Contents

SECTION 1: Introduction to Allied Health Services

1. Introduction to Medicine and Healthcare Delivery **3**

Kanai L Mukherjee, Anuradha Chakravarthy

- The Field of Medicine: Past and Present *3*
- Introduction to the Profession of Medical Assisting *5*
- Professionalism in Medical Assistants *6*
- Ethics and Law *9*
- Patient Care and Human Relation *14*
- The Healthcare Team *16*
- Duties and Responsibilities of Medical Assistants *17*
- Summary *21*
- Review Questions *21*

2. The Medical Office **22**

Bibhas C Bandyopadhyay, Vivek Khanwalkar

- Functions of Medical Office *22*
- General Layout of Medical Office *25*
- Maintenance of Facilities *29*
- Office Working System *30*
- Computers in the Medical Office *47*
- Medical Records *51*
- Daily Office Maintenance *60*
- Summary *64*
- Review Questions *64*

3. Fundamentals of Office Management **66**

Arundhati Khanwalkar

- Professionalism in Medical Office *66*
- Liabilities and Legal issues in Medical Office *71*
- Summary *74*
- Review Questions *74*

4. Financial Management and Health Insurance **75**

Moitreyi Banerjee, Bibhas C Bandyopadhyay

- Financial Management of Medical Office *75*
- Money Management *76*

- Medical Insurance *79*
- Overall Operation of Medical Office *82*
- Billing *84*
- Daily Financial Practices *92*
- Summary *94*
- Review Questions *94*

SECTION 2: Fundamentals of Medical Science

5. Human Body in Health and Disease **99**

Smriti Bardhan, Raktima Datta

- Healthy and Unhealthy States of the Body *99*
- Normal Operating Systems of Human Body *99*
- Diseased State of the Body *101*
- Defenses Against Infection *105*
- Medical Asepsis and Infection Control *106*
- Medical Diagnosis and Treatment of Infectious Diseases *114*
- Summary *115*
- Review Questions *116*

SECTION 3: Pre-Physical Examination Procedures in Office

6. Patient Medical History and Documentation **119**

Ashoke Khanwalkar

- Obtaining Patient's Medical History *119*
- Personal Medical History: Overview *134*
- Documentation of Patient's Health History *136*
- Summarization of Collected Information *137*
- The Art of Communication with Patients *139*
- Physical Assessment of the Patient *141*
- Responsibility to Protect Patients *141*
- Summary *142*
- Review Questions *142*

7. Preparing the Patient for Physical Examination **144**

Rohini Chakravarthy, Anuradha Chakravarthy

- Preparing the Patient for Physical Examination *144*
- Height and Weight *145*
- Temperature *147*
- Pulse *151*
- Respiration *152*
- Blood Pressure *153*
- Circumference: Size Measurement *154*
- Summary *155*
- Review Questions *155*

SECTION 4: Assisting the Physician

8. Assisting the Physician in the Office **159**

Anuradha Chakravarthy, Bibhas C Bandyopadhyay

- Medical Assisting in the Examination Room *159*
- Physical Examination by the Physician *161*
- Assisting with Minor Office Surgery *168*
- Introduction to Basic Surgical Procedures *175*
- Preparing for Minor Surgery *177*
- Assisting During Surgery *183*
- Postoperative Care *186*
- Summary *193*
- Review Questions *193*

SECTION 5: Assisting in Therapy

9. Patient Education **197**

Monisha Chakravarthy

- Patient Education in Medical Office *197*
- General Education of Patient for Maintaining Good Health *200*
- Specific Patient Education *206*
- Teaching a Patient to use Assistive Devices for Walking *209*
- Physical Therapy at Home *215*
- Special Care of Elderly *216*
- Preparing Patient for Diagnostic Procedures *218*
- Summary *218*
- Review Questions *219*

10. Administering Medication **220**

Ritwik Bhatia

- Drugs and Prescriptions *220*
- Medication Administration *223*
- Routes of Drug Administration *225*
- Summary *243*
- Review Questions *244*

11. Medical Office Laboratory Skills **246**

Ashoke Khanwalkar, Kanai L Mukherjee

- Introduction to Medical Laboratory *246*
- Laboratory test Reports *249*
- The Physician's Office Laboratory *253*
- Specimen Collection, Processing and Storage *256*
- Common Laboratory Equipment in the Physician Office *260*
- Common Laboratory Tests *263*
- Hematology *276*
- Laboratory Testing *286*
- Less Common Laboratory Procedures in the Medical Office *292*

- Point of Care Laboratory Services *301*
- Summary *302*
- Review Questions *303*

12. Basic Pharmacology for Physicians' Offices **305**

Manisha Paul, Kanai L Mukherjee

- Drugs *305*
- Medication in Doctor's Office *308*
- Patient Education *314*
- Medical Errors *315*
- Emergency Drugs and Supplies *315*
- Summary *317*
- Review Questions *317*

