

Commentary

Easy Steps to Venipuncture

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INTRODUCTION

Venipuncture is a vital procedure used for various medical diagnoses, procedures, and tests. It is an essential skill, which can be very exciting for new healthcare professionals to learn. It is necessary for every healthcare professional to learn this skill with utmost accuracy as it involves a greater risk of infection.

Ethics & Preparation

Pre-Test Preparation

- A piece of complete information regarding the procedure should be given. If a fasting blood sample is needed, then the patient should be instructed about it. Complete information regarding Nil per Oral (NPO) should be given. If the postprandial test is done, then the arrangement of food should be done or should instructed to bring it
- The purpose of venipuncture should be explained and how much blood sample is needed should be explained
- Oral consent should be obtained before starting the procedure
- Whereas, the test may affect a patient's social, economic and family aspects should be taken in the written consent. (HIV, VDRL test)
- Information regarding the recipient of the report should be obtained priorly. If it should be confidential from relatives or handed over to close one should be ensured¹

Mid Test Precautions

Patients whose veins are not visible should be asked to sleep in a supine position Or a solace backrest supine situation with an armrest seat (To keep away from prick shock/vagal shock). In ordinary individual backrests, a semi-sleeper armrest cushion seat is likewise useful for venipuncture.²

Anatomy

For prominent and palpable veins identified at forearms palm area. The volar region is a decent viewpoint and is well distance space between two conspicuous veins, which are easily palpable. In-patient with obesity, myxedema (severe hypothyroidism), any kind of drug allergy, swelling, anaphylaxis skin rash and severe anaemia it is difficult to find veins. Therefore, it requires special intervention.³

Procedure for Venipuncture

- To stay away from Prick shock, the patient should consistently be in a backrest pose. Tests for ESR, Bsl-F, Immunology and serological test are prescribed to be taken in the early morning, which cut short the monochromatic light readings
- When veins are not visual because of prior said causes.
 It is consistently prescribed to be in a recumbent position with the utilization of a B.P instrument cuff sleeve at 70 mm of mercury pressure all through the strategy rather than a Tourniquet. Patience with a certain time is suggested with sharp perception for subcutaneous bleeding like Petechiae, ecchymosis and erythema for delicate vessel divider

Steps to Venipuncture

- Steps 5 steps should be followed to trace the impossible vein for good sample collections. Use of gravitational power with consolidated power of distal bloodstream beneath heart level. Sit tight for five minutes in such a stance. Utilization of gravitational power with join power of distal bloodstream underneath heart level pressing factor definitely, when heart siphons the blood. The hanging organs lower than the heart level will get more bloodstream with opposed valvular uniflow because Gravity makes engorgement of veins.⁴
- It will help in a certain way for halfway obstruction in the vein stream and support lower down quick stream in courses bringing in veins following and its underlying roots as well.

Anatomy 2-Cells substance 3-4 mm of Hg pressure with albumin (protein) oncotic pressure. Interstitial liquid substance 7-8 mm of Hg pressure. Interstitial fluid streams toward blood fine is close to around 16 mm of hydrostatic pressure. From blood fine towards venules having hydrostatic and oncotic pressure which is up to 32 mm of Hg and the last end up of minuscule veins to standard veins substance 64 mm of Hg to 70 mm of Hg pressure. In addition, the heart in resting strain to lead venous blood is dwells between 70-90 mm of Hg. Consequently, to impede the venous stream, 70 mm of Hg is suggested.

Sometimes it does not work but accelerates the vein tracing steps. 5

• Add collateral pressure by making a suffocating grip. It very well may be made by the lower arm's muscles in agreement position, which symmetrically delivers pressure over veins. To guarantee pressure, it will increment to engorgement of lower arm veins by requesting the patients to make a grasping from clench hand firmly. Which is the third step. Try not to do this It is not being used to request the holding from the

