

# **RESEARCH OF THE D PARTIAL VARIANCES WITHIN THE BLOOD TRANSFUSIONS CENTRE BRASOV USING THE ID PARTIAL RHD TYPING SET CARDS**

**C. Roșu, E. Savuly, M. Stoian, A. Voinea**

The Blood Transfusions Center Brasov

**Introduction:** During the routine determinations of the D factor, we were able to find at certain samples of red blood cells extremely weak reactions or no reactions with some anti-D reagents. In these cases, the D factor is labelled as “D weak”. Yet, using other tests, we must classify these weakly positive antigens as “D partial” or “D weak”.

The “D partial” variances lack one or more epitopes compared to the normal D factor. The absent parts of the D mosaic on the human cells, when exposed to a complete antigen, may stimulate the production of antibodies compared to the missing epitopes.

**Case studies, methods and reagents:** The samples obtained from blood donors, pregnant women, child wives, recipients of blood products. Testing according to the work algorithm with two monoclonal anti –D serums (IgM and IgG + IgM). All the samples with negative reactions or weakly positive reactions are tested with human anti D serum and by TCI (Diamed ID micromethod). Further, the samples showing weakly positive reactions are tested in order to decide the category of “D partial or “D weak” using the kit “Partial Rh-Typing – Diamed” by micromethod.

**Results:** of 68 samples of weakly positive reactions, 59 are DIII (D weak) and 9 are partial D (3DV, 3DFR, 1DVII and 3 DVI).

**Conclusions:** to avoid transfusion conflicts because of the D antigen immunogenicity, it is important to research the variable of D partial to identify the DVI variable, the most important class of “D partial” antigen, of clinical importance.