



Faculty of Nursing
Ain Shams University

Compliance to Infection Control Measures among Nurses in Endoscopy Units

Thesis

Submitted for Partial Fulfillment for the
Requirements of Master Degree
In Community Health Nursing

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2018



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B. Sc. Nursing
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2018**



Acknowledgement

*First and foremost grateful to, **ALLAH** the most kind and merciful for helping me to achieve this work,*

*I am deeply grateful to **Dr. Magda Abed El Sattar Ahmed**, Professor of Community Health Nursing*

Faculty of Nursing - Ain Shams University. I am indebted to her constructive criticism, expertise, and continuous unlimited help and for giving me the privilege to work under her supervision. I appreciate her active participation in providing me with a lot of knowledge.

*I would like to express my deep appreciation to **Dr. Oaima Mohamed Esmat**, Assistant Professor of Community Health Nursing, Faculty of Nursing - Ain Shams University., for her faith in my ability, her scientific help, meticulous supervision and constructive criticism to accomplish this work,*

I would like to express my deepest thanks to all staff of nurses, of Ain Shams University Hospitals for their help and cooperation to accomplish this work,

Last but not least, I would like to express my gratitude and appreciation to my family and all those who helped me directly or indirectly in accomplishing this work,

Neveen Mohamed AbdelFadel



Dedication

*To my lovely daughters,
For their:
Effort,
Encouragement,
Cooperation,
And
Support*



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LIST OF ABBREVIATIONS

Abb.	Full Term
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- **AFER** : Automatic Flexible Endoscope Reprocessor
- **AIDS** : Acquired Immune Deficiency Syndrome
- **APIC** : Association for Professionals Infection Control
- **ASGE** : American Society for Gastrointestinal Endoscopy
- **AUC** : The American University in Cairo
- **CCD** : charge coupled device
- **CDC** : Center of Disease Control and prevention
- **CDHS** : California Department of Health Service
- **CDNA** : Communicable Diseases Network Australia
- **CHRISP** : Center for Healthcare Related Infection Surveillance and Prevention
- **CSGNA** : Canadian Society of Gastroenterology Nurses and Associates
- **DNA** : Deoxyribonucleic Acid
- **ECG** : electrocardiogram
- **ERCP** : Endoscopic Retrograde Cholanigopancreatography
- **ESGE** : European Society for Gastrointestinal Endoscopy
- **ESIC** : Egyptian Society for Infection Control
- **FDA** : Food and Drug Administration
- **GENCA** : Gastroenterological Nurses College of Australia
- **GESA** : Gastroenterological Society of Australia
- **GIT** : The gastrointestinal tract
- **HBeAg** : Hepatitis B enveloped Antigen

- **HBV** : Hepatitis B Virus
- **HCV** : Hepatitis C Virus
- **HIV** : Human Immunodeficiency Virus
- **ICNA** : Infection Control Nurses Association
- **ISO** : International Standards Organisation
- **IV** : intravenous medication
- **MRI** : Magnetic Resonance Imaging
- **MSDS** : Material Safety Data Sheet
- **NATA** : National Association of Testing Authorities
- **NICE** : National Institute for Health and Clinical Excellence
- **NSAIDs** : no steroidal anti-inflammatory drugs
- **OPA** : Ortho-Phthalaldehyde
- **PAGCL**: Post arthroscopic glen humeral chondrolysis
- **PCR** : Polymerase chain reaction
- **PEG** : percutaneous endoscopic gastrostomy
- **PPE** : Personal Protective Equipment.
- **SPSS** : Statistical Program for Social Science
- **TGA** : Therapeutic Goods Administration
- **USA** : United States of America.

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ABSTRACT

The present study **aimed** to assess the compliance with infection control measures among nurses in endoscopy units. **Setting:** The study was conducted at endoscopy units affiliated to Ain shams university Hospitals. **Sample:**convenience sample of 60 nurses were included . **Data** were collected through; **1st Tool,** A structure an interviewing sheet,to assess :- **a)** the socio-demographic characteristic of nurses such as age, sex, education. **b)** Work condition as work duties, working hours,day worker health problem, in service training and past experience. **c)** Nurses knowledge about infection & infection control measures. **2nd Tool,** **a)** An observational checklists for assessing nurses, compliance to infection control measure. **b)** Standardized checklist of environment structure **Results:** revealed that ,about two thirds (65%) of the studied sample were doing of the total practices of infection control training procedures, Showed the positive correlation and significant relation between the total knowledge and total practices of the studied sample. Showed the positive correlation and significant relation between environmental structure assessment of endoscopy standards with knowledge and total practices of the studied sample. **Conclusion:** The result showed that, more than two third of the nurses under the study were satisfactory regarding to the total knowledge about the principles and procedures of infection control policy within the Endoscopy Unit, while less than one third of the nurses under study were unsatisfactory for the total knowledge about the principles and procedures of infection control policy within the Endoscopy Unit **Recommendation:**Continuous in-service educational programs should be held for all the health team working in the Endoscopy Unit regarding to chemical hazards, infection control measures, universal precautions, cleaning and disinfection of the endoscope while performing or assisting in Endoscopy procedures and during reprocesses of Endoscopy equipment.

