- Where it is life-threatening, medical advice and intervention must be sought immediately.

4.0 ANNUAL MEDICAL AND HEALTH SCREENING

4.1 GUIDELINES

- The CSM, along with the keyworker, must make the decision as to whether the Client requires an Annual Medical e.g. for Clients who regularly attend their GP/Specialist or who have undergone tests in hospital or with GP.
- Clients who have had no contact with GP/Specialist/Hospital must be offered an Annual Medical with their GP.
- Clients living alone or living at home with their families should be encouraged to have an Annual Medical. The CSM and keyworker will send out the Annual Medical Form and covering letter to their home address. If the completed form is not returned, it is the responsibility of the keyworker to contact and remind the family. Detailed record of all correspondence to be kept in the Client file as per HIQA requirements.
- Prior to referral and first-time respite, each person must have a full physical examination carried out by his/her GP and a Referral Medical Form completed. See Referral Policy.

- All SHS Clients must have an annual medical carried out and an Annual Medical Form completed. (HYPERLINK – Shared/QCT/BPH)
- Each person attending an SHS service must also have the following health checks on a regular basis:-
  - Dental
  - Chiropodist
  - Optician
  - Mental Health, if required
  - Screening
- Any other relevant specialist that the person may need to see.
- It is the keyworker's responsibility to facilitate the Client to have their annual medical.
- It is the CSM's overall responsibility to ensure that all Clients in their location have annual medicals.
- As Clients' needs vary, the level of input by the keyworker will be determined on a case by case basis.
- All documentation must be properly completed by the keyworker and CSM.
- The most recent Annual Medical Form is filed in the Client's personal profile.

4.2 PROCEDURE FOR COMPLETION OF THE ANNUAL MEDICAL FORM

Section A

Keyworker to complete all of this section. Sign and date.

Section B

This area to be completed by Nursing Staff in Nursing locations and by General Practitioner(GP) in non-Nursing locations. Please make sure to bring along a urine sample taken that morning when visiting the GP.

Section C

Very often Clients visit GP several times during the year and have bloods taken, physical examination etc. Clients who have attended Accident & Emergency (A&E) or spent time as an inpatient in hospital will also have had these procedures carried out. (For hospital procedures, the results should be with their GP).

In situations like this, it may not be necessary to have more bloods etc. taken. It is important, therefore, to contact the GP and discuss all areas of Section D

and whether it is necessary to have these procedures carried out/repeated. If the GP decides to repeat the procedures, then the Client must be brought to the GP and Section D of the form completed. If the GP feels this is not necessary, then the Keyworker/Nurse must complete Section C outlining the outcome of the discussion with the GP.

Section D

For GP only.

Bloods can be taken only by Nurses who have completed Venepuncture Course approved by An Bord Altranais. Once they have completed this course, they must be taking bloods on a regular basis in order to be competent with the procedure.

(Human Resources must have a copy of their certification of completion.)

Signature

The CSM must sign to confirm that the Annual Medical has been carried out.

4.3 PROCEDURE FOR SCREENING

Screening:-

- Smear Test – all female Clients must be discussed individually in detail with their GP. Note should be made of the GP's decision as to whether it's appropriate for this test to be carried out on the Client. If it is appropriate to have the test, then a date and time must be agreed with the GP to have this procedure done.
- Breast Check – all female Clients should have routine breast examinations carried out by their GP. Should they need further examination, their GP must make referrals. Females between 50 years and 64 years should have a bi-annual breast X-ray (mammogram). They should receive a letter giving them dates, time and location for this to be carried out. Female Clients in this age bracket who have not received a letter for a breast X-ray **must** contact 1800 454555 with their details to ensure they get on register.
- Prostate – male Clients over age 40 years must also be discussed individually with their GP.
- The completed medical forms should be kept on the Client file. The GP must have signed and dated each form.
- Details of medical examinations and results should be shared with other services the Client is attending. Any information received should be

retained on personal files. The Client's permission must be given in advance.

- Clients medical status and any medical information held on our files by the company is confidential. Access to files holding medical information is a privilege which our staff must not abuse.
- Medical information which relates to an individual Client must not be discussed or passed to any third-party, apart from information which directly benefits the health and welfare of the client. Consent must be sought from Senior Services Manager.
- The CSM and key-workers must provide ongoing education to each of their Clients on their relevant health issues - medication, basic first aid, and how to respond to emergencies.

5.0 BASELINE OBSERVATIONS

5.1 GUIDELINES FOR MEASURING AND RECORDING TEMPERATURE:

- Carried out to assess whether body temperature is within the normal range.
- Measured by a thermometer in degrees Celcius ^{o}C.
- Body temperature results from a balance between heat production within the body and heat loss from the body (Marieb 2006).
- In a healthy individual the normal core body temperature (the temperature of the organs within the cranial, thoracic and abdominal cavities) is maintained within a range of 35-37^{o}C.
- This process is called thermoregulation and is controlled by the hypothalamus, which acts as a thermostat.
- Body temperature which is higher than 37.5^{o}C is termed pyrexia and a body temperature lower than 35^{o}C is termed hypothermia.
- Equipment that can be used – mercury thermometers, chemical disposable thermometers, electronic thermometers and infrared-light reflectance thermometers.
- Sites used are mouth, axilla, tympanic membrane (ear).
- Choice of route and equipment for measuring temperature should consider individual factors such as physical and mental condition, as well as the devices available for use.

- For each route and device used, the measurement should be conducted and recorded carefully and accurately on an SHS Baseline Observation Chart. (HYPERLINK- Shared/QCT/BPH)
- Abnormal measurements should be reported and action taken, for example administration of anti-pyretic medication (e.g. paracetamol).
- As temperature can vary between body sites, the measurement site should be recorded and the same site used for subsequent recordings whenever possible.

5.2 PROCEDURE OF MEASURING TEMPERATURE IN THE AXILLA:

- Explain the procedure to the Client either verbally, using pictures or demonstration.
- Raise the Client's arm and place the thermometer in the centre of the axilla.
- Check to ensure that there is good contact with the skin when the arm is lowered.
- Rest the Client's arm across the chest and maintain the thermometer in position for a minimum of 3 minutes.
- Remove the thermometer, read and record the result in the SHS Baseline Observation Chart. (HYPERLINK- Shared/QCT/BPH)
- Report abnormal temperature to the Client's medical practitioner.
- For electronic devices, a new probe should be used for each person and the axilla position would be the same as above.
- Devices have either an auditory or visual indicator when maximum temperature is reached; the probe should remain in place until this is heard.
- For Infrared Tympanic Membrane thermometer, the ear is pulled gently but firmly to straighten the ear canal pulling the ear up and back.
- This type of thermometer is inserted gently into the ear canal ensuring a snug fit.
- The start button is pressed and a reading obtained in one to two seconds, indicated by a bleeping sound.

5.3 GUIDELINES FOR MEASURING AND RECORDING THE PULSE:

- When the left ventricle of the heart pumps blood into the already full aorta and out into the arterial system, this causes a wave of expansion throughout the arteries.
- Where arteries are near the surface of the body, this expansion – the pulse – can be felt when lightly pressing (palpating) the artery against bone. The pulse thus represents each ventricular contraction of the heart and in the healthy heart one heart beat responds to one pulse beat.
- Disease can affect the cardiac cycle, leading to a difference between the heart rate and the pulse rate. The pulse rate is the number of heart beats in a 60 second period and provides very useful information about health status.
- As with temperature it should be recorded as a baseline and subsequent measurements performed for monitoring purposes.

When measuring a pulse the following should be observed –

1. **Frequency** – indicates the rate of contraction of the left ventricle. It is affected by factors such as age, exercise, stress, injury and disease. At rest it is usually between 60 and 80bpm (Waugh and Grant 2006). A pulse rate above 100bpm in an adult may be the result of a fever, an overactive thyroid or medication. An underactive thyroid, hypothermia and some medications slow the pulse. Atherosclerosis (thickness and tension in the artery walls) can lead to structural changes thus altering the pulse rate.
2. **Volume** – Indicate the strength of the ventricular contraction. A weak contraction produces a pulse that feels weak, or it may not be strong enough to produce a pulse at the periphery - such as the wrist – at all. A lack of blood volume also leads to a weak pulse.
3. **Rhythm** – helps to establish whether the heart is beating regularly. An irregular pulse indicates a possible abnormality in the heart's conduction system. An irregular pulse should be manually counted for one minute and the word irregular written on observation chart.

- A pulse oximeter (for oxygen saturation) and an oscillometer (for BP) are electronic ways of establishing the pulse rate but do not indicate the volume or regularity of a pulse. With a pulse oximeter, movement may cause an artefact leading to an inaccurate figure being displayed.

- Ensure that the pulse rate accurately represents a Client's physical appearance and your own assessment. If you doubt the accuracy of any observation, re-record it and inform GP and management.

Procedure for Measuring a Radial Pulse

Identify the radial artery. This is found with the palm of the hand facing upwards and gently pressing at the wrist region at the thumb side.

- Press the artery gently against the bone with your fingers (not your thumb which itself has a pulse) and feel the pulse bounding.
- Using your watch, count the beats for one minute. The number of beats corresponds to the pulse rate.
- Record the pulse on the SHS Baseline Observation Chart. (HYPERLINK- Shared/QCT/BPH)

5.4 GUIDELINES FOR MEASURING AND RECORDING RESPIRATIONS:

- The major function of the respiratory system is to supply the body with oxygen and remove carbon dioxide.
- One respiration consists of one inspiration and one expiration.
- When assessing respiratory rate you should know the expected normal rate and if a baseline reading is available, a comparison can be made with this.
- There is considerable individual variation in respiratory rates. Rate varies according to age, size, gender and can also fluctuate in well people, for example if metabolic demands change.
- The normal adult respiratory rate is about 12 – 20 breaths per minute (Wilkins et al. 2005).
- Exercise, stress and fear all increase the respiratory rate; this is a normal bodily response.
- In healthy people, the relationship between pulse and respiration is fairly constant, being a ratio of one respiration to every four or five heartbeats. Very rapid respirations, such as over 40 per minute in an adult (in the absence of exercise) or very slow respirations, such as 8 per minute, are cause for alarm and should be reported promptly.

- In addition to rate, observe the difficulty, sound, depth and pattern of breathing.

Difficulty:

Difficult breathing is termed dyspnoea. Dyspnoeic people may use accessory muscles of respiration such as their neck and abdominal muscles. People with dyspnoea often mouth breathe because there is less resistance to air flow. Orthopnoea is the term used when people cannot breathe unless they are upright.

Sound:

Breathing is normally quiet. A wheeze, often heard in people with asthma, is a high-pitched sound occurring when air is forced through narrowed respiratory passages. A wheeze may also occur with chest infections. A stridor is a harsh, high-pitched sound that is heard during respiration when the larynx is obstructed.

Depth:

This relates to the volume of air moving in and out of the respiratory tract with each breath – the tidal volume. An adults tidal volume should be about 500ml. Hyperventilation refers to prolonged, rapid and deep ventilations which can occur during an anxiety attack, causing dizziness and fainting as the resulting low carbon dioxide level causes cerebral vasoconstriction. Hypoventilation is the term used for slow shallow breathing.

Pattern of breathing:

Terms are given to certain abnormalities in the pattern of breathing.

- Apnoea. This is a period without breathing. It could occur during hypoventilation.
- Cheyne-Stokes respirations. These are when there is a gradual increase in the depth of respirations leading to an episode of hyperventilation, followed by a gradual decrease in the depth of respirations, and then a period of apnoea lasting about 15-20 seconds
- Kussmaul's respiration. This is very deep and laboured breathing sometimes associated with people in a diabetic coma. The deep breathing is due to metabolic acidosis.

Note: The person's respiratory rate should be equal between each breath, with a short pause at the end of inspiration and expiration. Irregularities of breathing may indicate respiratory disease.

