UNIVERSITY OF TAMPA
Patient of the Day

Case Study Presentation guidelines

OBJECTIVES: The objectives of this assignment are to prepare the student for nurse practitioner practice by evaluating the student's individual performance on clinical assessment and determination of health status of the selected patient. The student will showcase their abilities to exercise skill in critical thinking and decision making in identifying the patient's needs in case study format by verbalizing this information to the class as if they were presenting to their preceptor in a limited time format.

DIRECTIONS: First things first…

Students must select a "**Patient of the Day (POTD)**" from their current practicum rotation. If you are not in practicum this semester, please reach out to me.

The POTD must be one of the following:

- be a **WOW** patient

What do I mean by wow. WOW does not mean a patient afflicted by a rare disorder or a patient that was so sick, you needed to send them to the ER. it could, but it does not have to. IT means, an encounter that made you want to research more about their condition. For instance, A patient that did not respond to first line and first titration treatment, or a misdiagnosed patient, or a change of treatment that optimize mechanism of action of a medication. For instance, change from sulfonylureas to GLP1 A for a diabetic with high BMI), it does not have to do with med only, it could be about an approach that broke the cycle of noncompliance, or it could be about sensitive issue such as abuse, sexual health, grieving/depression…etc.…. So, in one word, wow patient means a patient that made you go the extra mile to figure out a patient centered effective guideline guided approach. A patient that made you want to research more about their condition.

AGE REQUIREMENTS:

NUR 680 OLDER ADULT – Must be completed on a patient over 60 years of age.

Formatting: There are **FOUR** parts to this case study assignment

#1. **DELIVERABLE**: Each student will create a PowerPoint presentation for their classmates and upload to **two** places:

1- Upload the PPT to the Blackboard **Discussion Board** section for the entire practicum group to view.

2- Upload the PPT and Vidgrid under the **Assignment tab** in your practicum section for faculty grading.

PowerPoints must be uploaded by the presentation due date in the syllabus. Students should keep PowerPoints to no more than 20-25 slides excluding cover slides and references.

Students must INCLUDE within the deliverable:

I. Start your presentation with a title slide with name of the presenter with their credentials, then address

Gina P. Hoyos, BSN, RN

II. Objectives: At least 5 objectives

1. Define the clinical presentation of acute, subacute, and chronic cough.
2. Describe the pathophysiology and common etiologies associated with cough.
3. Identify common risk factors that contribute to the development of cough.
4. Explain evidence-based diagnostic strategies and treatment approaches for different types of cough.
5. Develop an appropriate follow-up plan including patient education and prevention strategies.

III. Brief Definition of the disease process

Cough is a protective reflex that helps clear the airways of irritants, secretions, or foreign substances. It can be voluntary or involuntary and is a common clinical symptom prompting medical evaluation. Cough is classified by duration: acute (<3 weeks), subacute (3–8 weeks), and chronic (>8 weeks), and may be productive (wet) or nonproductive (dry).

IV. Brief Pathophysiology/Epidemiology of disease process

The cough reflex is initiated by stimulation of sensory receptors in the respiratory tract, mediated primarily via the vagus nerve, and modulated by higher central nervous system input. It involves the glottis, chest muscles, and accessory respiratory muscles. While cough can occur at any age, chronic cough is more prevalent in adults aged 50–60 years, particularly among women who have heightened cough reflex sensitivity.

Cough is a symptom rather than a disease and can result from various underlying pathologies such as infections (e.g., common cold, pneumonia, TB), inflammatory conditions (e.g., asthma, COPD), environmental exposures, or medication side effects (e.g., ACE inhibitors).

V. Common risk factors

- Cigarette smoking
- Recent upper respiratory infection
- Environmental or occupational exposure (dust, chemicals, pollutants)

- Use of ACE inhibitors
- GERD
- Allergic rhinitis or postnasal drip (Upper Airway Cough Syndrome)
- Asthma or COPD
- Immunocompromised status (e.g., HIV)
- Older age (due to weakened cough reflex)
- History of stroke
- Foreign travel (risk for TB)
- Living in congregate settings (e.g., nursing homes, prisons)