Key words: Endoscopic Retrograde, Personal Protective Equipment, infection control, universal precautions, blood born diseases.

INTRODUCTION

(*CDC, 2015*), stated that the components of the infection control programmer are: basic measures for infection control, i.e. standard and additional precautions, education and training of health care workers, protection of health care workers, e.g. immunization; identification of hazards and minimizing risks; routine practices essential to infection control such as aseptic techniques, use of single use devices, reprocessing of instruments and equipment, antibiotic usage, management of blood/body fluid exposure, handling and use of blood and blood products, sound management of medical waste. Infection Control Practices can be grouped in two categories: standard precautions these include the following: hand washing and antisepsis (hand hygiene), use of personal protective equipment management of health/care waste and additional precautions include airborne, droplet and contact.

Prevention and control of infection is important for legal, professional and economic reasons. Within any healthcare organization infection prevention and control, operate at practical, managerial and strategic Levels Christine (*Gharib, 2013*).

Types of infections are Colonization is the process by which strains of micro-organisms become resident flora in this state, the micro-organisms may grow, multiply, but do not cause disease when a culture of the person's blood reveals micro-organisms, the condition is called bacteremia. When bacteremia

results in systemic infection, it is referred to as septicemia. There also acute or chronic infections. Acute infections generally appear suddenly or last a short time. A chronic infection may occur slowly, over a very long period, and May last months or years. Nosocomial infection is classified as infections that are associated with the delivery of health care services in a healthcare environment. lactogenic infection is the direct result of diagnostic or therapeutic procedures (*kCalifornia Department of Health Service (CDHS), (2013)*).

Endoscopy is a procedure that allows a doctor to view the inside of a person's body by inserting a tool called an endoscope. Most endoscopes are thin tubes with a powerful light source and a tiny camera at the end that sends images to a screen. The images help doctors see parts of the body that they would not otherwise be able to view, there are different types of endoscopy as colonoscopy, cyst scope, laryngoscope, Arthroscopy, bronchoscope, esophagoscopy, gastro copy, laparoscopy, photocopy (*American Society for Gastrointestinal Endoscopy (ASGE), 2015*).

Endoscopy is usually an outpatient procedure. This means that you will go home after the procedure. It can be in done in the physician's office, a GI clinic or at the hospital. You should not eat or drink within eight hours of your scheduled procedure. Food in the upper GI will block the view and hinder the examination. In

addition, it can cause vomiting, creating complications, if you are taking medicine, ask your doctor whether you take them before the procedure (*Barrette, 2011*). Compliance means the laws, regulation, and university policies that govern our everyday activities as members of the university community (*Endoscopy Committee Working Party, (2016) & Center of Disease Control (CDC) (2014)*).

Compliance: any employed in a company require being in compliance with all policies and procedures at all times. Standard precautions are the basic level of infection control precautions which are to be used, as a level of precautions and recommended when delivering the care to all patients, regardless of their presumed infection status. Therefore nurses should have sound knowledge and compliance with standard precaution (*Agency for Healthcare Research and Quality, 2014*).

The role of the infection control nurse: - all health care organizations must have multidisciplinary infection control committees. Representatives from the clinical laboratory, cleaning, maintenance, catering and patient care areas should be included. An important member of this committee is the infection control nurse. This nurse is specially trained to be Knowledgeable about the Latest research and practices in preventing, detecting and treating infections. All infections are reported to the nurse in a manner that allows for recording and analyzing statistics that can

assist in improving infection control practices. In addition, the infection control nurse may be involved in employee education and implementation of the blood-borne pathogen exposure control plan (*Canadian Society of Gastroenterology Nurses and Associates (CSGNA) (2016)*).

Significance of the Study:

The control of infection is so important in healthcare organizations to reduce the chances of contamination, give workers and understanding of key issues such as hand washing, best hygiene practice and the chain of transmission , training across the medical profession as a whole, is the protection of patients and health care workers by the prevention of infection in the health care setting in a cost-efficient manner., Comprehensive, systematic program that, when applied, prevents the transmission of infectious agents among persons who are in direct/indirect contact with the healthcare environment in Endoscopy Units at Ain Shams University Hospitals. Infection is preventable, so we must control it because waste of health care resources, increase the cost. In addition to prolong the period of stay in hospitals (*CDC, (2017)*).