

bd vacutainer tube guide pdf

bd vacutainer tube guide pdf is an essential resource for healthcare professionals, laboratory technicians, and phlebotomists who require accurate and efficient blood collection methods. This guide provides comprehensive information on BD Vacutainer tubes, including their types, color codes, additives, and specific uses. Understanding the different tubes and their purposes ensures proper sample collection, preservation, and diagnostic accuracy. The BD Vacutainer system is widely recognized for its safety features and standardization, making it a preferred choice in clinical laboratories. This article explores the key components of the BD Vacutainer tube guide PDF, highlighting its practical applications and benefits in medical testing. Additionally, it outlines how to interpret the color coding system and the importance of following proper blood collection procedures to avoid pre-analytical errors.

- Overview of BD Vacutainer Tubes
- Color Coding and Additives
- Proper Usage and Blood Collection Techniques
- Benefits of Using BD Vacutainer Tubes
- Accessing and Utilizing the BD Vacutainer Tube Guide PDF

Overview of BD Vacutainer Tubes

BD Vacutainer tubes are specialized blood collection tubes designed to streamline and standardize the process of venipuncture and blood sample collection. These tubes are manufactured by Becton, Dickinson and Company (BD), a globally recognized leader in medical technology. The Vacutainer system includes a variety of tube types that accommodate different testing requirements, featuring vacuum pressure that automatically draws the precise amount of blood needed.

Types of BD Vacutainer Tubes

The BD Vacutainer tubes come in numerous varieties, each tailored for specific laboratory tests. Common types include serum tubes, plasma tubes, and whole blood tubes. The tubes are differentiated by their additives, which stabilize or preserve the blood sample for particular analyses. For example, some tubes contain anticoagulants, while others include clot activators or gel separators.

Design and Features

BD Vacutainer tubes are designed with safety and convenience in mind. They feature a vacuum-sealed interior that facilitates rapid blood draw without the need for manual suction. The tubes are

also color-coded on the caps to indicate their additive type and intended use, reducing the risk of sample contamination or misidentification. Additionally, many tubes are manufactured with silicone coatings inside to minimize cell damage during collection.

Color Coding and Additives

The BD Vacutainer tube guide PDF extensively details the color coding system, which is critical for identifying the correct tube for each type of blood test. Each color represents a specific additive or combination of additives that serve to either preserve the blood in a particular state or prepare it for certain testing procedures.

Common Color Codes and Their Uses

Understanding the color code is fundamental to proper blood collection. Below is an overview of frequently used BD Vacutainer tube colors and their typical applications:

- **Red Top:** No additive; used for serum collection and chemistry tests.
- **Light Blue Top:** Contains sodium citrate; used for coagulation studies.
- **Green Top:** Contains heparin; used for plasma determinations in chemistry.
- **Lavender Top:** Contains EDTA; used for hematology tests like CBC.
- **Gray Top:** Contains potassium oxalate and sodium fluoride; used for glucose testing.
- **Yellow Top:** Contains acid-citrate-dextrose (ACD); used for blood bank studies and HLA phenotyping.

Importance of Additives

Additives in BD Vacutainer tubes prevent clotting, preserve cell morphology, or maintain chemical stability, depending on the test requirements. Incorrect tube selection can lead to hemolysis, coagulation, or degradation of analytes, resulting in inaccurate test outcomes. The guide PDF emphasizes the necessity of matching tubes to their intended diagnostic purpose to ensure laboratory precision.

Proper Usage and Blood Collection Techniques

Correct utilization of BD Vacutainer tubes involves adherence to standardized blood collection protocols. The guide PDF outlines step-by-step procedures to maximize safety and sample integrity during venipuncture.

Step-by-Step Blood Collection Process

The process typically includes:

1. Identifying and preparing the patient.
2. Selecting the appropriate BD Vacutainer tube(s) based on the tests ordered.
3. Applying a tourniquet and locating a suitable vein.
4. Disinfecting the puncture site.
5. Inserting the needle and attaching the Vacutainer tube to draw blood.
6. Removing the tube once filled and inverting it gently if additives require mixing.
7. Labeling the tube accurately with patient information and collection time.
8. Disposing of sharps safely and removing the tourniquet.