Procedure for measuring respiratory rate

- Note the placement of the second hand of your watch or a clock.
- Count each rise and fall of the chest for one minute.
- If possible, carry out this procedure when the Client is unaware that they are being observed.
- Record on the SHS Baseline Observation Chart. (HYPERLINK-Shared/QCT/BPH)

5.5 GUIDELINES FOR MEASURING AND RECORDING BLOOD PRESSURE

- Blood pressure results from the combination of heart output, circulating blood volume and peripheral resistance, which is the opposition to blood flow from friction between blood and blood vessel walls (Marieb 2006).
- Blood pressure is regulated by complex neural and hormonal systems (Tortora and Grabowski 2003).
- It is currently measured in millimetres of mercury (mmHG) using a sphygmomanometer or electronic device.
- BP should be checked annually for Clients in SHS as this leads to familiarity with the procedure and a sound baseline. High blood pressure should be checked more frequently as directed by a physician.
- Nursing staff should be aware of how to take a blood pressure manually as electronic devices are not always readily available.
- A blood pressure reading has two values, systolic and diastolic –

  The systolic occurs during ventricular contraction and is the maximum pressure of the blood against the wall of the artery. This is recorded as the top figure when documenting the blood pressure.

  The diastolic is the minimum pressure of the blood against the wall of the artery, which occurs following closure of the aortic valve. This measurement assesses the pressure when the ventricles are at rest and is recorded as the bottom figure.
- The measurement of systolic and diastolic should be judged as one reading.

- The difference between systolic and diastolic readings is termed the 'pulse pressure' (Webster and Thompson 2006).
- When measuring blood pressure, as with any other vital signs, you should be aware of expected normal ranges. O'Brien *et al.* (2003) highlight the variability in blood pressure from person to person. Normal adult blood pressure is generally considered to range from 100/60 to 140/90 (Mallet and Dougherty 2004).
- The term used for high blood pressure is hypertension and the term used for low blood pressure is hypotension.

Factors that Influence BP Value:

1. **Blood volume.** Blood loss of 10% or more results in a fall in blood pressure
2. **Age.** Blood pressure increases from birth and throughout life.
3. **Disease.** Elasticity of the arteries is affected directly by diseases such as artherosclerosis. Many other diseases can raise blood pressure such as heart disease, kidney disease, endocrine disorders and neurological conditions. In these instances high blood pressure is termed secondary hypertension.
4. **Posture and gravity.** A decrease in blood pressure may occur in lying to sitting or standing position, but O'Brien *et al.* (2003) assert that this is unlikely to lead to significant error in recording provided the arm is supported at the person's heart level. Some people's blood pressure falls significantly on standing (termed orthostatic hypotension). This is more common in older people and is a complication of immobility.
5. **Drug use.** Some prescribed drugs affect blood pressure; examples are diuretics and tranquillisers.
6. **Emotional factors.** Stress, fear and anxiety all increase blood pressure. Relaxation techniques such as yoga and meditation can lower blood pressure.
7. **Weight.** An obese person's heart has to work harder and so the blood pressure may be higher.
8. **Diet.** High salt and low calcium dietary intake may lead to a rise in blood pressure.
9. **Exercise.** People who take regular exercise may have a lower blood pressure.

10. **Arm support and position.** Diastolic blood pressure may increase by 10 per cent if the arm is left unsupported. An overestimation of blood pressure can result if the arm is placed below the heart level.
11. **Which arm?** It is recommended that during a person's initial assessment, bilateral blood pressure measurements are recorded to identify any clinical differences in the readings.
12. **'White coat hypertension'.** This term is used when a person's blood pressure is consistently higher when recorded in a medical situation, such as a hospital, clinic or GP's surgery, than at home. It is a common phenomenon, affecting up to 25 per cent of those who appear to have hypertension (O'Brien 2001).

Blood Pressure Measurement:

- Although blood pressure can be measured at several sites, in most situations the bracial artery is used as it is convenient for people and easily accessible.
- Some electronic devices measure blood pressure at the radial artery.
- It is advisable to avoid recording the blood pressure on an arm that is affected by disability (e.g. weakness due to a stroke).
- Faulty equipment and poor technique can affect blood pressure measurements.
- Electronic devices are increasingly used for recording pulse, blood pressure and oxygen saturation. For nursing staff it is important to be able to use manual equipment accurately.

Korotkoff Sounds:

- These are the sounds heard through the stethoscope when you manually record a blood pressure. See table below:

Phase	Sound	When they are normally heard
1	Clear tapping	Usually above 120mmHg
2	Blowing or whistling	Around 110mmHg
3	Soft thud	Around 100mmHg
4	Low-pitched, muffled sound	Around 90mmHg

5	Disappearance of all sounds	Around 80mmHg

- They are named after Nikolai Korotkoff, who first identified the audible sound of blood pressure in 1905.
- There may be a period between phase 2 and 3 where no sounds are audible, yet they become audible again at a lower pressure. This phenomenon is known as the **auscultatory gap** (O'Brien *et al.* 2003) and is the reason that correct procedure involves palpation to find the systolic blood pressure before using the sphygmomanometer.
- There is debate whether the diastolic pressure should be recorded at phase 4 or phase 5. Generally guidelines recommend phase 5 as the point of diastolic pressure. Phase 4 should be used to record diastolic blood pressure only if sounds are heard to virtually 0mmHg, which can occur in pregnancy and states of high cardiac output.

Procedure on Electronic Blood Pressure Monitoring:

- Follow the steps above which prepares a Client for a blood pressure measurement – relaxation, explanation, arm support, correct cuff selection.
- Turn on machine and allow it to carry out its checking and calibration testing.
- Place the blood pressure cuff on the Client's arm with the midpoint of the cuff's bladder (often indicated by an arrow on the cuff) over the Client's bracial pulse (at elbow bend), 2.5 centimetres above the antecubital fossa (elbow bend).
- Press the start button on the monitor and advise the person to keep still and that the cuff may feel tight around their arm for a short while.
- Allow the machine to measure the blood pressure and record the displayed systolic and diastolic blood pressure.
- During any vital signs monitoring, some people may have difficulty in straightening their arms, or may have pulses that are not easy to find. Ask for further input when needed.
    - If in doubt about the accuracy of electronic recordings of blood pressure and pulse, get checked manually.
    - Record results on the SHS Baseline Observation Chart (HYPERLINK-Shared/QCT/BPH)

5.6 GUIDELINES ON MEASURING OXYGEN SATURATION

- To support your knowledge of pulse oximetry, these guidelines and procedures must be read in conjunction with Oxygen Administration Policy.
- It is the responsibility of all nursing staff involved in monitoring oxygen saturation levels to have the necessary knowledge and practical skills to carry out the procedure.
- The nurse has an obligation to practice according to the legislation and professional codes of practice governing nursing and midwifery practice as outlined by **An Bord Altranais.**
- Pulse oximeters range from small hand-held devices displaying the percentage of oxygen saturation and the pulse rate, to more substantial devices that also show the pulsatile waveform.
- The box has a wire leading to a sensor or probe – a clip or sleeve which is placed on a finger, toe or earlobe.
- Probes can be disposable or reusable and are available in different sizes. Currently in SHS, reusable probes are used.
- Pulse oximeters monitor only light absorption from tissue with a pulsatile flow . A good arterial blood flow is therefore needed for a reliable reading
- The normal value of oxygen saturation is 95 – 100 per cent. This figure refers to the percentage of haemoglobin molecules fully saturated with oxygen. SpO2 readings below 90% are of concern and must be reported.
- As hypoxaemia (insufficient oxygenation of blood) rises, pulse oximetery becomes less accurate.
- If the peripheral pulse is weak or absent, pulse oximetry readings will not be precise.
- Cardiac arrythmias such as atrial fibrillation can interfere with capture of the pulsatile signal and reduce accuracy.
- The sensor should be attached to a part of the body that the client is most likely to keep still. If digits are used, they should be supported rather than held in the air.
- Using the ear often reduces problems of movement.
- O' Driscoll et al (2008) recommend that oxygen saturation should be checked by pulse oximetry for all breathless and acutely ill people and that pulse oximetry should be available whenever emergency oxygen is used.

- Assessing hypoxaemia through observation only is inaccurate and unreliable (Le Grand and Peters 1999) and it can rapidly lead to tissue damage.
- The brain is very sensitive to oxygen depletion, and visual and cognitive changes can occur when oxygen saturation falls to 80 – 85 per cent. Other signs of hypoxaemia include restlessness, hypotension, tackycardia, warm peripheral areas, colour of skin and tongue.
- Cyanosis is the visible sign of hypoxaemia, but is only detected at a saturation of about 75 per cent in normally perfused people. (Hanning and Alexander-Williams 1995)
- Cyanosis is when there is a bluish, greyish or purple discoloration of the skin due to the presence of abnormal amounts of reduced haemoglobin in the blood. Pulse oximetry is therefore a more accurate and objective measure of hypoxaemia, alerting staff at an early stage.
- Pulse oximetry complements measurement of other vital signs but it does not replace them (Lowton 1999); oxygen saturations are only a single physiological variable and should not be over-relied upon.
- Pulse oximeters cannot differentiate between different forms of saturated haemoglobin. When carbon monoxide is inhaled, carboxyhaemoglobin (COHb) is formed and is absorbed and registered as oxyhaemglobin, leading to overestimation of oxygen saturation.
- Stoddart et al. (1997) note that it is the quality of oxygen delivery to the tissues that is of most importance – which depends on cardiac output, tissue perfusion and haemoglobin concentration – not just oxygen saturation of arterial blood. Oxyhaemoglobin saturation could be 99 per cent, but this is of no value if the heart cannot deliver it to the tissues.

Procedure on Measuring Oxygen Saturation

- Turn the pulse oximeter on and allow the device to go through its checking and calibration procedure.
- Select the appropriate probe and if using a digit, ensure correct fitting and positioning.
- Avoid placing the probe on false nails, or nail polished fingernails.
- Allow several seconds for oximeter to detect pulse and calculate reading.
- Read percentage (%) displayed and record on observation chart.
- Record if saturation has been taken when Client is on oxygen and what percentage or is breathing air.

6.0 DEVELOPMENT AND IMPLEMENTATION OF CARE PLANS

(To be used for Clients with long term medical issues and those who require palliative care)

6.1 GUIDELINES

- A Care Plan (inclusive of Care Plan Checklist and Care Plan Evaluation Sheet) (HYPERLINK –Shared/QCT/BPH/Care Plans) can be defined a document that reflects all aspects of health and personal care and clearly illustrates how these will be met in terms of daily living i.e. physical, emotional, social, psychological, political, economic.
- An SHS Care Plan Checklist must be completed to identify which plans and charts are required for a Client. For example if a Waterlow scale is required for pressure area assessment then this needs to be identified in the checklist.
- Care Plans are written by nursing staff with Client specific details recorded.
- CSM and Nursing Staff need to identify when a care plan is required for specific clinical needs (not all Clients need care plans).
- Plans should be reviewed regularly, evidence based and available for use.
- Plans should be signed and dated every time they are reviewed. Plans should be reviewed every 6 months or more frequently, if required.
- All Clients should be encouraged and facilitated to participate in the creation of their Care Plan (HIQA 2008, 11.2; HIQA 2008, 11.5).
- Relatives are facilitated to participate in the development of a Care Plan where consent is provided by the Client.

6.2 PROCEDURE

- Complete Checklist.
- Complete a Care Plan for each medical/clinical condition identified in the checklist.
- Current Care Plans are stored in the Client's Personal Profile.
- Clear, accurate record keeping reflects care given. (ABA 2003).

7.0 END OF LIFE CARE AND DNR ORDERS

7.1 GUIDELINES

- The purpose of this policy statement is to provide guidance for all Sunbeam House Services staff to ensure that a person's wishes and preferences regarding end of life support are discussed and documented in their Personal Profile and are made known to everyone involved who support this person to ensure appropriate implementation.
- During illness and at the end of life, Sunbeam House Services aims to ensure that the person's physical, psychological, social, cultural and spiritual needs are acknowledged. End of life care may involve a protracted decline of health and Sunbeam House Services recognise that by adopting an ethos of palliative care which is not just restricted to the care of the dying person. This care may develop over a period of years and should provide relief from distress and facilitate a comfortable end to the person's life.
- When a Client is diagnosed with a life threatening/debilitating illness, consideration should be given to providing specialised medical/palliative care. This may require some Clients to move location within Sunbeam House Services or avail of hospice/ nursing home for the best possible care.
- Client Service Managers should arrange a case meeting involving all relevant parties to discuss the end of life care process. Where a person lacks the capacity to make a decision, it is best practice to involve their relevant supports in the process. Family wishes should be considered alongside those of the individual.

