### General
- **Washes hands, i.e.**
  1) with alcohol based or 15 seconds with soap and water,
  2) before touching the patient,
  3) after finishing the exam

### Vital Signs
- **Measured pulse rate by palpating radial pulse or auscultated at apex of heart at least 30 sec**
- **Measured blood pressure in one arm, 2 step for initial measurement (not baseline record)**
  1) used appropriate size cuff,
  2) placed on inch (2cm) above antecubital space,
  3) inflated cuff 30mmHg above pulse disappearance (palpate or auscultate),
  4) deflated cuff at 2-3mm Hg per sec, until 20-30 below last sound
- **Measured blood pressure in one arm, 1 step for repeat measurement**
  1) used appropriate size cuff,
  2) placed on inch (2cm) above antecubital space,
  3) inflated cuff 30mmHg above pulse disappearance (palpate or auscultate),
  4) deflated cuff at 2-3mm Hg per sec, until 20-30 below last sound
- **Measured Respiratory Rate**
- **at least 30 sec**

### Head, nose, throat
- **Examined head/hair**
- **Performed inspection of nasal vaults**
- **Performed inspection of oral cavity**

### Eyes
- **Inspected conjunctiva (palpebral and bulbar)**
- **Correctly holds ophthalmoscope**
  1) same hand as eye
  2) thumb on light intensity dial
  3) finger on diopter dial
- **Approaches patient properly for fundoscopic exam**
  1) at equal eye level
  2) from temporal side
  3) same eye as patient (or either eye with panopticon)

### Ears
- **Examined External Ears**
- **Correctly held and used otoscope to examine ears**

### Neck
- **Palpated for lymph nodes, in all 9 areas**
- **Palpated carotids**
  - at level of thyroid cartilage
  - right and left (not same time)
- **Auscultates Carotids**
  - with bell
  - bilaterally
  - with patient breath held
- **Inspected thyroid from front or side of patient**
- **Palpated thyroid**

### Chest and Pulmonary Exam
- **Inspects- chest wall for shape and symmetry**
- **Performed percussion of posterior lung fields**
  - cephalad to caudal (top to bottom)
  - bilaterally
  - at least three areas (upper lobe to lower lobe)
- **Performed auscultation of anterior lung fields bilaterally**
  - upright, seated
  - at two levels, at least (upper lobe and lower)
  - both right and left
- **Performed auscultation of posterior lung fields bilaterally**
  - upright, seated
- at least three areas (upper lobe to lower lobe)
- both right and left
- • Auscultates lateral lung fields - one area each, right and left

Cardiac exam
- • Drapes
  - must be able to listen on skin
  - attends to patient comfort, through draping
- • Inspects
  - precordium
  - neck veins, carotid pulse
  - apex of heart (Left Lower Sternal Border, 5th InterCostalSpace)
- • Palpates heart
  - at apex
  - over right ventricle (Left Lower Sternal Border or epigastric area)
  - at base (Right Upper Sternal Boarder, Left Upper Sternal Border)
- • Auscultates with patient in 3 positions, i.e.
  - upright, seated
  - supine
  - left lateral
- • Auscultates in correct locations (all 4 areas of the heart), i.e.
  - Upper right sternal border (aortic area)
  - Upper left sternal border (pulmonic area)
  - Lower left sternal border (right ventricular area)
  - Apical Impulse (Left ventricular area)
- • Auscultates with both bell and diaphragm (all 4 areas)

Comprehensive Abdominal Exam
- • Demonstrated appropriate draping
- • Inspected abdomen
- • Auscultated abdomen for bowel sounds
- • Auscultates for abdominal bruits including aorta and bilateral renal arteries
- • Percussed Abdomen in 4 quadrants
- • Deep palpation, examined all 4 quadrants
- • Palpatated liver edge
- • Percussed liver span at mid-clavicular line
- • Palpated spleen tip