13. Basic Calculations for Medical Assistants **319**

Kanai L Mukherjee, Tara Chattoraj

- Weights and Measures *319*
- Essential Mathematics for Dosage Calculation *319*
- The Metric System *322*
- Calculating a Dosage of Medication in Adults *326*
- Review *328*
- Calculating Pediatric Dosages *329*
- Medications Measured in Units *330*
- Summary *331*
- Review Questions *332*

SECTION 6: Special Ambulatory Skill for Medical Assistants

14. Emergency Care in the Physician's Office **335**

Vissagan Gopalkrishnan, Rohini Chakravarthy, Tushar Chakravarty

- Emergency Preparedness in the Medical Office *336*
- Personal Protection *336*
- Handling Emergency Situations *337*
- Common Emergency Situations *340*
- Other Emergency Procedures *350*
- Summary *352*
- Review Questions *352*

Glossary ***353***

Piyali Basu, Maya Chattoraj

Appendices ***379***

Piyali Basu, Maya Chattoraj

Index *385*

2

The Medical Office

Bibhas C Bandyopadhyay, Vivek Khanwalkar

FUNCTIONS OF MEDICAL OFFICE

The medical office is a place where patients go to meet healthcare provider and his/her office staff for care and information about health issues. The medical assistant is acting as liaison between the patient and the doctor. There is no such thing as a "typical medical office". As long as the patient feels comfortable in a professionally friendly atmosphere, and the doctor is able to listen, examine and make the diagnosis of the health problem with plan for treatment, the office has served the purpose. Thus, the basic goal of the medical office is as follows:

- Make appointment for the patient to meet the doctor, answer relevant questions of the medical issues
- Provide questionnaire of medical history and current illness of the patient for record
- Take the vital signs, obtain pertinent information about patient's present health problem to make arrangement for the medical examination of the patient by the doctor
- Check recommendations ordered by the doctor and perform or order for various diagnostic tests to be done inside and outside the office
- Report back the test results to the doctor
- Collect cash for the service rendered, submit claim to the insurance agency and collect insurance payments or refund for over payment to the patient
- Contact outside agencies regarding orders recommended by the doctor, notify patient regarding test results and give reminder for follow-ups or referrals to other healthcare providers.

Parking Facilities

It is customary for the medical office to provide parking facilities for the office staff and the patients. The physician may have his/her personal arrangement with local nearby garages. A special consideration should be made for handicaps regarding reserved parking spots, easy entrance to the building, mobility in the hallway, main office door easy opening system and all the way up to patient's registration counter as well as to a comfortable sitting in a waiting area. If needed, office should provide wheel chair and trained personal assistance for bringing the patient inside the office.

If this is not possible, instructions must be provided by the office for parking and transportation. A mailed welcome letter with a map of location of the office and driving direction prior to the appointment day adds comfort in patient's mind.

JAYPEE BROTHERS

Office Environment

The medical office creates a lasting impression in the mind of the patient. From the time the patient comes until he/she leaves the office the patient should feel secured to give personal, medical information and confident to feel better with time. This impression starts building up as soon as he/she makes his/her first telephone conversation to seek appointment. This begins by the welcome received on entering the office for the first time, the appearance of the office, reception area and the treatment received from the office staff and the physician during the entire office visit.

A clean, tidy medical office with pleasant surrounding attracts the patient and that helps in the business. Most often the medical staffs get used to "that medical smell" which could noticeable to outsiders. Even though the office looks clean, there can be offensive hidden odor which is evident to patients and visitors. Odors causing the "medical smell" may be due to dust trapped in corner, urine and feces, vomitus, disinfectants and antiseptics, cleaning materials or body odor from patients. Some of the recommended procedures to correct this include:

- Use of unscented air fresheners
- Keeping the bottles of disinfectant, antiseptic and cleaning materials bottles tightly closed
- Discard the antiseptic wipes and swabs in proper containers
- Cleaning and disinfecting spills or accidents quickly and thoroughly
- Keep good ventilation.

Spray air fresheners will only mask the odor temporarily but may not completely eliminate it. In addition, the spray very often leaves a residue on the furniture and walls. Plug in air fresheners release a clean pleasant scent which last longer than the spray.

Communication with Patients

The medical assistant plays a vital role in creating the medical atmosphere in office comfortable to patients. The following factors are increasingly important in making the office a pleasant place for the patient to come.

Empathy and Impartiality

Treat all patients with empathy and equality. Empathy is putting you in the place of the patient in order to comprehend his/her feeling. If the patients notice you are nice to someone and unfair to someone else, patients do not want your sympathy. They want you to treat them equally as others, understand their feeling and help them to feel better.

Listen and Observe

The best communicators spend more time listening than speaking. A professional medical assistant is trained to listen and tune in to the needs of the patients. Never lose sight that the medical assistant is an extension of the physician's eyes, ears and thinking pattern.

Verbal and Nonverbal Communication

Very often all our feelings cannot be communicated verbally. It is imperative to respond to all verbal communication of the patient but every effort should be made to pick up the nonverbal communication as well, in order to understand the patient completely.