7.2 DEFINITIONS

End of Life Care:

For the purpose of this document, end-of-life care refers to the care offered to adults with advanced progressive illness, age-related issues or terminal medical diagnosis.

Palliative Care:

"The active holistic care of patients with advanced progressive illness. Management of pain and other symptoms and provision of physical, social and spiritual support is paramount. The goal of palliative care is the achievement of the best quality of life for patients and families. Many aspects of palliative care are applicable earlier in the course of illness in conjunction with other treatments". WHO 2002.

D.N.R. (Do Not Resuscitate) Order: This is a written order not to attempt cardiopulmonary resuscitation (C.P.R.) on a person, should the person have a cardiac arrest.

There are no specific guidelines for a D.N.R. order in Ireland, but the accepted norm and duty of care requires that medical staff act according to the standard of the profession when carrying out such an order.

As stated in "End of Life Care in Acute and Long-Stay Settings in Ireland 2008" –

'If the patient does not have capacity to make the decision at the time, then an advance directive refusing such treatment may apply where the evidence of the patient's capacity is clear and unequivocal and relates to the circumstances that have arisen. Where the patient has diminished decision-making capacity, the medical team, in consultation with the family, make the decision based on the best interests of the patient".

7.3 PROCEDURES FOR D.N.R. ORDERS

- If a D.N.R. order is agreed in hospital regarding a Client then this order is only applicable whilst in that hospital. Sunbeam House Services staff cannot utilise this order when the Client is discharged.
- Upon discharge, if it is recommended by hospital medical staff that the D.N.R. order follows through under the care of Sunbeam House Services, then the following procedures must be adhered to:
    1. The G.P. draws up a D.N.R. order in accordance with best medical practice.
    2. The D.N.R. is drawn up on headed paper and signed and dated. The Client's family or other supports as well as the C.S.M. and keyworker must be involved in this process.

3. Where no family member or other natural supports exist, then an advocate from the Independent Advocacy Group should be involved in this process.
4. The D.N.R. order should be stored in the Client's medical file along with the consultant's letter and any other relevant documentation.
5. It is the responsibility of the G.P. to inform and update the out of hours G.P. service and the Community Palliative Care Team of the Client's D.N.R. status.
6. The Client's Care Plan needs to be regularly updated.
7. The G.P. must carry out a full review of the Client every 3 months to ensure that the D.N.R. is still appropriate. Following the review, a new D.N.R. order must be written up by the GP and filed in the Client Care Plan. Again it is the G.P.'s responsibility to inform the relevant people with the results of this review.
8. Family members or other supports/advocates must be kept up to date of all reviews.
9. If the review states that the D.N.R. is no longer valid then normal first aid (C.P.R etc.) procedures must be followed.
10. All staff involved in the care of the client must be informed of a D.N.R. order.
11. Where there is a serious challenge to the clinical decisions made, it may be necessary to seek a legal review.

8.0 EPILEPSY AND SWIMMING

8.1 GUIDELINES

- A person with epilepsy should only swim when accompanied by a competent swimmer who is capable of dealing with a seizure in the water. It is preferable to swim in a pool where an attendant can intervene as swimming in the sea will pose more risks.
- It is important to inform pool attendants and lifeguards of the person's epilepsy and ensure they are familiar with appropriate first aid. It should be noted that many hotel swimming pools do not have lifeguards at the poolside (they may be in the pool reception area). This places a greater onus on SHS staff in relation to Client supervision in the pool.
- Wearing a brightly coloured swimming cap will aid prompt location of any swimmer who may experience difficulty.
- For the sake of their own safety, people should learn to swim and this equally applies to people with epilepsy. However, there are some special

precautions that people with epilepsy need to take. Initially, it is a good idea to discuss this with the Client's doctor and seek his/her advice.

  - The degree to which seizures are controlled.
  - Whether there is a warning of a seizure.
  - How the seizure affects the client.
  - Are there any triggering factors, which might occur while swimming e.g. cold water, stress and/or excitement, noise of crowded pool, dazzling lights on water surfaces etc.

- All Clients need to be risk assessed for swimming even if they have not had a seizure for several years.
- A Client should not go swimming if they have had a seizure in the previous 24 hours and advice is to be sought from a medical practitioner if there has been a recent increase in seizure activity.
- All SHS staff must ensure that a Client has Buccal Midazolam with them when going swimming.
- A Client with epilepsy should never swim alone and should be supervised at all times by someone who can recognise a seizure starting and who can intervene.
- SHS staff should avail of epilepsy training to update their knowledge and staff cannot administer Buccal Midazolam unless they have attended epilepsy training (up-dated two yearly).
- SHS staff must check with the CSM about the Client's Buccal Midazolam Plan and they should be familiar with the contents of the plan prior to bringing the Client swimming.
- If the SHS staff member supervising the Client with epilepsy does not have lifesaving skills then the Client should not swim out of the staff member's depth.
- The staff member should be a strong and capable swimmer and be physically capable of supporting the Client in water.
- For the safety of all, staff who do not feel competent or comfortable with this must discuss it their CSM prior to taking swimming sessions with Clients who have epilepsy.
- Close surveillance of someone liable to have a seizure is important.
- Watch for loss of coordinated movement.
- Some people with epilepsy continue the activity, but their stroke becomes uncoordinated and starts to break up. Direction becomes vague and involuntary, head movements may start.
- If the swimmer has absence attacks, they are usually very brief but the swimmer may suddenly sink.

8.2 EMERGENCY PROCEDURES

- Remain calm and raise alarm by alerting lifeguard on duty.
- Staff must ensure that the Buccal Midazolam is quickly and easily accessible when required.
- Each time staff take Clients with a diagnosis of epilepsy to the pool, the lifeguard should be informed of a possible seizure event and called if a seizure is occurring.
- Keep the person's face and head above water in the event of a seizure occurring.
- To do this it is easiest to approach the person from behind.
- If possible, tow the person to shallow water and hold the head above water until the seizure is over.
- Do not restrict movement or place anything in their mouth unless you are administering Buccal Midazolam.
- Use flotation devices at poolside to assist if appropriate.
- If the Client has been prescribed Buccal Midazolam, it should be administered according to the Client's Buccal Midazolam Care Plan (HYPERLINK - Shared/QCT/BPH/Care Plans), SHS Policy, and Client Specific Procedures for Buccal Midazolam (HYPERLINK – SHS FORMS/QCT/Health & Safety/Client Specific Procedures re Epilepsy Swimming).
- Once the seizure is over, the Client should be removed to the poolside.
  If breathing has stopped, normal resuscitation measures should be taken.
    - Place the swimmer on their side to recover.
    - Stay with the person until they feel better.
- It is the responsibility of the lifeguard to use the pool chair hoist or the Keifer board to take the Client from the pool.

When to call an Ambulance:

- When you believe the person has swallowed or inhaled water.
- When the person goes from one seizure to another without regaining consciousness.
- When the person has not responded to their Buccal Midazolam.
- When the seizure lasts longer than is usual for the person or, if in doubt, when the seizure continues for more than five minutes.
- When the person has been previously seizure free.
- When the person has been injured.

- When the pool lifeguard or manager deems it necessary to do so in accordance with their Pool Emergency Operation Plan.

If the Client has a 'usual' seizure and recovers well and an ambulance is not deemed necessary, medical advice must always be sought (e.g. ringing GP, visiting surgery etc) as a precaution in case the Client has inhaled water during the seizure.

8.3 CLIENT SPECIFIC PROCEDURES

Each SHS Client who has epilepsy and goes swimming will be risk assessed by staff for swimming and will have documented procedures outlined in their Individual Safety Plan that are specific to their safety in the water, and their seizure and medication needs. Two Clients who are prescribed Buccal Midazolam and whose seizure pattern is stable with no recent increase in epileptic activity, particularly in the last 24 hours, can go swimming at the same time.

See examples of Client Specific Procedures: (HYPERLINK – SHS FORMS/QCT/Health & Safety/Client Specific Procedures re Epilepsy Swimming)

For Clients who have been prescribed Buccal Midazolam

For Clients who have not been prescribed Buccal Midazolam

9.0 GENERAL SWIMMING AND HYDROTHERAPY

It is the policy of Sunbeam House Services to ensure the safety of all staff, Clients and other persons attending Physiotherapy Hydrotherapy sessions. All staff supporting Clients to attend Hydrotherapy sessions with Physiotherapy should read and understand this document.

9.1 CARE OF CLIENTS

It is the policy of Sunbeam House Services to ensure the safety and comfort of all Clients within the pool and surrounds at all times.

Care of Persons

1. All Clients attending Hydrotherapy sessions must have a Hydrotherapy Screening Form completed by their location to ensure they have no Contra-indications prior to initially commencing Hydrotherapy treatment. It is the responsibility of staff supporting the Client to attend Hydrotherapy on a particular day to inform SHS Physiotherapist of any changes to this that may deem person unsuitable for Hydrotherapy session that day.
2. A Client Hydrotherapy Risk Assessment is to be carried out by the Physiotherapist and the Client Services Manager on all users prior to commencing a course of Hydrotherapy. Location staff must inform Physiotherapist of any changes to this as relevant.
3. All Clients must have a GP Screening Letter sent to their GP to ensure their suitability for Hydrotherapy.
4. A Hydrotherapy Information Letter is to be sent to Clients next of kin/parent/guardian along with Hydrotherapy Consent Form.
5. Copies of all relevant documentation and consent for Hydrotherapy will be kept in Client Physiotherapy file.
6. Sunbeam House Services Manual Handling Policy is to be adhered to at all times.
7. There is to be a minimum of two persons in the pool area at all times when there are Clients in the pool. SHS Physiotherapist will instruct exactly how many staff members will be required to support a group of Clients depending on need of that particular group attending that session.

Continence

1. All users, continent or incontinent, should be toileted before entering the pool.
2. Suitable protective clothing must be worn by incontinent pool users.
3. Incontinence bags must be emptied before entering the pool.
4. Pool users who are menstruating should not use the pool.

Infection Control

1. Soiled pads and other incontinence material should be double bagged and disposed of in the pool sanitary bin.

2. Towels and dirty laundry should be collected and returned to the laundry room in the location responsible for cleaning the Clients belongings.
3. All Clients must exit the pool immediately in the event of a bowel evacuation. In the event of this occurring the Lifeguard should be informed and local pool policy should be followed in line with Lifeguards instructions.

Service User Preparation

1. Clients must be prepared for pool by staff who deliver person to the pool e.g. undressed and dressed.
2. All Clients must shower before and after entry to pool.
3. Clients must be supervised at all time while in changing room and pool.
4. Support staff must inform the Lifeguard if a Client has epilepsy.
5. Support staff must inform Lifeguard if Client uses Buccal Midazolam and location of same in event of emergency.
6. It is the support staff's responsibility to know the Buccal Midazolam Care Plan and code to open Buccal Midazolam Security Box.
7. Earrings, hearing aids, false teeth, glasses, contact lenses and jewellery must be removed before entering the water.
8. Clients must not enter the pool unless instructed to do so by Physiotherapist.

9.2 STAFF KNOWLEDGE / TRAINING

All staff must have an understanding of safety procedures and practice specific to Hydrotherapy Physiotherapy sessions.

1. It is recommended that staff working in the pool have completed CPR training. This is mandatory should the pool not have a life guard on duty. Manual Handling Training is mandatory. Staff must have an understanding of the emergency and evacuation procedures for the public pool.