Precautions and Best Practices

The guide stresses preventive measures to avoid contamination, hemolysis, and patient discomfort. It recommends using proper needle sizes, avoiding excessive tourniquet time, and ensuring tubes are filled to the correct volume to maintain the vacuum. Additionally, it highlights the importance of mixing tubes with anticoagulants immediately after collection to prevent clot formation.

Benefits of Using BD Vacutainer Tubes

The BD Vacutainer system provides numerous advantages that contribute to reliable laboratory diagnostics and improved patient care. The guide PDF outlines these benefits in detail.

Standardization and Consistency

One of the primary benefits of BD Vacutainer tubes is their role in standardizing blood collection procedures worldwide. This consistency reduces variability in sample quality and enhances the comparability of test results across laboratories.

Safety Features

BD Vacutainer tubes are designed with safety in mind, featuring a closed system that minimizes blood exposure and needle-stick injuries. The tubes' secure caps prevent leakage and contamination during handling and transport.

Improved Sample Integrity

The additives and vacuum pressure in BD Vacutainer tubes help maintain the integrity of blood samples from collection to analysis. This preservation is critical for accurate laboratory measurements and diagnostic conclusions.

Accessing and Utilizing the BD Vacutainer Tube Guide PDF

The BD Vacutainer tube guide PDF is a vital tool for medical staff to reference detailed information about tube types, color codes, additives, and collection techniques. It serves as a quick and reliable resource that supports clinical accuracy.

Where to Find the Guide

The guide is typically available through official BD channels, educational institutions, and healthcare organizations. It is provided in PDF format for ease of distribution and access across various platforms.

How to Use the Guide Effectively

The PDF is structured to facilitate quick lookup of tube specifications and handling instructions. Users can refer to it during training sessions, before blood collection procedures, or when verifying test requirements. The guide often includes charts, tables, and explanatory notes to enhance comprehension.

Frequently Asked Questions

What is a BD Vacutainer tube guide PDF?

A BD Vacutainer tube guide PDF is a digital document provided by Becton Dickinson that details the color coding, additives, and usage instructions for various Vacutainer blood collection tubes.

Where can I download the latest BD Vacutainer tube guide PDF?

The latest BD Vacutainer tube guide PDF can typically be downloaded from the official BD website or authorized medical supply distributors.

Why is the BD Vacutainer tube guide important for

phlebotomy?

The guide ensures correct tube selection based on the test requirements, preventing sample contamination and ensuring accurate laboratory results.

Does the BD Vacutainer tube guide PDF include information on tube order of draw?

Yes, the guide usually includes the recommended order of draw to avoid cross-contamination between additives of different tubes during blood collection.

Can the BD Vacutainer tube guide PDF be used for training purposes?

Absolutely, it serves as an essential resource for training healthcare professionals on proper blood collection techniques and tube selection.

Are there updates to the BD Vacutainer tube guide PDF frequently?

BD periodically updates the tube guide to reflect new products, changes in tube additives, or updated clinical recommendations, so users should check for the latest version regularly.

Additional Resources

1. Comprehensive Guide to BD Vacutainer Tubes: Procedures and Applications

This book offers an in-depth exploration of BD Vacutainer tubes, focusing on their proper use in clinical and laboratory settings. It covers the various types of tubes, color codes, additives, and their specific applications. Detailed procedural guidelines and troubleshooting tips make it an essential resource for healthcare professionals and lab technicians.

2. Phlebotomy Essentials: Understanding BD Vacutainer Systems

Designed for phlebotomy students and practitioners, this title explains the fundamentals of blood collection using BD Vacutainer systems. It breaks down the step-by-step process, safety protocols, and handling instructions to ensure accurate specimen collection. The book also includes diagrams and PDF resources for quick reference.

3. Blood Collection Techniques and BD Vacutainer Tube Selection

This book delves into various blood collection methods with a special emphasis on selecting the appropriate BD Vacutainer tubes for different tests. It highlights the importance of tube additives, order of draw, and sample integrity. Case studies and illustrations help readers understand practical challenges and solutions.

4. Laboratory Guide to BD Vacutainer Tube Additives and Their Uses

Focusing on the chemistry behind tube additives, this guide explains how each additive affects blood samples and test results. It provides detailed descriptions of anticoagulants, clot activators, and preservatives found in BD Vacutainer tubes. Ideal for laboratory scientists seeking to optimize sample

quality and testing accuracy.