Expressing Caring Attitude as a Professional

There are two ways you can appropriately express your concern the way you speak to the patient and your body language. Let the patients tell their story and validate patient's feelings, recognizing that the patient may be uncomfortable with them but can benefit by acknowledging them and having someone else acknowledge them. Your body language starts by the way you position yourself during your conversation with patients. Sit by his/her side, not standing and talking, stay at equal height with the patient, touch his/her hand to express your professional concern and promise for rendering the best possible care.

JAYPEE BROTHERS

Value of Effective Relationship with Patients

A medical assistant who gets to know a patient well can be of invaluable assistance to both the patient and the doctor, a true liaison. The experience of being understood and cared builds trust in the patient's mind and it is one of the important steps in beginning for healing or copes effectively with a chronic medical condition.

Adapting to Guidelines for Effective Communication

Two major barriers in effective communication include:

1. Language barrier
2. Impaired senses (hearing, vision, mental disability, dementia, anger, emotion and others).

The best way to overcome language barrier is to avail a translator who can be a member of the family or a volunteer in the staff or in the community. Medical assistant should plan ahead so that the flow of communication is not interrupted. Cultural barrier in communication is overcome by understanding a different culture and honoring it. Variation is a natural phenomenon and disrespectful to other cultures is a sign of ignorance.

For patients with hearing difficulty, speak clearly, slowly and in short sentences using simple words. Do not raise your voice. Keep a constant eye contact. While speaking move your lips with words they know and continue to recognize patient's response. Use facial expression and body language. Try sign language or write in simple language for the patient to understand. Repeat what you said in a different way and never raise your voice (sometimes talking loud does not help in hearing or understanding). Your tone of voice should express your concern and empathy, not imply that the patient is not intelligent. Those with limited understanding of medical complexities like children, elderly (especially those who suffer from some degree of dementia), and those who are mentally disabled need constant reassurance of your good communication attitude. Be direct and complete in you explanation of every procedure. Here is an example of communication between a child and the medical assistant:

Not Recommended: "I am going to draw your blood. It's going to hurt for just a moment."

Recommended: "I am going to use a needle and syringe to take some blood from your arm. I'm going to push the needle through the skin, into a place where your blood is present. It will feel like someone is pinching you, but for a second. At the end, I will put a Band-Aid on your arm, and it will stop bleeding."

Always make sure that the parent/guardian or an adult with full understanding of the procedure is present and gives the consent.

Communicate verbally for those with impaired sight. To help vision impaired patient from the waiting room to the examination room, you may need to touch them gently and guide them. Usually people with impaired vision prefer to take your arm and follow your movements rather than having you try to steer them. You need to explain exactly where things are, a clock image sometimes helps. For instance, "Your examination table is to your left at 9:00 location" or "Your clothes hanger is right in front of you at 12:00 position."

Anxiety, anger and other emotions often create patients inability to understand. It is most often temporary but should be handled with care. Anxiety is a response to an unknown outcome Anger is the flip side of anxiety. It is natural instinct. In a situation like this, you have to get the person's attention, slow down the conversation, giving a break in your talk and help the person to focus on the conversation. You should assume that the anxious person will not be able to remember the conversation and hence, try to write the instructions. There are two ways by which anxiety in the patient can be handled:

JAYPEE BROTHERS

1. Politely naming the emotion which helps the person to gain control
2. Accept the strong emotion with compassion; this decreases the sense of fear.

A statement like, "You seem really anxious" or "It is hard to concentrate when things seem really scary" may help.

Encourage the patient to take some slow deep breaths. If the person is breathing too rapidly (22–24 breaths a minute) you may suggest breathing into a paper bag. Drinking cold water may also help. Stay with the person until the symptoms begin to subside, usually 1–2 minutes. After the person has returned to a level of relative calmness, you can resume your communication about the medical issues and other business at hand.

GENERAL LAYOUT OF MEDICAL OFFICE

Whatever the organizational setup for the medical office may be a single private, in a group, community-based (government) or hospital-based outpatient clinic—the general pattern of the patient's care through the medical office can be stated as below (Fig. 2.1):

- *Entry:* Reception of patient in accordance with previously scheduled appointment
- Submission of personal (address, phone number, emergency contact, etc.) information and about payment for service (insurance/cash payment)
- Recording of medical history and current ailment (questionnaire)
- *Patient preparation*: Vital signs, height and weight
- Medical examination and diagnosis
- *Doctor's recommendations*: Investigative (further diagnostic tests), therapeutic (prescription) plans
- Specimen collection for referral laboratory
- *Follow-up instructions*: Physician and medical assistant
- Exit area answer to any question, cash or credit card collection and submit the bill to collect insurance
- Return appointment.

