Physical Assessment
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Disclosures
• None related to this topic

Objectives
• Identify history components to establish differential diagnosis and management plan
• Demonstrate advanced physical exam skills that support differential diagnosis and management plan
• Identify and demonstrate physical assessment components in the Medicare Advantage Program assessment visit

Complete physical or focused exam?

Complete physical
• New patient
• Pre surgery
• Work/DOT
• Welcome to Medicare
• Medicare Advantage Program

Focused exam
• Concern, issue/problem, injury, work/DOT?
• History of Present Illness – OLDCARTS
  • Onset
  • Location (radiation)
  • Duration
  • Character
  • Aggravating factors
  • Relieving factors
  • Timing
  • Severity
Problem Solving

Chief complaint and demographics

STOP.
THINK. What’s related to CC?

- Anatomy
- Systems/Physiology
- Predisposing conditions

Begin differential diagnosis thinking
Guides assessments
- Subjective
- Objective

Clinical Reasoning: Differential Diagnosis

identify possible diagnoses

Match possible diagnoses with findings that support (rule in) or eliminate (rule out) diagnoses

Determine top 3 most likely diagnostic hypotheses/assessments

Sorting the results

CC – HPI
OLDCARTS
Pertinent ROS

Subjective

- 70-75% (or more) of the diagnosis is in the history
- Reasons for assessment
  - Problem focus
  - Medication reconciliation
  - Treatment reevaluation
  - Complete physical
- Active listening
  - History of present illness (HPI)
  - Review of systems (ROS)
  - Past medical history / Family history (PMH/FH)
- Environmental exposure very important
  - Epigenetics

Objective

- Focused exam
  - Diagnostic tests to delineate vs. CYA
    - Order diagnostic ONLY if it will change your treatment
  - Complete physical exam
    - Pre surgical
    - Work / DOT
    - Medicare/Medicaid
    - Diagnostic tests may be pre determined
  - Choose wisely

What about Genomics?

- Direct to consumer genetic testing (subjective finding)
  - Parkinson’s
  - Late-onset Alzheimer’s
  - Gastric disease
  - Early-onset Primary Dystonia (a movement disorder)
  - Alpha-1 Antitrypsin Deficiency (which elevates your risk for lung and liver disease)
  - Factor XI deficiency (a blood clotting disorder)
  - Hemeditary Thrombophilia (another blood clot disorder)
  - Gaucher disease type 1 (an organ and tissue disorder)
  - G6PD (a red blood cell condition)
  - Hereditary Hemochromatosis (an iron overload disorder)
  - Bloom Syndrome (elevates risk for cancer)
- Clinical genetic testing (objective data through diagnostics)
  - Pharmacogenomics
  - Disease risk and confirmation

http://www.choosingwisely.org
Genetic blueprint or Pandora box?

• Economic, ethical, legal, and societal impact
• False reassurance in family members with undiscovered risk
• Unnecessary alarm in others with undiscovered protective factors
• Genotype that doesn’t match phenotype
• Genetic variants with no known functional significance
  • i.e., epigenetics and downstream elements
• Very small genetic association effect size
• Complex genome, lifestyle, environment interactions
  • Chronic disease may point towards environmental factors
• Unraveling the complete causal pathways may not be possible

Beware of:

• Incomplete diagnostic decision making
  • ignoring data that doesn’t support your diagnosis
  • failing to recognize other diagnostic possibilities
  • failing to recognize information that confirms a diagnosis
• Using a broad assessment term when data exists to identify a more specific diagnosis
• Failure to discriminate between multiple concurrent problems versus multiple symptoms of a single problem
• Making assumptions
• Overconfidence/insecurity

Complete Physical Assessment

• Hair
• Eyes
• Ears
• Nose
• Mouth
• Neck
• Pulmonary
• Cardiac
• Abdomen
• Musculoskeletal
• Vascular
• Neurological
• Motor
• Coordination
• Integumentary

See handouts

Integumentary

• Inspect
  • Acral - affecting distal areas, hands and feet.
  • Extensor - extensor surfaces, elbows, knees.
  • Flexural - flexural surfaces, axillae, genital areas, cubical fossa.
  • Follicular - arising from hair follicles.
  • Dermatomal - corresponding with nerve root distribution.
  • Koebnerised - arising in wound or scar.
  • Seborrheic - associated with areas where there are sebaceous glands, face and scalp

Integumentary

• Size/shape
  • Annular - open circles.
  • Discoid (or nummular) - filled circle.
  • Arculate - incomplete circles.
  • Recticulate - fine lace-like pattern.
  • Starlate - star shaped.
  • Digitate - finger shaped.
  • Linear - straight line.
  • Serpiginous - snake-like.
  • Whorled - swirling pattern

