An observational study to assess the practice of infection control measures on patients undergoing Transvaginal sonography and Pap smear procedure, among health care professionals in Obstetrical and Gynecological outpatient department of a tertiary hospital in Udupi District, Karnataka

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ABSTRACT

A research study titled “An observational study to assess the practice of infection control measures on patients undergoing Transvaginal sonography and Pap smear procedure, among health care professionals in Obstetrical and Gynecological outpatient department of a tertiary hospital in Udupi District, Karnataka” was conducted by Ms Priyanka Rekha Mondal in partial fulfillment of the requirements for the degree of Master of Nursing Science at Manipal College of Nursing Manipal, Manipal University, Manipal, Karnataka.

The objectives of the study were to assess the practice of infection control measures during Transvaginal sonography procedure and Pap smear procedure among health care professionals and to determine the contamination of the articles through culture swabs.

The study adopted a modified conceptual frame work of “Hand hygiene knowledge and practices among healthcare providers in a tertiary hospital, South West Nigeria” by Timothy A Ekwere, & Ifeoma P Okafor, 2013.

An observational survey was conducted in Obstetrical and Gynecological outpatient department of a tertiary hospital in Udupi District, Karnataka. The sampling technique used was event sampling with 164 events of each procedure. The data collection tools used were structured observational checklist for each procedure for assessing infection control practice in Transvaginal sonography procedure and Pap smear procedure and culture swabs collected and examined to determine the contamination of the articles.

Abstract

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The content validity and reliability of the tools (Tool 1- 0.97 and Tool 2- 0.93) were established and all the tools were pretested. Pilot study revealed the feasibility of the study.

The data collection for the main study was done from 5th January to 11th February 2017. Analysis of the data was done based on the objectives using descriptive statistics.

The major findings of the study were,

Infection control practices during Transvaginal sonography procedure

In majority 160 (97.6%) events nurses didn’t clean the patient surface after each procedure. In 37(22.6%) events, nurses changed the patient’s cover sheet after each procedure. The probe covers were kept cover in 82(50%) events during the Transvaginal sonography procedure. Doctors were practicing hand hygiene only in 13(7.9%) events with few steps after removing the gloves and after contact with the body fluid during the procedure. Condoms were used as a probe cover for all the time and refill lubricants were used for the probe in every 164(100%) events. Transvaginal sonography probe was cleaned in 28(17.1%) events only with gauze piece and only in 2(1.2%) events cleaned with gauze piece soaked with alcohol solution base after each procedure. But the probe handle was not cleaned for a single time during the procedure.

Infection control practices during Pap smear procedure

The study findings revealed that in 72(43.9%) events the patient’s surface was cleaned and dried during the procedure. In 78(47.6%) events the articles and sterile
instruments were not kept intact. In all the events nurses maintained the biological/chemical indicators, expiry date of sterile packs and checking of sterilization date written on sterile packs for sterilization monitoring. Doctors were practicing hand hygiene only after removing the gloves in 139 (84.8%) events and after contact with the body fluids in 83 (50.6%) events with few steps. Doctors were not maintaining sterile technique to use the sterile gloves as per hospital protocol. In majority 110 (67.1%) events they have followed sterile technique for using sterile instruments during the Pap smear procedure. In majority 163 (99.4%) events appropriate biomedical waste management was maintained by the doctors.

The culture swabs result shows that the transvaginal probe, probe cover, sterile gloves and sterile instruments were contaminated with different types environmental and hand flora like Dipthroids, Staphylococcus hemolyticus, Aerobic spore bearing bacilli, Staphylococcus aureus. Micrococcus spp. and Staphylococcus hominies were found in culture swabs on the different articles in the both procedure room, which can cause urinary tract infection.

This study highlights the infection control practice in Transvaginal sonography and Pap smear procedures which are very common procedure in Obstetrical and Gynecological department of hospital. Inspite of busy schedule of outpatient department of the tertiary hospital, some practices found to be appropriate but still the strong recommendations and protocols should be reviewed and followed to prevent the cross infections through the diagnostic interventions and screening procedures. Implication for nursing practice, education and research were derived. Keeping in view of the findings of the present study, recommendations were made for future research studies."