2. All staff working in pool should be familiar with Contra-indications to Hydrotherapy and should not attend Hydrotherapy session if they themselves have any Contra-indications.
3. Staff attending Hydrotherapy session must also be familiar with the relevant parts of the following documents:
    - Manual Handling Policy,

- Infection Control Guidelines
- SHS Epilepsy and Swimming Policy
- Client Specific Procedure for Epilepsy Guidelines

4. The maximum period of time spent in the pool by a staff member is three hours per day. There must be a rest period of 1 ½ hours to allow body temperature to return to normal and to replace any body fluids.
5. Drinking water must be made available.

Clinical Skills

1. Physiotherapy staff working in the pool must have a basic understanding of Hydrotherapy principles employed during Hydrotherapy Physiotherapy sessions.
2. Physiotherapist working in the pool must be familiar with and adhere to the Contra-indications to Hydrotherapy.
3. Physiotherapist must be familiar with all equipment used in the pool area.

9.3 EMERGENCY PROCEDURE FOR HYDROTHERAPY SESSIONS

In the event of an emergency in the pool, the Physiotherapist will take charge until control is passed to the lifeguard on duty.

SHS Physiotherapist will carry Hydrotherapy folder to each session with contact details of the Clients GP and Epilepsy Buccal Midazolum Care Plan in event of an emergency.

If a medical emergency should occur in the pool:

1. The physiotherapist in the pool
    - Identifies the problem
    - Assesses A.B.C.
    - Calls 'EMERGENCY'
    - Prepares to evacuate the person if necessary.
2. The person assisting the physiotherapist should call "HELP" until the Lifeguard is aware of the Emergency.
3. The Local Lifeguards instructions and the Local Pool Emergency Action Plan should be followed from this point.
4. In the event that a Client needs to go to hospital, a staff member will accompany the person to hospital.

5. In the event of an Epilepsy seizure: Follow SHS Epilepsy and Swimming Policy and Client Specific Procedure for Epilepsy Guidelines.
6. Client Services Manager should be informed of all such emergency events and an Accident form should be completed on return to location.

Evacuation Procedure

If an evacuation of a person from the pool is necessary due to a medical emergency, the Lifeguard in the pool chooses the most appropriate evacuation method.

10.0 MENTAL HEALTH

Definition: "Mental Health is defined as a state of well-being in which every individual realises his or her own potential, can cope with the normal stresses of life, can work productively and fruitfully and is able to make a contribution to her or his community" (WHO 2013)

10.1 GUIDELINES

These guidelines provide advice on how to manage a Client who is showing signs of being mentally unwell.

- A Client can express their mental wellbeing either non-verbally, verbally or both.
- They can express themselves by telling you that they are feeling depressed, having thoughts of self-harm, feeling paranoid, suspicious, withdrawn, overactive and any other behaviour that is out of character for them.
- If a Client manifests any form of suicidal ideation, the CSM or SSM and GP must be informed immediately in the strictest confidence.

10.2 PROCEDURES FOLLOWING A CLIENT DISCLOSURE OF A MENTAL HEALTH ISSUE

- Staff member should talk to Client in private to ascertain how they are feeling.

- They must be open, honest and supportive to the Client.
- They must have an appointment with the Client's psychiatrist.
- If they are unable to get this immediately, then they must take the Client to see their GP. If it is out of hours, they must use the Care Doc facility.
- The GP/Care Doc will assess the Client and will give guidance on what to do next. It may be that the Client has to be taken to A&E for an assessment. If so, this must be done immediately.
- Staff must contact the CSM, SSM and Social Worker. They must also inform the Client's family.
- All correspondence must be documented.
- Following GP assessment, staff must make an appointment as soon as possible with the psychiatrist.

11.0 NEEDLESTICK INJURY AND OTHER EXPOSURE INCIDENTS

11.1 GUIDELINES

- It is the responsibility of all staff to be familiar with and adhere to the steps that must be taken when a needle stick injury or other exposure injury occurs.
- It is the responsibility of all staff to make sure that there is a safe and non-hazardous environment for any member of the public who may be visiting.
- Use of vacutainer with safety mechanism is recommended when taking blood.
- In the event of an injury, please follow the actions attached (HYPERLINK-Needlestick Action Plan).

11.2 DEFINITIONS

Needle Stick Injury: Is one in which there has been skin penetration by a needle which has been used on a client or has been in contact with a client's body fluids. This can also be referred to as an inoculation injury.

Inoculation: Penetration of the skin by a sharp object such as a needle or blade. The main risk is from a hollow needle containing blood.

Sharps: Any item which may puncture the skin, e.g. needles, blades, glass ampoules, surgical instruments, blades etc.

Other Exposure: Other accidental exposure incidents include bites or splashes of infected materials on to the skin or mucous membranes where there has been a break in skin integrity. Also considered to be occupational inoculation injury.

11.3 PROCEDURES

To prevent needlestick injury, the following procedures must be followed:

- A Sharps Bin must be within reach for disposal of sharps. This involves the staff member taking the sharps bin with them to Client to carry out procedure. A smaller more portable bin is recommended. This can be obtained from SHS Waste Management Company.
- Protective gloves must be worn at all times and provided for an assistant if present.
- Minor cuts must be prevented by exercising care when opening ampoules and when preparing drugs for injection.
- Cover all exposed cuts and abrasions with band aid or waterproof dressing.
- Ensure client is in a safe position with arm well supported.
- When taking blood ensure that the vacuum bottles are disconnected from the vacutainer prior to removing needle from vein.
- Sharps are not to be passed from person to person and handling kept to a minimum.
- Do not re-sheath needle following procedure.
- Engage safety needle cover on vacutainer immediately upon removing the needle, and dispose into a sharps box.
- It is the responsibility of the person who uses the sharps to dispose of it safely.
- Drop sharps into container. Do not push them down or allow your hands or fingers past the level of the lid.
- Do not overfill sharps bin. Fill only to the indicated mark.
- Sharps containers in use must be kept in an area that excludes risk or injury to staff, SHS Clients and visitors.
- Full and sealed sharps bins must be stored in a locked office or cupboard.
- Store and transport sharps bin in an upright position.

12.0 ADMINISTRATION OF OXYGEN

12.1 GUIDELINES

- It is the responsibility of nursing staff involved in administering oxygen to have the necessary knowledge and practical skills to carry out the procedure safely.
- The nurse has an obligation to practice according to the legislation and professional codes of practice governing nursing and midwifery practice as outlined by **An Bord Altranais.**
- It is the responsibility of CSMs to ensure that nursing staff are familiar with this guideline.
- With the exception of emergency situations, oxygen therapy must be prescribed by the doctor. The prescription should specify the mode of delivery – mask or cannula, the flow rate and the percentage of oxygen to be used.
- Oxygen is highly flammable.
- An oxygen cylinder has a black base with white shoulders.
- Portable oxygen cylinders are completely white with a protective outer lining for travel purposes.
- Some portable cylinders cannot be used with nasal cannula and only with oxygen masks. Staff are advised to refer to the manufacturer guidelines for further information.
- Oxygen tubing may come in pre-packed lengths as a continuous role with a 'bubble' (widened portion) at regular intervals. To ensure a secure fit onto the flow meter and mask, cut through the centre of the bubble and then further trim as necessary. The length should allow freedom of movement for the client but should not be so long that it may become kinked or touch the floor
- If nasal cannula are used the flow of oxygen must not exceed 4l/min or it will damage the nasal mucosa.
- The centre of the ball in the flow meter must sit at the level of the flow rate prescribed.
- Oxygen therapy dries the mucous membranes of the mouth. Frequent drinks should be taken or frequent mouth care provided if the oxygen is not being humidified.

- If a Client experiences cannula or mask discomfort, ensure correct placement. Applying padding around head strap or bridge of nose may relieve pressure.
- To maintain safety, ensure that oxygen does not become detached from flow meter and that no kinks or loops arise in tubing.
- Clients, staff and visitors must be made aware of the dangers of smoking when oxygen is being used.
- Ensure that there is no naked flame in the area where oxygen is to be used.
- Oxygen tubing and masks may be reused several times for the same Client. They can be washed in warm water with a mild detergent and dried thoroughly. They should be disposed of in clinical waste if no longer required.
- Ensure that a replacement cylinder is available when the volume indicator gauge shows a quarter full.
- Prevent oxygen enrichment by ensuring that equipment is leak tight and in good working order.
- Check that the area where oxygen is being administered is well ventilated.
- Always open oxygen cylinder valves slowly.
- Do not use oil or grease to lubricate oxygen equipment.
- Check that fire extinguishers are in good condition and ready for use.
- Check that escape routes are clear.
- Always use safe manual handling principals when handling or moving oxygen cylinders.
- The transportation of oxygen must be carried out in a safe and secure manner.
- Oxygen therapy and changes in treatment or care must be documented in client's Care Plan.
- Refer to the HSE leaflet ***'Take Care with Oxygen'*** which provides information on the fire and explosion hazards in the use of oxygen gas in cylinders. (HYPERLINK- HSE doc "Take Care With Oxygen")
- Staff who administer oxygen must be aware of the Guidelines on Baseline Observations (number).

12.2 PROCEDURES

- Refer to Prescription Kardex
- Assemble the necessary equipment.
- Engage with the person to explain the procedure.
- Wash and dry hands thoroughly.
- Position Client in an upright position or lying comfortably.

- Encourage Client to cough or expectorate to help maintain a clear airway.
- Turn on oxygen flow meter and set the flow rate.
- Place the mask over the Client's nose and mouth with the elastic strap over the ears to the back of the head. Adjust the length of strap to ensure the mask fits safely.
- If using nasal cannula, place nasal prongs into Client's nostrils with tubing over the ears and either under the chin or behind the head.
- Ensure continual reassurance is given and assess for change.
- If breathing is rhythmic and not laboured, oxygen therapy can be ceased.
- It the Client requests oxygen therapy to be discontinued, this must be carried out in line with a clinical assessment.
- Be aware that a mask may make communication difficult.
- Mobilise Client with a portable oxygen cylinder if appropriate.
- If you administer oxygen to a person it is your responsibility to ensure the oxygen is removed at the appropriate time. Do not assume another person will discontinue and remove it.
- Once treatment is finished, remove and store all equipment safely.
- It is important to follow oxygen administration in the time allocated.
- Document the procedure in the Client's medication administration sheet.

13.0 PEG TUBE MANAGEMENT AND CARE

13.1 DEFINITIONS

PEG:

A Percutaneous Endoscopic Gastrostomy (PEG) feeding tube is one which has been inserted directly through the abdominal wall into the stomach. They are suitable for long-term use. A flange, dome or inflated balloon anchors the tube in place on the inside and prevent the leakage of gastric juices or food.

Enteral Feeds:

Enteral feeds are commercially prepared, pre-packaged and sterile; this reduces the risk of microbial contamination. They vary according to the pharmaceutical company and prescription, therefore administration sets and pumps will also vary.

Feeds are administered on either a continuous/intermittent or bolus basis depending on nutritional requirements and on the condition of the user of the service.

13.2 GUIDELINES

- These guidelines provide advice on the administration of medication and food via a PEG tube and how to prevent and manage a blockage.
- The nurse employed by SHS has an obligation to practice according to the legislation and professional codes of practice governing nursing and midwifery practice and to the current standards, policies and guidelines of an Bord Altranais and Sunbeam House Services.
- Nurses should ensure that their knowledge, skills and practices are up to date and acknowledge any limitations in competence.
- SHS, where necessary, will support nursing staff to maintain professional development and competence in PEG tube management.

13.3 PROCEDURES FOLLOWING INSERTION OF PEG TUBE

Immediate Care:

- Up to 10 days post initial insertion in hospital aseptic dressing is required and thereafter socially clean is acceptable. (Dougherty & Lister 2004)
- Do not touch site and tube for 8-12 hours post insertion.
- After 36-48 hours remove dressing, observe site for signs of swelling, bleeding or infection. (Dougherty & Lister 2004)
- Note the number of the measuring guide on the tube closest to the end of the external fixation device. Loosen the tube from the fixation device and ease fixation device away from the abdomen.
- Cleanse site and fixation device with sterile 0.9% Sodium Chloride solution and gently dry with low linting gauze.
- Adhere to the manufacturers guidelines in relation to tube rotation.
- Where indicated the tube should be rotated 360 degrees (according to manufactures guidelines) within the stoma tract 24 hours after insertion, then daily. This is to prevent necrosis due to pressure from the balloon inside the stomach.
- Gently push the fixation device against the abdomen.

