

June 21-22, 2018  
Paris, FranceNuray Turan et al., J Nurs Health Stud 2018, Volume: 3  
DOI: 10.21767/2574-2825-C3-009

## CURRENT APPROACHES TO SUBCUTANEOUS INJECTION

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**Introduction:** Subcutaneous injection is one of the most commonly used methods of parenteral drug administration by nurses. For this reason, the change in the manner of preparation of some medicines requires learning new information about the application.

**Materials & Methods:** In this article, the literature and research findings related to the application of subcutaneous injection and the significance of the subject were discussed and offers for application were presented.

**Findings:** Insulin, heparin, some narcotics and allergy drugs are frequently administered by subcutaneous injection. However, one of the common problems in this method is that the given drug is leaking out of the skin. Particularly in subcutaneous injections, the amount of drug, the rate of drug delivery, the site to be administered, the inlet angle of the needle, and the waiting time after administration are effective in preventing the drug from leaking back. In the literature, it is seen that for insulin application, there is less leakage in application to the abdominal region, the rate of drug delivery does not affect the amount of leakage, and the amount of leakage increases as the volume of drug given increases (over 0.8 cc). The thickness of the tip of the needle which is used in the injection does not affect the leakage, but the inlet angle of 450 causes more leakage than the inlet angle of 900. After the subcutaneous injection, usually 10 seconds waiting period was suggested, but the current information indicates that at least 3 seconds should be waited. One of the common drugs is heparin which is applied as subcutaneous injection. Heparin injections are now available for application. Studies in the literature of heparin injections are made with low molecular weight heparins, and studies show that the duration of the drug administration is related to prevention of pain and ecchymosis after injection. Low molecular weight heparin is usually applied to the abdominal region, and rotation is recommended between other subcutaneous injection sites for long-term use. When the injection duration is more than 10 seconds, it is seen that the pain is less and the hematoma size is not changed after 48 hours and beyond. It is considered that ice application is effective before injection application, but there is no advanced evidence. Especially aspiration is not recommended during insulin and heparin administration.

**Conclusion and Discussion:** As a result, scientific researches about subcutaneous injection applications are increasing day by day. Updating existing literature data in this context will contribute to increase the quality of nursing care

### Biography

Nuray Turan has completed her PhD from Istanbul University, Institute of Health Sciences. She works at Istanbul University Florence Nightingale Faculty of Nursing, Department of Fundamentals of Nursing since 2005. She was appointed as an Assistant Professor at the same institution in 2013 and is still working in the same position at the Department of Fundamentals of Nursing. She graduated from Istanbul University, Florence Nightingale School of Nursing, Turkey. Her areas of interest are nursing care, wounds care, nursing process, simulation, intramuscular injection, complementary therapy, nursing informatics. She worked as a Researcher in the Scientific and Technological Research Council of Turkey on The Reliability of Site Determination Methods in Ventrogluteal Area Injection and The Depth of Needle Penetration in the Ventrogluteal Intramuscular Injection Site of Adults According to the Gender and Body Mass Index. She took part as an Executive and Researcher in the Scientific Research Project Unit at Istanbul University. She has many parts in various books as an Author. She has been as a Speaker and Participant in many national and international scientific activities (congress, symposium, courses etc.) related to fundamentals of nursing. She also has various congress awards. She is a Member of Turkish Nurses Society, and Nursing Education Society.

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