

# **Safe Health Practices in Different Types of Hospitals in Cairo**

Thesis submitted by

**Inas Abd El Rahim Ali**

M.B, B.CH, MSc, Ain Shams University

Assistant Lecturer in the Dept of Community & Family Medicine

Misr University for Science & Technology MUST

For partial fulfillment of MD degree in Public Health

Under the supervision of

**Prof. Dr. Abdel Aziz Mohammad Kamal**

Professor in the Dept of Community, Environmental &

Occupational Medicine, Faculty of Medicine

Ain Shams University

**Prof. Dr. Aisha Mohammad Abou El Fotouh**

Professor in the Dept of Community, Environmental &

Occupational Medicine, Faculty of Medicine

Ain Shams University

**Prof. Dr. Mohammad Farghaly Kassem**

Professor in the Dept of Community Medicine

Faculty of Medicine, El Azhar University

Head of the Dept of Community & Family Medicine

Faculty of Medicine, MUST University

Faculty of Medicine, Ain Shams University

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بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

"قَالُوا سُبْحَانَكَ لَا عِلْمَ لَنَا إِلَّا مَا عَلَّمْتَنَا إِنَّكَ  
أَنْتَ الْعَلِيمُ الْحَكِيمُ"

صدق الله العظيم

(سورة البقرة-آية ٣٢)

## List of abbreviations

<b>BBPs</b>	<b>Blood Born Pathogens</b>
<b>CDC:</b>	<b>Centers for Disease Control and Prevention</b>
<b>Cfu:</b>	<b>Colony forming unit</b>
<b>EMR:</b>	<b>Eastern Mediterranean Region</b>
<b>EMRO:</b>	<b>Eastern Mediterranean Regional Office</b>
<b>ESU:</b>	<b>Epidemiology and Surveillance Unit</b>
<b>Fig:</b>	<b>Figure</b>
<b>HAI:</b>	<b>Hospital Acquired Infections</b>
<b>HCFs:</b>	<b>Health Care Facilities</b>
<b>HCV:</b>	<b>Hepatitis C Virus</b>
<b>HCWs:</b>	<b>Health Care workers</b>
<b>HHMC:</b>	<b>Home Health and Medial Care services</b>
<b>HI:</b>	<b>Health Insurance</b>
<b>HIV:</b>	<b>Human Immune deficiency Virus</b>
<b>ICMJE:</b>	<b>International Committee of Medical Journal Editors</b>
<b>IC:</b>	<b>Infection Control</b>
<b>IEC:</b>	<b>Information Education and Communication</b>
<b>JWG:</b>	<b>Joint Working Group, U.K</b>
<b>MOHP:</b>	<b>Ministry of Health and Population</b>
<b>NCPS:</b>	<b>National Council for Patient Safety</b>
<b>NIOSH:</b>	<b>National Institute of Occupational Safety &amp; Health</b>
<b>NPI</b>	<b>Needle Prick Injury</b>
<b>NPSF:</b>	<b>National Patient Safety Foundation</b>
<b>OSHA:</b>	<b>Occupational Safety and Health Administration</b>
<b>PHS:</b>	<b>Public Health Services</b>
<b>PPE:</b>	<b>Personal Protective Equipment</b>
<b>SP:</b>	<b>Standard Precautions</b>
<b>SPSS:</b>	<b>Statistical Package for Social Sciences</b>
<b>U.K:</b>	<b>United Kingdom</b>
<b>USA:</b>	<b>United States of America</b>
<b>WHO:</b>	<b>World Health Organization</b>

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## **Introduction**

Health care associated infections occur worldwide and affect both developed and resource poor countries. Infections acquired in health care settings are among the major causes of death and increased morbidity in hospitalized patients. They represent a significant burden for both the patient and his family and for public health. A prevalence survey conducted under the auspices of the World Health Organization (WHO) in 55 hospitals revealed that on average, 8.7% of hospital patients suffer nosocomial infections (*WHO, 2006 c*).

Hands of Health Care Workers (HCWs) are the main vehicles of microbial transmission especially those resistant to antimicrobial agents. Thorough hand washing by all medical personnel before each patient contact is one of the most effective ways to combat nosocomial infections (*Girou et al., 2004*). Although hand washing may seem like a simple measure, it is often not used or is performed incorrectly. Health care settings must continually remind practitioners to wash their hands thoroughly (*Nogueras et al., 2004*).

Egypt has a very high prevalence of HCV. Ten to twelve percent of the population has HCV, with 70,000-140,000 new infections each year. Approximately 20% of Egyptian blood donors are anti-HCV positive. Egypt has higher rates of HCV than neighboring countries as well as other countries in the world with comparable socioeconomic conditions and hygienic standards for invasive medical, dental, or paramedical procedures (*EMRO, 2006*).

Among the 35 million health care workers worldwide, about 3 million receive percutaneous exposures to blood borne pathogens each year, more than 90% of these infections occur in developing countries (*WHO, 2006 a*).

The frequency of needle stick injuries among HCWs is high in Egypt. In surveys conducted in Upper and Lower Egypt in 2001, approximately 30% of HCWs reported a needle stick injury within the past 3 months. There was an average of 5 needle stick injuries per year per HCW. The frequency of needle stick injuries was similar across a broad category of HCW that included dental personnel, laboratory workers, nurses and nursing assistants, housekeeping personnel, sanitarians, physicians, technicians, and other

allied health professionals. Underreporting of needle stick injuries in studies published outside of Egypt is estimated to be between 30-96 percent, suggesting that the actual rate of such injuries is much higher (*OSHA, 1997*). In general, HCWs who have more intense contact with patients or more opportunity for exposure to blood and body fluids (nurses, physicians, dentists, laboratory technicians) have an increased risk of blood-borne pathogen infection than do HCWs who have only brief or casual contact with patients. Studies of sharps injuries elsewhere indicate that nurses experience the greatest proportion of these; however, others, such as environmental services (housekeeping) personnel, also rank high (*Memish, 2002*).

Poor management of health care waste exposes HCWs, waste handlers and the community to infection, toxic effects and injuries. In addition, it creates opportunities for the resale and potential reuse without sterilization (*WHO, 2006 b*)

Improving patient safety requires continuous learning and constant communication between care givers, organizations and patients. Every one has a role in patient

safety, and every one will benefit from its successes (*NPSF, 2003*).

In Egypt, there are about 250 general hospitals in urban areas and about 120 district hospitals in rural areas, these a part teaching and private sector hospitals and hospitals of health insurance national institution (*EMRO, 2006*).

Data about adherence of HCWs to safe practices and the related contributing factors in Egypt are lacking. Research is essential to understanding the extent of adherence and the causes of unsafe health practices and for developing appropriate solutions.

## **Aim of the work**

### **Objectives:**

- To determine the prevalence of unsafe health practices involving both patients and health care workers
- To investigate the contributing factors related to unsafe practices
- To provide and implement a pilot training program of this issue
- To evaluate the effect and compliance of the training program for setting and generalization of recommendations for promotion of safe health practices in hospitals