Optimal selection of blood donors helps ensure the safety of blood products. The current donor selection process is concerned principally with the safety of the blood donor at the time of donation as well as the recipient at the time of transfusion. Some recent evidence suggests that the characteristics of the donor such as sex and age may affect important clinical outcomes for the transfused recipient whereas other evidence suggests no such impact. Evidence from a systematic review of the literature and large observational studies will be presented along with an overview and update of the iTADS randomized trial assessing donor sex and recipient outcome in 8,850 patients.