

Chapter 1: Past and Present and the Healthcare Setting

Objectives

1. Define the key terms and abbreviations listed at the beginning of this chapter.
2. Describe the evolution of phlebotomy and the role of the phlebotomist in today's healthcare setting.
3. Describe the traits that form the professional image and identify national organizations that support professional recognition of phlebotomists.
4. Describe the basic concepts of communication as they relate to healthcare and how appearance and nonverbal message affect the communication process.

Objectives (cont' d)

5. Describe the proper telephone protocol in a laboratory or other healthcare setting.
6. Demonstrate an awareness of the different types of healthcare settings.
7. Compare types of third-party payers, coverage, and methods of payment to the patient, provider, and institutions.
8. Describe traditional hospital organization and identify the healthcare providers in the inpatient facility.

Objectives (cont' d)

9. List the clinical analysis areas of the laboratory and the types of laboratory procedures performed in the different areas.
10. Describe the different levels of personnel found in the clinical laboratory and how Clinical Laboratory Improvement Amendment regulations affect their job descriptions.

Phlebotomy: A Historical Perspective

- Stone Age
 - Crude tools used to cut vessels & drain blood from body
- Egypt (1400 BC)
 - Tomb painting shows leech applied to patient for bloodletting
- Hippocrates (460-377 BC)
 - Health depended on balance of the body. Thought disease was due to excesses like blood, phlegm, black/yellow bile
 - Bloodletting was used to rid the body of evil spirits, cleanse the body.
 - **Venesection**: cutting vein to bleed patient

Phlebotomy: A Historical Perspective (cont' d)

- Middle Ages
 - Barber-surgeons performed bloodletting & leeching
 - **Barber pole (red & white)**: represented blood of patient
 - **Bleeding bowl**: used to collect blood from patient
- 17th & 18th Centuries
 - Phlebotomy became a major therapy
 - Lancets & fleams were used to cut veins & arteries
 - Cupping & leeching were used

Art of Cupping

- Process
 - Application of heated suction device, the cup
 - Incision with a fleam (lancet)
 - Single or double-edged blade
 - Multiple fleams attached & folded for ease of carrying
 - Blades wiped clean with a rag, therefore disease was spread from something that was suppose to help.

Leeching

- Process
 - Place drop of milk or blood on the patient's skin
 - Introduce *Hirudo medicinalis* to the site that injects:
 - Local vasodilator
 - Local anesthetic
 - Hirudin, an anticoagulant
 - Allow the leech to engorge and fall off
- Present day
 - Used in microsurgical replantation

Phlebotomy: A Historical Perspective (cont' d)

- Bleeding bowl, fleams, & leech jar



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Goals and Methods of Phlebotomy Today

- Goals
 - **Obtain blood for diagnostic purposes & monitor treatment** (to establish dosage, to maintain dosage at therapeutic level, avoid toxicity)
Example: blood thinner, seizure meds, mood stabilizers
 - **Remove blood for transfusions at a donor center**
 - **Remove blood for therapeutic purposes: Therapeutic phlebotomy** (polycythemia (over production of RBCs, hemochromatosis (excess iron deposits in the tissues))
- Methods
 - **Venipuncture:** blood collection via a needle inserted in a vein
 - **Capillary puncture:** blood collection via skin puncture

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Role and Skills of Phlebotomist

- Role
 - **Phlebotomist:** anyone trained in blood collection
 - Many healthcare team members are trained in phlebotomy
- Skills/Knowledge Needed
 - Good manual dexterity
 - Special communication skills
 - Good organizational skills
 - Thorough knowledge of lab specimen requirements
 - Training in phlebotomy skills & standards of practice

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Credentials

- Certification
 - **Certificate:** document granted by agency
 - Voluntary or may be required by facility
 - Requires specific training & passing an exam
- Licensure
 - **License:** official document or permit granted by state agency
 - Required by law
 - Requires specific education, experience, & passing an exam
- Continuing Education

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Patient-Client Interaction

- Customer Relations
 - Phlebotomist may be only contact patient has with lab
 - Patient may judge hospital based on encounter with phlebotomist
 - **Goal:** put patient at ease & establish positive relationship
- Diversity: Understanding patients' health-related—
 - Beliefs & values
 - Needs based on environment
 - Customs & traditions
 - Attitudes toward seeking help from healthcare providers

Qualities of Professionalism

- Professional appearance
- Self-confidence
- Integrity
- Compassion
- Self-motivation
- Dependability
- Ethical behavior