5. Phlebotomy Procedures: A Visual Guide to BD Vacutainer Tube Usage

This visual guide uses photos and diagrams to demonstrate proper phlebotomy techniques with BD Vacutainer tubes. It addresses common mistakes, patient preparation, and post-collection handling to minimize errors. The inclusion of a downloadable PDF guide aids in hands-on training and reference.

6. Clinical Blood Collection: Standards and Best Practices with BD Vacutainer Tubes

A comprehensive resource outlining clinical standards for blood specimen collection, emphasizing the correct use of BD Vacutainer tubes. The book reviews regulatory guidelines, infection control, and quality assurance measures. It is useful for clinicians, nurses, and lab managers aiming to maintain compliance and improve patient care.

7. Understanding the BD Vacutainer Tube Color Coding System

This focused book deciphers the color coding system used in BD Vacutainer tubes, explaining what each color represents and its clinical significance. It serves as a quick-reference manual for healthcare workers to avoid sample mix-ups and ensure proper test ordering. Includes printable PDF charts for convenient use.

8. Advanced Phlebotomy: Techniques and BD Vacutainer Tube Innovations

Targeted at experienced phlebotomists, this book covers advanced techniques and recent innovations in BD Vacutainer tube technology. It discusses new additives, tube materials, and safety features designed to enhance specimen quality and user safety. The book also offers downloadable PDF resources for continuous education.

9. Practical Handbook of Blood Collection: BD Vacutainer Tube Guide and Troubleshooting

This practical handbook provides solutions to common problems encountered during blood collection with BD Vacutainer tubes. It covers issues such as hemolysis, clotting, and insufficient sample volume, offering step-by-step troubleshooting advice. The book is complemented by PDF guides and checklists to support laboratory staff in maintaining optimal procedures.

Bd Vacutainer Tube Guide Pdf

BD Vacutainer Tube Guide PDF: Your Comprehensive Guide to Blood Collection

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Outline:

Introduction: Understanding the Importance of Proper Blood Collection Techniques

Chapter 1: Types of BD Vacutainer Tubes: A Detailed Overview

Chapter 2: Choosing the Right Tube for the Test: Additive Compatibility

Chapter 3: Step-by-Step Guide to Venipuncture Using BD Vacutainer Tubes

Chapter 4: Troubleshooting Common Issues in Blood Collection

Chapter 5: Safety Protocols and Best Practices in Phlebotomy

Chapter 6: Regulatory Compliance and Quality Control in Blood Collection

Chapter 7: Advanced Techniques and Considerations

Conclusion: Maintaining Accuracy and Efficiency in Blood Collection

BD Vacutainer Tube Guide: Mastering the Art of Blood Collection

The accurate and efficient collection of blood samples is paramount in healthcare. A crucial component of this process involves understanding and correctly utilizing BD Vacutainer tubes. This comprehensive guide delves into the intricacies of these tubes, offering practical advice and essential knowledge for healthcare professionals, students, and anyone involved in blood collection procedures. This guide aims to enhance your skills and ensure the reliability of laboratory results.

1. Introduction: Understanding the Importance of Proper Blood Collection Techniques

The accuracy of laboratory test results hinges significantly on the proper collection, handling, and processing of blood samples. Errors introduced during the pre-analytical phase—which includes blood collection—can lead to inaccurate diagnoses, inappropriate treatments, and compromised patient care. Using the correct BD Vacutainer tube for a specific test is just one critical aspect. Poor venipuncture technique, improper tube selection, inadequate mixing, or incorrect labeling can all lead to specimen rejection, delays in diagnosis, and potentially harmful consequences for the patient. This introductory section will emphasize the critical role of skilled phlebotomy in ensuring reliable laboratory results and overall patient safety. We will discuss the potential impact of pre-analytical errors and their downstream effects on diagnostic accuracy.

2. Chapter 1: Types of BD Vacutainer Tubes: A Detailed Overview

BD Vacutainer tubes are a widely used system for collecting blood specimens. These tubes are color-coded, each color indicating a different additive inside. The additive is crucial; it prevents clotting, preserves certain analytes, or enhances the stability of the sample for various tests. This chapter offers a detailed explanation of the different types of BD Vacutainer tubes, categorized by their color-coding and additive content:

Red Top Tubes (No Additive): Used for serum chemistry tests, where serum is needed (the liquid portion of blood after clotting).

