

## Article (5)

**Investigation of Transfusion Related Adverse events patterns in Fayoum University Hospitals, Egypt: hemovigilance Initiative.**

### **Abstract:**

**Background and Objective:** Hemovigilance is an adverse reaction surveillance and monitoring system to improve the safety and quality of blood transfusion in terms of corrective and preventive action. Identification of the adverse reactions and their risk factors will assist in taking appropriate steps to reduce their incidence and make blood transfusion safer. The aim of our study was to analyze the nature and incidence of transfusion related adverse events as a tool for implementation of hemovigilance system in Egypt. **Study Design and Methods:** Our study included all transfusion related adverse reactions from Fayoum University Hospital reported to the Blood Bank over a period of one year from August 2021 to July 2022. All patients receiving transfusion and all blood donors according to The National Blood Transfusion Guidelines were included. All reported reactions were analyzed, categorized and evaluated. **Results:** 28, 253 blood and blood components units were issued to 13, 544 patients. 273 (0.967%) transfusion related adverse reactions were reported to the blood bank. The most common reaction observed in recipients was allergic reaction 129 (47.25 %) followed by febrile non hemolytic transfusion reaction (FNHTR) 108 (39.56 %). **Conclusion:** Data related to transfusion related adverse reactions in developing countries are rare in literature. A strict quality assurance measures are required to build a hemovigilance system including, appropriate use of blood, maintain blood cold chain, monitoring, documenting and reporting transfusion reactions so that, the proper hemovigilance system can be attained.