

#### **Helpful Texts from New England Journal of Medicine:**

Please note these are just for reference and you are not expected to write exactly like this. This is an example of the academic language; letters need to be more personalised.

#### **Measles**

Supplement to the N Engl J Med 2019;

A 38-year-old man presents to his primary care physician with a 3-day history of fever and cough. He is a father of two children, his wife is pregnant, and he has a history of recent travel outside the United States. The physical examination is notable for a body temperature of 39°C, conjunctivitis, and rhonchi on chest auscultation. The physician suspects bronchitis and prescribes antibiotic agents. Two days later, the patient returns with a red blotchy rash over his face and trunk. The physician becomes concerned about the possibility of measles. How should this case be further evaluated and managed? How might measles have been prevented, and what can be done to prevent the spread of the disease within the patient's family and community?

#### **Chronic Rhinosinusitis with Nasal Polyps**

Supplement to the N Engl J Med 2019; 381:55-63

A 50-year-old man presents with a 5-year history of progressive nasal obstruction and reduction in his sense of smell. Symptoms were initially intermittent but have become persistent and very bothersome, with the patient rating them as severe. He reports sleep disturbance and postnasal drip and recently received a diagnosis of asthma. Alcohol consumption exacerbates his nasal congestion. Anterior rhinoscopy reveals pale, fleshy polyps filling both sides of the nasal cavity. How would you further evaluate and manage this case?

#### **Anterior Cruciate Ligament Tear**

Supplement to the N Engl J Med 2019; 380:2341-2348

An 18-year-old high-school student presents with an acute knee sprain sustained while playing basketball with friends. She reports having a swollen knee and medial knee pain. On clinical examination, she has limited motion, a palpable effusion, tenderness over the medial joint line, and a positive Lachman test (increased anterior tibial translation with a soft end point). How would you further evaluate and treat this patient?

# Hypoparathyroidism

Supplement to the N Engl J Med 2019; 380:1738-1747

A previously healthy 31-year-old woman began having progressive paresthesias and numbness of her hands, neck, face, and back, for which she was evaluated by her primary care physician and a neurologist, but no cause was identified. Her family history was notable for autoimmune thyroid disease in a parent and sibling and psoriasis in another sibling. Six



months after the onset of symptoms, the patient had carpopedal spasms in her hands and feet during exercise, which rapidly progressed to difficulty breathing and full body tetany. On arrival at the emergency department, she was found to have hypocalcemia and hyperphosphatemia, with an undetectable parathyroid hormone level. How would you evaluate and treat this patient?

#### **Obstructive Sleep Apnea in Adults**

Supplement to the N Engl J Med 2019; 380:1442-1449

A 58-year-old woman reports fatigue and sleepiness. Despite sleeping 7 to 8 hours nightly, she wakes unrefreshed. She has been told by her husband that she snores. She awakens nightly to urinate and typically falls promptly back to sleep. Recently, she has noted sleepiness while driving home from work. Her medical history includes obesity, hypertension, and type 2 diabetes mellitus. Her physical examination is notable for a bodymass index (BMI, the weight in kilograms divided by the square of the height in meters) of 35 and a large tongue partially obscuring the soft palate. How would you evaluate and treat this patient?

### Helicobacter pylori Infection

Supplement to the N Engl J Med 2019; 380:1158-1165

A 32-year-old woman who emigrated from Eastern Europe is evaluated for persistent epigastric pain and bloating. Previous assessments showed a normal complete blood count and comprehensive metabolic panel and a negative result on serologic testing for celiac disease. Serum testing for *Helicobacter pylori* IgG was positive. She was treated with 20 mg of omeprazole, 1 g of amoxicillin, and 500 mg of clarithromycin, each taken twice daily for 10 days, but her symptoms persisted. How would you further evaluate and treat this patient?

#### **Depression in the Primary Care Setting**

Supplement to the N Engl J Med 2019; 380:559-568

A 45-year-old woman with hypothyroidism that has been treated with a stable dose of levothyroxine presents to her primary care provider with depressed mood, negative feelings about herself, poor sleep, low appetite, poor concentration, and lack of energy. These symptoms began several months ago during a conflict with her partner. Although she has been able to continue with work and life responsibilities, she feels sadness most days and occasionally thinks that she would be better off dead. How would you evaluate and treat this patient?