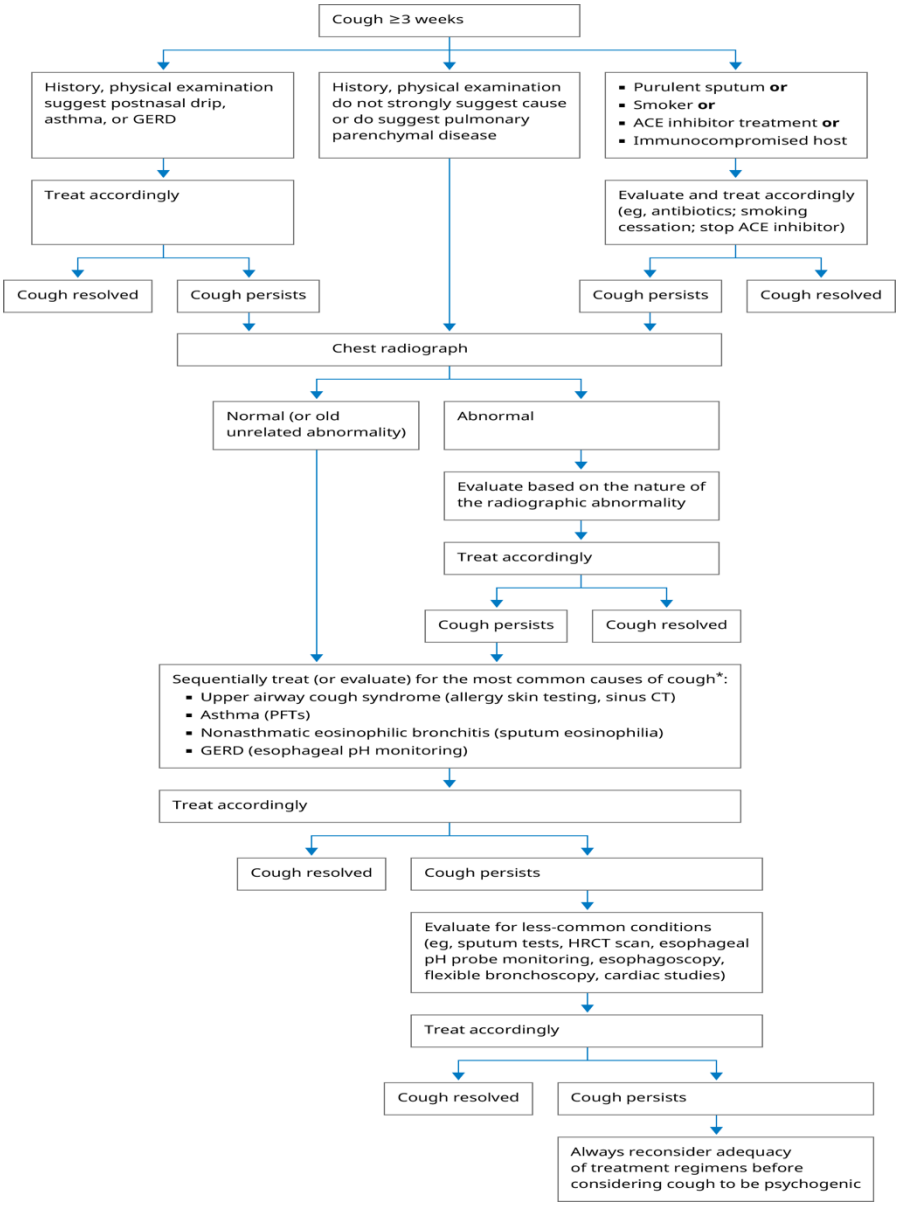
VI. Goals of therapy

- Identify and treat the underlying cause of the cough
- Reduce the frequency and severity of coughing episodes
- Prevent complications (e.g., aspiration pneumonia, stress incontinence)
- Improve quality of life
- Educate the patient on modifiable risk factors (e.g., smoking cessation)
- Prevent recurrence or chronicity

VII. Recommended diagnostics (screen, labs, imaging) for the disease or clinical presentation.

- **Acute Cough:**
  - Usually no diagnostic testing needed unless red flags present.
  - Consider COVID-19 or influenza swab if symptomatic.
  - Chest X-ray if signs of pneumonia (fever, tachycardia, focal lung findings).
- **Subacute Cough:**
  - Nasopharyngeal swab if pertussis suspected.
  - TB testing if high-risk populations or exposure.
- **Chronic Cough:**
  - Chest radiograph (initial workup)
  - Spirometry or PFTs to evaluate for asthma or COPD
  - Sinus CT or nasal endoscopy for chronic rhinosinusitis
  - Esophageal pH monitoring or barium swallow for GERD
  - High-resolution CT if interstitial lung disease suspected
  - Bronchoscopy or biopsy if malignancy suspected
  - Allergen skin testing if allergic component suspected

VIII. Treatment guidelines: If possible, find yourself a good algorithm which should include pharmacological and non-pharmacological approach. (UPTODATE and access medicine have great algorithm, as well as AAFP).



