

# ADVERSE TRANSFUSION REACTION IN HOSPITAL SHAH ALAM

Intan Farhana Zainudin, Shuhada Abdul Halim, Suziana Mohamad Nasir, Hanan Mahmood

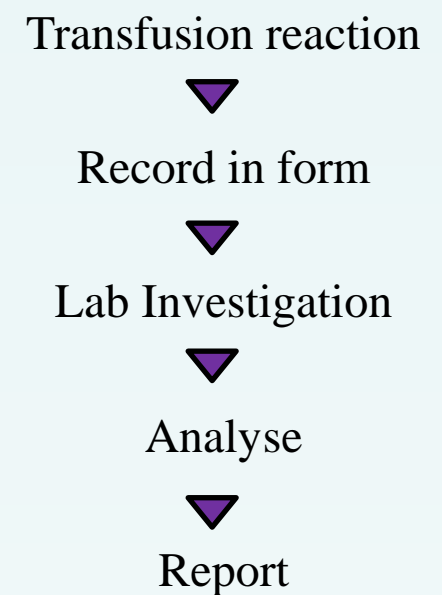
Pathology Department, Hospital Shah Alam

NMRR NO: 20-1683-53700

## INTRODUCTION

- ❑ Blood transfusion is a safe and effective way for replacing blood loss especially during surgery, trauma or bleeding disorder. However adverse transfusion reactions (TRs) do occur during or post transfusion, from mild to rarely severe form of reaction.
- ❑ The aim of this study is to determine the frequency and types of reported TRs in our institute from 2018 until 2019.

## PROCESS FLOW



## MATERIALS AND METHODS

- ❑ Retrospective study of all reported TRs from 2018 until 2019.
- ❑ Descriptive study were carried out by retrieving data from transfusion reaction investigation and reports.

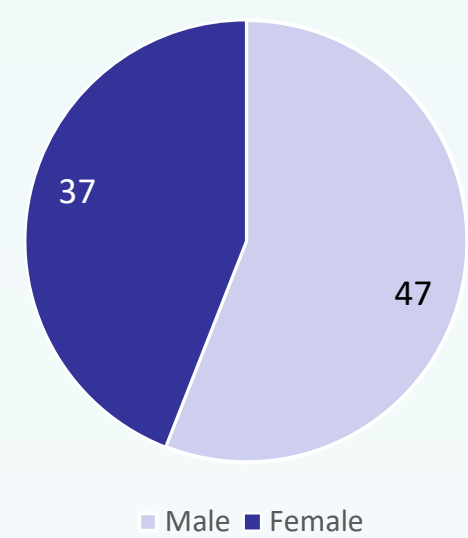
## RESULTS

**Table 1. Types of transfusion reaction in relationship to blood product**

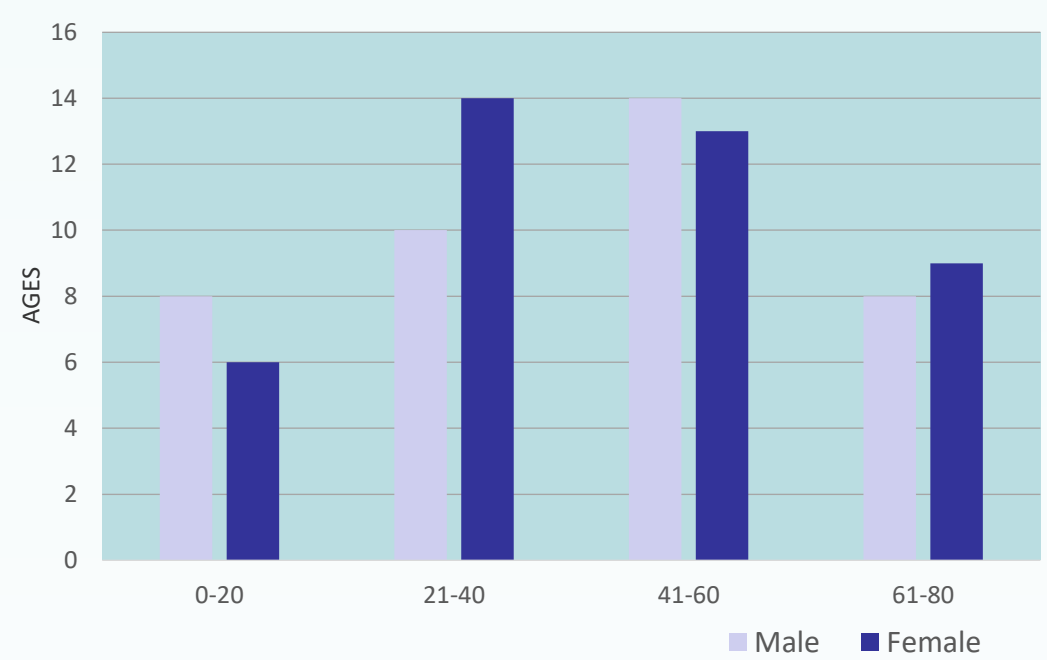
Types of product	Total unit with transfusion reaction					TOTAL
	AR	FNHTR	TAD	TACO	Unclassified	
Packed cells	25	32	2	1	13	73
Platelet	3	-	-	-	-	3
Fresh frozen plasma	6	1	-	1	-	8
Cryoprecipitate	-	-	-	-	-	-
<b>TOTAL</b>	<b>34</b>	<b>33</b>	<b>2</b>	<b>2</b>	<b>13</b>	<b>84</b>

FNHTR : Febrile non haemolytic transfusion reaction    AR : allergic reaction  
TACO : transfusion associated circulatory overload    TAD : transfusion associated dyspnea

**Figure 1. Transfusion reaction according to gender**



**Figure 2. Transfusion reaction according to age**



- ❑ 84 reactions were reported from 1,5869 transfusion which were carried out having frequency of 0.53%.
- ❑ The most common transfusion reaction was allergic reaction (40.5%) followed by FNHTR (39.3%).
- ❑ Packed cells showing the highest transfusion product associated with TR (86.9%)
- ❑ Male patients (55.9%) were more common than female patients (44.1%).
- ❑ Patients aged between 41 to 60 years old had the highest rate of TR among both gender.
- ❑ Unclassified TR are cases that were reported but were not classified as TR after analysis.

## DISCUSSION

- ❑ The frequency of TR is comparable with other institute in Selangor (1,2). However the data is comparatively higher from other countries (3,4).
- ❑ Blood supplies in Selangor including for HSAS mostly came from Pusat Darah Negara (PDN) via network of cold -chain logistics. The nature and process flow of cold chain logistics itself i.e. travelling distance, traffic flow, proper handling and storage would directly affect the quality of blood products which probably being one of contributing factor for high TRs in Selangor.
- ❑ Continuous education courses especially to junior doctors are crucial to ensure transfusion reaction are recognized and classified accordingly to avoid unnecessary reporting.

## CONCLUSION

- ❑ Frequency of TRs can be improved by avoiding unnecessary blood transfusion. Implementation of Patient Blood Management (PBM) in HSAS is essential to improve awareness of haemovigilance among healthcare industry.

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