Outline of Medical Office

The five basic areas of the office are:

1. Reception area and waiting room
2. Medical record and office business area

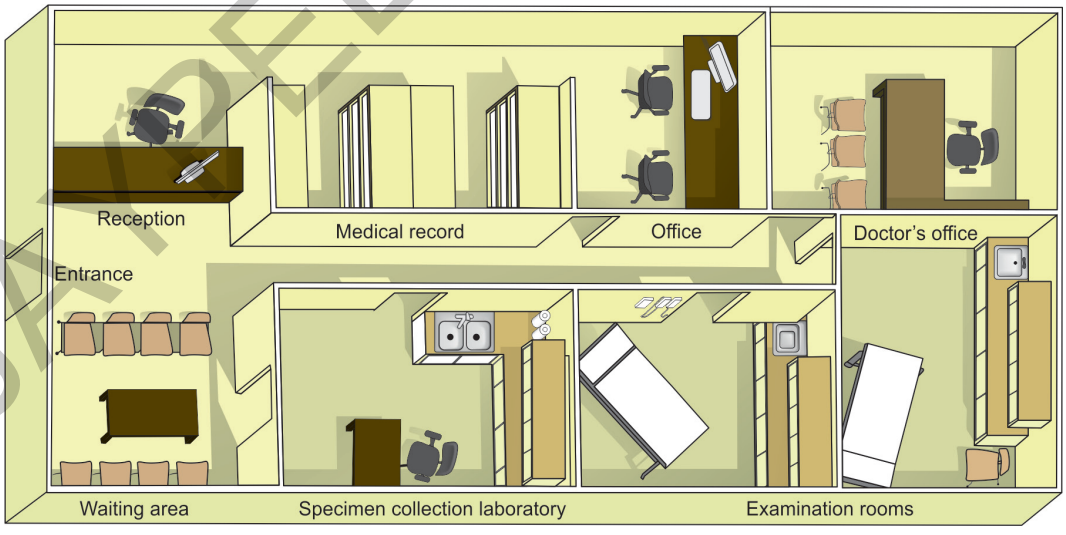

Fig. 2.1: Typical lay out of a medical office.

JAYPEE BROTHERS



Fig. 2.2: Reception area and patient's waiting area.



Fig. 2.3: Examination room.

3. Doctor's private office
4. Examination and preparation rooms
5. The laboratory and specimen collection area (Fig. 2.1).

In addition, there will be room for lavatory cleaning materials, biohazard dispose area and a small area in the office for the workers to take break or lunch room.

Reception Area and Patient's Waiting Area

Reception area is the first welcome window and patient's personal introduction to the office (Fig. 2.2). It is also the waiting area before the patient is called for examination by the medical assistance and the physician. For this reason, the reception area should be neat, clean and pleasing to the eyes. Following are components of a decent reception area with a medical atmosphere:

- A soft background music
- A corner with coat rack and umbrella stand
- Comfortable and well-placed seating
- No glare light fixture
- Hanging pictures of pleasant scenes
- Small table between chairs
- A rack with tasteful magazines and brochures.

Allocate a play area for children, away from main reception area that has a separate rack with children's books and magazines. Wall-mounted TV with closed caption adds comfort in waiting period. A toy chest in children area with safe and non-noisy toys keep young people occupied.

The window of the receptionist is usually next to the waiting area but not a part of it. This allows the business area isolated from the activity of the reception area. This promotes patient confidentiality and provides a private work area for the receptionist. It is important that the receptionist should always keep an eye on the reception room. If it appears to be "messy," a few minutes should be taken to tidy up.

Examination Room

The examination room is the vital work area of the medical assistant and the physician where the patient interacts with them (Fig. 2.3). Hence, it should be kept neat and clean. It should be convenient for the healthcare provider and comfortable for the patient. Ideally, it should be 8 × 12 feet in size with enough walking space for one physician and one medical assistant to move about easily. Consideration should be made for wheel chair entry in the room for the handicapped. All supplies and equipment should be within arm's length and labeled for easy access and must be kept in good working condition. The medical assistant should know the technician who is responsible for the proper working of the equipment and should be contacted immediately in case it is "down".

JAYPEE BROTHERS

A typical examination room should have the following:

- Examination table
- Gooseneck lamp
- Sitting stool with wheels for the physician
- Chair for the patient
- Side table for writing reports
- Paper towel dispenser with paper
- Regular waste container
- Biohazard container
- Container for discarding needles
- Blood pressure instrument
- Otoscope for ear examination
- Ophthalmoscope for eye examination.

Special equipment like electrocardiographic machine is pulled in when needed. Documenting in the patient's chart as the patient described his or her symptoms is necessary for accurate charting. This is done on the side table. Use of tablet is common as it provides a hard back to write. A chart rack outside the examination room (with very minimal visibility of patient identification and record by others) helps to hold the patient's medical record which the physician reviews before seeing his/her patient in the examination room.

Clinical Work Station

This area is for specimen collection and performing "in-house" diagnostic tests. Laboratory attached to physician's office is of great value in developing countries. Many of these offices are far from the cosmopolitan cities and quick diagnostic tests are of great value for routine diagnosis. The increased availability of rapid-test kits and small easy-to-operate analyzers has broadened the scope of testing in the physician office laboratories. Several common laboratory tests, such as hemoglobin, hematocrit, glycosylated hemoglobin, urine reagent strip for multiple testing, rapid strep test from throat swab, erythrocyte sedimentation test, simple immunoassays, prothrombin time test, pregnancy test, blood glucose and fecal occult blood can be performed by the medical assistant.