Patients' Rights

- Two documents published to strengthen consumer confidence
 - The Patient Bill of Rights in Medicare and Medicaid
 - American Hospital Association's The Patient Care Partnership

Patients' Rights (cont'd)

- AHA's The Patient Care Partnership
 - High-quality hospital care
 - A clean & safe environment
 - Involvement in your care
 - Protection of your privacy
 - Help when leaving the hospital
 - Help with your billing claims

Confidentiality

- Patient information must be kept private & confidential
- Ethical standards & laws enforce confidentiality
- Health Insurance Portability & Accountability Act (**HIPAA**)
 - Safeguards confidentiality of protected health info (PHI)
 - Established national standards for electronic exchange of PHI
 - States that patients must be informed of rights
 - Disclosure of PHI requires written authorization

Communication Skills

- Communication
 - The means by which information is exchanged or transmitted
- Components
 - Verbal
 - Active listening
 - Nonverbal (body language)
 - **Kinesics**: study of nonverbal communication
 - **Proxemics**: study of an individual's concept and use of space
 - Appearance
 - **Touch**: special type of nonverbal communication

Duties & responsibilities of Phlebotomist

- Collect routine skin puncture & venous specimens for testing as required
- Prepare specimens for transport to ensure stability of sample
- Transport specimens to the lab
- Comply with all procedures instituted in the procedural manual
- ALWAYS maintain patient confidentiality
- Promote good relations with patients and hospital personnel
- Assist in collecting & documenting monthly workload & recording data
- Maintain safe working conditions
- Perform appropriate lab computer operations
- Participate in continuing education programs
- Perform other tasks assigned by supervisory personnel

Communication Skills (cont' d)

- Elements of Effective Healthcare Communication
 - Empathy
 - Control: patient's sometimes need to feel in control of their situation.
 - Respect & confirmation
 - Trust

Healthcare Delivery

- Two general categories of facilities
 - Inpatient (nonambulatory)
 - Outpatient (ambulatory)
- Three levels of healthcare in the United States
 - Primary
 - Secondary
 - Tertiary

Healthcare Delivery (cont'd)

- Ambulatory Care
 - Medical care delivered on outpatient basis
 - Patients requiring care after discharge from hospital
 - **Two types**
 - Freestanding medical care settings & hospital-owned clinics
 - Outpatient departments & urgent care facilities
- Homebound Services
 - Patients' homes
 - Long-term care facilities

Healthcare Delivery (cont' d)

- Public Health Service
 - Part of Department of Health and Human Services
 - **Mission:** to protect & advance nation's physical & mental health
 - Sponsors & administers programs on:
 - Development of health resources
 - Prevention & control of diseases
 - Dealing with drug abuse
 - Constantly monitors, screens, protects, & educates public
 - Provides services for little or no charge to entire population

Healthcare Financing

- Methods of Payment
 - Direct payment
 - Patient pays provider
 - Indirect (third-party) payment
 - Insurance company, federal government, managed care program, or self-insured company pays provider
- Diagnosis & Billing Codes
 - Current procedural terminology (**CPT**) codes (see Table 1-5)
- Reimbursement (entitlement programs)
 - Medicare & Medicaid

Managed Care

- Definition
 - A payment system that attempts to manage cost, quality, & access to healthcare by:
 - Detecting illnesses or risk factors early in disease process
 - Offering financial incentives for providers
 - Offering patient education & encouraging healthy lifestyles
- Characteristics
 - Set fee schedule
 - Preauthorization for certain medical procedures
 - Designated case manager required

Managed Care (cont' d)

- Case Manager
 - Is primary care physician & “gatekeeper”
 - Is experienced healthcare professional
 - Coordinates all of patient’s healthcare
 - Knows patient’s condition & needs
 - Knows available resources for support & treatment
 - Advises patient on healthcare needs
 - Provides early detection & treatment for disease
 - Refers patients to appropriate specialists

Managed Care (cont' d)

- Network Service Systems
 - Health maintenance organizations (HMOs)
 - Group practices
 - Reimbursed on a prepaid, negotiated, & discounted basis
 - Preferred provider organizations (PPOs)
 - Independent groups of physicians or hospitals
 - Exchange discounted services for steady supply of patients
 - Integrated Healthcare Delivery Systems (IDSs)
 - Number of different types of associated medical facilities
 - Offers cost-effective holistic and coordinated care

Organization of Hospital Services

- Characteristics of a “hospital”:
 - Permanent inpatient beds
 - 24-hour nursing service
 - Therapeutic & diagnostic services
 - Organized medical staff
- Hospitals are typically organized into departments or medical specialties