Gold Top Tubes (Clot Activator & Serum Separator Gel): Offers faster clotting and separation of serum from cells.

Lavender Top Tubes (EDTA): Used for hematology tests, as EDTA prevents clotting and preserves cell morphology.

Light Blue Top Tubes (Sodium Citrate): Used for coagulation studies, as sodium citrate prevents

clotting by chelating calcium ions.

Green Top Tubes (Heparin): Used for plasma chemistry tests, as heparin prevents clotting. Several types of heparin exist, such as lithium heparin and sodium heparin, each with slight variations in their effects.

Gray Top Tubes (Sodium Fluoride/Potassium Oxalate): Used for glucose testing, as sodium fluoride inhibits glycolysis and potassium oxalate prevents clotting.

Other Specialized Tubes: This section covers tubes with specialized additives for specific tests (e.g., tubes for blood cultures, molecular diagnostics, etc.). We will discuss the specific application and limitations of each tube type.

3. Chapter 2: Choosing the Right Tube for the Test: Additive Compatibility

Selecting the appropriate BD Vacutainer tube is paramount. Incorrect tube selection can lead to inaccurate or unusable test results. This chapter explores the crucial aspect of additive compatibility. Each additive can interact differently with various analytes, affecting the results. For instance, using a tube with EDTA for coagulation studies would yield inaccurate results. We'll provide a detailed table summarizing the ideal tube type for common laboratory tests, highlighting potential interference and incompatibility issues. This section will emphasize the importance of consulting laboratory test requisition forms and adhering to the specific instructions provided.

4. Chapter 3: Step-by-Step Guide to Venipuncture Using BD Vacutainer Tubes

This chapter provides a comprehensive, step-by-step guide to performing venipuncture using BD Vacutainer tubes. We cover essential aspects, from patient identification and preparation to proper technique, including:

Patient Identification and Verification: Emphasizing the critical importance of accurate patient identification to avoid errors.

Site Selection and Preparation: Choosing the appropriate vein and preparing the site for venipuncture using antiseptic solutions.

Needle Insertion and Blood Collection: Providing detailed instructions on proper needle insertion angle, depth, and technique for successful blood collection.

Tube Order of Draw: Explaining the correct order of draw for different types of tubes to prevent cross-contamination and ensure accurate results.

Post-Procedure Care: Instructions on applying pressure to the venipuncture site to prevent hematoma formation and ensuring patient comfort.

5. Chapter 4: Troubleshooting Common Issues in Blood

Collection

Even experienced phlebotomists encounter challenges during blood collection. This chapter addresses common problems and provides practical solutions:

Difficult Veins: Strategies for locating and accessing difficult veins.

Hematomas: Causes, prevention, and management of hematomas.

Hemolysis: Causes, prevention, and implications of hemolyzed samples.

Insufficient Blood Volume: Troubleshooting strategies for obtaining an adequate sample volume.

Collapsed Veins: Techniques for managing collapsed veins during blood collection.

6. Chapter 5: Safety Protocols and Best Practices in Phlebotomy

Safety is paramount in phlebotomy. This chapter emphasizes crucial safety protocols and best practices:

Infection Control: Adherence to infection control guidelines to prevent the spread of bloodborne pathogens.

Needle Safety Devices: The proper use of needle safety devices to minimize the risk of needlestick injuries.

Waste Disposal: Proper disposal of sharps and other medical waste.

Personal Protective Equipment (PPE): The use of appropriate PPE, such as gloves and gowns, to protect both the phlebotomist and the patient.

7. Chapter 7: Advanced Techniques and Considerations

This chapter will explore more advanced aspects of blood collection:

Arterial Blood Gas (ABG) Collection: Techniques for collecting arterial blood samples for ABG analysis.

Central Venous Catheter (CVC) Blood Draws: Procedures for drawing blood from central venous catheters.

Capillary Blood Collection: Methods for obtaining blood samples from capillary punctures (e.g., finger sticks).