Fig. 2.4: Physician's private office.

Physician's Private Office

The physician's office (Fig. 2.4) should relay a personal atmosphere to the patient. A family picture on the table and display of physician's medical degrees and license hanging on the wall will be appropriate. The office is often used as consultation room for private conferences with patients and family members. Hence, the physician's office should have a pleasing atmosphere. The physician's office should be away from patient traffic to allow the privacy. Following are some of the essentials in the physician's office:

- Business desk with high back chair
- Comfortable chairs for the patient/family members/visitors
- Storage cabinet matching the desk
- Bookshelves and book cases
- Lamps
- Desktop filing bins
- Telephone
- Laptop
- Dictating unit.

The medical assistant must bear in mind that the physicians may not be the best housekeepers. Their offices can sometimes become messy. It is important that the office be kept neat but the medical assistant should enter to "tidy up" after seeking permission from the physician.

JAYPEE BROTHERS



Fig. 2.5: Medical office.



Fig. 2.6: Break room for office personnel.

Other Areas

Medical Office

The office area is used for conducting official businesses like making appointment, financial records and correspondences (Fig. 2.5). This is separate from the area that keeps medical records.

Restrooms

Restrooms are essential requirement in a medical office. It can be made unisex or if space permits male and female restrooms should be separate. All restrooms should be clean and sanitized at convenient intervals or at least once a day. Arrangement and stocking of the restrooms should be done by the staff or someone responsible for the job. The following should be included in this arrangement and when consumable products (e.g. toilet paper, hand-washing soap) are exhausted it may be replenished by the office staff.

- Toilet dispenser and toilet paper or alternate arrangement for washing private parts
- *Specimen container*: Urine and fecal material
- Sink
- Soap dispenser
- Drinking cup dispensers/stocked with disposal cups
- Facial tissue paper
- Towel
- Waste container
- Wall mirror
- Under sink storage cabinet stocked with necessary sanitizing supplies
- Consideration should be made for accessibility of the room by handicapped and wall-mounted small rack for diaper change.

Break Room for Office Personnel

The break room with small kitchenette is an essential area for the staff to retreat for short breaks and lunch periods (Fig. 2.6). It is usually on the back of the office. It has minimal small equipment and supplies adequate for the purpose. Most often the following arrangement will be suitable:

- Small table with chair
- Counter
- Telephone
- Wall clock
- Sink and soap dispenser
- Paper towel or cloth towel
- Microwave
- Refrigerator (no medicine like vaccine storage in it)
- Storage cabinets
- Bulletin board: Special notices and announcements, concerning the business, are posted.

This common area is only used by the office staff, and all staff members using the equipment and supplies should be responsible for tidying up after themselves.

JAYPEE BROTHERS

Utility Area

The utility area keeps those things which are needed to maintain cleanliness in a medical office such as cleaners, disinfectants, heavy duty cleaning powders, buckets and cleaning tools like mops, etc. Depending on the space available and design of the office, utility area can be designated below sink of the bathroom not commonly used by the patients or kitchenette or closet off the main hall-way. Most commonly used items are listed here:

- Bleach
- Lysol disinfectant
- Window and mirror cleaner
- Dust clothes
- A mop, broom and dust pan
- Vacuum cleaner
- Spray bottles for the dispensing liquid cleaners.

MAINTENANCE OF FACILITIES

Routine Cleaning

All medical offices must be kept clean at all times and must be done after each patient's visit. Most often daily end of office hours cleaning and maintenance could be done with a contract to a cleaning company. Cleanliness and tidiness of the office surroundings, examination rooms, and working areas create a permanent impression in the mind of the patient and that of the physician's standard and subsequent quality of care provided by him or her. This involves mopping the floors, cleaning the windows, vacuuming the carpets, polishing the furniture, general dusting, disposing biohazard items properly and thorough cleaning of all restrooms. The medical assistant should take the responsibility to overlook all these areas with proper guidance to others.

Laundry

Most modern medical offices require gowns, spread sheets, blankets, towels, physician's coat and pillow cases to be laundered. Ideally, for sanitary reasons, they should be used only once which is not possible in developing countries. Hence, they are either washed in a local laundromats or pressed by the cleaning ladies or could be done under contract to a private large medical laundry company. It is important to keep a generous supply of the disposable items in the cabinets of the examination room. Extra supplies are kept in an easily accessible storage area. Physician's coat is always kept in the doctor's office. One should keep in mind that these materials may be infected and hence their transportation and cleaning must be done with special care. If surgeries and procedures done by the physician require linens, which could be soaked by body fluid or blood on regular basis then, it is recommended that the laundry facilities should be maintained on the premises.