Clinical Laboratory Services

- Traditional Laboratories
 - **Clinical analysis areas**
 - **Hematology:** blood & blood-forming tissues, most common test is a CBC (complete blood count)
 - **Coagulation:** ability of blood to form & dissolve clots
 - **Chemistry:** Performs most lab tests. Most common specimen is serum. Can also use urine, plasma, other fluids.
 - **Serology/Immunology:** serology mean “study of serum”. Deals with bodies response to the presence of bacterial, viral, fungal, parasitic infections.
 - **Urinalysis:** Testing in this dept can be analyzed manually or with automated instruments. Includes physical, chemical, & microscopic examinations
 - **Microbiology:** Analyzes body fluids & tissues for the presence of microorganisms. Will tell physician type of organism and most effective antibiotic.
 - **Physical:** assesses color, clarity, and specific gravity. **Chemical:** screens for substances like sugar & protein. **Microscopic:** establishes presence of blood cells, bacteria, crystals
 - **Bloodbank/Immunohematology:** Prepares blood products for transfusions

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Clinical Laboratory Services (cont' d)

- Traditional Laboratories
 - **Anatomical & surgical pathology**
 - **Histology:** the study of microscopic structure of tissues. Pathologist evaluate samples from surgeries/autopsies to determine if they are normal or diseased.
 - **Cytology:** Concerned with structure of cells. Cells in body tissues & fluids are identified, counted & studied to diagnose malignant & premalignant conditions. Most common is a pap smear for early detection of cancer cells.
 - **Cytogenetics:** Found in larger labs. Samples are examined for chromosomal deficiencies that relate to genetic disease.

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Clinical Laboratory Services (cont' d)

- Stat Labs
 - Established in some tertiary care facilities
 - Located in emergency room
 - For procedures & tests needed immediately
- Reference Laboratories
 - Large, independent labs
 - Receive specimens from many facilities in city, state, or region
 - Provide routine & specialized analysis of blood, urine, tissue
 - Offer fast turnaround times & reduced cost due to high volume

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Clinical Laboratory Services (cont' d)

- A clinical chemist reviews stat chemistry results



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Clinical Laboratory Personnel

- Laboratory Director/Pathologist
 - Manages lab (along with lab administrator)
 - May be a pathologist or clinical lab scientist
 - **Pathologist:** a physician who specializes in diagnosing disease
- Laboratory Administrator/Laboratory Manager
 - Usually a technologist with advanced degree & experience
 - Oversees all operations involving physician & patient services
 - May supervise ancillary services (radiology & respiratory therapy)

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Clinical Laboratory Personnel (cont'd)

- Technical Supervisor
 - Administers a lab section or subsection
 - Reports to lab administrator
 - Has additional education in one or more clinical lab areas
- Medical Technologist/Medical Laboratory Scientist
 - Typically has bachelor's degree plus study in MT program
 - Performs all levels of testing in any area of lab & reports results
 - Performs quality control & evaluates new procedures
 - Maintains instruments

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Clinical Laboratory Personnel (cont'd)

- A medical technologist performing a complete urinalysis in the ER



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Clinical Laboratory Personnel (cont'd)

- Medical Laboratory Technician
 - Typically has associate's degree
 - Performs routine testing
 - Operates & maintains all equipment
- Clinical Laboratory Assistant
 - Has phlebotomy experience
 - Has skills in specimen processing & basic lab testing
 - Is a generalist; assists MLS or MLT in any area

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Clinical Laboratory Personnel (cont' d)

- Phlebotomist
 - Collects blood for lab tests for diagnosis & care of patients
 - Often serves in role of lab assistant or specimen processor
 - Formal programs usually require high school diploma or equivalent to enroll
- Other Laboratory Personnel
 - Computer programmers
 - Laboratory information systems managers (LIS)
 - Quality-assurance managers
 - Point-of-care coordinators

Clinical Laboratory Improvement Act (CLIA '88)

- Allows regulation of all sites performing lab testing in US
- Mandates that all labs use same standards regardless of their location, type or size.
- Sets requirements for:
 - Laboratory director
 - Technical consultant
 - Supervisors
 - Testing personnel

Test Info Chapter 1: Past, Present, & The Healthcare setting

- What other department along with the lab coordinates for TDM?
- Be sure to know study questions as some are used on the tests
- What dept is responsible for administering O2 therapy?
- What does "phlebotomy" mean
- Know about different types of communication and communication barriers
- Know all lab departments and what they do
- Certification
- Patient client interaction
- Some of the first phlebotomists were who????
- Know your study questions
- Situation questions