- Gently but firmly pull the gastrostomy tube and attach to the fixation device
- Ensure the measuring point on the measuring guide on the tube is placed closest to the end of the fixation device.
- Do not release the fixation device.
- Apply dry keyhole dressing only if required to absorb exudates.
- Do not apply talc or moisturiser to the site.
- Close observation is advised of the enteral feeding site for signs and symptoms of infection i.e. redness, inflammation, heat, discharge etc and seek further review if these symptoms are noted.

Follow -up care

- This applies to general care from 10 days after initial hospital insertion or re-insertion on unit.
- Before cleaning check the stoma site for
  1. signs of leakage
  2. swelling
  3. irritation
  4. redness
  5. skin breakdown
  6. soreness
  7. excessive movement of the tube in or out of the stomach
- Wash hands thoroughly and dry well.
- Clean the skin around the stoma each morning with sterile water and gauze after the Client's bath.
- Stoma site should be cleaned with circular movements working outwards.
- Tube should be rotated in a full circle to allow all areas of the skin around the tube to be cleaned. It also helps to keep the stoma healthy.
- Do not move the tube excessively in and out of the stomach.
- Dry the whole area gently and thoroughly.
- Avoid dressing and leave exposed if possible.
- Use key hole dressing if one is required.
- Remove dressing if it becomes wet.
- Monitor site for signs of over granulation.

13.4 GUIDELINES FOR DRUG ADMINISTRATION VIA PEG TUBE

- Where possible medication for administration via the PEG tube should be ordered in its solution or dispersible form. Suspensions and syrups can also be used. Care must be taken as these can more easily block the tube. (Refer to Appendix 1)

- Crushing tablets is a last resort as it greatly increases the risk of tube blockage. It should be noted that some medications cannot be crushed due to their nature (i.e. enteric coated or slow release). The GP and/or Pharmacist must be made aware that these medications need to be crushed or an alternative found.
- Antibiotics should not be crushed.
- If crushing of medication is unavoidable in an individual case then all medication must be crushed individually and medications should not be mixed.
- Give separately to avoid drug interactions.
- Crushed tablets should be diluted with 10-15mls of water.
- Soluble drugs should be diluted with 10-15mls of water.
- Viscous liquids should be diluted with equal amounts of water.
- Flush the PEG tube with 10mls of water between each medicine.
- Before and after medications flush PEG with 30mls of water.
- All medications for administration via a PEG should be prescribed via this route
- Legally only medical practitioners can authorise the use of a drug outside of its licence. (S. Byrne 2004)
- Medications must not be added directly to enteral feeds.
- Consider timing of drugs causing GI irritation – NSAIDS etc and discuss with physician and pharmacist.
- Consider timing of drugs that are better absorbed with food – Klacid, Flagyl etc and discuss with physician and pharmacist.
- For drugs requiring administration on an empty stomach:
  1. Stop feeding 30 minutes before administration
  2. Allow a further 30 minutes before restarting feed
  3. For documented drug nutrient interactions – allow 2 hours before and after

  In exceptional circumstances, the volume of water pre and post may be less as per local guidelines and these guidelines must be signed by off by the Client's GP as well as the CSM.

13.5 PROCEDURES FOR DRUG ADMINISTRATION VIA PEG TUBE

Equipment required

1. Prescribed medications
2. Pill crusher
3. Medication container
4. 50ml catheter tipped syringe (for flush and administration of drugs)

5. Sterile or boiled (then cooled) water in appropriate container
6. Medication syringes and caps
7. Appropriate protection for abdomen
8. Gloves
9. Container for syringes and caps

- Take all equipment to the Client using an appropriate and convenient location.
- Explain the procedure.
- Ensure privacy.
- Ensure the head and shoulders of the Client are raised to an angle of approximately 30 degrees during procedure and maintained this way for at least 30 minutes following procedure.
- For Clients who may require to be positioned at a different angle, this must be clearly written in their Care Plan.
- Local Guidelines must be written up.
- Wash and dry hands thoroughly.

- Place appropriate protection over the abdomen and expose the PEG tube.
- Apply gloves.
- Fill a 50ml catheter tipped syringe with 50ml of water (sterile/boiled and cooled).
- Place the pump on hold or turn it off noting the volume of feed administered if required to record.
- Ensure the PEG tube and administration set is clamped.
- If there is not a second port for administration of medication, carefully separate the administration set from the PEG tube and recap the set.
- Use of Y Connector with a medication administration port is recommended.
- Clean the port as per manufacturer's instructions.
- Attach the 50ml water filled syringe to the port, unclamp the tube and flush it with approximately half of the water.
- Reclamp the PEG tube.
- Draw up the medications and water from Container Cup and syringe to the PEG tube.
- Unclamp the tube and administer the medication steadily.
- Reclamp the PEG tube.
- Remember to flush the PEG tube with approximately 10 mls of water between administrations of each medication.
- Following administration of last medication flush with approximately 30mls of water.
- Reclamp the tube.
- Place the syringe back in container <u>unless</u> it is due to be changed.

- If feed is being continued, uncap the administration set and reattach it to the PEG tube and unclamp both the administration set and the PEG tube.
- If a Y connector is being used, re-cap the medication port.
- Turn on or reset the pump to the delivery amount desired.
- Ensure the Client is comfortable at a 30 degree angle and replace clothing.
- Tidy away all equipment and wipe up any spillage, especially on the pump
- Wash container, syringes and caps in mild detergent, rinse and dry thoroughly and replace in storage.
- If a Fluid Balance Chart (HYPERLINK-Shared/QCT/BPH) is being used, record the following –

    - amount of flush given
    - time it was given
    - type of feed
    - volume infused
    - rate of flow
    - the time the feed was restarted
- Record all medications given on the medication administration record
- When in doubt about the administration of medication the relevant doctor and pharmacist should be contacted for information and support.

  Note: The amount of water used for flushing may vary according to physicians' orders where a person using the service is fluid restricted due to a medical condition.

13.6 GUIDELINES FOR FOOD ADMINISTRATION VIA PEG TUBE

Storage:

- Feed and equipment needs to be kept clean and could be damaged if kept at the wrong temperature.
- Store unopened feed and equipment at room temperature (between 8-25 degrees Celsius) in a cool, dry place – it is not necessary to refrigerate unopened feed.
- Avoid placing feed and equipment next to radiators or other sources of heat.
- Once a pack or bottle of feed has been opened any unused feed should be stored in the fridge and discarded after 24hours.
- Decanted and reconstituted feeds should be discarded as directed by manufacturer/pharmacist or dietician.

13.7 PROCEDURES FOR FOOD ADMINISTRATION VIA PEG TUBE

Equipment required:

1. Appropriate feed
2. Appropriate administration set
3. Appropriate pump
4. Infusion stand
5. 50 ml catheter tipped syringe (for flush)
6. Sterile or boiled (cooled) water in appropriate container
7. Container for syringes and caps
8. Appropriate protection
9. Gloves

- To ensure the appropriate feed is used:
    1. check the bag against the prescription
    2. check the bag is labelled appropriately if not pre-packaged
    3. check the expiry date
    4. check the bag is intact
    5. check the bag is at room temperature
- Wash hands before starting to set up feed.
- Explain the procedure to the Client.
- Ensure Client is raised to an angle of approximately 30 degrees during feeding and for at least 30 minutes after the feed has finished.
- The Client should not lie flat during procedure.
- Place appropriate protection over the abdomen and expose the PEG tube.
- Open the administration set packaging and roll down the roller clamp to stop the flow of feed.
- Apply gloves.
- Uncap feed and attach the administration set to the feed according to the manufacturer's instructions.
- Avoid touching any internal part of the feed container and Giving Set with your hands
- Hang the feed on the infusion stand, unclamp the roller clamp and prime the administration set tubing according to the manufacturer's guidelines.
- Ensure that all air is expelled.
- Close the clamp and leave the cap on the end of the set in place to avoid contamination.
- Fill a 50ml catheter tipped syringe with sterile/boiled water.

- Ensure the PEG tube is clamped.
- Uncap the PEG tube port and place cap in a clean dry container.
- Attach the 50ml syringe to port, unclamp the tube and flush with the recommended amount of water.
- Reclamp the PEG tube.
- Place the syringe back in container unless it is due to be changed.
- Giving Sets should be changed every 24 hours.
- Uncap the administration set and attach it to the PEG tube (place the cap in the container) and unclamp both the administration set and the PEG tube.
- Set the pump to the delivery amount desired, ensure that the feed is not hanging lower than the level of the client to prevent any risk of reflux.
- Make sure the pump and all the tube feeding equipment is kept clean. If feed spills onto the pump wipe it immediately with a damp cloth. It is much harder to clean later on and may affect how your pump works.
- Wash container, syringes and caps in mild detergent, rinse and dry thoroughly and return to storage.
- Record appropriately in Fluid Balance Chart (HYPERLINK-Shared/QCT/BPH).

Dealing with Complications

1. Each Client must have clear guidelines in their Care Plan on what to do to have the peg reinserted.
2. CSM must ensure that there are local guidelines in place for this.

❖ **Diarrhoea –**

If diarrhoea develops, please check the following:

1. Ensure the pump is going at the correct rate.
2. Ensure all feeding equipment is clean.
3. Ensure the Giving Set has been changed every 24 hours.
4. If you are bolus feeding ensure that the open pack is resealed.
5. Cover and refrigerate any unopened feed that is not actually being fed through the pump. When ready to use again, remove from the fridge and allow to stand at room temperature for 30 minutes.
6. A pack of unopened feed should be discarded after a maximum of 24 hours
7. Take medication as directed. Some medications e.g. antibiotics, can cause diarrhoea. Check with GP.
8. If diarrhoea does become a problem for more than 24 hours, contact GP.

- **Constipation –**
  1. Ensure that all additional fluids that have been prescribed have been given. Do not miss flushes.
  2. Exercise if possible.
  3. If constipation persists, let GP know.

- **Upset stomach –**
  Since each Client had different needs, their Care Plan must clearly state the guidelines to be followed.
- **Wind/back pain**
  If wind is present in gut, open the cap on tube and let any excess gas escape through it. This is a process called venting. A 50 ml syringe can be attached to facilitate removal of excess gas.

See Flowchart for Administration of Medication via Peg Tube (HYPERLINK – Flowchart for Administration of Medication via Peg Tube)

13.8 GUIDELINES FOR NON-NURSING STAFF

All non-nursing staff who need to provide PEG feeding for Clients must have completed the Joe Wolfe training course on PEG Feed. Joe Wolfe is a certified trainer and details of the training are shown below. Following completion of the course, staff must give a copy of their training certificate to HR to show that they are competent in PEG feeding.

General Management of a PEG
The programme is designed for non-nursing staff but can be used as a refresher for nurses. The programme content includes:

- **Benefits of PEG use**
- **Complications**
- **Care of PEG**
- **Administering a PEG feed**
- **Administering medication via a PEG**
- **Troubleshooting**
- **Practice using mannequin**

Non-nursing staff must not administer PEG Feed until they have completed the Joe Wolfe training course and have submitted the relevant certificate to HR.

It is the responsibility of the CSM to decide whether a Client requires either a Nurse or a CSW to administer the PEG feed and this information should be clearly noted in the Client's Care Plan.

Each Client should have a Care Plan outlining clear guidelines around their PEG Feed.

14.0 PHYSIOTHERAPY

14.1 GUIDELINES

SHS Physiotherapy Department comprises of 1 fulltime Senior Chartered Physiotherapist and 1 part-time Staff Grade Chartered Physiotherapist.

SHS Physiotherapy department are only in a position to provide a Physiotherapy service to SHS Clients with complex physical disability. All other referrals must be made to the local Primary Care Team Physiotherapist as SHS Physiotherapy Department cannot meet this demand.

