

Smart Infusion Pumps: Implementation, Management, and Drug Libraries

Phelps PK, editor. American Society of Health-System Pharmacists, Bethesda, Maryland, 2011. 287 pages. Softcover. ISBN 978-1-58528-230-2. US\$89 (US\$71 for ASHP members).

The Institute for Safe Medication Practices (US) advocates the use of health care technology, such as “smart pumps”, to reduce the risks associated with infusion pumps and to improve patient safety. *Smart Infusion Pumps: Implementation, Management, and Drug Libraries*, written by more than a dozen US authors, provides useful basic information about the purchase, implementation, quality assurance, and maintenance of smart infusion pumps. It is directed to all members of the health care team (pharmacists, nurses, clinicians, biomedical engineers, supply managers, and information system technologists) who might be involved in implementing smart pump technology.

This book is divided into 13 chapters, each of which begins with definitions of key terms and ends with useful practice tips. The chapters guide the reader through each step in implementing a smart infusion pump system. The first 3 chapters outline the step-by-step process that a health care facility would use in choosing a smart pump. These chapters emphasize the need to implement a system for reducing drug errors, focusing on the analysis of human factors in the decision-making process.

The next 5 chapters review the basic principles of and information needed for building a drug library. Considerations

for building drug libraries and examples of such libraries, including pediatric, adult, patient-controlled analgesia, and critical care areas, are also provided. Drug library subsets used either for a particular patient population (such as neonates) or for a particular care area (such as critical care) are also discussed.

The last 5 chapters of the book offer guidance for implementing and maintaining smart pumps and drug libraries. Suggested steps required for preparation, education, and communication before “go live” are provided. Of particular interest is the chapter outlining key points related to the impact of smart pumps on pharmacy services. In addition, processes for pump updates, quality assurance, and pump utilization are reviewed. Useful checklists, suggested division of responsibilities, and illustrative flow diagrams are provided to assist with smart pump updates and implementation.

This book offers a basic overview of the purchase, implementation, and maintenance of smart infusion pumps. It is a good resource and introduction for health care professionals who have not had prior exposure to or experience with infusion pumps. However, it may be simplistic for those who have previous experience with smart pump implementation and maintenance.

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