Back/Spine (original 2012)
- • Palpates spine
  - Palpated or percussed costovertebral angles for tenderness
  - Palpated spinous processes of thoracic and lumbar spine
  - Palpated paraspinal muscles of lumbar spine
- • Assesses spine range of motion
  - flexion
  - extension
  - lateral bending

Extremity Exam
- • Inspects and Palpates for deformities
- • Palpates legs for edema with moderate pressure for 5 seconds
- • Inspected feet for ulcers or deformities

Peripheral Vascular Exam
- • Palpates radial pulses, bilaterally
- • Palpates brachial pulses, bilaterally
- • Palpates posterior tibial pulses
- • Palpates dorsalis pedis pulses

Neurological Exam
- • Motor strength, uses appropriate technique
  - isolates motor group, stabilizes across just one joint
  - clearly instructs patient on desired movement
  - provides moderate resistance to movement
- • Motor strength of arms
  - shoulder abductors
  - elbow flexion, elbow extension
  - wrist flexion, wrist extension
- • Motor strength of legs
  - hip flexion
  - knee extension, knee flexion
- ankle dorsiflexion, ankle plantar flexion
- great toe dorsiflexion

<table>
<thead>
<tr>
<th>Musculoskeletal Exam (all but knee added 2013)</th>
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<tbody>
<tr>
<td><strong>Knee</strong></td>
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<tr>
<td>- Inspects knee -- contours/shape, alignment, resting position</td>
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<tr>
<td>- Palpates - quadriceps insertion - patella and patella tendon - medial and lateral joint line, - MCL/LCL origin, insertion</td>
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<tr>
<td>- Range of motion - active knee flexion, knee extension, passive knee flexion, knee extension</td>
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<tr>
<td>- Strength (can check seated or supine) - resisted knee extension (testing quadriceps), - resisted knee flexion (testing hamstrings)</td>
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</tbody>
</table>

| **Shoulder**                                  |
| - Inspects Shoulder -- contours/bony anatomy, muscle contour / atrophy, assess for scapular winging |
| - Palpates - Sternoclavicular and acromioclavicular joints, - Bicipital groove, - Anterior and posterior glenohumeral joint line |
| - Range of motion - active forward elevation, external rotation, internal rotation, - passive forward elevation, external rotation, internal rotation |
| - Strength - resisted forward elevation, - resisted external rotation, - resisted internal rotation |

| **Hip**                                       |
| - Inspects Hip - contour of greater trochanter, iliac crest, alignment (iliac crest level on both sides), - resting position (assess for atrophy, deformity, contracture) |
| - Palpates - iliac crest and Anterior/Posterior Superior Iliac spine, - Sacroiliac joint, - Greater trochanter |
| - Range of motion - active hip flexion, extension, abduction, adduction, internal rotation and external rotation; - passive hip flexion, extension, abduction, adduction, internal rotation and external rotation |
| - Strength - resisted hip flexion and extension, - resisted hip abduction and adduction |

| **Further functional assessment - gait**       |

| **Back/Spine**                                |
| - Inspects Back / Spine -- contours (for lordosis, kyphosis, scoliosis), - alignment (general stance at shoulder / pelvis levels), - assess gait (as patient walks across room) |
| - Palpates -- spinous processes (cervical to lumbar), - paraspinal muscles, - iliac crest and sacroiliac joint |
| - Range of motion -- neck flexion, extension, lateral flexion, rotation; - lumbar flexion, extension, lateral bending |
| - Further functional assessment - reflexes, strength, sensory test by dermatomes (leg - patellar, achilles DTR and L4-S1 strength; arm - triceps, brachioradialis, C5-T1 strength) |

1 Contributions from Kim Tartaglia, Jane Goleman, Cami Curren, Paul Weber, Alan Letson, Julie Bishop, Adam Quick, Mary Beth Fontana, Troy Schaffernocker, Udi Nori, Sheryl Pfeil, Maria Lucarelli