- **Acute Cough (e.g., URI, acute bronchitis):**
  - Supportive care: rest, fluids, cool mist humidifier
  - Acetaminophen or NSAIDs for fever/myalgias (avoid NSAIDs in elderly if possible)
  - Antitussives (e.g., dextromethorphan) for severe cough

- Guaifenesin for expectoration
- Avoid antibiotics unless pneumonia suspected

- **Subacute Cough:**
  - Trial of inhaled ipratropium
  - Consider inhaled corticosteroids if no response
  - Avoid antibiotics unless pertussis confirmed
- **Chronic Cough: Stepwise approach:**
  - Treat UACS: Second-generation antihistamines (loratadine, cetirizine) + intranasal steroids
  - If partial/no response, evaluate for asthma: Inhaled corticosteroids + bronchodilators
  - If asthma excluded, evaluate for GERD: Lifestyle changes + PPI (e.g., omeprazole)
  - If all above ruled out, consider:
    - Nonasthmatic eosinophilic bronchitis: Inhaled corticosteroids
    - Neuropathic cough: Gabapentin or pregabalin + speech therapy
    - Pulmonary referral if idiopathic or suspicious imaging

Non-pharmacologic:

- Smoking cessation
- Allergen avoidance
- Cool mist humidifier
- Voice hygiene and speech therapy (for refractory cough)

IX. Follow up and education recommendations.

- **Follow-Up:**
  - Acute bronchitis or pneumonia: Follow-up in 2–3 weeks or sooner if symptoms worsen.
  - Chronic cough: Reevaluate every 2–4 weeks during treatment trial.
  - Repeat chest X-ray after pneumonia recovery if concern for underlying pathology (e.g., smoker).
- **Patient Education:**
  - Cough may persist beyond infection and doesn't always need antibiotics.
  - Proper medication adherence is crucial for chronic conditions (e.g., asthma, GERD).
  - Smoking cessation reduces risk of chronic cough and improves lung health.
  - Vaccinations (influenza, pneumococcal, Tdap) help prevent infectious causes of cough.

- Avoid triggers (e.g., allergens, pollutants) and consider environmental modifications at home.
- Explain red flag symptoms (e.g., hemoptysis, weight loss, dyspnea) that warrant immediate care.

X. **Case study:** Start with a concise CC then an expanded HPI (address OLDCARTSA if pertinent). Please highlight risk factors.

CC: “follow up cough management”

A 71-year-old Caucasian female presents for follow-up regarding the management of a persistent cough. the patient reported that her cough had significantly improved after starting Zyrtec. Patient denies nasal congestion, rhinorrhea, sneezing, sore throat or facial pain.

Patient’s cough began in 11/20/2024. Patient presented complaining of a constant dry cough. The patient was recently diagnosed with hypertension and prescribed lisinopril. Therefore, lisinopril was discontinued was discontinued due to concern for ACE-inhibitor–induced cough and replaced with amlodipine.

On 12/02/2024 she continued feeling worse with chest congestion, headache, cough, no appetite, and fever. COVID test was negative. Augmentin was prescribed and script was given for a CXR. The CXR negative and she was given a medrol pak.

02/20/2025 She continued complaining with the cough with white/clear sputum and some dyspnea on exertion. Advised her to take OTC antihistamine. Patient denied issues with GERD as on pantoprazole.

02/27/2025 Cough much improved since starting Zyrtec. In the office a PFT Spirometry test was performed and it was normal.

XI. Subjective. Patient history included PMH and PSH with year of onset, allergies and reactions, medications, Pertinent FH, SH, Immunizations, If you feel a medication side effect could be the cause of the symptoms so part of your DD, please highlight it for instance. Lisinopril 40 mg per mouth daily for someone with frequent falls.