#### **Glucocorticoid-Induced Osteoporosis**

Supplement to the N Engl J Med 2018; 379:2547-2556

For the past month, a 75-year-old woman with polymyalgia rheumatica has received prednisone at a dose of 20 mg daily. The treatment plan is to try to taper the dose to 5 mg daily within 6 months. Given typical durations of treatment, the expectation is that she will



continue to receive prednisone for 2 years. She is otherwise healthy and has no personal or family history of fracture. She does not smoke or drink alcohol. Her height is 168 cm, and she weighs 68 kg. Her serum 25-hydroxyvitamin D level is 30 ng per milliliter (74 nmol per liter). Her bone mineral density T score is -1.2 at the femoral neck. What would you advise to prevent glucocorticoid-induced osteoporosis and fracture?

#### Lymphedema after Breast Cancer Treatment

Supplement to the N Engl J Med 2018; 379:1937-1944

A 43-year-old perimenopausal woman who recently received a diagnosis of breast cancer visited her physician for follow-up after lumpectomy and axillary-node dissection, in which specimens of 12 lymph nodes were obtained. There was a positive finding only in the sentinel node. She is undergoing adjuvant radiotherapy. The patient is concerned about the development of lymphedema. She wonders what she can do to minimize the risk of this complication and how it would be managed if it were to develop. She has no coexisting conditions and no symptoms related to the arms. Her body-mass index (BMI, the weight in kilograms divided by the square of the height in meters) is 29. There is no detectable swelling on physical examination. How would you advise this patient?

#### **Diverticulitis**

Supplement to the N Engl J Med 2018; 379:1635-1642

An otherwise healthy 57-year-old man presents with a 48-hour history of pain in the left lower quadrant. He has had three previous episodes of sigmoid diverticulitis that were confirmed by computed tomographic (CT) scan and treated nonsurgically. He has localized tenderness in the left lower quadrant. The body temperature is 101.8°F (38.8°C), the heart rate 110 beats per minute, and the white-cell count 15,600 per cubic millimeter. A CT scan of the abdomen and pelvis with oral and intravenous contrast material shows microperforation of the middle portion of the sigmoid colon, air bubbles in the adjacent colonic mesentery, thickening of the sigmoid wall, and pericolonic fat stranding, without free fluid. How would you manage this patient's condition?

#### **Acne Vulgaris**

Supplement to the N Engl J Med 2018; 379:1343-1352

A 15-year-old girl presents with moderate acne vulgaris that has not responded to over-the-counter acne treatments, including salicylic acid and benzoyl peroxide. She has many closed comedones, inflammatory papules, and pustules over the cheeks, forehead, and chin and numerous small, inflammatory papules on the back and chest. The lesions heal, leaving prominent, hyperpigmented macules that last for months. She is very distressed by the acne. Her mother notes that her daughter is more withdrawn and did not try out for a school play because of concerns about her appearance. How would you evaluate and treat this patient?

#### Primary Hyperparathyroidism

Supplement to the N Engl J Med 2018; 379:1050-1059



A 57-year-old woman has a fasting serum calcium level of 10.8 mg per deciliter (2.70 mmol per liter; reference range, 9.0 to 10.2 mg per deciliter [2.24 to 2.56 mmol per liter]) detected on routine laboratory testing. On repeat testing a week later, the level is 10.5 mg per deciliter (2.62 mmol per liter). The serum phosphorus level is 2.4 mg per deciliter (0.75 mmol per liter), the estimated glomerular filtration rate (eGFR) more than 60 ml per minute, the total serum protein level 7.0 g per liter, and the albumin level 4.0 g per liter. The parathyroid hormone (PTH) level is 95 pg per milliliter (reference range, 20 to 65). The patient's last menstrual period occurred at 54 years of age. She has no history of fracture or renal stones and no family history of hypercalcemia. Her mother fractured her hip slipping on ice at 70 years of age. How should this patient's condition be evaluated and treated?

### Lynch Syndrome-Associated Colorectal Cancer

Supplement to the N Engl J Med 2018; 379:764-773

A 48-year-old man presents with intermittent lower abdominal pain on his right side and reports a weight loss of 4.5 kg (10 lb). He is married and has two healthy teenage children. The physical examination is remarkable for the presence of blood in the stool on digital rectal examination. The hemoglobin level is 11.4 g per deciliter. His mother had a gynecologic cancer at 45 years of age, and his maternal grandfather had colorectal cancer at 63 years of age. Computed tomography of the abdomen and pelvis shows thickening of the cecal wall and pericecal adenopathy. A colonoscopy reveals a polypoid cecal mass, and a biopsy shows poorly differentiated adenocarcinoma. How should this patient be further evaluated and treated?

