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THE DIFFERENCES BETWEEN CERTIFIED AND NON-CERTIFIED HEALTHCARE WORKER, TYPES OF JOB IN BLOOD SAMPLING AND HANDLING

By

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ABSTRACT

THE DIFFERENCES BETWEEN CERTIFIED AND NON-CERTIFIED HEALTHCARE WORKER, TYPES OF JOB IN BLOOD SAMPLING AND HANDLING

Collecting and handling of blood sample are the responsibility of phlebotomist and it is the crucial part of pre-analytical process. Error in laboratory testing mainly occurred at pre-analytical process. This might be due to lack of knowledge among phlebotomist regarding the correct practice. In Malaysia, various healthcare workers (HW) perform the task to collect blood from patients. So, this study was designed to evaluate whether there were differences between certified vs uncertified and nurses vs others HW in blood sampling and handling that may affects the laboratory results. Questionnaire distributed to the participant in hardcopy form and collected within 4 weeks and the subject selection was healthcare worker which performed blood sampling and willing to take part. The findings suggest no clinical significant exist between certified and non-certified HW while significant difference exist between type of job in blood sampling in several aspects. Other HW shows more Undesirable Practice (UDP) in check patient wristband, delay in removing tourniquet and labelling the tube and wrong arrangement in filling the tubes compare to nurses. As a conclusion, certified and non-certified healthcare workers gives fairly good practices in phlebotomy except in several aspects, however there is an apparent differences between types of job in blood sampling and handling.

Keywords: Phlebotomist, pre –analytical process, healthcare providers, nursing practices, questionnaire, blood sampling and handling.

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1. INTRODUCTION

1.1 Study background

Phlebotomist is a specialized healthcare professional who is usually worked at hospital, clinic, home and other healthcare institutions. The main role of phlebotomist is to collect blood sample from patient for further analysis by laboratory. Phlebotomist plays crucial role for healthcare services. Method that commonly used for collecting blood specimen is by venipuncture but the arterial and capillary blood collection also performed by the phlebotomist. Phlebotomist same as other personnel healthcare which have a complex standard procedure when cooperate with patient. A lot of phlebotomy practices should be followed when handling with patient. They need to have the knowledge of manual skill, handling blood samples, accuracy and caring comportment as well as good interaction between the healthcare and the client (patient). To ensure the patient safety can be guaranteed, every phlebotomist must have good ethical intention when collecting blood from patient (Karin Bolenius *et al.*, 2014).

Previous studies showed that error in laboratory testing can occur mainly due to pre analytical process. The pre analytical errors are mainly due to mistakes by human and could account for the major variability component is some analyses and of all the error in laboratory medicine approximately one fourth have high risk for the patient (O. Wallin *et al.*, 2007). Pre analytical process is where blood sampling specimen handling of blood occurred prior to the time the specimen is received in the laboratory. Error will occur at this phase if the phlebotomist failed to follow the procedure of sampling and handling blood specimen prior to test. Study shows error commonly occurs are mislabeled of tube, insufficient volume, and blood clots (Karin bolenius *et al.*, 2014). To improve the awareness and credibility of the phlebotomist, effective training programmed should be exposing to all of them. However, in some prior research stated that variability in knowledge of phlebotomist confirms the minimal impact venipuncture training had on the reduction of pre analytical blood sample hemolysis because no statistical difference in knowledge score between formal and informal venipuncture-trained groups (Nellie Makhumula-Nkhoma *et al.*, 2014).