

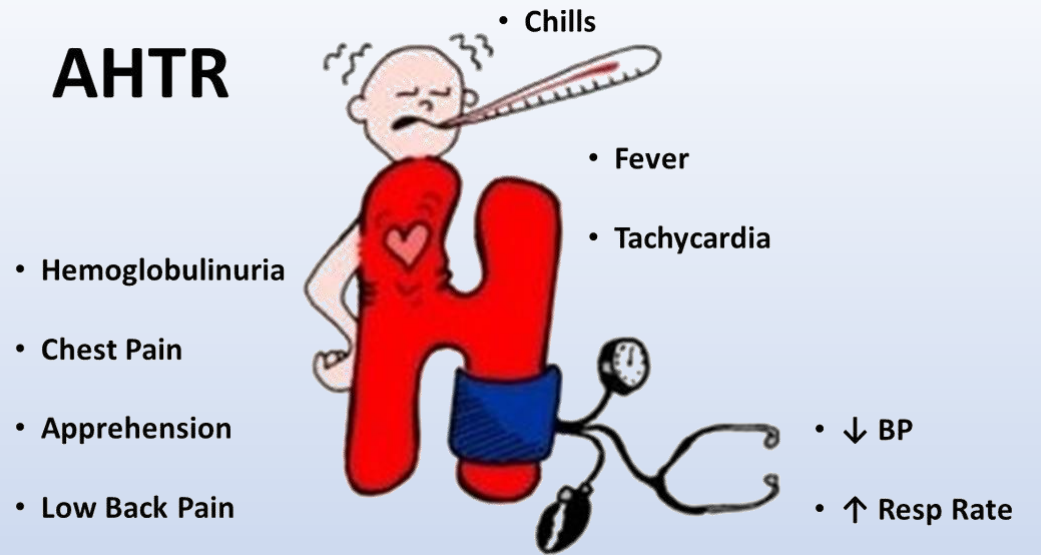
# ACUTE HAEMOLYTIC TRANSFUSION REACTIONS IN CROATIA 10 YEAR OVERVIEW

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# Background



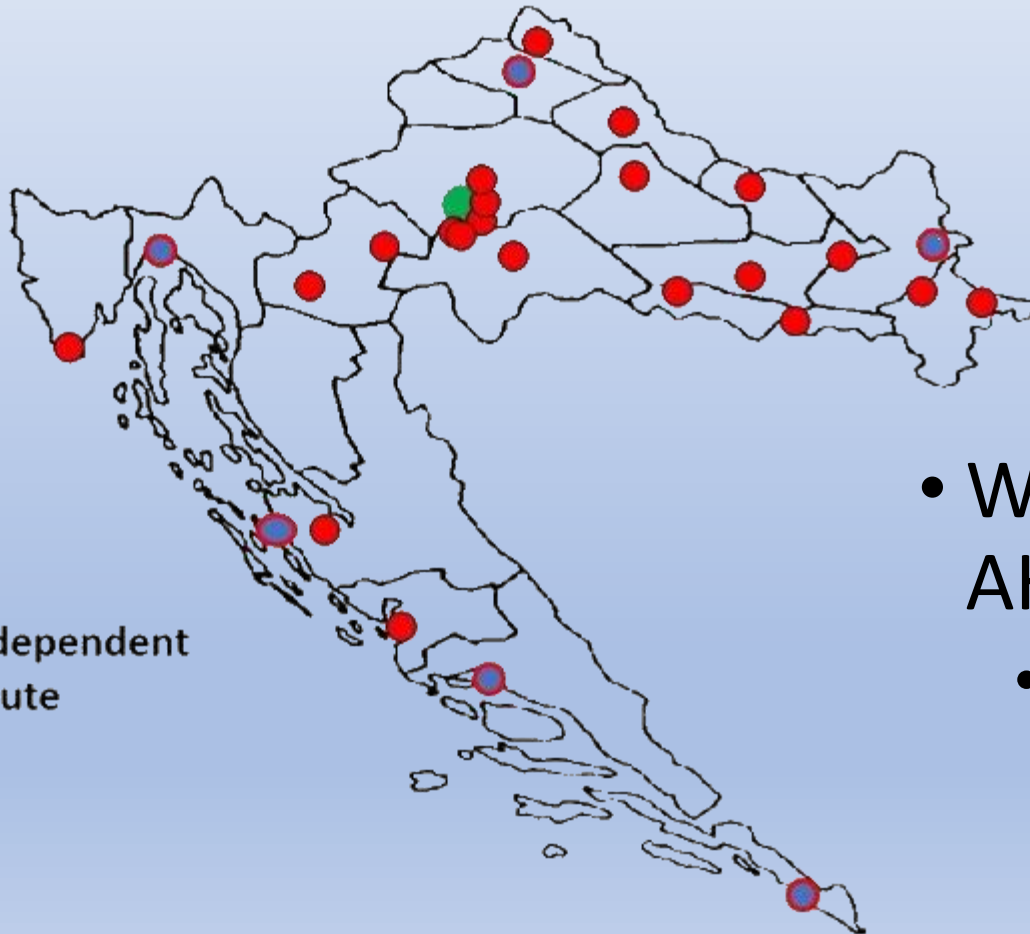
- Acute haemolytic transfusion reaction (AHTR)
  - Serious and possibly life-threatening complication of transfusion treatment
  - Mainly caused by transfusion of ABO incompatible red blood cells
  - Commonly occurs during 24 hours after transfusion
  - Can occur within the minute after the transfusion has started