PMH

- Vertigo (2023)
- Atrial Fibrillation (2024)
- Hypertension (2024)
- Gastroesophageal Reflux disease (2018)
- Hyperlipidemia (2024)

- Generalized anxiety disorder (2019)
- Osteoarthritis (2021)
- Rotator cuff impingement syndrome of right shoulder (2019)

PSH

- Appendectomy
- Hysterectomy
- Right shoulder

Allergies

- Lisinopril - Cough

Medications

Amlodipine 5mg tab po Daily

Meclizine HCl 25 mg tablet 1 tablet as needed orally twice daily

Xarelto 20mg tablet 1 tablet with food orally once a day

Protonix 20mg tablet delayed release 1 tablet orally once a day as needed

Fezetimibe 10mg tablet 1 tablet orally bedtime

Lexapro 20mg tablet 1 tablet orally once a day

tramadol HCl 50mg tablet 1 tablet as needed orally three times a day

Amiodarone HCl 100mg tablet 0.5 tablet orally once a day

OTC/herbal meds

- Zyrtec 10 tabTablet Chewable 1 tablet Orally Once a day

Social history

- Tobacco: Denies
- ETOH: Denies
- Drugs: Denies any use of illicit drugs
- Lives with/Dwelling/Safety: Patient lives alone. Feels safe
- Diet/exercise: Denies exercising. Reports regular diet and eating only home made food
- Habits/Hobbies/Safety: not sexually active

Immunizations

Covid 19 vaccine: 1st dose 2020 2nd dose 2021

Flu vaccine: October 2024

Pneumococcal vaccine: 01/01/2013

Tdap: 2019

XII. Subjective: ROS: address all the pertinent systems and highlight the most pertinent subjective data. Do not write N/a if not pertinent.

Constitutional: Denies weight loss or gain, fatigue, fever, night sweats, weakness, trouble sleeping, or pain

Skin: Denies rashes, sores, ulcers, lumps, itching, dryness, color changes, or bruising

Head: Denies headache, head injury, or neck pain

Eyes: Denies vision loss, redness, blurry or double vision, flashing lights, specks

Ears: Denies change in hearing, ringing in ears, earache, drainage, or dizziness

Nose: Denies stuffiness, discharge, itchiness, nose bleeds, or sinus pain

Throat: Denies bleeding, sore tongue, dry mouth, hoarseness, tooth ache or swollen gums

Neck: Denies lumps, swollen glands, pain, or stiffness

Respiratory: Occasional coughing. Denies dyspnea, wheezing, or painful breathing

Cardiovascular: Denies chest pain, tightness, palpitations, shortness of breath with activity, edema, or difficulty breathing lying down.

Gastrointestinal: Denies abdominal pain, nausea, vomiting, diarrhea, constipation, changes in appetite, heartburn, bloating, or changes in bowel habits, yellow discoloration, or difficulty swallowing

XIII. Objective: Vital signs and any recent pertinent diagnostic studies with the results (OK to write WNL if unremarkable), or diagnostic performed during the visit (i.e., covid test). Please do not list the lab/imaging you are ordering on that slide. It goes under Plan of care.

Objective: Physical Exam

Vital signs: Ht: 5FT 3IN, Wt: 186 lbs, BMI: 32.94 Index, BP: 140/84 mm Hg, HR: 57 /min,

RR: 19 /min, Oxygen sat %: 97 %, Pain scale: 0 1-10.

Spirometry test: FEV1/FVC: 0.80 – No obstruction

XIV. Objective: Physical exam. List only pertinent systems (do not write N/a if not pertinent). Highlight the most pertinent objective data.

Constitutional: Patient is alert, appear to be reported age, no signs of distress, maintains eye contact, well groomed, and appear comfortable

Eyes: No orbital edema, sclera white, and conjunctiva pink. No discharge noted. PERRLA

Ears: Canal patent, tympanic membrane pearly gray bilaterally

Nose: Nasal mucosa pink, moist and patent. Septum midline. No sinus tenderness noted

Throat: No erythema, exudates, or lesions noted. No tonsillar hypertrophy. No signs of postnasal drip. Mucous membranes moist

Respiratory: Lungs clear on auscultation, no wheezes or crackles. Chest expansion symmetrical. Respirations unlabored

Cardiovascular: Regular rate and rhythm, no murmurs or gallops. S1 and S2 distinct upon auscultation. No bruits present bilaterally on carotid arteries upon auscultation. Capillary refill time less than 3 seconds. Pulses 2+ bilaterally on radial, dorsalis pedis, and posterior tibial arteries

Gastrointestinal: Abdomen soft, non-tender, bowel sounds present in all quadrants

Neurological: Alert and oriented, no weakness, dizziness, numbness, or tingling noted. Sensation intact. Regular gait

XV. Assessment: List at least 3 Differential and Working diagnoses INCLUDING ICD10 CODES and rationale you rule it in or out. List all your working diagnosis with ICD10 code.