Office Equipment

The medical office has a number of equipment which should always be in working condition to provide efficient service and best quality of care. Following are some of the common equipment found in the doctor's office:

- Computers
- Typewriter
- Answering machines
- Fax machine
- Copier
- Calculator
- Electrocardiograph
- Scales for taking weight
- Thermometer
- Blood pressure instrument.

Apart from the above list, the laboratory may have;

- Autoclave
- Microscope
- Otoscope
- Ophthalmoscopes.

JAYPEE BROTHERS

Read the manual and follow the instructions for care and maintenance of the individual unit. Keep all operating manuals handy near the equipment or in a storage place known to other office staff. The office must have the telephone number (helpline) of all the equipment in the office. Major medical equipment will have a serial number on the back. This number is required by the manufacturer to find out its details. Many times the operator's manual has the serial number otherwise look for it before calling the manufacturer or servicing company.

Today, many pieces of equipment are battery operated. Always check the battery before taking any action. As a thumb rule, before calling the technician for repair check the instrument if there are any loose screws or something obviously coming on the way of its operation. If it is a major breakdown, request a service call with the local representative of the manufacturer. Keep in mind that the service calls cost physician money. So make sure that the service call is necessary. Many times the service call may end up with the turning on the switch or just simply replacing a new battery. If the machine is within the warranty period it will be fixed free in accordance with the warranty extended by the manufacturer.

Checking Physician's Medical Carry-on Bag

In developing countries the physician often makes house calls. His typical big size black-color portable bag goes with him that contains essential supplies and equipment to do a routine bedside examination. The medical assistant needs to check the bag frequently depending on number of times of use and keep it stocked as needed or requested by the physician. The following are the items the physician needs to carry to examine the patient:

- Stethoscope
- Otoscope and a wax loop
- Ophthalmoscope
- Blood pressure cuff with gauge
- Tongue depressors
- Bandages (sterile and nonsterile)
- Cotton balls, gauze, cotton-tipped applicators
- Latex gloves
- Alcohol wipes
- Pen flashlight
- Prescription pad
- A letter head small pad for referral or for ordering diagnostic studies
- Antibiotics (wide range)
- Local anesthetics
- Antihistamine
- Iodine or other skin disinfectant
- Pain killer (analgesics)
- Ibuprofen or acetaminophen
- Needle and syringe
- Scalpel (or blade with handle) in a sterile pack
- Hemostats and tissue forceps in a sterile pack
- Probes in a sterile pack
- Scissors (sharp tip and blunt tip) in a sterile pack
- Sutures (packaged and labeled according to size)
- Sterile specimen container
- A self-sealing bag for soiled or used instruments.

All instruments (needle, scalpel, probes, etc.) in sterile bags must labeled clearly. Whenever the physician returns from a visit away from the office, the medical assistant must make time to check the medical bag. Soiled instruments should be removed, sanitized, sterilized and replaced; and other items should be restocked as needed.

OFFICE WORKING SYSTEM

The doctor's office is the place where the medical assistant participates in the "lifeline" flow of medical practice. The flow starts when the medical assistant receives (reception) the patient according to the previous "appointment". The medical

JAYPEE BROTHERS

assistant after taking the patient in the examining room should introduce him/her to the patient by telling his/her name and tell the patient who he/she is before going to patient's history taking. This time the patient and/or the family members should be politely asked to turn off all the mobile phones which may be very disruptive during communication between patient and healthcare provider. The medical assistant takes relevant information from the returning patient and in order to update his/her "medical record". If it is a new patient, he/she opens up a new file with detailed personal information. After receiving the patient the medical assistant takes vital signs, keeping a brief summary in his/her mind about patient's reason for the visit, the person who referred the patient and makes arrangement for the doctor to "examine" the patient. The duty of the medical assistant continues in filing doctor's orders to the patient, discuss with the patient in order to clarify the orders, arrange for diagnostic tests, take specimen for in-house or outside laboratories, handle prescription in coordination with the pharmacy, follow-up appointment and prescription "refills". He/she also take emergency calls during office hours and react to that, follow-up calls to check patient's medical condition, helping business office staff in "billing" with proper diagnostic coding, informing check out staff about the office procedures rendered by the physician on top of the visit and filling *insurance* papers, and keep in touch with all *external agencies* connected with the diagnosis relevant of patient's ailment. In addition, he/she provides *general information* to the patient about his/her medical problem before his/her arrival. Medical assistant has an important role in *record keeping,* maintenance of equipment and inventory check, ordering supplies and keeping the lavatory in completely functioning condition on daily basis to keep the flow of office work without interruption. Depending on the practice speciality and situation, there may be other duties that he/she may have to attend.

Daily Responsibilities

Getting things organized makes the work less burdensome and more enjoyable. The attitude of service adds to the spirit and one finds joy in the routine responsibilities. It is good to have a checklist of expected duties and schedule time accordingly, knowing that interruptions must be handled whenever they occur.