• Temperature
• Color
• Secondary change (Scaling, crustung, lichenification, keloid)
• Morphology/margin (Asymmetry, border, diameter, raised)
• Texture (Soft/rough, thin/thick, tight/supple)
• Turgor
• Vascularity (capillaries, petechiae, capillary refill time)
• Edema
• Lesions
• Hair/scalp/eyebrows/eye lashes
• Nails (clubbing, thickness, fungal changes)
Hands on workshop

- Thyroid exam
- CV
- Neuro
  - Normal
  - Abnormal
  - Romberg
  - Range of motion
  - Nose to finger
  - Gait

Hands on workshop

- MS - knee and shoulder
  - Knee: [https://www.youtube.com/watch?v=876o6AFKb28](https://www.youtube.com/watch?v=876o6AFKb28)
  - Shoulder: [https://www.youtube.com/watch?v=TDs1IOFYnMo](https://www.youtube.com/watch?v=TDs1IOFYnMo)

See handout

Break

Medicare Advantage Program

- Medicare advantage program has grown from 9.3 million individuals in 2008 to over 17 million in 2015 (representing 32% of all Medicare beneficiaries).
- In 2014: MA program included 3,600 plan options, 15.8 million beneficiaries (30% of all Medicare beneficiaries), and paid approximately $159 billion to cover Part A and Part B services (Medpac report to congress, March 2015)

Medicare/Medicaid In-home Visits

- Improving elder care and health outcomes
- Identify undiagnosed conditions
- Expand continuum of care options with complex chronic care needs
- Remedy home health dangers (i.e., loose rugs, expired or incompatible drugs, abuse)
- Reduced hospital readmission rate
- Home is Clinical Setting
- CMS Focus: “Best Practices” and Quality Scores

Risk Scores

- Health plans with a Medicare Advantage program receive monthly capitated payments for each Medicare enrollee (and are prospective)
- Base rate as national average health status
- Risk score relative to the national average beneficiary
- Risk score to adjust health plan payment from Medicare
- CMS-hierarchical condition category (CMS-HCC) risk adjustment model
  - Demographic characteristics (i.e., age, gender, Medicaid status, institutional status, eligibility-based on disability, and eligibility based on age but originally eligible because of disability).
  - Medical condition (recorded on physician, hospital outpatient, and hospital inpatient claims in the base year)
  - Hierarchy: if diagnoses maps into more than one HCC for a specific condition only the highest cost HCC is used
79 Hierarchical Condition Categories

- Examples
  - Chronic Kidney Disease
  - Major Depressive Disorder
  - Congestive Heart Failure
  - Myocardial Infarction
  - Colorectal cancer
  - COPD
  - Hip Fracture
  - Cerebral Hemorrhage
  - Atrial Fibrillation
  - Prostate Cancer

Star rating 1-5 for MA Bonus

- Plans that do not achieve an overall score of at least 4 stars run the risk of CMS canceling their contract
- Healthcare Effectiveness Data and Information Set (HEDIS)
  - (e.g., BMI, functional status)
- Consumer Assessment of Healthcare Providers and Systems for MA (CAHPS-MA)
  - (e.g., annual flu vaccine, care coordination, getting needed care)
- Health Outcomes Survey (HOS)
  - (e.g., improving or maintain physical health or mental health)
- CMS administrative measures
  - (e.g., clients choosing to leave the plan, beneficiary access and performance problems)
- Part D clinical measures
  - (e.g., medication interaction and management of treatment)

Chart Composition

- Patient demographics
- Consent
- Hospital care?
- Provider information
- Healthcare Durable Power of Attorney (DPOA)/Proxy
- Advance directive
- Observation of environment and safety
- Medical history
- Medications and allergies
- Admission history
- Health maintenance (i.e., spirometry, eye exam, vaccinations, colonoscopy, mammogram, fecal occult blood test)
- Personal and social history
- Family health history (i.e., CAD, CA, DM, CKD, etc.)
- Health behaviors (i.e., anxiety, sleep, tobacco, alcohol, exercise)

Chart Composition (cont.)

- Functional status (e.g., Katz AGL, continence, assistive devices, CRMP)
- Depression screen
- Review of systems
- Lab data
- Nutrition / BMI
- Falls risk assessment
- Diabetes history / "interactive term" assessment
- Physical exam
- Mini-Cognitive exam
- Diagnosis and management plan
- Care management referral / patient education
- PDP communication or emergent medical need
- Labs obtained or left behind
- Provider signature, credentials, and date of service

Clinical Pearls for ICD-10 Documentation

- Morbid obesity
  - Include BMI >40 and calorie intake or other disease process

- Malnutrition
  - Include BMI <17.5, poor caloric intake, weakness/debilitation and signs of cachexia or severe muscle wasting in physical exam.

