PART 1
General Introduction
CHAPTER 1

Introduction

René R.P. de Vries
Department of Immunohematology and Blood Transfusion, Leiden University Medical Center, Leiden, The Netherlands

Why did we produce this book?

Hemovigilance deals with the safety of blood transfusion. Although such safety has been a major concern ever since blood transfusions started being given, both the concept and the name “hemovigilance” were born less than 20 years ago. Today hemovigilance is an established but also quickly developing field in transfusion medicine, for which a comprehensive text has thus far been lacking.

This book is the first book on hemovigilance. The only other book that comes somewhat near is Blood Safety and Surveillance,1 which mainly deals with product safety and has a quite different scope. Apart from that, there are only less detailed and less complete chapters on hemovigilance in books on transfusion medicine, such as in Rossi’s Principles of Transfusion Medicine2 and reviews in journals.3–5

Our aim is that this book becomes the book on hemovigilance.

Who would want to read or consult this book?

Professionals may want to consult this book so that they can easily find practical information on the different aspects of this new and quickly developing field. We aim this book specifically at the following categories of professionals:

- hospital Transfusion Committees, hemovigilance officers, and all personnel involved in the transfusion process in the hospital (medical doctors, nurses, logistic people, quality officers);
- staff of regional and national hemovigilance offices.

This book will also be valuable as a teaching aid, both for teachers and students of hemovigilance. Finally, relevant parts are easily assessable for non-medical personnel (hospital managers, health and regulatory authorities).

What can you expect to find in this book?

This book is an introduction to and a manual for the subject of hemovigilance.

You will find both “the how” examples of the actual information derived, and what is done with it. Of course, a book like this cannot be comprehensive with regard to all information, and so we include references to the most pertinent papers on the subject and links to websites with more details.

One thing we don’t include is detailed descriptions of different types of transfusion reactions in patients and how to deal with them. For this type of information, please consult general textbooks on transfusion medicine or, for example, the monograph on transfusion reactions written by Popovsky.6 The same advice applies to information on complications in donors.
4 Part 1: General Introduction

How to use this book?

After reading the General Introduction (Part 1), you can go straight to one or more of the next parts depending on your area of interest. The content of each part is briefly summarized below:

- Part 1, a general introduction, contains (in addition to this introduction to the book), an introduction to hemovigilance (Chapter 2) and to its concepts and models (Chapter 3).
- Part 2, Surveillance of the Blood Transfusion Chain, is split into two sections. If you want to know how to establish a hemovigilance system in your hospital or blood establishment, go to Section 2.1 where the different parts of the transfusion chain are discussed: Setting up or consolidating a system (Chapter 4); preparation of blood components (Chapter 5); testing, issuing, and transport (Chapter 6); and clinical activities (Chapter 7). Section 2.2 (Chapters 8 to 11) describes how established hemovigilance systems work at the level of a blood establishment and a hospital.
- Part 3 deals with national and regional hemovigilance systems. The nine chapters provide examples of how different national hemovigilance systems function and what data they generate. The results of one of the best functioning hemovigilance systems (SHOT) are also presented and discussed in Part 5, Chapter 24.
- Part 4 covers hemovigilance at the international level. The European system is discussed as an example of international frameworks in Chapter 21. Chapter 22 deals with international collaboration, specifically the International Hemovigilance Network (IHN). Hemovigilance is still mainly confined to developed countries (as reflected by the membership of the IHN) and so the objectives and obstacles encountered in developing countries may be quite different. Therefore, we include a separate chapter on hemovigilance in developing countries (Chapter 23).
- Part 5 summarizes the most important achievements of more than 15 years of hemovigilance activities.
- Part 6 discusses three important new developments in hemovigilance: Vigilance of alternatives for blood components (Chapter 25); Surveillance of clinical effectiveness of transfusion (Chapter 26); and Biovigilance (Chapter 27).
- The three appendices include a Glossary with the main terms peculiar to the field of hemovigilance, and lists of definitions of adverse reactions in patients and donors.

For a more detailed guide to the book’s various parts and sections, please take a look at Chapter 2.

References