Guidelines for the Blood Transfusion Services

16.2: Introduction

http://transfusionguidelines.org/red-book/chapter-16-hla-typing-and-hla-serology/16-2-introduction

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The transfusion or transplantation of blood components bearing allogeneic HLA can stimulate clinically significant immunological responses. All cellular components except erythrocytes express HLA and any plasma-containing product may include HLA-specific antibodies which are potentially harmful to the recipient.

Prospective HLA typing of platelet donors is undertaken for transfusion of immune refractory patients and those with disorders of platelet function and structure. Potential haematopoietic progenitor cell (HPC) donors are HLA typed to be placed on one of the national donor registries.

HLA typing or antibody investigations may be undertaken for diagnostic purposes or to investigate harmful consequences of transfusion. Thus the diagnosis of immune refractoriness requires the demonstration of HLA-specific antibodies (or other platelet-specific antibodies) in the patient. As part of the investigation of TRALI, implicated donors are screened for HLA (and human neutrophil antigen, HNA)-specific antibodies and the patient is HLA typed if possible.

The European Federation for Immunogenetics (EFI) has established standards[1] (at the time of writing, version 8.0) for histocompatibility testing and where appropriate the relevant EFI Standards must be followed.