



شبكة المعلومات الجامعية  
التوثيق الإلكتروني والميكروفيلم

# بسم الله الرحمن الرحيم



**MONA MAGHRABY**



شبكة المعلومات الجامعية  
التوثيق الإلكتروني والميكروفيلم



# شبكة المعلومات الجامعية التوثيق الإلكتروني والميكروفيلم



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التوثيق الإلكتروني والميكروفيلم

# جامعة عين شمس التوثيق الإلكتروني والميكروفيلم

## قسم

نقسم بالله العظيم أن المادة التي تم توثيقها وتسجيلها  
علي هذه الأقراص المدمجة قد أعدت دون أية تغييرات



## يجب أن

تحفظ هذه الأقراص المدمجة بعيدا عن الغبار



**MONA MAGHRABY**

# **Assessment of Nurses Performance Regarding Penicillin Administration for Pediatric Patients**

Thesis

Submitted for Partial Fulfillment of Master Degree  
in Pediatric Nursing

By

**Nashwa Said Mohamed Ali**

*B.Sc., Nursing, (2009)*

*Clinical Instructor at El-Doaa Nursing Institute*

Faculty of Nursing  
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**Nashwa Said Mohamed Ali**

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# List of Abbreviations

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Abb.	Full term
<i>AHA</i> .....	<i>American Heart Association</i>
<i>DRESS</i> .....	<i>Drug Reaction with Eosinophilia and Systemic Symptoms</i>
<i>IE</i> .....	<i>Infective Endocarditis</i>
<i>NICE</i> .....	<i>National Institute for Health and Clinical Excellences</i>
<i>PCN</i> .....	<i>Penicillin</i>
<i>RHD</i> .....	<i>Rheumatic Heart Diseases</i>
<i>WHOLEM</i> .....	<i>World Health Organization's List of Essential Medicine</i>

## INTRODUCTION

Penicillin, an antibacterial antibiotic known since ancient times, and is invented in certain ways from the fungus penicillium, was discovered by the scientist (Alexander Fleming) in (1928), and this discovery is considered a revolution in the history of medicine. It is also a deadly antibiotic for harmful and extraneous bacteria (*Henry and Norma, 2016*).

Penicillin antibiotics were among the first medications to be effective against many bacterial infections caused by staphylococci and streptococci. There are several enhanced penicillin families which are effective against additional bacteria; these include the anti-staphylococcal penicillins, amino penicillins and the antipseudomonal penicillins (*Howard, 2013*).

Penicillin derivatives vary depending on their chemical nature, the type of bacteria and how penicillin derivatives are used. Some types of penicillin are not affected by the acidity of the stomach is taken directly through the mouth and not fixed in the stomach because of its acid and is taken intramuscular or intravenous injection. Penicillin was one of the most effective antibiotics, but due to its overuse, bacteria developed from themselves during reproduction and today most bacteria have the ability to resist penicillin (*Vallerand et al., 2017*).

Penicillin allergies may be an over reported problem that can result in the use of less-appropriate and more expensive antibiotic treatments. Therefore, an accurate diagnosis is needed when penicillin allergy is suspected to ensure the best treatment options in the future (*Kemeny et al., 2017*).

The Nursing role during penicillin administration involves careful monitoring and assessing of pediatric patients condition because allergies occurs more frequently with penicillin than any other antibiotic. Nurses also should give the instructions to pediatric patients about the signs of allergic reaction including itching, rash and to immediately contact the health care provider (*Walling, 2015*).

Nurses have a responsibility to ensure that current best evidence and individual pediatric patient assessment informs their practice, so injections are given in the optimal site at the correct depth and rate of delivery with using the appropriate needle size and using an accurate land-marking technique (*Zagursky, 2014*).

Despite the widespread sensitivity of penicillin, As 5-10% of pediatric patients who used penicillin reported having an allergy to penicillin, studies have found that 85-90% of these pediatric patients do not really suffer from any allergic reaction to penicillin. This means that penicillin allergy is a problem that is not evaluated and diagnosed correctly, and it is incorrectly maximized by pediatric patients and medical staff,

which causes depriving a large number of pediatric patients of the use of penicillin and its derivatives (*Vallerand, 2017*).

### **Significance of thy study:**

The nurse notes that penicillin allergy of pediatric patients regarding remains the most common drug allergy reported. Documentation or reporting of allergies often becomes inaccurate and many pediatric patients may report that they have an allergy to an antibiotic whereas pediatric patients may have in fact experienced effects such as fever and diarrhea. If a pediatric patient has exhibited signs of a true allergic reaction, re-exposure to penicillin or related antibiotics. It has been estimated that up to 60% in Egypt of penicillin-allergic pediatric patients will experience another allergic event if given the drug again. With repeat penicillin use, those with an allergy were 11.2 times more likely than others to experience an allergic event (*Ulman, 2016*). In addition, nurses must be alert with respect to the use of various combination products which all contain penicillin

So from the above facts, the researcher found that there is a need to assess the nursing performance for penicillin administration in pediatric care setting at Ain shams university in order to highlights about the important role of nursing staff in prevention the allergic reaction or complication from penicillin administration.

## **AIM OF THE STUDY**

**This study was aimed to assess the nurses' performance regarding penicillin administration for pediatric patients through the following:**

- 1- Assess nurses' level of knowledge regarding penicillin administration for pediatric patients.
- 2- Assess nurses' practice regarding penicillin administration for pediatric patients.

### **Research questions:**

- 1- What are the nurses' knowledge regarding penicillin administration for pediatric patients?
- 2- What are the nurses' practice regarding penicillin administration for pediatric patients?
- 3- Is there a relationship between knowledge and practice nurses' regarding penicillin administration for pediatric patients?