

## **Effect of Teaching Guidelines on Patient Safety Regarding Nosocomial Infection in Dialysis Unit**

### ملخص البحث باللغة الانجليزية:

#### **Background:**

Nosocomial infection has many adverse effects on both patients and health care workers, it represents an undue economic burden, which increases the costs, hospitalization rate and need for antimicrobial medications and adds significant morbidity, and mortality. Patients with renal impairment are at high risk of developing infection due to low immunity, severe clinical condition and need of vascular accesses. The importance of education as a measure to prevent nosocomial infections is implied in numerous studies. Studies exploring the knowledge and practice of healthcare personnel towards the transmission of nosocomial infections in different patient groups suggest that education plays an important role in the prevention and spread nosocomial infections.

**Aim of the study:** The aim of the study was to evaluate impact of teaching guidelines on improving of patient's safety regarding nosocomial infection in dialysis unit.

**Setting of the study:** The study was conducted in dialysis unit of the Internal Medicine Hospital at Fayoum University hospitals.

**Subjects of the study:** All admitted patients maintained on dialysis unit of the Internal Medicine hospital at Fayoum University hospitals as a long treatment during six months before and after the implementation of the developed teaching guidelines were involved in the study. Total number of patients after exclusion criteria (patients with chronic hepatitis) was 45 patients.

**Tools for Data Collection:** two tools will be used to collect data:

**Tool I: An interview questionnaire sheet:** It was developed and used by the researcher, to collect necessary data about patients in this study, it comprised of two parts:

**A. Socio-demographic characteristics of the patients:** as age, gender, marital status, educational level, residence, occupation, monthly income, family members, and housing condition, etc.....

**B. Medical history of the patients:** to assess past and present medical history of the patients, duration of illness and date of starting dialysis, type of vascular access and hospitalization etc.....

**Tool II Observational checklist:** to assess sign and symptoms of infection through physical examination, laboratory investigation, and Microscopic examination.

**Result:** The results of current study revealed that the more than one third (42.2%) of studied subjects were in age group from 50 years to less than 60 years, with mean  $50.04 \pm 13.06$ , three fourth of studied subjects were lived in rural area, and less than two third of

them were male. And also, less than half of the studied subject was illiterate. There was a highly statistically significant difference between studied subjects pre and 4 month post implementation of teaching guideline regarding sign and symptoms of infection including Pain during pressure at fistula site, Increase respiratory secretion, dry and wet cough, burning urination diarrhea, and skin irritation. There was a statistically significant difference between studied subjects pre and 4 month post implementation of teaching guideline regarding sign and symptoms of infection including fever, inflammation and swelling and hotness at the site of vascular access, and abnormal secretion in urine. There was no statistically significant relationship between improvement of knowledge and socio-demographic characteristics of studied subjects in dialysis pre, immediate, and post- implementation phases of teaching guideline regarding nosocomial infection.

**Conclusion:** The current study concluded that, teaching guidelines has positive effect on patient's safety regarding nosocomial infection in dialysis unit.

**Recommendation:** Continuous education of both patients and staff in dialysis unit about nosocomial infection. Hospital policy should include guide line for the application of infection control precautions in dialysis units. Written standards procedural guideline for infection control should be available in dialysis and should be up to dated periodically to suite the new trends of infection prevention.