

2025

İSTİNYE UNIVERSITY
MEDICAL FACULTY

II. YEAR
APPLICATION GUIDE
FOR
CLINICAL SKILLS

“Primum non nocere”

*Hippocrates
(B.C. 460 - A.D. 370)*

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ÜNİVERSİTESİ
İ S T A N B U L

Revision Nr: v0

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SKILLS OF ESTABLISHING VASCULAR ACCESS

OBJECTIVE: To gain the skill of establishing vascular access by applying the skill steps in the correct and appropriate order

MATERIALS REQUIRED: Tourniquet, sterile tampon, intravenous cannula, gloves, disinfectant solution, plaster, treatment clothing

STEPS	PERFORMED	NOT PERFORMED
1. Washed his/her hands		
2. Controlled the materials to be used, prepared them in a treatment tray		
3. Confirmed the patient by asking his/her name and surname and explained the procedure to the patient		
4. Determined the appropriate vein to be used and the appropriate intravenous cannula		
5. Placed the treatment clothing under the determined area		
6. Wore disposable gloves		
7. Tied the tourniquet 10 cm above the vein to be applied in such a way that it would not obstruct the arterial blood flow		
8. Wiped the area to be entered into the vein from top to bottom or circularly with a tampon containing an antiseptic substance		
9. Took the intravenous cannula out of its package, opened its cap		
10. With the passive hand, the arm or hand is supported and the skin is stretched by pulling the skin downwards with the thumb under the area where the vein is to be entered		
11. With the sharp end of the cannula facing up, 1 cm below the area where the vein will be entered, first entered the skin at an angle of 30-45° in the direction of the vein, then entered the vein at an angle of 15°		
12. Proceeded through the vein until blood appears at the tip of the cannula		
13. If blood did not come from the tip of the cannula, proceeded the cannula in the direction of the vessel (if the vessel wall is punctured and passed to the other side, a new cannula is entered from a different point)		
14. When blood comes from the tip of the cannula, pressed the upper part of the vein with the thumb of the passive hand and pulled the inner needle part of the cannula a few millimeters with the active hand		
15. Proceeded the cannula over the guide to the end		
16. Untied the tourniquet, removed the metal needle from the cannula, placed it on the treatment tray		
17. Covered the back of the cannula without moving the hand pressing over the vein		
18. Fixed the cannula on the skin with a plaster		
19. Took the treatment tray to the treatment room, threw the used materials and equipment into the medical waste bin		
20. Took off the gloves, threw them in the medical waste bin		
21. Recorded the site of vascular access		
22. Washed his/her hands		

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SKILLS OF INTRAVENOUS (I.V.) INJECTION

OBJECTIVE: To gain the skill of intravenous injection by applying the skill steps in the correct and appropriate order

MATERIALS REQUIRED: Gloves, injection syringe, treatment tray, disinfectant solution, tourniquet, cotton

STEPS	PERFORMED	NOT PERFORMED
1. Washed his/her hands and wore gloves		
2. Checked the materials to be used, the label of the medicine to be injected, and prepared the medicine and syringe in a treatment tray		
3. Confirmed the patient by asking his/her name and surname and explained the procedure to the patient		
4. Held the syringe upright with the needle up, blew the air out by pushing the piston while making a few flicks on the top of the syringe		
5. Determined the vein to be injected. Tied the tourniquet 10-15 cm above the selected vein without obstructing arterial blood flow		
6. Wiped the area of the vein to be injected applying circular movements with disinfectant solution		
7. Took the syringe into the active hand and removed the protective part of the needle		
8. Supported the patient's arm with his/her passive hand, pulled the skin under the injection site by his/her thumb, stretching the skin downwards		
9. Inserted the syringe under the skin at an angle of 30-35° with the cut end of the needle pointing upwards		
10. After passing the skin, entered the vein at an angle of 15° and proceeded the tip of the needle a little further		
11. While holding the syringe with one hand, released the compressed tissue with his/her passive hand and pulled back the syringe piston with the passive hand to check that it had entered the vein		
12. Untied the tourniquet with his/her passive hand after confirming that the vein had penetrated		
13. Gave the medicine slowly in a controlled manner		
14. Pressed the cotton pad on the needle entry point with his/her passive hand and quickly retracted the syringe in the direction of the active hand entry angle		
15. Pressed the injection site with a cotton pad or tampon until the bleeding stopped		
16. Left the used syringe on the treatment tray without closing the protective cap of the needle		
17. Took the treatment tray to the treatment room, threw the used materials and equipment into the medical waste bin		
18. Took off the gloves, threw them in the medical waste bin		
19. Recorded the medicine name, the route of administration, the time and the dose		
20. Washed his/her hands		

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SKILLS OF INTRAMUSCULAR (I.M.) INJECTION

OBJECTIVE: To gain the skill of intramuscular injection by applying the skill steps in the correct and appropriate order

MATERIALS REQUIRED: Gloves, injection syringe treatment tray, disinfectant solution, cotton

