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# Nurses' Practice for Selection of the Intramuscular Injections Sites: A Review Article

#### Mekkawy M\* and Khalil SS

Medical-Surgical Nursing, Assiut University, Egypt

\*Corresponding author: Mimi Mekkawy, Medical-Surgical Nursing, Faculty of Nursing, Assiut University, Egypt, Email: mim. mohamed@aun.edu.eg

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### Abstract

Intramuscular (IM) injections have been an integral part of drug administration in nursing practice for almost half a century. However, there are some convicting practices which warrant investigation to determine their effective-ness in this aspect of patient care Intramuscular (IM) injections have been an integral part of drug administration in nursing practice for almost half a century. However, there are someone acting practices which warrant investigation to determine their effective-ness in this aspect of patient care Intramuscular (IM) injections have been an integral part of drug administration in nursing practice for almost half a century. However, there are someconicting practices which warrant investigation to determine their effective-ness in this aspect of patient care Intramuscular (IM) injections have been an integral part of drug administration in nursing practice for almost half a century. However, there are someconicting practices which warrant investigation to determine their effectiveness in this aspect of patient care Intramuscular (IM) injections have been an integral part of drug administration in nursing practice for almost half a century. However, there are some convicting practices, which warrant investigation to determine their effective-ness in this aspect of patient care. This review aimed to: assess nurses' practice for selection of the intramuscular injections sites. The review found that dorso-gluteal muscles site was prevalent and preferred by majority of nurses. Synthesis of the research reviewed allows the development of research-based guidelines for this skill. These guidelines offer a framework for nurses who wish to provide practice in line with current research into the process of selection of site of injection intramuscularly. It is recommended that the choice of site must be based on good clinical judgment and using an evidence based. Additional researches are recommended on the safety and painless intramuscular injection covering all aspects including site.

**Keywords:** Intramuscular Injection; Nurses

Abbreviations: IM: Intramuscular.

#### Introduction

The teaching of IM injections has become an integral part of nursing syllabi. The literature review reported here was therefore undertaken in order to develop an under-standing of present day knowledge, procedures and guidelines in the drawing up and administration of intramuscular injections to inform both practice and nurse education. Several

databases were employed to develop an initial reference list. This was followed by a study of clinical nursing texts and cross-referencing of the articles to identify any gaps in the literature [1].

Intramuscular (IM) injections have been an integral part of drug administration in nursing practice for almost half a century. However, there are some conflicting practices which warrant investigation to determine their effectiveness in this aspect of patient care [2].

To this end, this paper presents the results of a literature review which was carried out in order to establish current understanding of present day knowledge, procedures and guidelines for the administration of IM injections. Areas addressed within this review include injection sites used, injuries associated with IM injections, issues surrounding needle selection and volume administered through IM injections, injection techniques and nursing skills associated with IM injections.

Within this paper, central themes such as drug administration, injection sites used, issues surrounding technique, nursing skills and problems associated with IM injections are reviewed. Despite a number of discrepancies between authors, the review provides sufficient consensual evidence for the establishment of clinical guidelines for the drawing up and administration of IM injections. It is suggested that further studies will be required to determine the extend to whom nurses adhere to research-based guidelines in this field [3].

Synthesis of the research reviewed allows the development of research-based guidelines for this skill. These guidelines offer a framework for nurses who wish to provide practice in line with current research into the process of drawing up and administration of intramuscular injections. Areas addressed within this review include injection sites used, injuries associated with IM injections, when alternative routes are not viable or do not facilitate absorption of medication [4].

Injections may be viewed as a traumatic procedure for patients, therefore it is important to assess if an injection is necessary and justified prior to its administration. An appropriate injection technique reduces discomfort and complications for the patient. Necessary skills for good injection technique include: knowledge of anatomy and physiology, pharmacology, suitable injection sites and injection techniques for patients, clinical holding and effective communication skills [5].

Therefore, it is acknowledged that nurses are currently administering fewer injections. Some principles of intramuscular injections may be based on custom and practice. It is essential that nursing practice is evidence based practice and each patient is individually assessed. It is recommended that nurses regularly review information on this practice [6].

Kirk A [7] pointed that an understanding of each site is essential if nurses are to make informed decisions with regard to administration of IM injections. These sites include; (The deltoid, dorso gluteal, rectus femorus, vast us laterals and ventral gluteal site. All muscles have blood supply and are innervated, although only the dorso gluteal injection site

has close proximity to a major nerve and blood vessel. Poor practices can create adverse risks for patients and healthcare workers. Adverse events for patients include: haemorrhage in those with bleeding disorders; pain; sciatic nerve injury; injection fibrosis; infection, failure to ensure correct siting, depth or rate of injection are linked to complications.

Nurses need to adopt methods which will alleviate patient fears and discomfort. This can be achieved through nurses developing sufficient condense and skill to administer IM injections according to research-based guidelines. The extent to which each aspect of these guidelines issued in practice in the UK is unknown. Adherence to these guidelines may reduce complications, pain and permanent injury associated with IM injections as well as increase the efficiency and effectiveness of the drugs injected. The frequency with which nurses choose needles that is of sufficient length to reach target muscles. Similarly, no study as yet appears to have examined the consistency of technique across a number of injections by individual nurses [8].

#### **Concluding and Recommendations**

For practice and further research the authors support contention that the administration of an IM injection requires greater skill and caution than oral preparations [9].

Despite the decreasing trend in the proportion of medications given by IM injections, this method of drug administration still represents a valid and necessary skill for nurses to acquire [10].

The fact that the giving of an IM injection can also add to the emotional and physical trauma that the patient experiences, should not be overlooked [11].

It would thus appear that there is a need for further research into the processes and techniques used by nurses in drawing up and administering IM injections [12].

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