Chapter 18

Patient Exams and Procedures
Review Tip

• Can you identify instruments and equipment?
• Practice recognizing various instruments and their medical uses
• Also study the various body positions
Procedures
Procedures

• Every procedure has commonalities
  • Use 2 metrics to identify the patient
  • Utilize appropriate aseptic and safety practices
  • Explain the procedure to the patient
  • Assure patient is provided with and understands all instructions

• Medical assistant responsibilities
  • Observe patient for baseline behaviors, changes, signs and symptoms
  • Continue observation throughout entire visit
  • Promptly record all information
  • Compare previous data with newly obtained data
Patient Interview
Patient Interview

- Review the knowledge, techniques, and skills from previous chapters
- Expected standards
  - Professionalism
  - Adherence to HIPAA
- Interview process
  - Chief complaint
  - Symptoms
  - Medical-related histories
    - Family history
    - Patient medical history
    - Social and environmental history
    - Screen for abuse and domestic violence
    - Preventive health maintenance
    - Condition-specific monitoring
Common Assessment Measurements
Common Assessment Measurements

• Anthropometry
  • Comprises of signs, functions and capacities
  • Objectively determined by the senses
  • Objectively determined by specific equipment and tests
Vital Signs

Body temperature
- Measured by thermometer
- Use either degrees Fahrenheit or degrees Celsius
- Thermometer
  - Mercury
  - Electronic
  - Disposable
- Common sites

**TABLE 18-1** Normal body temperature comparisons by common sites

<table>
<thead>
<tr>
<th>Route</th>
<th>Thermometer</th>
<th>Normal Temperature in Fahrenheit</th>
<th>Normal Temperature in Celsius (Centigrade)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mouth</td>
<td>Oral</td>
<td>98.6°</td>
<td>37°</td>
</tr>
<tr>
<td>Rectum</td>
<td>Rectal</td>
<td>99.6°</td>
<td>37.5°</td>
</tr>
<tr>
<td>Armpit</td>
<td>Axillary</td>
<td>97.6°</td>
<td>36.4°</td>
</tr>
<tr>
<td>Ear</td>
<td>Otic, aural or tympanic</td>
<td>98.6°</td>
<td>37°</td>
</tr>
</tbody>
</table>
Vital Signs  cont’d

Pulse

• “Beat” caused by expansion and relaxation of artery wall
• Expressed in bpm
• Regular rates
  • Adults: 60 to 100 bpm with regular rhythm
  • Age 1 to 10 years: 70 to 120 bpm with regular rhythm
  • Infants: 100 to 160 bpm with regular rhythm
• Methods to obtain pulse
  • Manual
  • Doppler
  • Electronic sphygmomanometer
Vital Signs  cont’d

Pulse  cont’d

- Anatomic sites

- Carotid
- Brachial
- Radial
- Ulnar
- Femoral
- Popliteal (behind knee)
- Posterior tibial
- Dorsalis pedis
Vital Signs

Respirations

• Measurement of number of respiratory cycles per minute
• Done by observation
• Consists of inspiration and expiration

<table>
<thead>
<tr>
<th>Age</th>
<th>Respirations Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>0–1 y</td>
<td>20–40</td>
</tr>
<tr>
<td>2–6 y</td>
<td>20–30</td>
</tr>
<tr>
<td>6 y through adult</td>
<td>12–20</td>
</tr>
</tbody>
</table>
Vital Signs  cont’d

Blood Pressure

• Measurement of force of blood on the artery walls during systole and diastole
• Record as fraction
• Korotkoff sounds
  • Phase I
  • Phase II
  • Phase III
  • Phase IV
  • Phase V
• Pulse pressure
  • Difference between systolic and diastolic pressures
Vital Signs  cont’d

Blood pressure  cont’d
• Orthostatic pressure
  • BP taken in 3 positions
• Sphygmomanometer
  • Mercury
  • Aneroid
  • Electronic
• Stethoscope
### TABLE 18-3  Blood pressure category designations from the National Heart, Lung and Blood Institute