STEPS	PERFORMED	NOT PERFORMED
1. Washed his/her hands and wore gloves		
2. Checked the materials to be used, the label of the medicine to be injected, and prepared the medicine and syringe in a treatment tray		
3. Confirmed the patient by asking his/her name and surname and explained the procedure to the patient		
4. Held the syringe upright with the needle up, blew the air out by pushing the piston while making a few flicks on the top of the syringe		
5. Laid the patient prone position		
6. Drew a line parallel to the sciatic nerve from the posterior iliac crest to the greater trochanter of the femur		
7. Wiped the upper outer part of this drawn line with circular movements from the center to the periphery with disinfectant solution		
8. Took the syringe into the active hand and removed the protective part of the needle		
9. Pressed the skin and subcutaneous tissue of the area to be injected by stretching with the thumb and forefinger of the passive hand		
10. Told the patient to take a deep breath, inserted the syringe into the tissue with the active hand at a right angle and rapidly as if holding a pen, kept it still (If at least $\frac{3}{4}$ of the needle is inserted, the muscle will have been reached)		
11. Pulled back the syringe piston with his/her passive hand and checked for intramuscular penetration (If blood comes into the syringe, the syringe is withdrawn, a new needle is placed to the syringe and the steps are repeated from the 5th step)		
12. If there is no blood coming out, injected the medicine with his/her passive hand		
13. Pressed the cotton onto the needle entry point with his/her passive hand and retracted the syringe in the direction of the active hand entry angle		
14. Pressed the injection site with cotton or tampon		
15. Left the used syringe on the treatment tray without closing the protective cap of the needle		
16. Took the treatment tray to the treatment room, threw the used materials and equipment into the medical waste bin		
17. Took off the gloves, threw them in the medical waste bin		
18. Recorded the medicine name, the route of administration, the time and the dose		
19. Washed his/her hands		

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SUBCUTANEOUS (S.C.) INJECTION AND INTRADERMAL (I.D.) INJECTION

A. Skills Of Subcutaneous (S.C.) Injection

OBJECTIVE: To gain the skill of subcutaneous injection by applying the skill steps in the correct and appropriate order

MATERIALS REQUIRED: Gloves, insulin injector, treatment tray, disinfectant solution, cotton

STEPS	PERFORMED	NOT PERFORMED
1. Washed his/her hands and wore gloves		
2. Checked the materials to be used, the label of the medicine to be injected, and prepared the medicine and syringe in a treatment tray		
3. Confirmed the patient by asking his/her name and surname and explained the procedure to the patient		
4. Held the syringe upright with the needle up, blew the air out by pushing the piston while making a few flicks on the top of the syringe		
5. Determined the area to be injected and wiped it with disinfectant solutions with circular movements from the center to the periphery		
6. Took the syringe into the active hand and removed the protective part of the needle		
7. Lifted the skin and subcutaneous tissue by pinching it between the thumb and index finger of the passive hand and pulling it upwards		
8. Inserted the syringe under the skin at an angle of 45° with the cut end of the needle pointing upwards		
9. Released the tissue he/she had pinched with his/her passive hand and pulled back the syringe piston and checked that it was in the adipose tissue (if there is blood in the syringe, the syringe is withdrawn and the application is repeated)		
10. Injected the medicine into the subcutaneous adipose tissue with his/her passive hand		
11. Pressed the cotton onto the needle entry point with his/her passive hand and retracted the syringe in the direction of the active hand entry angle		
12. Pressed the injection site with cotton or tampon		
13. Left the used syringe on the treatment tray without closing the protective cap of the needle		
14. Took the treatment tray to the treatment room, threw the used materials and equipment into the medical waste bin		
15. Took off the gloves, threw them in the medical waste bin		
16. Recorded the medicine name, the route of administration, the time and the dose		
17. Washed his/her hands		

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B. Skills Of Intradermal (I.D.) Injection

OBJECTIVE: : To gain the skill of intradermal injection by applying the skill steps in the correct and appropriate order

MATERIALS REQUIRED: Gloves, injection syringe, treatment tray, disinfectant solution, cotton

STEPS	PERFORMED	NOT PERFORMED
1. Washed his/her hands and wore gloves		
2. Checked the materials to be used, the label of the medicine to be injected, and prepared the medicine and syringe in a treatment tray		
3. Confirmed the patient by asking his/her name and surname and explained the procedure to the patient		
4. Held the syringe upright with the needle up, blew the air out by pushing the piston while making a few flicks on the top of the syringe		
5. Determined the area to be injected and wiped the 2-3 cm area with disinfectant solution with circular movements from the center to the periphery		
6. Took the syringe into the active hand and removed the protective part of the needle		
7. Pulled the skin under the injection site with his/her passive hand, stretching the skin downwards		
8. Inserted the syringe, holding it with the thumb and index fingers of the active hand, placing the cut end of the needle pointing upwards at an angle of 10-15° until it reached the dermis layer		
9. Administered the drug slowly directly into the skin, observing the formation of papules on the skin, checking that the injection was done correctly		
10. Retracted the needle without disturbing the angle of entry. <u>No cotton or tampon pressed, no massage</u>		
11. Circlred the injection site with a pen and told the patient not to wash this area		
12. Left the used syringe on the treatment tray without closing the protective cap of the needle		
13. Took the treatment tray to the treatment room, threw the used materials and equipment into the medical waste bin		
14. Took off the gloves, threw them in the medical waste bin		
15. Recorded the medicine name, the route of administration, the time and the dose		
16. Washed his/her hands		