Opening of the Premises

Opening of the office is the first job responsibility for the medical assistant. It is good idea to list them in the office procedure manual and posted for quick reference. These include the following; although, there may be other items but they all must be done before the first patient arrives:

- Disarm the alarm system
- Turn on the lights
- Turn the air conditioning/heat on as needed
- Check the answering machine for messages
- Unlock all entry doors
- Unlock all file cabinets and drawers, and supply cabinets (except the medical supplies)
- Turn on computers, copy machine and book keeping system
- Check the waiting area for cleanliness, safety and temperature
- Check examination room for readiness
- Pull all charts of the patients scheduled for the day and make them available to the physician when needed
- Check overnight faxes and laboratory results.

Planning for the Day

The day in the medical office revolves around the appointment book. So the medical assistant first checks the patient's scheduled for the day. For smooth running of the day, it is recommended that the medical assistant list all patient's name, appointment times and the reason for the visit. Copies of the daily schedule may be posted with the receptionist and the physician. Some discussion with the receptionist may be made

JAYPEE BROTHERS

in early part of the office day if the appointment time for some possible multisystem problematic patients is not compatible. This facilitates in coordination and there is less chance of "running behind". This is the time to pull out the charts of the returning patients who will be seen on that day. Looking for the return chart when the patient has already arrived can be stressful. You can imagine the frustrating situation for the patient to be sitting in the examination room waiting to see the physician while the medical assistant is frantically trying to locate the patient's chart or test results.

Closing the Premises

Before closing the facilities each room should be checked to make sure that all equipment is shut down and doors and windows are secured. Equipment power supply is turned off. All medical records are closed and locked to ensure patient's confidentiality. All drugs, narcotics or others must be locked and secured before closing the office. Petty cash must be put in the safe. Before closing it is better to put all rooms and waiting area in readiness for the next day with original rearrangement of furniture and magazines. All checks must be put back to the safe for their deposit in the bank on the same or next day. The receipts must be properly filed. Turn on the security system and inside-outside light for safety. Always contact the security and the answering service to notify them that the office is closed and how the medical assistant or the physician can be reached in an emergency.

Duties of Office Personnel

The general office duties of a medical assistant can be listed in eleven categories:

1. Make appointments and time control
2. Reception of patient
3. Attending the telephone
4. Written communications
5. Attend to office mails
6. Maintaining medical records of patients
8. Take vital signs of patient
9. Maintenance and inventory: Keeping track of supplies
10. Billing, collection and insurance filing
11. Follow-up test results for patients
12. Availability of the physician during closed office hours and in emergency.

These will now be discussed:

Making Appointment and Time Control

In order to avoid confusion, all appointment scheduling must be done in central office area. This enables smooth patient flow during the entire day. It can be done manually or by computerized time allocation needed for patients with certain type of health problem. A variety of appointment books are available to different types of medical practices. The physician chooses the book that suits to his/her practice.

The appointment book is the "holy scripture" of any medical practice. All notations and abbreviations must be accurate and complete and should be familiar to the medical assistant and other office staff. Medical assistant should keep in mind that the daily appointment schedule is usually an official legal record of patients seen on a given day.

Abbreviations: Abbreviations are a shortened way of writing a word without losing the meaning of that word. They are of tremendous help when booking appointments. The typical appointment book would not have space to write out complete "physical examination" next to patient's name. Instead, the abbreviation of "CP examination" could be used. Medical assistant should know the commonly used abbreviations as given below (Table 2.1).

Methods of scheduling: Appointments are scheduled either manually, by using an appointment book, or by computer, using scheduling software. Some offices use both.

The appointment book is usually spiral bound so that it can lie flat. There are many kinds of

JAYPEE BROTHERS

Table 2.1: Some abbreviation samples commonly used in appointment book

Blood work	Bld
Blood pressure	BP
Complete physical	CPX or CPE
Emergency	EM or ER
Injection	Inj
Illness	Ill
Laboratory	Lab
New patient	NP
No charge	NC
Office visit	OV
Preadmission	Pre-Ad
Returning patient	Est. Pt
Test results	TR
X-ray	XR

appointment books. Choose the one that suits the practice. The most common one has pages for a single day where the left column shows time in rows divided in 20 minutes intervals (Table 2.2). The hour will be bold and 20-minute segment in lighter type.

Note:

- Appointment interval can be adjusted to 15 or 20 minutes depending on the practice's needs.
- Use pencil while writing in the appointment book.
- All cancellations and corrections should be done in red ink and then timed and dated. This is required by law. This is a part of inquiry by the Internal Revenue Service to assess the number of patients seen by the doctor.
- It is easy to set up follow-up appointments, change appointments and set up a rescheduled appointment so that patients can be contacted when it is time for them to schedule an appointment.