#### **Chronic Limb-Threatening Ischemia**

Supplement to the N Engl J Med 2018; 379:171-180

A 75-year-old man presents with a 1-week history of discoloration of a toe on his left foot. He has a history of hypertension and type 2 diabetes. He is a current smoker. On physical examination, he has palpable femoral pulses but not distal pulses. The fourth toe on his left foot is necrotic, erythema extends to the forefoot, and there is plantar tenderness. How should this case be managed?

## **Subclinical Hyperthyroidism**

Supplement to the N Engl J Med 2018; 378:2411-2419

A 65-year-old woman is seen for routine evaluation. She has a history of paroxysmal atrial fibrillation and osteoporosis, which has been treated with a bisphosphonate. She has no history of thyroid disease and reports no symptoms of hyperthyroidism. Her pulse is 80 beats per minute. The left thyroid lobe is enlarged, but the results of physical examination are otherwise normal, as are the results of electrocardiography. The serum thyrotropin level is 0.2 mU per liter (reference range, 0.5 to 4.5) and the free thyroxine (T<sub>4</sub>) level 1.2 ng per deciliter (reference range, 0.8 to 1.8). How should this patient be evaluated and treated?



#### **Essential Tremor**

Supplement to the N Engl J Med 2018; 378:1802-1810

A 62-year-old woman presents with a tremor that affects both of her hands, which started in her early 50s. She reports that the tremor started slowly and symmetrically and has progressed gradually. The tremor affects her fine-motor movements and results in impaired handwriting, which is often illegible, and difficulty in such activities as eating soup and putting on a necklace. The tremor gets worse with stress. Her mother had a similar tremor. She has a more recent history of depression, which is now well controlled with fluoxetine and bupropion. The neurologic examination shows a postural and action tremor of both hands in the medium (4 to 8 Hz) frequency range with postural tremor amplitudes of 1 to 3 cm bilaterally; the examination is otherwise unremarkable. How would you evaluate and treat the patient?

## Placenta Accreta Spectrum

Supplement to the N Engl J Med 2018; 378:1529-1536

A 36-year-old woman with three previous cesarean deliveries is referred at 28 weeks of gestation because of placenta previa detected on ultrasonography. Other ultrasonographic findings include multiple intraplacental lacunae and loss of the normal retroplacental hypoechoic zone in the area underlying the dome of the maternal bladder. Placenta accreta is suspected. The course of the patient's pregnancy otherwise has been normal. How should she be counseled and her care be managed?

#### **Tinnitus**

Supplement to the N Engl J Med 2018; 378:1224-1231

A 55-year-old man reports hearing a high-pitched, static sound in both ears. He does not recall when it began, but the sound has been present for several months and is bothersome. How should this case be managed?

# Primary Sjögren's Syndrome

Supplement to the N Engl J Med 2018; 378:931-939

A 52-year-old woman presents with a 2-year history of an extremely dry mouth. She has difficulty swallowing dry food and has to drink water throughout the night. She also reports having episodes of fatigue and pain in her hands and wrists, particularly in the morning. Ten years before presentation, ocular discomfort and dryness caused her to discontinue the use of contact lenses. She has had several episodes of swelling of the parotid glands during the past 2 years. The physical examination reveals dry mouth, palpable purpura on the legs, three swollen joints, and bilateral swelling of the parotid glands. Laboratory studies reveal lymphocytopenia (850 cells per cubic millimeter) without other abnormalities in the blood count, a serum creatinine level of 1.6 mg per deciliter (140 µmol per liter; as compared with 0.7 mg per deciliter [60 µmol per liter] 1 year earlier), polyclonal gammopathy, positive rheumatoid factor, the presence of antinuclear antibodies (including antibodies against



Sjögren's syndrome—related antigen A [anti-SSA antibodies]), and a low C4 level without cryoglobulinemia. How should this patient's case be managed?

#### **Initial Treatment of Hypertension**

Supplement to the N Engl J Med 2018; 378:636-644

A 56-year-old woman presents for elevated blood pressure, which was noted at a job-site screening. She has gained 20 lb (9.1 kg) during the past 5 years and takes naproxen sodium (at a dose of 220 mg daily) for joint pain. She has never smoked, and she consumes one or two alcoholic drinks daily. Both of her parents received a diagnosis of hypertension in their 50s. On examination, the blood pressure is 162/94 mm Hg in both arms while the patient is seated and 150/96 mm Hg while the patient is standing. The body-mass index (the weight in kilograms divided by the square of the height in meters) is 29. Her examination is notable only for abdominal obesity without bruits or masses. The serum level of sodium is 138 mmol per liter, potassium 3.8 mmol per liter, calcium 9.4 mg per deciliter (2.35 mmol per liter), fasting glucose 105 mg per deciliter (5.8 mmol per liter), and creatinine 0.8 mg per deciliter (71  $\mu$ mol per liter). Urinalysis is negative. How would you further evaluate and treat this patient?