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Note: The outer surface of the upper arm, the inner surface of the forearm, the back area, the chest area, the abdomen, the anterior surface of the thighs and the subcutaneous tissue extending between the epidermis and the muscle under the scapula should be selected for the injection site, as subcutaneous tissue areas that are relatively slow in absorption

SKILLS OF BLOOD PRESSURE MEASUREMENT

OBJECTIVE: To gain the ability to measure blood pressure in adults by applying the skill steps in the correct and appropriate order

MATERIALS REQUIRED: Sphygmomanometer, stethoscope

STEPS	PERFORMED	NOT PERFORMED
1. Washed his/her hands		
2. Explained the procedure to the patient		
3. Cleaned the diaphragm and ear tips of the stethoscope with an antiseptic solution		
4. Allowed the patient to rest for 5 minutes, if the patient has been active		
5. Settled down the patient to sit with the arm at heart level and the palms facing up		
6. Opened the patient's arm up to his/her axillary cavity, making sure that the clothings did not tighten the patient's arm		
7. Checked that the manometer indicator of the sphygmomanometer was at the zero point and the valve was on		
8. Wrapped the cuff of the sphygmomanometer on the upper arm of the patient, 2.5-3 cm above the antecubital region		
9. Placed the inflation bulb in his/her palm and closed the valve with his/her thumb		
10. Palpated the brachial artery pulse in the antecubital region with the index, middle and ring fingers of the left hand		
11. Placed the earpiece of the stethoscope into the ear canal		
12. Placed the diaphragm of the stethoscope on the region where the brachial artery pulse was palpated		
13. Inflated the cuff by compressing the inflation bulb regularly and quickly		
14. Inflated the cuff to 30 mm-Hg higher than the level where the pulse was inaudible		
15. Began to let the air slowly out of the cuff by loosening the valve of the inflation bulb with a drop of 2-3 mm-Hg pressure per second.		
16. Determined the pressure level (systolic pressure) at the first moment of hearing the heart sounds		
17. Determined the pressure level (diastolic pressure) at the moment when the sounds disappeared		
18. Deflated the air in the cuff completely		
19. Took off the stethoscope and the cuff		
20. Recorded the systolic and diastolic pressure		
21. Washed his/her hands		

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RİNNE-WEBER-SCHWABACH TESTS

OBJECTIVE: To learn how to perform Rinne-Weber-Schwabach tests within a certain systematic		
MATERIALS REQUIRED: 512 Hz tuning fork		
STEPS	PERFORMED	NOT PERFORMED
1. Introduced him/herself. Informed the patient about the procedure. Asked the patient to remove earrings, glasses, etc., if any, and not to wear the hearing aid		
2. Washed his/her hands or said he/she would wash his/her hands		
3. Prepared the tuning fork at 512 Hz and vibrated it (The tuning fork should be vibrated at moderate intensity, so it is not suitable to vibrate it by hitting a hard place such as a table, armchair. The recommended way of vibrating is to vibrate the tuning fork in the thenar area in the palm of the hand)		
4. Placed the bottom of the vibrating tuning fork on the right mastoid		
5. Asked the patient if the patient heard a sound, and if the patient heard it, asked him/her to let me know as soon as the patient not heard the sound		
6. When the patient's hearing through the bone canal was finished, moved the tuning fork closer to the front of the right external auditory canal (the distance in front of the ear should be approximately 2.5 cm lateral to the tragus)		
7. Asked the patient if he/she could hear the sound		
8. Expressed it as "Rinne positive" if the patient could hear, "Rinne negative" if the patient could not		
9. Repeated the same operations for the left ear		
10. Vibrated the tuning fork again		
11. After vibrating the tuning fork, placed it on a midline point on the skull (forehead, on the back of the nose, in the middle of the front teeth, etc.)		
12. Asked the patient where the patient heard the sound (from the right, from the left, from the middle)		
13. If the sound is heard only or predominantly in one ear, expressed it as "Weber lateralized to the right / left"		
14. If the patient hears the sound of the tuning fork above his/her head in the midline or all over his/her head, expressed this as "Weber in the middle" (not lateralized)		
15. Vibrated the tuning fork again		
16. Placed the bottom of the vibrating tuning fork on the right mastoid process		
17. Asked the patient if he/she heard a sound, and if he/she did, wanted to let him/her know as soon as the patient not heard the sound		
18. When the patient's hearing through the bone canal was finished, placed it on the right mastoid process of himself/herself/the person who did the tuning fork test (normal hearing)		
19. If the tester still hears the sound, expressed this as "Schwabach shortened", since the bone conduction hearing was impaired compared to the tester		
20. If the tester did not hear the sound when the patient's hearing was over, expressed		

this as "Schwabach normal or prolonged"		
21.Repeated the same operations for the left ear		
22.Informed the patient about the test results		
23.Washed or said she/he would wash her/his hands		

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