Schedule for October 24, 20xx (10/24/20xx)
For Dr Ramdin Misra

Table 2.2: Typical appointment book

Time	*Patient*	*Phone*	*Comments*
8:00a	Hospital round		
8:20a	↓		
8:40a	↓		
9:00a	Rajendra Tewari	PE	
9:20a	↓		
9:40a	~~Mangal Pandey~~	~~Recheck~~	Cancelled - 8 am, 10/12
10:00a	Manmohan Mukherjee	Recheck	
10:20a	Bireswari Goswami	2 yr PE	
10:40a	↓		
11:00a	Gopal De	Recheck; Bld 2 weeks ago	
11:00a	Srinivasan Murty		
11:20a	Rajendra Khanwalkar	3 yr PE	
11:40a			
12:00p	LUNCH		
12:20p	↓		
12:40p	↓		
1:00p			
1:00p			
1:20p			
1:40p			
2:00p	Piyali Bose	PE	
2:20p			
2:40p	Staff conference		
3:00p			
3:20p			
3:40p			
4:00p	Meeting at hospital		
4:20p	↓		
4:40p	↓		
5:00p	↓		

JAYPEE BROTHERS

for detailed information on medicine books, visit our website **www.jaypeebrothers.com,** for detailed information on medicine books, visit our web

MODERN MEDICAL ASSISTING

With the goal of upgrading the healthcare delivery system in India, this book *Modern Medical Assisting* was written. The editors have worked at different levels in India and are highly placed professionals in the western environment. The senior Editor has not only lived in India but also personally travelled to all parts of India, for three years (1983–1986) including remote villages, as a Fulbright Visiting Professor. Hence, the materials presented here are intended to be of practical rather than merely of academic use.

Training Medical Assistants, at the undergraduate level, has yet to be fully implemented in India. Trained medical assistants can then relieve the doctors to dedicate more of their time in the more complex process of diagnosis and therapy. Thus, this book is the first textbook for Medical Assistant training designed specifically for the developing world.

The book has some unique features to help learning. Every section begins with a chapter outline in order to overview the later discussions. Profuse illustrations and formats of documentation will help the medical assistant as well as the physician to organize their office functions. Most importantly, procedures are explained step-by-step using simple language, using familiar words and expressions, in the environment of the developing world. Each chapter ends with a chapter summary and practical questions which will help the students to assess their understanding of the topics discussed.

We hope that the book will become a standard manual to be used in physician's offices throughout the developing world.



Kanai L Mukherjee PhD MT (ASCP) has extensive teaching experience in India as well as in the United States of America. He graduated from Banaras Hindu University and later became a member of its teaching faculty. He came to USA for his post-doctoral fellowship and joined the Department of Internal Medicine in the University of Iowa as a research fellow and published numerous papers in the field of infectious disease. Here he also received his Medical Technology Certification offered by Association of Clinical Pathologists (ASCP), USA. Later he moved to Baltimore to work in collaboration with Johns Hopkins University to train medical assistants, medical technologists as well as physician assistants at Essex Community College. He was the Director of the Medical Technology Program in Essex Community College, Baltimore, Maryland, USA. He has published four books in the fields of Medical Technology, Medical Assisting, and Laboratory Mathematics. He received the prestigious award of "Fulbright Visiting Professor" for three years and toured various parts of India in collaboration with the Medical Technology Association of India, to gain experience in the practice of medical technology in India.



Anuradha Chakravarthy MD is a radiation oncologist who specializes in treating cancers of the breast and gastrointestinal tract. She graduated from George Washington University in Washington, DC and went on to complete a residency in Internal Medicine at the Mayo Clinic, Rochester, Minnesota, USA. She completed a fellowship in Medical Oncology at the University of Maryland followed by one in Radiation Oncology at Johns Hopkins University where she remained on as faculty. She is currently Professor and Program Director in the Department of Radiation Oncology at Vanderbilt University Medical School, Nashville, Tennessee, USA. She has published numerous peer-reviewed papers and chapters and has been co-editor of multiple books.



Bibhas C Bandyopadhyay MD (Dr. Bandy) was born in Kolkata, West Bengal, India. After receiving his MBBS degree with honors from Calcutta University he migrated to US in 1967. With extensive internship and residency training in Jersey Shore Medical Center, Neptune, New Jersey, Greater Baltimore Medical Center, Baltimore and finally in Johns Hopkins Medical Institution, he became Assistant Professor in Department of Otolaryngology and Head & Neck Surgery in the same institution. After several years of academic life he started private practice in Hagerstown, Maryland in specialty of Otolaryngology (ENT) in 1977. During his very busy practice life in Washington County Hospital he served as a chief of the department of Otolaryngology, Head & Neck Surgery of the hospital and was elected to be the president of Washington County Medical Society. Maryland honored him as the Physician of the year award in 2009 for his outstanding quality of patient care in the community. Dr Bandy is certified by the American Board of Otolaryngology and he is a fellow of American College of Surgeon. He edited several chapters of the book Medical Laboratory Technology McGraw Hill Publication.

Available at all medical bookstores
or buy online at www.jaypeebrothers.com

JAYPEE BROTHERS
Medical Publishers (P) Ltd.
www.jaypeebrothers.com

Join us on facebook.com/JaypeeMedicalPublishers

Shelving Recommendation
MEDICINE

ISBN 978-93-5152-419-9