This book is for Sterile Preparations and Aseptic Techniques courses part of Pharmacy Technician and Pharmacy Assistant programs at Canadian colleges and career colleges.

*Sterile Product Preparation: Theory and Practice for Pharmacy Technicians* is the first Canadian edition for Sterile Preparations and Aseptic Techniques courses part of Pharmacy Technician and Pharmacy Assistant programs at Canadian colleges and career colleges. Based on Canadian practice, this text provides theory and practice with examples and exercises including the NAPRA competencies for pharmacy technicians.

Beginning with a brief historical development of parenteral products and parenteral therapy including sterile product characteristics and the importance of sterility, components and packing, it then addresses Canada's regulatory environment and professional requirements, guidelines governing the preparation of sterile products, the importance of and methods for contamination control, design of compounding facilities, personnel involved in preparation, essential equipment and aseptic technique and related activities.
Key Features

• Brief historical evolution and introduction to parenteral products, key characteristics, dosage forms, components, and packaging
• Current regulations and guidelines that govern the preparation of sterile products at the international, national, provincial, and territorial levels
• Contamination control, including facilities and equipment essential for the preparation of sterile products
• Aseptic procedural techniques in preparing personnel, facilities, equipment, and manipulations/compounding, including the numerous components and systems during the preparation of a sterile product
• The essential components of a Doctor’s Order, understanding the prescribed units of drug doses, and the importance of accurate dosing calculations
• Description of parenteral drug delivery systems for injections, including intravenous infusion systems and related vascular access devices and systems used for the aseptic administration of sterile products
• Theoretical and practical aspects of total parenteral nutrition (TPN) solutions; nutritional components and the respective purpose of such components in a formulation; and the complexity of a TPN order, respective calculations, and methods of nutrient solution administration
• Theoretical and practical aspects of sterile preparation of hazardous drugs, in particular cytotoxic drugs, and the importance of personnel safety and proper waste management related to such preparations, and related material used in the preparation of such agents
• A chapter dedicated to specialty products, such as ophthalmic preparations, including principles of tonicity and related calculations for such preparations
• A chapter dedicated to quality assurance, including quality control tests, documentation and requirements of personnel training, and validation techniques and procedures, including current requirements and exemptions of US Pharmacopeia (USP) Chapter 797 for low-risk, medium-risk, and high-risk preparations and beyond dating requirements

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