8. Conclusion: Maintaining Accuracy and Efficiency in Blood

Collection

Consistent accuracy and efficiency in blood collection are critical for reliable laboratory results and patient care. By adhering to the guidelines and best practices outlined in this guide, healthcare professionals can significantly improve the quality of blood samples and contribute to better patient outcomes. Continued education, attention to detail, and adherence to safety protocols are essential for maintaining high standards in phlebotomy.

FAQs

1. What is the correct order of draw for BD Vacutainer tubes? The order of draw is crucial to prevent cross-contamination. It's generally: Blood Culture Bottles, Light Blue, Red/Gold, Green, Lavender, Gray. Always check your specific laboratory's protocols.
2. How do I prevent hemolysis during blood collection? Avoid forceful aspiration, ensure proper mixing, and avoid shaking the tubes vigorously.
3. What should I do if I accidentally get a needlestick injury? Immediately report the injury, follow your facility's protocol for post-exposure prophylaxis (PEP), and seek medical attention.
4. What are the signs of a collapsed vein? The vein may feel soft and spongy, and blood flow may be difficult or impossible to obtain.
5. How do I properly label a BD Vacutainer tube? Labels should include the patient's full name, date of birth, date and time of collection, and the phlebotomist's initials.
6. What is the difference between serum and plasma? Serum is the liquid portion of blood after clotting, while plasma is the liquid portion of blood before clotting.
7. What should I do if I have difficulty finding a vein? Try warming the patient's arm, using a tourniquet properly, and applying different techniques to locate the vein.
8. How do I dispose of used BD Vacutainer tubes and needles? Always dispose of used needles and tubes in designated sharps containers according to your facility's policy.
9. Where can I find more information on BD Vacutainer tubes and blood collection techniques? Consult the BD website, reputable medical textbooks, and your institution's policies and procedures.

Related Articles:

1. Understanding Blood Collection Tubes: A Comprehensive Overview: Explores various types of blood collection tubes beyond BD Vacutainer tubes.
2. Preventing Hemolysis in Blood Samples: Best Practices: Provides detailed strategies to prevent

hemolysis, a common problem in blood collection.

3. Advanced Techniques in Venipuncture: Mastering Difficult Draws: Focuses on advanced venipuncture techniques for challenging situations.

4. The Importance of Proper Specimen Handling and Transportation: Emphasizes proper handling and transportation of blood samples for optimal test results.

5. Infection Control in Phlebotomy: Preventing the Spread of Bloodborne Pathogens: A detailed look at infection control measures in phlebotomy.

6. Legal and Ethical Considerations in Phlebotomy: Explores the legal and ethical implications of blood collection practices.

7. Quality Control in Blood Collection: Ensuring Accuracy and Reliability: Discusses quality control measures to ensure accurate and reliable results.

8. Troubleshooting Common Errors in Blood Collection: Detailed explanations and solutions for common blood collection problems.

9. Patient Communication and Education in Phlebotomy: Focuses on effective communication strategies with patients during blood collection.

bd vacutainer tube guide pdf: WHO Guidelines on Drawing Blood Neelam Dhingra, 2010
Phlebotomy uses large, hollow needles to remove blood specimens for lab testing or blood donation. Each step in the process carries risks - both for patients and health workers. Patients may be bruised. Health workers may receive needle-stick injuries. Both can become infected with bloodborne organisms such as hepatitis B, HIV, syphilis or malaria. Moreover, each step affects the quality of the specimen and the diagnosis. A contaminated specimen will produce a misdiagnosis. Clerical errors can prove fatal. The new WHO guidelines provide recommended steps for safe phlebotomy and reiterate accepted principles for drawing, collecting blood and transporting blood to laboratories/blood banks.

bd vacutainer tube guide pdf: Accurate Results in the Clinical Laboratory Amitava Dasgupta, Jorge L. Sepulveda, 2019-07-20
Accurate Results in the Clinical Laboratory: A Guide to Error Detection and Correction, Second Edition, provides a comprehensive review of the factors leading to errors in all areas of clinical laboratory testing. This trusted guide addresses interference issues in all laboratory tests, including patient epigenetics, processes of specimen collection, enzymes and biomarkers. Clinicians and laboratory scientists will both benefit from this reference that applies discussions to both accurate specimen analysis and optimal patient care. Hence, this is the perfect reference for clinical laboratorians, from trainees, to experienced pathologists and directors. - Provides comprehensive coverage across endocrine, oncology, hematology, immunohistochemistry, immunology, serology, microbiology, and molecular testing - Includes new case studies that highlight clinical relevance and errors to avoid - Highlights the best titles published within a variety of medical specialties - Reviewed by medical librarians and content specialists, with key selections compiled in their annual list