J30.2 Other seasonal allergic rhinitis

K21 acid Reflux

R05.3 Chronic Cough

XVI. Evidence-Based Treatment Plan of Care specific to this patient using your guidelines, including both pharmacological and nonpharmacological treatment.

- Stop the ACE inhibitor – Lisinopril discontinued and replaced by amlodipine
- Start 2nd generation antihistamine – Cetirizine

- Weight loss encouraged
- Elevation of the head of the bed (eg, place six to eight inch blocks under the legs at the head of the bed or a Styrofoam wedge under the mattress)
- Avoidance of reflux-inducing Avoidance of reflux-inducing foods (eg, fatty foods, chocolate, alcohol, caffeinated beverages)
- Avoidance of very acidic beverages (eg, carbonated beverages, red wine, orange juice)
- Avoidance of meals for two to three hours before lying down (except for medications)
- Stay well hydrated
- Keep windows closed and wear a mask while cleaning or doing yard work
- advise allergen avoidance (to the extent possible). Common allergens include pets, dust mites, pollen, and mold.

XVII. Education

- Encourage staying up to date with influenza, Tdap, and pneumococcal vaccines to prevent respiratory infections.
- Educate on red flag symptoms: fever, shortness of breath, weight loss, hemoptysis (coughing up blood), or chest pain.

Call the office if:

- You feel that the medications are causing side effects such as drowsiness, dizziness, or confusion.

XVIII. Follow up/When to refer

- Follow up in 3 months
- Referral to a specialist can occur at any point during cough evaluation and treatment. Immediate referral is needed for concerning findings like possible

cancer on imaging. Persistent chronic cough may warrant referral to a cough specialist, allergist, ENT, or pulmonologist. GI, infectious disease, or cardiology referrals may be appropriate based on underlying conditions.

XIX. Pertinent Billing: CPT code: E&M Visit Code and if you performed a bedside test or screen. List your procedure Codes

99213

94010 Spirometry

XX. References - APA Format: Minimum of 3 (One MUST be a National Clinical Guideline)

Kennedy-Malone, L., & Duffy, E. G. (2022). Advanced practice nursing in the care of older adults. F.A. Davis Company.

Sonoda, K., & Nayak, R. (2024). Chronic cough: Evaluation and management. *American Family Physician, 110*(2), 167–173

Weinberger, S. E., & Saukkonen, K. (2025). *Evaluation and treatment of subacute and chronic cough in adults*. UpToDate. Retrieved March 30, 2025, from https://www.uptodate.com/contents/evaluation-and-treatment-of-subacute-and-chronic-cough-in-adults

#2. **ORAL PRESENTATION**: On the due date for the students' presentation, each student will prepare up to a **3-minute** Vidgrid oral presentation. **Points will be deducted for going over 3 minutes. (Please see the how-to video regarding vidgrid). PRESENT AS IF IT WERE TO YOUR PRECEPTOR or a CONSULTANT. Professional attire wearing a white coat, introduction, and good flow of the presentation is expected. The audience should be able to clearly follow and understand your presentation, please do not speak too fast.**

- Relaying the chief complaint
- An organized concise history of present illness (addressing all pertinent components of OLDCARTSA if pertinent)
- A review of systems **only** addressing relevant and pertinent systems with only pertinent negative and positive findings noted.
- Pertinent significant medical/surgical/family/social history
- Physical examination findings that are appropriate to the chief complaint, again noting **only** pertinent positive or negative examination findings
- Differential diagnoses followed by Working diagnosis as well as a treatment plan that included both pharmacologic and nonpharmacologic interventions and f/u.
- **The student will be visible as the presenter in the Vidgrid and will not utilize the PPT during this presentation.**

#3. **QUESTION FORMULATION**: Each student will review every classmate's PowerPoint presentation uploaded to the Discussion Board. Each student must post one unique question that has not been posted already per presentation as a discussion board thread within one week of the presentation due date.

#4. **QUESTION RESPONSE**: The faculty will assign a specific number of questions for the presenter to answer professionally with a substantial response. After being assigned specific questions, the presenter will have 10 days to respond.

Points will be deducted from students' own presentation grade if they do not participate in providing questions by the designated time for other presentations.

See posted assignment rubrics for specific grading criteria.

The practicum faculty will be grading presentations based on the rubrics for this assignment.

Revised RD 2023