- Diabetes with retinopathy
  - Include proliferative (if had laser surgery) and if there is macular edema known

- Old MI
  - considered if >4 weeks ago, includes silent MI if documented date of EKG
Clinical Pearls for ICD-10 Documentation

- Alcohol, Tobacco, or Substance abuse
  - Evidence that ingestion contributed to physical or psychological harm which may lead to disability or adverse consequences (clearly stated)
  - Pattern of use has persisted for at least 1 month or repeatedly over 12 months
  - Symptoms do not meet criteria for other mental or behavioral disorder related to ingestion in the same time period
  - Document if uncomplicated/complicated, current intoxication, alcohol induced mood disorder (i.e., depression), psychosis (delusion or hallucination)
- Osteoarthritis (include limb, side and region of spine)
  - In general:
    - document location, limb, laterality (i.e., right upper lobe, partial lung resection)

PEARLS

- Meningeal signs
  - Kernig’s sign
  - Brudzinski’s sign

PEARLS

- Acute abdomen
  - McBurney’s sign
  - Referred pain in epigastrium
  - Markle sign
  - Jarring landing
  - Paget’s sign
  - Diverting thigh or active flexing of leg
  - Rolleston’s sign
    - Rotation in LQ, pain in RLQ
  - Obturator sign +/-.
    - Movement of obturator muscle causes pain to inflamed appendix

PEARL: Fx determination - Ottawa rules

  - Age 55 years or older
  - Tenderness at head of fibula
  - Isolated tenderness of patella
  - Inability to flex to 90°
  - Inability to bear weight both immediately and at time of exam (4 steps)

PEARLS: Fx determination - Ottawa rules

- Ankle [http://www.mdcalc.com/ottawa-ankle-rule/]
  - Pain in the malleolar zone and any of the following findings:
    - Bone tenderness at A or B (Blue)
    - Inability to bear weight (four steps) immediately after injury and at time of exam
    - Foot radiography is indicated
      - If pain/bone tenderness in the midfoot zone (Green, C or D) or the inability to bear weight (four steps) immediately after injury and at time of exam

Other considerations

- Infant – Pediatric
  - Growth charts
  - Denver Developmental Exam
- Teen
  - Sports physical
- Older adult
  - Multiple chronic diseases
- Male
  - Prostate, hernia and scrotal
- Female
  - Breast, cervical and ovary
Male exam issues

- Testicular exam
  - Orchitis?
  - Varicocele?
- Cremasteric reflex
  - Absent in testicular torsion, L1-L2 spinal injury, or nerve injury from hernia repair
  - Torsion should be treated within 6 hours, order ultrasound
- Transillumination of scrotum
  - Nontender
- Prostatitis?
  - Cremasteric reflex
  - Absent in testicular torsion, L1-L2 spinal injury, or nerve injury from hernia repair
  - Torsion should be treated within 6 hours, order ultrasound
  - Expect normal finding in epididymitis
- Hernia exam
  - Pain typically resolves when reclined, unless strangulated
  - Abdominal pain?

Focused Physical Assessment

- Case scenario
  - Headache
  - Ear pain
  - Cough
  - Back pain
  - Right arm numbness/weakness

References

- Choosing care that is evidence based, truly necessary and without harm: http://www.choosingwisely.org
- Direct to consumer genetic testing: http://www1.cbn.com/cbnnews/health/2017/april/new-at-home-test-tells-you-if-reverse-at-risk-for-these-diseases
- Example of one way of building/finding the correct ICD10 code: https://www.webpt.com/blog/post/icd-10-quick-clips-how-to-find-the-correct-diagnosis-code
- Growth charts: https://www.cdc.gov/growthcharts/clinical_charts.htm
- Helpful site to type in diagnosis and find correct ICD10 code: http://www.icd10data.com
- Knee exam video: https://www.youtube.com/watch?v=876eGAFKx28
- Medical and pharmaceutical information and decision-support tools: http://www.pepid.com/primary-care-plus/
- Practical guide to clinical medicine: https://meded.ucsd.edu/clinicalmed/history.htm
- Rhoads and Jensen (2014). Differential Diagnosis for the Advanced Practice Nurse
- Shoulder exam video: https://www.youtube.com/watch?v=TDs3IOPnMg