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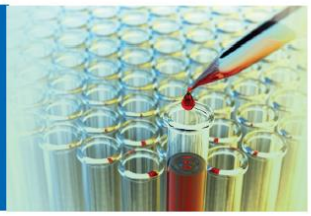

Compatibility Testing and Adverse Effects

Chapter summary

- Compatibility testing ensures that the correct blood component is selected for a patient, and that the correct tests have been performed and compared with any historical results for that patient.
- Pre-transfusion testing consists of ABO and D grouping, plus an antibody screen.
- In the absence of atypical antibodies, both in the current samples and in an historical sample, then an ISXM can be used, or EI can be used as an alternative.
- If a clinically significant, or potentially clinical significant, antibody is present in the current sample, or has been identified in an historical sample, or the patient is disqualified in some other way from receiving blood by either ISXM or EI, then blood that is antigen compatible should be crossmatched by IAT.
- Even if the compatibility procedures have not identified any incompatibility, the recipient may have an adverse reaction when transfused; this could be immune or non-immune, immediate or delayed.
- Laboratory investigation of suspected reactions includes retesting pre-transfusion and post-transfusion samples, plus further tests, depending on the nature of the reaction.
- Reactions can be classified as either an SAR or an SAE.
- SARs are reportable to both the MHRA (SABRE) and to SHOT, regardless of where in the transfusion process the error originated. SAEs are reportable to MHRA.
- Since SHOT started collecting data in 1996, the overall trend has been towards safer transfusions, with fewer cases of death directly associated with transfusion, and an increased awareness of the pitfalls of the transfusion process.
- The aim is: right blood to the right patient, at the right time.