

# بسم الله الرحمن الرحيم



**HOSSAM MAGHRABY**



# شبكة المعلومات الجامعية

## التوثيق الالكتروني والميكروفيلم



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# جامعة عين شمس

## التوثيق الإلكتروني والميكروفيلم

### قسم

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# بعض الوثائق الأصلية تالفة



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بالرسالة صفحات

لم ترد بالأصل



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INFORMATION AND PRACTICES ABOUT  
ENDOTRACHEAL SUCTIONING : EFFECT ON  
NURSES KNOWLEDGE AND ON ARTERIAL BLOOD  
GASES OF HEAD INJURED PATIENTS , ASSIUT  
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وَعَلَّمْتَنِي مِنْ تَأْوِيلِ الْإِحَادِيثِ

فَاطِرَ السَّمَوَاتِ وَالْأَرْضِ أَنْتَ وَلِيِّ

فِي الدُّنْيَا وَالْآخِرَةِ تُوفِنِي مُسْلِمًا

وَالْحَقِّقْ بِالطَّالِعِينَ \*

بِسْمِ اللَّهِ  
الرَّحْمَنِ  
الرَّحِيمِ

سُورَةُ يُوسُفَ

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**Information and practices about endotracheal  
Suctioning: Effect on nurses knowledge, performance and on arterial  
blood gases of head injured patients,**

*Heba Mohamed Abd Elrazek*

**ABSTRACT**

**Aim of the work:** The aim of this study is to assess nurse's original knowledge and practices as regards endotracheal suctioning. provide the nurses with needed information and practices, reevaluate the provided knowledge and practices through post-tests and assess the patient's chest condition, vital signs, arterial blood gases and signs of intra-cranial pressure in response to suctioning.

**Study Hypotheses:**

1. Mean knowledge scores obtained by nurses after receiving an information about endotracheal suction will be higher than their pre-information mean knowledge scores.
2. The mean post practices scores obtained by nurses after application of an endotracheal suctioning will be higher than their pre practice mean scores.
3. There will be positive correlation between knowledge and practice scores obtained by nurses as regards endotracheal suctioning.
4. Arterial blood gas values of patients cared by nurses who received the information about tracheal suctioning will be better compared to those patients looked after by nurses who did not receive the information.

**Material & Methods:** Quasi-experimental research design was adopted to conduct the study on 30 nurses working in trauma ICU of Assiut University hospital, in addition to 60 patients admitted to this unit. Three tools were used for data collection; Questionnaire sheet, observation checklist and patient's assessment sheet. The educational information was adopted to provide nurses' knowledge and practice as regard endotracheal suctioning.

**Results:** There were significant improvement in nurses' knowledge and practices scores ( $P < 0.05$  –  $P < 0.01$  –  $P < 0.001$ ) after giving the information. The information given to nurses regarding endotracheal suctioning resulted in a better performance as evidenced by a significant decrease in the incidence of wheezes. Secretions after suctioning in the 2<sup>nd</sup> set of patients (tested after giving information) compared to the 1<sup>st</sup> set (tested before giving information).

**Conclusions:** Continued nursing education for enrichment of nurses' knowledge and practices as regards tracheal suctioning was found to have a significant impact in reduction of the complications of this procedures.



# INTRODUCTION

## INTRODUCTION

Lung secretions are likely to accumulate in three main areas: the oropharynx, the trachea and the bronchi. This will affect ventilation, perfusion and work of breathing.

The basic purpose of the lung is to provide a large surface area via which oxygen can pass from the blood into the alveoli, to achieve this, the lungs need to be ventilated and perfused. If secretions accumulate excessively, the lung may be perfused but, because little oxygen be able to pass down bronchioles occluded by secretions, the resulting mismatch between ventilation and perfusion will result in significant reduction in blood oxygenation.

Endotracheal suctioning is a component of bronchial hygiene therapy and involves aspiration of pulmonary secretions from a patient with an artificial airway in place (Richard and Ropert, 1993).

Suction should be done when it is necessary not routinely because it stimulate production of airway secretions and cause trauma to the airway (Cazik, 1991).

Plevok, (1991) delineated that endotracheal suctioning is not a benign procedure, and operators should remain sensitive to the possible hazards and complications and take all necessary precautions to ensure patient safety. Qualified personnel should assess the need for endotracheal suctioning as a routine part of a patient/ventilator system check. Therefore the aim of this study is to asses nurse's original knowledge and practices as regards

endotracheal suctioning, provide the nurses with needed information and practices, reevaluate the provided knowledge and practices through post-tests and assess the patient's chest condition, vital signs, arterial blood gases and signs of intra-cranial pressure in response to suctioning.



## **Significance of the study:**

Every nursing text book emphasises the need to protect a patent airway if oxygenation of vital tissues is to occur. The skills needed to do so are perhaps the most important that any nurse will learn (Place & Febl, 1998). Accumulation of tracheobronchial secretions is a more common and very dangerous if unresolved with expert care (Wainwright, 1996).

By assessment of knowledge and practices of nurses serving in the intensive care unit of Assiut University Hospital, the researcher observed that most of diploma nurses in trauma intensive care unit have an inadequate knowledge and practices as regards endotracheal suctioning. Moreover, many patients in these units who are head injured patients develop an airway obstruction and need for endotracheal suctioning. Since nursing intervention constitutes the first and most important factor in care of endotracheal suctioning for those patients, so they need the information that would improve nurses' knowledge and practices about tracheal suctioning and consequently unburden hospital resources improves patient's outcome, and improve the rate of turnover. Furthermore health professionals might include results of this study in planning of future care for such group of patients. It might also generate an attention and motivation for further researches into this topic.