<table>
<thead>
<tr>
<th>Category</th>
<th>Systolic</th>
<th>And</th>
<th>Diastolic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normal</td>
<td>&lt;120</td>
<td>And</td>
<td>&lt;80</td>
</tr>
<tr>
<td>Prehypertension</td>
<td>120–139</td>
<td>Or</td>
<td>80–89</td>
</tr>
<tr>
<td>High blood pressure (hypertension)</td>
<td></td>
<td>Or</td>
<td>90–99</td>
</tr>
<tr>
<td>Stage 1</td>
<td>140–159</td>
<td>Or</td>
<td>100 or higher</td>
</tr>
<tr>
<td>Stage 2</td>
<td>160 or higher</td>
<td>Or</td>
<td></td>
</tr>
</tbody>
</table>
Other Measurements

• Height
  • Recorded in feet and inches or centimeters
• Weight
  • Recorded in pounds or kilograms
• Comparisons of height and weight
  • BMI
    • Health risk assessment tool
    • Estimate percentage of body fat
    • Normal range = 18.5 to 24.9
    • Underweight = <18.5
    • Overweight = 25 to 29.9
    • Obese = 30 and above
Other Measurements cont’d

- Pediatric growth chart
  - Specific to current age and sex of child
Other Measurements  cont’d

Vision

• Acuity
• Snellen chart
• Ishihara color vision test
• Tonometer
• Ophthalmoscopy exam
Other Measurements cont’d

Hearing
• Otoscope exam
• Hearing tests
  • Startle
  • Whisper
  • Tuning fork
    • Weber test
    • Rinne test
• Audiometry
• Impedance audiometry
• Tympanometry
Other Measurements cont’d

Common Respiratory Tests
• Pulse oximetry
• Pulmonary function test
  • Spirometry
  • Peak flow meter
Physical Examination Preparation and Assistance
PE Preparation and Assistance

• Type of examination determines how to prepare and what supplies are needed
• Always explain the procedure to the patient
• Maintain privacy
• Request patient undress as appropriate, providing gowns and drapes
• Ensure patient comfort
Common Supplies and Instruments

- Medical assistant responsible for ensuring all supplies and equipment are readily available

**BOX 18-1**

**Common supplies and tools for routine patient exam**

<table>
<thead>
<tr>
<th>Medical Supply</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 x 4 gauze</td>
<td>(nonsterile)</td>
</tr>
<tr>
<td>Exam gloves</td>
<td>(nonsterile)</td>
</tr>
<tr>
<td>Laryngeal mirror</td>
<td></td>
</tr>
<tr>
<td>Lubricant</td>
<td>(pelvic and rectal exams)</td>
</tr>
<tr>
<td>Nasal speculum</td>
<td></td>
</tr>
<tr>
<td>Ophthalmoscope</td>
<td></td>
</tr>
<tr>
<td>Otoscope</td>
<td></td>
</tr>
<tr>
<td>Penlight</td>
<td></td>
</tr>
<tr>
<td>Percussion hammer</td>
<td></td>
</tr>
</tbody>
</table>
Common Supplies and Instruments  cont’d
Patient Positions
Patient Positions cont’d
• Jackknife
  • Patient lies on stomach
  • Exam table inverted with head lowered and knees at 90-degree angle
  • Arms overhead
  • Sigmoidoscopic exams
Examination Techniques

- Observation or inspection
- Palpation
- Percussion
- Auscultation
- Manipulation
- Mensuration
Common Medical Imaging Exams and Select Preparations
Radiology

- Medical assistants require separate certification
- May be required to provide patient education and preparation for procedure
- Various procedures and examinations
  - X-ray (basic)
  - Angiography (angiogram)
  - Arthrography (arthrogram)
  - Barium enema (lower GI series)
  - Barium swallow (upper GI series)
  - Bone density scan
  - Cardiac catheterization
  - Cholangiography (cholangiogram)
  - Cholecystography (cholecystogram)
Radiology cont’d

• Various procedures and examinations cont’d
  • CT
  • HIDA scan
  • IVP
  • KUB
  • Mammography
  • MRI
  • Myelography (myelogram)
Radiology  cont’d

• Various procedures and examinations  cont’d
  • Nuclear medicine
  • PET
  • Radiation therapy
  • Retrograde pyelography
  • Ultrasonography (ultrasound)
    • Echocardiography (echocardiogram)
    • Fetal ultrasound
Assignment

- Read Chapter 18: *Medical Assisting Exam Review for CMA, RMA, and CMAS Certification*
Thank you for joining me this evening!!!