bd vacutainer tube guide pdf: Interpretation of Equine Laboratory Diagnostics Nicola Pusterla, Jill Higgins, 2017-12-18
Interpretation of Equine Laboratory Diagnostics offers a comprehensive approach to equine laboratory diagnostics, including hematology, clinical chemistry, serology, body fluid analysis, microbiology, clinical parasitology, endocrinology, immunology, and molecular diagnostics. Offers a practical resource for the accurate interpretation of laboratory results, with examples showing real-world applications Covers hematology, clinical chemistry, serology, body fluid analysis, microbiology, clinical parasitology, endocrinology, immunology, and molecular diagnostics Introduces the underlying principles of laboratory diagnostics Provides clinically oriented guidance on performing and interpreting laboratory tests Presents a complete reference to establish and new diagnostic procedures Offers a practical resource for the accurate interpretation of laboratory results, with examples showing real-world applications Covers hematology, clinical chemistry, serology, body fluid analysis, microbiology, clinical parasitology,

endocrinology, immunology, and molecular diagnostics Introduces the underlying principles of laboratory diagnostics Provides clinically oriented guidance on performing and interpreting laboratory tests Presents a complete reference to established and new diagnostic procedures

bd vacutainer tube guide pdf: Tietz Clinical Guide to Laboratory Tests - E-Book Alan H. B. Wu, 2006-06-08 This new edition of Norbert Tietz's classic handbook presents information on common tests as well as rare and highly specialized tests and procedures - including a summary of the utility and merit of each test. Biological variables that may affect test results are discussed, and a focus is placed on reference ranges, diagnostic information, clinical interpretation of laboratory data, interferences, and specimen types. New and updated content has been added in all areas, with over 100 new tests added. - Tests are divided into 8 main sections and arranged alphabetically. - Each test includes necessary information such as test name (or disorder) and method, specimens and special requirements, reference ranges, chemical interferences and in vivo effects, kinetic values, diagnostic information, factors influencing drug disposition, and clinical comments and remarks. - The most current and relevant tests are included; outdated tests have been eliminated. - Test index (with extensive cross references) and disease index provide the reader with an easy way to find necessary information - Four new sections in key areas (Preanalytical, Flow Cytometry, Pharmacogenomics, and Allergy) make this edition current and useful. - New editor Alan Wu, who specializes in Clinical Chemistry and Toxicology, brings a wealth of experience and expertise to this edition. - The Molecular Diagnostics section has been greatly expanded due to the increased prevalence of new molecular techniques being used in laboratories. - References are now found after each test, rather than at the end of each section, for easier access.

bd vacutainer tube guide pdf: Samples:From the Patient to the Laboratory Walter G. Guder, Sheshadri Narayanan, Hermann Wisser, Bernd Zawta, 2008-01-08 This forth updated edition contains the latest developments in analytical techniques. An international team of authors summarizes the information on biological influences, analytical interferences and on the variables affecting the collection, transport and storage as well as preparation of samples. They cover age, gender, race, pregnancy, diet, exercise and altitude, plus the effects of stimulants and drugs. National and international standards are described for sampling procedures, transport, sample identification and all safety aspects, while quality assurance procedures are shown for total laboratory management. In addition, the authors provide a glossary as well as a separate list of analytes containing the available data on reference intervals, biological half-life times, stability and influence and interference factors. For everyone involved in patient care and using or performing laboratory tests.

bd vacutainer tube guide pdf: Laboratory Techniques in Thrombosis - A Manual J. Jespersen, R.M. Bertina, F. Haverkate, 2000-06-30 The first edition of this manual appeared in 1992 and was entitled ECAT Assay Procedures. This completely revised new edition combines the strengths of the first edition with new and useful features. Laboratory Techniques in Thrombosis - a Manual still gives detailed descriptions of the recommended assays and their alternatives. However, the manual now has a broader scope because it is no longer limited by the frontiers of ECAT. Experts all over the world have contributed to this edition. Furthermore, new assays have been introduced, improvements have been suggested for other assays, while a few others have become redundant or no longer available. The list of manufacturers is fully updated and a list of the recommended nomenclature of quantities in thrombosis and haemostasis is new to this edition, further facilitating the use of this manual. Laboratory Techniques in Thrombosis - a Manual will contribute to furthering the much needed harmonization and standardization of tests within the field and should have a place in all working haemostasis laboratories.