SHS Physiotherapy services include:

- Physiotherapy Assessment/Review/Treatment and Client Programmes
- Hydrotherapy
- Orthotic clinic with visiting Orthotist
- Wheelchair and seating assessments
- Provision and Sourcing of mobility equipment
- Training support staff in Postural management and Positioning interventions
- Manual Handling Training and Advice

SHS Chartered Physiotherapists must be eligible for membership of ISCP (Irish Society of Chartered Physiotherapists).

SHS Physiotherapists must at all times adhere to European Core Standards of Physiotherapy Practice and the ISCP Code of Conduct and Ethics.

SHS Physiotherapists have a professional duty to continually upgrade their professional knowledge and skills to ensure the contribution that they make

to the healthcare of the Clients within SHS is safe and of the highest possible standard.

14.2 PROCEDURE

Staff can refer SHS Clients for Physiotherapy by making a Physiotherapy referral on CID 2.

Once deemed an appropriate Physiotherapy referral for SHS Physiotherapy Department, referrals are then allocated to a specific Physiotherapist depending on caseload at that time.

SHS Physiotherapist will make contact with relevant staff member/client to arrange an appointment.

It is the responsibility of SHS staff to ensure Clients attend their Physiotherapy appointment and to contact SHS Physiotherapist if a Client is unable to attend their Physiotherapy appointment. Also SHS staff must ensure that any relevant programme as recommended by SHS Physiotherapist is followed through, documented and communicated back to SHS Physiotherapist as appropriate.

15.0 SUBCUTANEOUS PREFILLED SYRINGES AND INTRAMUSCULAR INJECTIONS

15.1 GUIDELINES

- These guidelines provide information on subcutaneous and intramuscular injections and their safe administration to Clients.
- Only nursing staff will administer intramuscular injections with the exception of Glucagon which care staff can administer and is used to treat extreme hypoglycaemia.
- It is the responsibility of CSMs to ensure care staff who are involved in administering subcutaneous and intramuscular injections have successfully completed SHS approved training and have clinical supervision and support provided by a registered nurse and by the community specialist team involved in the Client's care.

- Training and instruction to support staff will be provided every two years and competence will be assessed regularly.
- DO NOT use gloves for routine intradermal, subcutaneous and intramuscular injections:
    - If the staff member's skin is intact.
    - If the Client's skin is intact.
- Wear non-sterile, well-fitting, single-use gloves:
    - when there is a likelihood of coming into direct contact with a Client's blood or other potentially infectious materials (e.g. body fluids, moist body substances and saliva [in dental procedures], mucous membranes and non intact skin.
    - If the health worker's skin is NOT intact (e.g. through eczema, or cracked or dry skin).
    - If the service user's skin is NOT intact (e.g. through eczema, burns or skin infections).
- When undertaking injections, (Gloves DO NOT provide protection against needle-stick or other puncture wounds caused by sharp objects. Needles and other sharps should be handled with extreme caution.
- DO NOT allow the needle to touch any contaminated surface.
- DO NOT reuse a syringe, even if the needle is changed.
- DO NOT touch the diaphragm of the vial after disinfection.
- DO NOT enter several multidose vials with the same needle and syringe.
- Single-dose vial use is preferred as there is a low likelihood of contamination.

15.2 DEFINITIONS

Subcutaneous route:

Drugs administered via the subcutaneous route are deposited into the fatty layer of tissue just beneath the skin, where there is little blood flow. This ensures that the medication will be absorbed by the person at a slow, continuous rate. Drugs that may be administered using this route include insulin, hormones, various heparin preparations and oromoph.

Intramuscular injection:

Injection of a substance directly into the muscle. It is used for particular forms of medication that are administered in small amounts. Intramuscular injections are often given in the deltoid, vastus lateralis, ventrogluteal and dorsogluteal muscles. Examples of medications that are sometimes

administered intramuscularly are glucagon, olanzapine, clopixol, diazepam and many vaccines.

15.3 PROCEDURES

Equipment for Administration of Subcutaneous Injection

- Medication administration chart
- Prescribed drug
- Tray/receiver
- Appropriate pre-prepared/pre-filled syringe/reusable form for use with a cartridge
- Small clinical wipe/tissue
- Place the sharps container within arm's reach (preferably in a secured area) to allow for easy disposal of sharps.

Administration of Subcutaneous Injection

- Assemble the necessary equipment.
- Ensure privacy for the procedure.
- Engage with the Client to explain the procedure.
- Check the Client's medication administration sheet to ensure correct drug, dose, date and time of administration, route and method of administration.
- Wash and dry hands thoroughly.
- Engage with the Client, where possible, to find what their choice of site will be, influenced by the amount of subcutaneous tissue available. Remove the appropriate garment to expose the chosen site.
- If using an alcohol swab, clean the chosen site with the swab for 30 seconds and allow to dry for 30 seconds.
- To prevent injection into muscle, gently pinch the skin up into a fold at the intended site of injection. Insert two-thirds of the needle, smoothly and quickly at an angle of 45° to the skin or at 90 degrees in the case of a pre-filled disposable insulin pen.
- Before administering an injection, it is not necessary to aspirate, i.e. to pull back on the syringe plunger after needle insertion.
- Release the skin you are grasping. Slowly deliver the drug. On completion, pause briefly before withdrawing the needle as this helps to prevent backtracking.
- Withdraw the needle smoothly and quickly.
- Apply pressure to any bleeding point.

- DO NOT RESHEATH THE NEEDLE. Dispose of sharps immediately. Discard used sharps and glass ampoules immediately after use in the location where they were used, disposing of them into a sharps container.
- Monitor for signs of localized redness, swelling, bleeding, or inflammation at injection site.
- Ensure the Client is comfortable.
- Remove gloves and wash and dry hands thoroughly. Document the procedure in the Client's medication administration sheet.
- Put away all equipment. Some drugs (e.g. insulin) must be kept in the Refrigerator.

Site of Administration:

- Selecting the proper site for the injection is key to minimizing discomfort associated with the injection. The most widely used and usually the preferred site is the lower abdomen, about an inch away from the belly button. Another popular site is the front of the thigh, about half way down and right in the middle. Finally, the fleshy back of the upper arm as well. It does not matter which site is chosen unless G.P. or the Client gives you specific instructions.
- People who receive regular injections, such as those with diabetes, are advised to rotate sites, as repeated injection into the same site may cause scarring and hardening of the subcutaneous tissue.
- It is recommended to avoid using sites for injection where there is evidence of tissue scarring, inflammation or other lesions (Jamieson,2002). (Multiple injections given in the same extremity should be separated by a minimum of 1".)
- Use ice before the injection to numb the skin if the Client is concerned about pain, but make sure to clean it with an alcohol wipe after applying the ice. Generally speaking, the injection will be less painful wherever there is a little more fatty tissue.
- Ensure Clients who use insulin pens have their own individual pouches in which all the pens, needles lancets, glucometer are stored and then the insulin pen itself is usually stored in a separate medication fridge.

Equipment for Administration of Intramuscular Injection

- Medication administration chart
- Prescribed drug
- Gloves
- Tray / receiver

- Appropriate size sterile needles
- Appropriate size sterile syringe
- Small clinical wipe / tissue
- Sharps bin
- Alcohol swab
- Place the sharps container within arm's reach (preferably in a secured area) to allow for easy disposal of sharps.

Administration of an intramuscular injection

- Assemble the necessary equipment.
- Ensure privacy for the procedure.
- Engage with the Client to explain the procedure.
- Check the Client's medication administration sheet to ensure correct drug, dose, date and time of administration, route and method of administration.
- Wash and dry hands thoroughly.
- Put on gloves.
- Open the syringe barrel at the plunger end and remove the syringe. Check that the plunger will move freely inside the barrel.
- Taking care not to touch the nozzle end, hold the syringe in one hand and open the needle packaging at the hilt (coloured end). Attach the needle firmly to the syringe and loosen, but do not remove the cover. Place in the tray/receiver.
- Select the drug in the appropriate volume, dilution or dosage and check the expiry date.
- If a glass ampoule of liquid is being used, ensure that all the contents are in the bottom of the ampoule, tap the neck of the ampoule gently, then break off the top, using a clinical wipe/tissue to protect your fingers. Inspect the solution for glass fragments; if present discard. If a plastic ampoule is being used, break off the top, taking care not to touch the top of the ampoule with your fingers. Pick up the syringe and needle and allow the needle cover to slide off into the tray. Wipe the top of the vial using a swab.
- Carefully insert the needle through the neck of the ampoule and into the solution, taking care not to allow it to scrape against the bottom of the ampoule as this blunts the needle.
- Draw back on the plunger, using your thumb and middle finger on the plunger with your index finger against the flange of the syringe, until the required amount is in the syringe.

- If the medicine is in powder form, tap the neck of the ampoule gently, draw up the diluent, clean the rubber stopper of the ampoule with an alcohol swab and allow it to dry. Inject a small amount of the diluent into the ampoule. Mix thoroughly by gently agitating or rolling the ampoule until all the powder has dissolved. Inspect the contents. When the solution is clear proceed to withdraw the amount prescribed.
- Holding the ampoule upside down at eye level, pull back the plunger to draw the liquid into the syringe. Make sure that the needle remains below the surface of the liquid to prevent air being drawn into the syringe.
- Withdraw the amount of drug required.
- Replace the ampoule in tray.
- Hold the syringe upright at eye level and encourage any air to rise to the top of the syringe. Gently tap the barrel of the syringe if necessary to make air bubbles rise to the top. Expel the air by gently pressing the plunger until droplets of liquid are seen at the top of the needle.
- Evaluate the Client's knowledge of the medication being offered. If this knowledge appears to be faulty or incorrect, offer an explanation of the use, action, dose and potential side effects of the drug/s involved.
- Engage with the Client to select the site of administration, and ask/assist the service user to adopt a suitable position.
- The Client should be positioned so as to relax the muscle.
- The **'Z track'** technique should be used at all times.
- Remove the appropriate garment to expose the chosen site.
- If using an alcohol swab, clean the chosen site with the swab for 30 seconds and allow to dry for 30 seconds.
- Stretch the skin around the chosen site slightly with your non-dominant hand.
- Holding the syringe like a dart with your dominant hand, insert the needle swiftly and firmly at an angle of 90° to the skin, leaving about 1cm of the needle showing.
- With the ulnar border of your hand against the skin, hold the coloured part of the needle to prevent movement.
- If there is no blood flashback, depress the plunger steadily, not too quickly, until the syringe is empty.
- Wait 10 seconds before withdrawing the needle smoothly and quickly.
- Apply pressure to any bleeding point.

- **DO NOT RESHEATH THE NEEDLE.** Dispose of sharps immediately. Discard used sharps and glass ampoules immediately after use in the location where they were used, disposing of them into a sharps container that is leak and puncture resistant.
- Observe for any bleeding and apply pressure and a dressing if required.
- Monitor for signs of localized redness, swelling, bleeding, or inflammation at injection site.
- Ensure the service user is comfortable.
- Remove gloves, wash and dry hands thoroughly.
- Document the procedure in the Client's medication administration sheet.
- Put away all equipment.

Needleless System

If a needleless system is available:

- Wipe the rubber septum of the multidose vial with an alcohol swab.
- Insert the spike into the multidose vial.
- Wipe the port of the needleless system with an alcohol swab
- Remove a sterile syringe from its packaging;
- Insert the nozzle of the syringe into the port.
- Withdraw the reconstituted drug.

Site of Administration: The most common sites for intramuscular injections are the gluteus maximus and the lateral aspects of the vastus lateralis (one of the quadriceps). When the gluteal muscles are used, injections should be made on the upper, outer quadrant of the buttock to avoid damaging the sciatic nerve. Smaller intramuscular injections, such as vaccinations, are usually given into the deltoid area.

16.0 SUBCUTANEOUS FLUIDS ADMINISTRATION

16.1 DEFINITIONS

Subcutaneous fluid administration or hypodermoclycis is the administration of medicinal fluids into the subcutaneous tissue, rather than a vein, muscle or body fat. Subcutaneous tissue is the layer of tissue directly under the skin.