- clenched hand in the initial step prior to tying up the tourniquet or BP sleeve at 70 mm of Hg. Because it will empty out venous blood before pressure applies and postpone the interaction or even incompletely not permit the discharge from the distal part toward the heart with a narrowing way⁶
- Adduction and abduction of lower arm muscle work build bloodstream to distal organs, which will engorge the veins. Adduction and abduction of lower arm muscle work it will build muscles work when it did energetically for several minutes. When there is, restrict for venous stream. Henceforth it ought to be followed in fourth place. After that somewhat tapping over the ventral piece of the lower arm to follow the veins with its valvular uniflow nature. Presently slight tapping will assist with precluding venous crisscross course, which gives you a thought regarding at what point to present needle lumen sharp edge. It is in rehearses not to counter the vein with its careful position. Tapping ought to help to that most minimal 30-degree point. Try not to do this – without knowing the vein way-presenting needle will make the vein counter-cut. For example, not in situ position for vein blood drawn7
- Use a wet spirit swab to wash and expand the difference between veins to valvular uniflow of vein blood. Utilize wet spirit swabs to wash and expand the difference between veins to valvular uniflow of vein blood. Its wet picture clears up the vein edge as well. Too sanitized the space of pricking. Occasionally the first swab is utilized with the two-side surface to tidy up the pricking region and put it in the trash with again single heading single utilization of the second swab will be used to purge the veins. Try not to do this after applying spirit, liquor base; do not explode mouth air to evaporate the spirit. Which isn't being used once more. On the other hand, making venipuncture prior to evaporating the spirit will make erythema because of the direct pricking spirit, which follows with needle shaft to skin^{8,9,10}

Post of Care

Bleeding is to be observed cautiously. Care for exorbitant bleeding with a dry q-tip. As understanding to adduct, elbow joint with dry cotton on pricking injury. The patient ought not to permit as before long venipuncture. He should stand by their (Sample assortment lounge area) last 10 minutes and then, at that point applying cotton tape over the injury will permit him to leave the lounge area.

Try not to do this - never utilize a wet swab to stop the dying. The patient should weight at least 10 min. for any sort of probability of bleeding disorders. Patients should counsel to drink sufficient water and abstain from smoking, caffeine and liquor utilization with arduous exercise for a day.

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Implication of Procedure

- The nurse administrator should arrange the appropriate teaching material regarding venipuncture
- It will help the nursing personnel to improve adequate knowledge and skill regarding venipuncture
- The nurse administrator should recommend to the superior for the supply of suitable posters, and pictures related to venipuncture

Conclusion

This topic concludes that the act of venipuncture isn't something that can rigorously be gained from watching recordings or perusing a how-to direct yet something that should be polished over and over in a controlled climate with other prepared experts. Address your administrator to get familiar with the means to become ensured in your emergency clinic. Every medical care framework has its own prerequisites before attendants perform blood draws.

Conflict of Interest: None

Reference

- Berman A, Snyder SJ, Frandsen G. Kozier & Erb's Fundamentals of Nursing. Pearson India Education Services Pvt. Ltd., 2016
- 2. Suresh P. Potter and Perry's Fundamentals of Nursing: Second South Asia Edition Paperback. Elsevier India Private Limited, 2017.
- 3. Gowda SNN. Fundamental of nursing. Second Edition. Jaypee brother Medical Publisher, 2010.
- 4. Fundamentals of Nursing A Procedure Manual. Trained Nurses Association of India, 2006.
- 5. Taylor C, Lillis C, Lynn P. Fundamental of nursing. Eighth Edition, Wolters Kluwer (India) Pvt. Ltd., New Delhi.
- 6. Lavery I, Ingram P. Venipuncture: best practice. Nurs Stand. 2005 Aug;19(49):55-65; quiz 66. [PubMed] [Google Scholar]
- 7. Bisogni S, Dini C, Olivini N, Ciofi D, Giusti F, Caprilli S, Gonzalez Lopez JR, Festini F. Perception of venipuncture pain in children suffering from chronic diseases. BMC Res Notes. 2014 Oct;7:735. [PubMed] [Google Scholar]
- 8. Lima-Oliveira G, Lippi G, Salvagno GL, Montagnana M, Picheth G, Guidi GC. Quality impact on diagnostic blood specimen collection using a new device to relieve venipuncture pain. Indian J Clin Biochem. 2013 Jul;28(3):235-41. [PubMed] [Google Scholar]
- de Souza-Junior VD, Mendes IAC, Marchi-Alves LM, Jackman D, Wilson-Keates B, de Godoy S. Peripheral venipuncture education strategies for nursing students: an integrative literature review. J Infus Nurs. 2020 Jan/ Feb;43(1):24-32. [PubMed] [Google Scholar]
- 10. Hogan ME, Smart S, Shah V, Taddio A. A systematic review of vapocoolants for reducing pain from venipuncture and venous cannulation in children and

adults. J Emerg Med. 2014 Dec;47(6):736-49. [PubMed] [Google Scholar]

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