bd vacutainer tube guide pdf: Mosby's Diagnostic and Laboratory Test Reference - E-Book Kathleen Deska Pagana, Timothy J. Pagana, Theresa Noel Pagana, 2018-09-19 Get the latest research and easy access to today's most important diagnostic and lab tests! Known for its accuracy, currency, and clear, easy-to-use format, Mosby's Diagnostic & Laboratory Test Reference 14th Edition features concise test entries that are arranged alphabetically and reflect the latest in

diagnostic and lab testing and research. This new edition adds 15 tests with vital information such as alternate or abbreviated test names, test explanation, normal and abnormal findings, possible critical values, and guidelines to patient care before, during, and after the test. Plus, all related tests are cross-referenced throughout the book to simplify lookup. A compact size, durable cover, and A-to-Z thumb tabs make this market-leading book ideal for everyday use in the classroom and on the job! Alphabetically organized tests offer quick reference with A-to-Z thumb tabs, so you will never have to search for a test by having to first determine its correct category or body system. Normal findings for adult, elderly, and pediatric patients are included where applicable. Abnormal findings are highlighted with directional arrows to show increased or decreased test results. Convenient appendix lists tests by body system and test type, making it easy to quickly locate related studies. A durable cover with rounded edges helps prevent the book from being damaged and makes it easier to handle. Each test entry begins on a new page, making tests easy to find. Possible critical values are highlighted to show situations requiring immediate intervention. Icon for patient teaching-related care indicates information that should be shared with patients and their families. User's Guide to Test Preparation and Performance provides an overview and guidelines for each type of laboratory test and diagnostic procedure, so you can minimize worry about having to repeat a test due to an error. Abbreviations for tests are listed in the back of the book, and symbols and units of measurement are listed in an appendix. Cross-referencing of related tests makes them easy to find. NEW! Test entries include the latest diagnostic tests and laboratory procedures, featuring 10 new monographs and 15 additional tests. NEW! Content reflects the latest research on the diagnostic values of results, accuracy of testing, and patient care and education for each test. NEW! Common Reference Ranges section added to the Inside Front Cover material.

bd vacutainer tube guide pdf: *Kirk & Bistner's Handbook of Veterinary Procedures and Emergency Treatment* Richard B. Ford, Elisa Mazzaferro, 2011-08-17 Provide expert care for cats and dogs! Kirk and Bistner's Handbook of Veterinary Procedures and Emergency Treatment, 9th Edition covers not only the management of emergency conditions, but also strategies for dealing with hundreds of routine diagnostic and treatment challenges in small animals. Its user-friendly format provides instant access to vital information -- making it an ideal resource in emergency situations -- and it is conveniently organized by both body systems and presenting signs to help you easily reach a diagnosis and determine a treatment plan for all clinical situations. Written by veterinary experts Richard Ford and Elisa Mazzaferro, Kirk and Bistner's Handbook of Veterinary Procedures and Emergency Treatment provides current guidelines for small animal emergency care and the diagnostic procedures most commonly performed in a busy, team-oriented practice. - Step-by-step instructions and illustrations are provided for all major emergency and non-emergency clinical procedures. - A logical, easy-to-use format lists all emergency conditions in alphabetical order, and includes quick reference boxes calling out key information such as clinical tips and cautions. - Clear, concise guidelines help you evaluate clinical signs and laboratory test data. - Clinical algorithms make it easier to identify and treat abnormalities. - Guidelines for assessment and treatment include practical advice and solutions, how to examine the small animal patient using a body systems and problem list approach, and a review of basic diagnostic procedures used in daily practice. - Coverage of toxicological emergencies describes how to manage exposures and poisonings. - A quick reference guide to the management of the emergency patient is conveniently located on the inside cover. - A comprehensive drug formulary makes lookup easy, and includes proprietary names, actions/use of each drug, formulations, recommended dosages, and special precautions, with emergency medications highlighted for fast reference - This all-in-one reference includes practical coverage of emergency procedures, physical assessment in sickness and health, routine and advanced testing procedures, diagnostic tests sampling, preparation, procedures, and interpretation. - Quick Reference boxes include potential causes of each clinical abnormality and associated signs, step-by-step diagnostic plans, and clinical algorithms. - The latest vaccination guidelines include protocols for dogs and cats at low, medium, and high risk of exposure to infectious diseases. - Updated coverage keeps you current with the latest on pain assessment,

prevention, and treatment.