Hypertonic is a solution with higher concentration of solutes as body fluid.

Hypotonic is a solution with lower concentration of solutes than body fluid.

Isotonic is a solution with the same concentration of solutes as body fluid.

16.2 GUIDELINES

- Subcutaneous fluid administration is used to achieve fluid maintenance or replacement in mildly dehydrated clients where IV access cannot be obtained.
- The subcutaneous route is becoming increasingly recognised as a useful alternative to intravenous fluids in non-acute situations. It is a very safe and reliable method of treating dehydration and symptoms of thirst in the elderly and palliative care clients.
- The procedure is easy to perform, even in the restless client, and there is minimal pain associated with insertion and maintenance of the infusion.
- Appropriate fluids, electrolytes and volumes for hypodermoclysis can only be given as prescribed by medical practitioner.
- Hypotonic and hypertonic solutions must be avoided because these can cause hypotension, shock and circulatory failure. Fluids infused must be as near to isotonic as possible. The following fluids are considered safe to administer:
    - Sodium chloride 0.9%
    - Dextrose saline combinations
- Do not add any other drugs e.g. potassium chloride to the fluid for administration by the subcutaneous route unless prescribed. There is a high risk of tissue irritation so guidelines recommend that **nothing should be added to the subcutaneous fluids**.
- Fluids must only be administered by staff trained and competent to administer medicines via the subcutaneous route.
- The subcutaneous administration of fluids is unlicensed and the medical practitioner must take full responsibility for the efficacy of the infusion fluid and any adverse effects resulting from its use.

- The decision to administer fluids by this route must be documented in the medical notes and Client's file.
- Nurses must ensure that they are aware of the policy and are competent with the procedure and aware of their scope of practice.
- Training by appropriate personnel must be obtained and a practical demonstration observed. Training is to be updated regularly.
- The Client and, if necessary, their family/next of kin must always be involved in decisions around this process and have an understanding, where possible, of:
    - What the subcutaneous fluids are being used for
    - The purpose of administering them
    - How the decision will be made to stop the infusion (if appropriate)
    - What is the outcome if, for example, the infusion is stopped?

Indications for use:

Subcutaneous fluids administration may be necessary to maintain hydration in Clients, when the oral intake is not sufficient or available.

Indications include –

a. Maintenance of fluids needs for Clients who have poor intake secondary to chronic medical conditions e.g. Clients with dementia, post stroke (CVA) etc
b. Fluid replacement for Clients with conditions associated with mild to moderate dehydration e.g. fever, vomiting, diarrhoea, constipation
c. Poor oral access e.g. Clients with dysphagia (difficulty swallowing)
d. Clients for who it is difficult or impractical to insert an intravenous line e.g. have a cognitive impairment and who may exhibit increased agitation with a more invasive procedure.
e. Clients who have poor venous access, e.g. elderly or terminally ill clients. Please note that for ethical reasons, hypodermoclysis may not be appropriate for residents who are near death (Nobel-Adams 1995). However, if the dying resident is distressed by symptoms of dehydration, hypodermoclysis, is generally the best way to provide fluids and does not impair the comfort of the Client.

Contra-indications of use:

Do not use subcutaneous fluids in the following circumstances –

a. It should not be used when fluids need to be infused rapidly and in large amounts e.g. major dehydration, collapse, shock or poor tissue perfusion
b. Fluid requirement of more than 3 litres of fluid in a 24-hour period

c. Low platelet or coagulation disorders or increased risk of bleeding
d. Where precise control of volume and rate of infusion is essential e.g. in clients with congestive heart failure or acute renal failure
e. Where there is marked/gross oedema or existing fluid overload
f. For clients that are extremely emaciated

If clinical signs indicate any of the below, please seek medical advice-

Signs and symptoms of shock – a rapid pulse; pale, cold, clammy skin; sweating

Signs and symptoms of major dehydration – extreme thirst and dry mouth; nausea and vomiting; muscle cramps; apathy; disorientation; dysphagia; headaches

Signs and symptoms of gross oedema - is oedema greater than 6 inches in any direction, skin appears blanched, translucent, tight and cool to touch. Pain and possibly numbness present.

Signs and symptoms of fluid overload - shortness of breath, fatigue; oedema or swelling in the lower limbs; rapid weight gain; swelling or pain in the abdomen; frequent dry, hacking cough; difficulty breathing when lying flat.

Signs and symptoms of congestive heart failure – severe breathlessness, can be accompanied by signs and symptoms similar to that of a heart attack which are collapse, sudden faintness or dizziness, ashen skin and blueness of lips, a rapid, weak or irregular pulse, profuse sweating and extreme gasping for air (air hunger).

Signs and symptoms of acute renal failure – does not always have noticeable symptoms. When symptoms do appear, they may include – swelling of legs and feet; little or no urine output; thirst and a dry mouth; feeling dizziness on standing; loss of appetite, nausea and vomiting; feeling confused, anxious and restless, or sleepy; pain on one side of back, just below the rib cage and above the waist (flank pain).

16.3 PROCEDURES

1. Selection of Site:

Choose a healthy, clean, oedema-free area. The site chosen will depend on the need for mobilisation, Client comfort, convenience, presence of confusion and Client preference. Although the outer aspect of the upper arm is a recommended site, (Sasson and Shvartzman, 2001; Walsh 2005.), it has also been suggested that this site should be avoided as fluids are better absorbed from central sites that have larger stores of adipose tissue (Brown and Worobec, 2000; Barton et al, 2004).

Table 1 Suitable sites

Suitable Sites	Rationale
Abdomen – at least 2 inches in circumference from the umbilicus but not too low to cause fluid to drain into the scrotum of males or labia in females.	This site is suitable for both ambulant and bedridden clients, especially those with little subcutaneous tissue.
Anterior or lateral aspects of the thigh	Suitable for bed-ridden clients. Avoid in ambulant clients because of risk of backflow into the line. Inner thigh is not suitable for clients with incontinence.
Upper chest below the clavicle but avoiding breast tissue (fluid may drain into the axillary lymph glands)	Suitable site for ambulant clients as it allows full range of movement. N.B. this site should be avoided in clients who are cachectic (very malnourished) to reduce the risk of pneumothorax.
Subscapular (under the shoulder blades)	The less accessible subscapular area can be helpful for clients who are

	agitated and may pull out the cannula.

Table 2 Unsuitable Sites

Unsuitable sites	Rationale
Arms / below elbows / below knees	Fluids are better absorbed from central sites as they have large stores of adipose tissue.
Oedematous areas	There is insufficient absorption from the site and increased risk of infection via broken skin at cannula site.
Areas of hard tissue	Poor absorption Client discomfort
Waistline	Bending can cause kinking of the line
Irradiated skin areas	Radiotherapy can reduce patency of small blood vessels, thereby affecting skin absorption.
Painful sites	Client discomfort
Over bony areas	There is insufficient absorption due to lack of subcutaneous tissue.
Near joints	Limb movement may dislodge cannula or cause client discomfort.
Areas of broken or infected skin	Increases the risk of infection or deterioration of an infection at the site.
Bruised or scarred tissue	Reduced site absorption Client discomfort
Areas near breast tissue	Fluid may drain into axillary lymph glands
Areas near the perineum	Fluid may drain into the scrotum or labia

2. Method of Administration

- Subcutaneous fluids may be given via a winged plastic cannula as opposed to the traditional metal butterfly infusion set and a regular IV set. Using a plastic cannula results in less skin reactions and the site remaining viable for longer. Because of the relative safety of the method there is no need for a pump to regulate administration.

- Subcutaneous fluid administration cuts down on most of the risks associated with IV fluid administration such as thromophlebitis (inflammation of a vein associated with clot formation), and is more comfortable for the Client.

- There is a limit to the type and volume of fluid that can be administered subcutaneously and there is a risk of local oedema and site reactions. A **maximum** rate of 60mls / hour can be administered at one site.

- Check administration set package for details of **drop factor** (number of drops per ml of clear fluid administered). The number of drops per minute can be checked with the following formula –

Table 3 Formula to calculate gravity flow rate

Volume of fluid (mls) x number of drops per ml = Number of drops per minute
Duration of infusion (minutes)

- The insertion site of a cannula is a wound and so requires the use of a sterile dressing that should be applied correctly using an aseptic non-touch technique. A dressing suitable to cover a peripheral cannula must:
    1. Be sterile
    2. Allow inspection of the site
    3. Be able to secure the cannula but be easy to apply and remove
    4. Keep the site free from infection e.g. no creases and allow moisture vapour permeability
    5. Be comfortable
- Staff need to identify from manufacturer's documentation how often the cannula should be changed. The nurse will also be guided on

inspection of the site, the frequency of its use and the volumes infused in estimating if the cannula requires renewing prior to the manufacturers timeframe.

- The changing of the administration set and add-on devices such as the extension set and access cap should coincide with the cannula change or commencement of a new infusion bag. (HYPERLINK-Subcutaneous Fluid Admin Checklist)
- If the administration set is used for an intermittent infusion and is disconnected, it must be discarded.
- The date of re-siting and reason for re-siting must be documented.

- **Assemble equipment**
  1. Prescribed fluid for infusion
  2. Standard IV giving set (20 drops /ml)
  3. Drip stand
  4. Clean tray to hold equipment
  5. Skin cleaning solution - alcohol swab
  6. Sub-cut cannula
  7. Single extension set with needle free connector
  8. Transparent, semi-permeable IV dressing
  9. Single use disposable non-sterile clean gloves
  10. Prescription chart
  11. Fluid Balance Chart (HYPERLINK – Shared/QCT/BPH)

Table 4

Action	Rationale
Explain the procedure to the Client	To obtain consent and co-operation and record in client file (section 9.1)
Check the prescription chart for: correct fluid, volume, route, date and time, legibility and signature of doctor	In line with SHS prescription guidelines
Check the solution and any dilutents	To ensure that the correct drug, solution, amount and concentration is administered to the correct client
Prime the extension tubing and giving set with the infusion fluid ensuring that the distal end is free from contamination	To prevent air bubble formation

Action	Rationale
Identify correct Client and place in a comfortable position	
Select site and involve Client in the decision where possible	Consider mobility, access, comfort and skin condition
Clean the infusion site with an alcohol swab	To maintain asepsis
Wash and dry hands thoroughly and put on clean gloves	To reduce the risk of cross-infection
Remove needle cover and secure flow control. Insert the cannula beneath the skin at an angle of 45 degrees making sure the eye is facing upwards. ❖ **If using BD Saf-T-Intima system, grasp pebbled side of wings and pinch firmly. Approach skin surface at a low angle.** ❖ **Make sure bevel is orientated and not covered by the catheter.**	To ensure that the cannula is inserted into the subcutaneous space. Shallower positioning less than 45 degree angle may shorten the life of the infusion site. The sharpest point of the needle to enter skin.
❖ **For BD Saf-T-Intima system, lower catheter almost parallel to skin and before threading, advance entire unit. Release wings.** ❖ **After stabilising both catheter wings, grasp white shield and pull in a straight continuous motion. Shield will come off, exposing the adapter** ❖ **Cover and dress as below** Lightly draw back on the attached syringe if not using above system. *Please be aware that should manufacturer*	To ensure that a vein has not been cannulated.

change, an alternative system will be in use and it is the duty of staff to be aware of changes in procedural instructions and update their practice.	
Tape the butterfly wings to the skin and cover with transparent dressing	Stabilises and allows observation of the site. Prevents introduction of infection.
Remove the syringe from the butterfly and attach the primed solution giving set.	
Set infusion at prescribed rate, recording the time and date on a fluid balance chart and complete the prescription chart (HYPERLINK-Shared/QCT/BPH)	
Document date and time of insertion, insertion site, cannula type and size, dressing and the nurse who inserted the cannula (HYPERLINK- Subcutaneous Fluid Admin Checklist)	
Dispose of all waste as per SHS policy (includes any sharps). Remove gloves and wash hands.	Safe disposal and avoidance of staff injury

- Check site and infusion rate regularly within the first hour after commencement of the infusion for signs of inflammation, swelling or leakage.

