Service Priorities and Programmes

Electronic Presentations

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Focus on Three Priorities to Needle Safety to Prevent Needle-stick Injury During Blood-taking Procedure

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Introduction

Needle stick injuries (NSI) are a significant injury and health hazard for health care workers and also result in a number of direct and indirect organizational costs. Recent data from OSH Nursing Work Group during September 2012 to March 2013, about one-third of the total injury on duty (IOD) cases were NSI category, 50% of them were blood taking related procedure. Among the subjects, 66.7% of them were phlebotomists. Studies have shown that training, safer working practices and the use of safety-engineered devices can prevent more than 80% of NSI.

Objectives

The CQI Program was started in July 2013, the objectives are: 1.To reduce NSI targeted phlebotomists, focus on 3 priorities to needle safety by initiating educational program & preventive strategies 2.To modulate phlebotomist's safety practice behavior by improving their knowledge on prevention of NSI during blood taking procedure & disposing sharps and hands-on experience for newly introduced safety blood taking device

Methodology

Focus 1: Educational Program Aim at raising phlebotomists awareness about the risk of exposure to blood borne pathogens, prepare & motivate them to make the changes needed to reduce sharps injuries by means of (1) Mandatory on-line learning on "Prevention of Sharp Injury" with quiz and all staff must be refreshed for every 18 months; (2) Educational Workshop to enhance phlebotomists knowledge on prevention of NSI during blood taking procedure & disposing sharps, and to provide demonstration & hands-on experience for newly introduced safety device Focus 2: Safer Needle Devices Implementing changes in practice and introducing Safer Needle Devices incorporating safety-engineered protection mechanisms with trial run and equipment evaluation afterwards. In order to enhance compliance, the newly introduced safety blood taking devices must be easy to use and require little change

of technique on the part of health professional. Eclipse Blood Collection Needle and Push Button Blood Collection Set were introduced in this CQI program. Focus 3: Safer Process Design CDC analysis shows that one-third of all sharps injuries occur during improper disposal/disposal related (22%) and cleanup (11%). Therefore, work practice control was employed by specifying and implementing safe procedures in disposing needles. Disposing of sharps immediately after use in designated sharps box located on blood taking trolleys are highly encouraged. However, this practice sometimes is hindered by the physical constraint of inadequate bed-spacing. So, alternative in providing secure containers and instructions for safe disposal of sharps - A rectangular tray with distinct color/clearly marked kidney dish to segregate the used sharps and non-sharps waste for separate disposal

Result

By reviewing the IOD incident report from July to December 2013, it was found that the incident of NSI was significantly reduced to 11% (5 case of out of total 45 IOD) and 3 incidents were related to blood taking procedure. Among the subjects, only one of them was the phlebotomist. Staff's interview and equipment evaluation shown that most of the phlebotomists have positive comment on the safer working practices and the use of safety-engineered devices on prevention of NSI. However, further promotion and education in order to enhance the compliance in adopting safer process design especially on disposal of needle. Such safer process design may also be applied to other needle or sharp related procedure such as intravenous injection or suturing in the near future.