bd vacutainer tube guide pdf: *WHO Best Practices for Injections and Related Procedures Toolkit*, 2010 The new WHO guidelines provide recommended steps for safe phlebotomy and reiterate accepted principles for drawing, collecting blood and transporting blood to laboratories/blood banks. The main areas covered by the toolkit are: 1. bloodborne pathogens transmitted through unsafe injection practices; 2. relevant elements of standard precautions and associated barrier protection; 3. best injection and related infection prevention and control practices; 4. occupational risk factors and their management.

bd vacutainer tube guide pdf: *WHO Guidelines on Hand Hygiene in Health Care* World Health Organization, 2009 The WHO Guidelines on Hand Hygiene in Health Care provide health-care workers (HCWs), hospital administrators and health authorities with a thorough review of evidence on hand hygiene in health care and specific recommendations to improve practices and reduce transmission of pathogenic microorganisms to patients and HCWs. The present Guidelines are intended to be implemented in any situation in which health care is delivered either to a patient or to a specific group in a population. Therefore, this concept applies to all settings where health care is permanently or occasionally performed, such as home care by birth attendants. Definitions of health-care settings are proposed in Appendix 1. These Guidelines and the associated WHO Multimodal Hand Hygiene Improvement Strategy and an Implementation Toolkit (<http://www.who.int/gpsc/en/>) are designed to offer health-care facilities in Member States a conceptual framework and practical tools for the application of recommendations in practice at the bedside. While ensuring consistency with the Guidelines recommendations, individual adaptation according to local regulations, settings, needs, and resources is desirable. This extensive review includes in one document sufficient technical information to support training materials and help plan implementation strategies. The document comprises six parts.

bd vacutainer tube guide pdf: **Marine Mammals Ashore** Joseph R. Geraci, Valerie J. Lounsbury, 2005 Comprehensive manual for understanding and carrying out marine mammal rescue activities for stranded seals, manatees, dolphins, whales, or sea otters.

bd vacutainer tube guide pdf: Point-of-care testing Peter Luppá, Ralf Junker, 2018-07-18 The underlying technology and the range of test parameters available are evolving rapidly. The primary advantage of POCT is the convenience of performing the test close to the patient and the speed at which test results can be obtained, compared to sending a sample to a laboratory and waiting for results to be returned. Thus, a series of clinical applications are possible that can shorten the time for clinical decision-making about additional testing or therapy, as delays are no longer caused by preparation of clinical samples, transport, and central laboratory analysis. Tests in a POC format can now be found for many medical disciplines including endocrinology/diabetes, cardiology, nephrology, critical care, fertility, hematology/coagulation, infectious disease and microbiology, and general health screening. Point-of-care testing (POCT) enables health care personnel to perform clinical laboratory testing near the patient. The idea of conventional and POCT laboratory services presiding within a hospital seems contradictory; yet, they are, in fact, complementary: together POCT and central laboratory are important for the optimal functioning of diagnostic processes. They complement each other, provided that a dedicated POCT coordination integrates the quality assurance of POCT into the overall quality management system of the central laboratory. The motivation of the third edition of the POCT book from Luppá/Junker, which is now also available in English, is to explore and describe clinically relevant analytical techniques, organizational concepts for application and future perspectives of POCT. From descriptions of the opportunities that POCT can provide to the limitations that clinician's must be cautioned about, this book provides an overview of the many aspects that challenge those who choose to implement POCT. Technologies, clinical applications, networking issues and quality regulations are described as well as a survey of future technologies that are on the future horizon. The editors have spent considerable efforts to update the book in general and to highlight the latest developments, e.g., novel POCT applications of nucleic acid testing for the rapid identification of infectious agents. Of particular note is also that a

cross-country comparison of POCT quality rules is being described by a team of international experts in this field.

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