

Joint Event

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## Platelet audit in viral thrombocytopenia in a tertiary care teaching hospital

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Viral fever especially dengue fever has emerged as a major public health problem in the recent years. Platelets, due to the short shelf life, are frequently in scarcity in the blood bank, which recommends its usage very aptly. Hence, this study was undertaken to assess the appropriateness of platelet transfusions in viral thrombocytopenia. Our objective was to assess the appropriateness of platelet transfusions in viral fever with thrombocytopenia during the study period. A retrospective study was conducted in Department of Immunoematology and Blood Transfusion of a Tertiary Care Teaching Hospital between 1st May and 30th August 2017. All patients with viral thrombocytopenia who received platelet transfusion formed the subjects of study. Patients clinical data, laboratory results, platelet count and platelet transfusions were analyzed. National guidelines suggested by Ministry of Health and Family Welfare, Government of India and prophylactic platelet transfusion thresholds as per “American Association of Blood Bank Technical Manual”, 18th edition were used to analyze the appropriateness of platelet transfusions. A total of 3441 random donor platelets (RDP) were transfused during the study period among 675 patients with viral thrombocytopenia. Among 675 patients who received RDP transfusions, prophylactic transfusion was given in 527 (78.1%) patients and therapeutic in 148 (21.9%) patients. Among 527 patients who received prophylactic transfusion, 57 (10.8%) patients had a platelet count  $<5,000/\text{cumm}$ , 225 (42.7%) patients had platelet counts in the range of 5,000 to 10,000/cumm, 199 patients (37.76%) had platelet counts in the range of  $>10,000$  to 20,000/cumm while the remaining 46 (8.73%) patients had platelet count  $>20,000/\text{cumm}$ . Of the prophylactic platelet transfusions of RDPs, inappropriate transfusions were 46.5%. In a developing country like India with limited resources, judicious use of platelet concentrates is a necessity. The study emphasizes the need for development of specific guidelines for transfusion of platelets in viral thrombocytopenia, constant interaction and co-ordination amongst clinicians and transfusion center for implementation of these guidelines and a regular medical audit to review the optimal utilization of blood components.