

ABSTRACT

Blood transfusion finds its great role in modern medical science in the world. Changing, unpredictable and highly unstable environment may demand blood for any person, at any time any where in the world. The blood transfusion service is in place to supply and maintain the blood transfusion system to fulfill these needs. Challenges are continuing in provision of safe and adequate supply of blood due to rapidly increasing demand, inappropriate use of blood and restricted resources. To face the challenge of effective, efficient and safe blood transfusion service, practice of appropriate clinical use of blood and conservation of resources are essential.

Present hospital based descriptive cross sectional study with two components was designed to describe the blood ordering and utilizing practices in Teaching Hospital Karapitiya (THK).

During the study period (27th July and 26th August 2009) a total of 1267 blood ordering requests were received by the blood bank and they were analyzed to study the ordering and utilization pattern. The information was collected using a data collection sheet. Ten days out of the month was selected randomly and a sample of 390 blood ordering request forms and the accompanying blood sample labels were assessed for completeness.

A self administered questionnaire was used to collect information from 229 medical officers in THK, who are responsible for requesting blood for in ward patients to identify their blood ordering practices.

Although 1267 blood ordering requests were received during the study period by blood bank, only 46.5% (n=578) were utilized. During the study period 33.3% (n=422) of blood was requested for patients aged 40-59 years and 35.2% (n=446) for patients above the age of 60 years. Male female ratio for requested blood was 117:100. Out of all wards/units, more than 50% (n=644) of blood ordering requests were from surgical wards. Two units of blood was requested for 47.4% (n=601) of patients while 52.2%

(n=302) of issues were for single units. Nearly fifty percent of blood ordering requests (49.3%, n=624) were for the pre-operative reservations. Routine blood ordering requests were higher (58.6%, n=743) than the emergency requests (41.4%, n=524). More than a half of the emergency requests were not issued for the patients.

The present study found that the average Cross match Transfusion ratio (C/T Ratio) in respective wards/units of THK was 3.03:1. Utilization of the requested blood was poor in surgical wards. Most of the surgeries had high C/T ratio indicating less utilization such as mastectomy (28:1), Trans Urethral Resection of Bladder Tumor (TURBT) (24.5:1), thyroid surgery (11.1:1), while some surgeries like cholecystectomy, Trans Urethral Resection of Prostate (TURP) and pyeloplasty had not utilized a single unit of blood during the period of study.

Patient identification information such as name and bed head ticket number was correctly documented in most of blood ordering request forms and accompanying blood sample labels. However the other relevant information like previous transfusion history was not filled in 56.7% (n=221) of total requests forms.

Among medical officers 79% (n=181) had not received any training on transfusion medicine after passing out from medical schools. Inadequate knowledge on transfusion medicine was reported by 94.8% (n=217) of medical officers. Irrespective of their knowledge 66% (n=189) of medical officers ordered blood on their own, for both routine and emergency conditions, while 47.2% (n=108) of medical officers had requested blood as a precautionary measure without clinical or laboratory evidence.

Over ordering and unnecessary reservation of blood can be minimized by implementing proper guideline for blood ordering and utilization. Attention should be paid to further improves the completeness of patient information in blood ordering request form and accompanying blood sample labels. In order to achieve good practices of blood transfusion, the awareness of medical officers should be improved.

Keywords: blood transfusion, C/T ratio.