# Background

- AHTR is mostly a consequence of human error;
  - Erroneous patient blood sampling for pretransfusion testing
  - Transfusion of blood component to a wrong person

# Methods

## Blood Transfusion Service in Croatia



- We have analysed data related to AHTR for the period 2007 – 2016
  - Data are collected from all hospitals in Croatia performing transfusion therapy

# Results

- During the ten-year period 1,549.610 red cell concentrates were issued for transfusion treatment
- A total of 15 AHTR were reported;
  - One of them with the fatal outcome

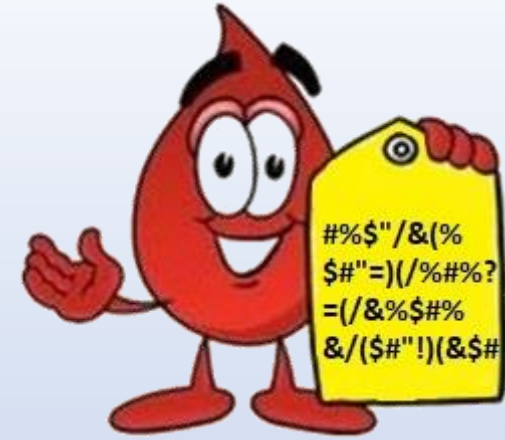
Year	RBC issued for transfusion (No.)	AHTR (No.)
2007	107.199	-
2008	101.147	-
2009	165.550	-
2010	159.238	1 (1†)*
2011	166.560	2
2012	169.893	2
2013	157.793	1
2014	175.113	5
2015	185.190	2
2016	161.927	2
<b>Total</b>	<b>1.549.610</b>	<b>15</b>

\* † fatal outcome

# Results

- According to the data analysed;
  - The annual frequency of ATHR in Croatia ranged from 1/35.000 to 1/160.000 red cell concentrates issued for transfusion
  - All AHTRs were result of human error due to insufficient/incorrect patient and blood component identification at the clinical department

# Conclusion



- The literature data suggest;
  - AHTR frequency is 1/6.000 to 1/33.000 of transfused units
  - Consequential deaths 1/250.000 to 1/600.000 of transfused units

# Conclusion

- According to our data;
  - The frequency of ATRH in Croatia is significantly lower (1/35.000 to 1/160.000 of transfused units)
- This can be consequence of;
  - Non-recognition
  - Underreporting





# Conclusion

- Since the human error at the clinical department was identified as the main cause of AHTRs;
  - Proper patient identification at the bedside is of utmost importance in the prevention of these reactions
  - Continuous education of all clinical staff involved in transfusion therapy is required

**Thank you for attention!**