#### **Chronic Cough**

Supplement to the N Engl J Med 2016; 375:1544-1551

A 63-year-old woman presents with a 1-year history of a chronic dry cough, associated with a sensation of "irritation" in the throat. Prolonged bouts of coughing are associated with stress urinary incontinence and occasionally end with retching and vomiting. The cough is triggered by changes in temperature, strong smells (e.g., the smell of cleaning products), laughing, and prolonged talking. She has no notable medical history, reports being otherwise well, and does not smoke. She has been prescribed a bronchodilator and inhaled and nasal glucocorticoids, but has had no benefit from any of these. The results of a physical examination, chest radiography, and spirometry are normal. How would you further evaluate and manage this condition?

#### **Postpartum Depression**

Supplement to the N Engl J Med 2016; 375:2177-2186

A 28-year-old single mother of a 3-month-old son reports severe fatigue, general loss of interest, irritability, poor concentration, insomnia, low energy, and tearfulness that have lasted for 2 months. She had similar symptoms for several weeks when she was 18 years of age and again in mid-pregnancy, but her symptoms resolved spontaneously on those occasions. She is not suicidal or psychotic but feels that she cannot cope. What would you advise?

#### **Physical Abuse of Children**

Supplement to the N Engl J Med 2017; 376:1659-1666



A 4-month-old male infant is brought to the emergency department by paramedics. His mother had dialed 911 because the infant appeared to be limp when she lifted him from his crib after she returned from work; she had left him with her boyfriend while she was at work. On arrival in the emergency department, the infant's temperature is 37°C, heart rate 114 beats per minute, blood pressure 90/68 mm Hg, and respiratory rate 28 breaths per minute. The physical examination is normal except for decreased muscle tone, and there is a 1-cm bruise on his left cheek. How should this case be evaluated and managed?

### **Acute Lower Gastrointestinal Bleeding**

Supplement to the N Engl J Med 2017; 376:1054-1063

A 71-year-old woman with hypertension, hypercholesterolemia, and ischemic heart disease, who had a cardiac stent placed 4 months earlier, presents to the emergency department with multiple episodes of red or maroon-colored stool mixed with clots during the preceding 24 hours. Current medications include atenolol, atorvastatin, aspirin (81 mg daily), and clopidogrel. On physical examination, the patient is diaphoretic. While she is in a supine position, the heart rate is 91 beats per minute and the blood pressure is 106/61 mm Hg; while she is sitting, the heart rate is 107 beats per minute and the blood pressure is 92/52 mm Hg. The remainder of the examination is unremarkable, except for maroon-colored stool on digital rectal examination. The hemoglobin level is 9.3 g per deciliter, the platelet count 235,000 per cubic millimeter, and the international normalized ratio 1.1. How should this patient's case be further evaluated and managed?

## Migraine

Supplement to the N Engl J Med 2017; 377:553-561

A 23-year-old woman presents with five episodes of headache during the past 2 months. Each episode began with yawning, sensitivity to light, and a depressed mood that was followed by the gradual onset of neck pain that spread to the occipital region and eventually to the retro-orbital region on the right side. The pain became incapacitating over a period of 1 to 2 hours and was associated with nausea and sensitivity to light and sound. With two of the episodes, she had jagged lines in her vision for 15 minutes as the neck pain was beginning; with all the episodes, she had severe fatigue and difficulty concentrating and finding words. The headache lasted approximately 24 hours, and, after resolution, she had several hours of residual neck soreness, fatigue, and depressed mood. How would you evaluate and treat this patient?

#### **Acute Pyelonephritis in Adults**

Supplement to the N Engl J Med 2018; 378:48-59

An otherwise healthy 35-year-old woman presents with urinary urgency, dysuria, fever, malaise, nausea, and flank pain. During a recent trip to India, she took a fluoroquinolone for diarrhea. On examination, the temperature is 38.6°C, the pulse 110 beats per minute, and the blood pressure 105/50 mm Hg; she has suprapubic and flank tenderness, without abdominal tenderness. The white-cell count is 16,500 per cubic millimeter, and the serum creatinine concentration 1.4 mg per deciliter (124 µmol per liter) (most recent measurement before presentation, 0.8 mg per deciliter [71 µmol per liter]). Urinalysis is positive for leukocyte esterase and nitrites. How would you evaluate and manage this case?