- The needle must be re-sited if any of the following occur:
  - The skin is red and/or inflamed, suggestive of infection or inflammation.
  - The skin is white and/or hard or any sign of abscess formation.
  - Blood is present in the giving set or the butterfly or there is local bruising.
- Side effects secondary to fluid replacement, such as heart failure or pulmonary oedema are rare. At each visit check for signs of dyspnoea and peripheral oedema.

- A degree of swelling – oedema – local to the administration site is very common, and is not an indication to stop the infusion, although moving to another administration site should be considered if severe local oedema occurs.

17.0 SUBCUTANEOUS INFUSION DRIVER

17.1 DEFINITION

A Subcutaneous Infusion Driver (Syringe Driver) is a portable battery operated device designed to infuse medications over a predetermined time. (Hayes et al. 2005)

17.2 GUIDELINES

- Before medication is administered using a syringe driver, the prescribing physician should advise the Client, family and relevant staff on the rationale for the prescribed treatment and obtain consent.
- It is necessary for Clients to have appropriate information when making an informed judgement. Every effort should be made so that a Client understands the nature and purpose of their care and treatment. (An Bord Altanais 2000)
- Where a suggested procedure carries with it any significant risk, the explanation of this should be documented in a Client's medical file. This could take the form of verbal, pictorial so the Client can understand. (An Bord Altranais 2002)
- The GP or registered medical practitioner responsible for the medical management of the client will prescribe the required medication on SHS medication kardex..
- Before administering any medication using a syringe driver, it is the responsibility of the nurse administering medical preparations via a syringe driver or infusion pump to ensure:
- Their competency in the use of the equipment
- The use of the syringe driver should be in accordance with the procedural guidelines of the syringe driver.
- The nurse must be aware of the use, action and usual dose, effects and common adverse effects of the product they are using (An Bord Altranais 2003).

- The nurse must ensure that the clients' drug allergy status is checked and this should be documented in the relevant documentation.
- An accurate record of the procedure and the medications administered must be documented in the relevant documentation – clients' daily record, prescription chart, fluid balance chart.
- Prior to administration all drug infusions must be labelled. The label must be clearly written and contain:
    - The Client's name
    - Date of Birth
    - The medicine(s) being administered
    - The dose
    - Route
    - Date and time commenced
    - The signature(s) of the person(s) administering the drug
    - Expected time of completion
- Prior to commencing the procedure, the nurse must ensure that the Five Rights of Medication Administration (Asperheim 1996; McKenry and Salerno; 1998) are applied for each Client. (Right person, drug, dosage, route and time)
- Two additional rights to be considered are:
    - The right of the resident to refuse medicine
    - The right storage procedure
- Any medication error must be reported immediately to the medical practitioner responsible for the Clients care, or on call practitioner if it is out of hours. Relevant personnel such as Client Service Manager and Senior Service Manager must be contacted.
- All action taken must be time specific and documented accordingly on error reporting form.
- Any adverse drug reaction must be reported immediately to the medical practitioner responsible for the Client's care. Appropriate documentation relating to the incident should be maintained. An incident/error report form should also be completed. Relevant management should be contacted.
- Report adverse incidents involving medical device defects to the Irish Medicines Board.
- In the event of malfunction or deviation from expected performance, the device is to be removed from service and returned to the service agent for performance verification check.
- The syringe driver should be cleaned and decontaminated as per manufacturer's and infection control guidelines.

- It is normal for the syringe driver to make a whirring noise every few minutes. It will not be loud enough for everyone to hear or to keep the Client awake at night.
- It is normal to have a yellow light flashing on the right hand side of the machine. If it stops, the battery needs to be changed.
- The machine has an alarm; a constant piercing sound. It will sound if the syringe is empty or there is a blockage in the tubing. The only way to silence the alarm is to take the battery out.
- Check if there is a kink in the tube and untwist it.
- Do not immerse the machine in water. If this occurs, remove the battery and seek advice from palliative care team/service agent.

17.3 PROCEDURES

- Before use, the nurse must check that the syringe driver is working correctly according to manufacturer's guidelines.
- The nurse must explain the procedure to the Client.
- The nurse must check that the prescription is accurate.
- The principals of aseptic technique must be applied when setting up and administering medications using a continuous subcutaneous infusion (HSE).
- All adjustments to dose/route of administration are made on receipt of a new prescription only.

For Guidelines on Subcutaneous Injection Management, please refer to the Subcutaneous, Pre-filled and Intramuscular Injections Guidelines.

18.0 VENEPUNCTURE

18.1 DEFINITION

Venepuncture is defined as the 'puncture of a vein with a hypodermic needle to withdraw blood, or for an intravenous injection' (Concise Oxford Dictionary, 1990).

18.2 GUIDELINES

- Nurses have an obligation to practice according to best practice guidelines and when carrying out venepuncture should:
  - Ensure that their knowledge, skills and practices are up to date and have completed the Venepuncture Course approved by An Bord Altranais.

- Acknowledge any limitations in competence, refusing in such cases, and accepting delegated or assigned functions.
- Bloods should only be taken when a GP/Medical Practitioner requests this procedure.
- To help the Client to understand this procedure, a variety of methods including, for example, pictures and diagrams should be used.
- Staff who know the Client well should consider the best course of action to reduce stress to the Client by distracting the Client during the procedure and choosing the best time and location where the Client will feel most relaxed.
- In some circumstances, the person taking blood will need assistance with the Client. Some Clients may be restless or have jerky movement.
- Assistance can be given by holding the Client's arm in a firm safe manner – this is to prevent needle stick injury to all involved. A third staff member may also assist by chatting, praising and reassuring the Client.
- Should the Client become distressed, clearly showing signs of not wanting the procedure to be carried out, then the procedure must stop. It can be approached again when the client is more settled.
- Under no circumstances should force/restraint be used to hold a Client in order to carry out a routine medical procedure.

18.3 PROCEDURES

Selection of a vein:

- The most suitable and commonly used region for venepuncture is the antecubital fossa, which contains four veins:
  - Basilic
  - Median Cubital
  - Cephalic
  - Median Cephalic
- Veins on the back of the hand are also acceptable for venepuncture. Veins on the underside of the wrist must not be used.
- Draws from the median cubital veins are preferred because they are typically closer to the surface of the skin, more stationary, less painful upon needle insertion and less likely to injure nerves if needle placement is not accurate.
- Due to the proximity of the basilica vein to the brachial artery and median nerve this vein should only be considered if no other vein is more prominent.
- The cephalic vein is a large vein, which is easily stabilised and accessible.

- The superficial veins of forearm and hand are used for cannulation because they are located just beneath the skin. The veins in the antecubital fossa should be reserved for phlebotomy, as maintenance of the site for intravenous therapy is difficult.
- Any area of skin which appear broken, bruised or infected must be avoided and clients with disabling disease or recent surgery should have venepuncture performed on opposite arm.
- It may be necessary when looking after elderly patients to consider other sites such as the basilica vein on the posterior aspect of the arm or the cephalic vein on the thumb side of the wrist.
- **A good vein is:**
  - Bouncy
  - Refills when depressed
  - Visible
  - Has a large lumen
  - Is well supported
  - Straight
- **Veins to avoid:**
  - Thrombosed,slerosed/fibrosed
  - Inflamed/bruised
  - Thin/fragile
  - Mobile/tortuous
  - Near bony prominences, painful areas or sites of infection, oedema or phlebitis
  - Previous multiple punctures
- It is important that all equipment is collected prior to the procedure
- Disposable well-fitting latex gloves
- Hand decontamination alcohol gel/solution
- Tourniquet
- Sterile alcohol wipes

- Gauze squares/balls (cotton balls are not recommended because of the possibility of dislodging the platelet plug at the venepuncture site
- Paper tape or elastoplasts
- Blood collecting system (needle and blood collecting bottles)
- Needle sizes
  - Green 21G
  - Black 22G

- Blue 23G
- Orange 25G

- Specimen forms and plastic bags/containers for transport
- Sharps bin
- The nurse should be familiar with blood collecting system available on location.
- The nurse should be aware of volumes of blood required and correct tubes to use for each test.
- The colour coding of blood tubes is not universally applied by all commercial companies so it is essential to be familiar with laboratory requirements.
- Client identification is essential. Check PIN, Name, DOB with blood forms.
- It is important to note that if blood id required for therapeutic drug monitoring such as 'fasting glucose' or 'hormone levels' or various other tests that details of last time of food or drink, date and time of last medication or last menstrual period etc. be recorded on blood form.
- If several samples are required the following is the general order of draw:
  - ***a.*** Blood cultures tubes
  - ***b.*** Dry tubes for tests on serum
  - ***c.*** Citrate tubes (coagulation studies, E.S. R)
  - ***d.*** Tubes containing other anticoagulants (heparin etc.)
- Ask the Client if they have ever had blood taken before. This may indicate which veins are best or which to avoid and will also give an idea of whether the Client is nervous or anxious about the procedure.
- Reassure the Client and give them the choice of sitting comfortably with the arm supported on a pillow or lying down should they prefer.
- The room should be warm with good lighting.
- Decontaminate hands, apply tourniquet to Client's upper arm above the antecubital fossa and rotate the arm to face you. The tourniquet should be released after a period of two minutes to allow the blood to return and reapplied, if necessary.
- Palpate the vessels and examine the arm to distinguish between the veins, arteries and tendons. Veins should feel firm and slightly bouncy. (Veins in elderly patients can pose some difficulty due to age related changes to the veins and surrounding structures i.e. loss of elasticity, fragile veins and poorly supported veins)
- Put on gloves which should be well fitting and clean.

- Clean site with an alcohol swab and allow to dry for approx. 30 seconds. This decontaminates the site and prevents a stinging sensation for the Client when the needle is introduced.
- The skin over the selected vein should be stretched with the thumb of one hand and the needle should be inserted with the bevel facing uppermost, at an angle of about 30 degrees dependant on the depth of the vein. This should be carried out in a decisive and smooth manner bearing in mind that too quickly can cause puncture of vessel walls and too slowly can cause increased discomfort. Sudden acute pain is indicative of a venous valve being hit and the procedure should be discontinued immediately and another site chosen.
- Level off needle when flashback of blood is seen, advancing the needle into the vein approximately 1mm without exerting ant pressure on the needle.
- Allow blood to flow freely until blood tube/bottle is filled to required level. Mix additives in blood tubes by gently inverting the required amount of times.
- If more than one specimen is required, remove and connect new collecting tube as required. Several samples may be collected in this way.
- It is important to note that vacuum filling may not be appropriate when taking blood in elderly or debilitated Clients as their veins have a tendency to collapse. In these circumstances a manual system may need to be used where the plunger can be gently pulled back.
- When all samples have been taken:
    - Separate specimen bottle from needle
    - Release the tourniquet
    - Using simultaneous movement, remove needle with dominant hand and apply pressure to phlebotomy site with gauze using non dominant hand (applying pressure before needle is removed can cause unnecessary damage to vein, pain or the patient and pose a risk of needle-stick injury for the venepuncturist)
    - Dispose of needle immediately into a sharps box
    - Firm pressure while keeping the arm straight should be applied to the vein for 30-60 seconds to prevent bruising. The client can apply this pressure.
    - The puncture site should be checked and if clotted, it should be covered with a fresh gauze and non allergic or paper tape.
    - Blood collecting bottles should be inverted and labelled correctly, and along with the completed blood forms should be sent to laboratory.
    - Remove gloves and contaminate hands after the procedure.

- The procedure should be documented and signed in Client's file.
- Ensure Client is comfortable.
- When using a winged blood collection set for phlebotomy and a coagulation tube is the first or only tube to be drawn, a discard tube should be drawn first. The discard tube must be used to fill the blood collection tubing dead space and to assure maintenance of the proper anticoagulant/blood ratio. The discard tube does not need to be completely filled and should be a non-additive or a coagulation tube.