



**Service Priorities and Programmes**  
**Electronic Presentations**

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**Transition of evidence-based practice to clinical setting: selection of gluteal muscle for intramuscular injection in emergency department of PYNEH**

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**Introduction**

The intramuscular injection deposits medication under the muscle fascia, below the fatty subcutaneous layer. The site is largely depended on the type of medication administrated, it volume and the patient's age and condition. Common sites include the deltoid, vastus lateralis, ventrogluteal and dorsogluteal muscles. For gluteal injection, latest evidences and Authorities support the use of ventrogluteal muscle. In emergency department, 20% of patients are prescribed with intramuscular injection, all are administrated by nurses.

**Objectives**

To examine the choice of intramuscular injection site in the emergency department as well as to translate evidence-based practice to nursing staffs and examine the barriers to change in the department.

**Methodology**

Convenient sampling of nursing staffs on 2 clinical days in February 2017, the choice of intramuscular injection sites to children and adult, as well as medications were examined by face-to face interview. Clinical update was delivered and Change of practice was followed-up 1 week afterwards. The barriers to change were also examined.

**Result**

Results: There were 40 (55%) nurses participated in the study (out of the total of 72). For injection of anti-tetanus toxoid on children and adult, all chose the deltoid muscle. For injection of pain medication to children, all selected the vastus lateralis. However for injection of pain medication to adult, 32 (80%) selected the dorsogluteal whereas 8 (20%) selected the ventrogluteal muscles. The clinical update was given to all and nursing staffs were highly encouraged to keep up with the new practice especially on intramuscular injection on gluteal muscle. Reference poster of intramuscular injection was post to the injection room as reminder.

Week after, the staffs were interviewed again on giving the pain medication to adult; it

was noted that 16 (40%) selected the dorsogluteal and 24 (60%) selected the ventrogluteal muscles.

Discussion: There was gradual change of practice on the injection site of gluteal muscle in a week. 40% of them favored the site of dorsogluteal muscle and were reluctant to change. In analysis, it was noted that they found it competent in administering to the dorsogluteal muscle. Few had difficulties in identifying the ventrogluteal muscle and had concern on sharp injury in using the V-shape landmark for location. In the past 5 years (2012-2016), there was no sciatic nerve injury and no sharp injury in the department. Education, assessment and encouragement were given in these perspectives.

Conclusion: By reviewing the practice of intramuscular injection, providing clinical update on evidence-based practice, following-up the practice and examining the barriers to change, could help implementing the changes in the department. It may not happen as once but it will.