

## Examples of Community Medicine

1. **In order to compute the incidence rate of depression in a community, an investigator took as numerator the total number of patients admitted to the psychiatry ward of a large university hospital over a period of time. Which of the following factors is not a likely source of bias that invalidates the findings?**
  - A. The population served by large university hospitals is usually so difficult to define that rates cannot be calculated
  - B. Patients admitted to a university hospital are more likely to be more seriously ill than those admitted to a community hospital
  - C. Most patients who have depression are managed in ambulatory settings
  - D. Patients with depression may be admitted to a hospital more than once
  - E. Diagnosis of depression cannot be established with certainty \*\*
  
2. **All of the following disorders are believed to be solely the result of genetic factors EXCEPT:**
  - A. Epilepsy \*\*
  - B. Hemophilia
  - C. Fibrocystic disease of the pancreas
  - D. Multiple polyposis of the colon
  - E. Xeroderma pigmentosum
  
3. **The most important nutrients group for a pregnant woman is:**
  - A. Sugar, unsaturated fat, iron and calcium
  - B. Calcium, folic acid, protein, and iron \*\*
  - C. Vitamins A, D and the B group
  - D. Iron and calcium
  - E. Starch, calcium, iron and low density lipoprotein
  
4. **All the following techniques of early detection of asymptomatic cancer are considered to be justified EXCEPT:**
  - A. Mammography
  - B. Breast self-examination in younger women
  - C. Papanicolaou (Pap) smear
  - D. Fecal occult blood testing
  - E. Chest radiography to detect lung cancer \*\*

- 5. When experimental studies cannot be performed, the determination of whether or not an association between two events is causal must rest on observational data. Which of the following types of evidence is essential in judging whether or not a cause-and-effect relationship exists?**
- A. Dose-response relationship
  - B. Strength of the statistical association
  - C. Proper time sequence in which cause precedes effect \*\*
  - D. Consistency of the observation in independent studies
  - E. Relative rarity of one or both of the events
- 6. Assuming that a mammography has a sensitivity of 90 percent and a specificity of 98 percent, and that consecutive tests are independent, what is the probability that a woman with breast cancer will have a negative screening mammography for two consecutive years?**
- A. 1/10
  - B. 2/10
  - C. 4/10
  - D. 1/100 \*\*
  - E. 4/100
- 7. Which group of nutrients is most important for an infant?**
- A. Juice, calcium, phosphorous, and sugar
  - B. Fat, vitamin A, protein and iron
  - C. Protein, fluoride, vitamin D, and iron \*\*
  - D. Chloride, sodium, sugar, and water
  - E. Vitamin B complex, iron, sodium and protein
- 8. Which of the following statements concerning occupational medical examinations is correct?**
- A. Doctor-patient relationship in pre-employment and periodic medical examinations is the same as in the clinical medical practice
  - B. Periodic medical examinations aim at detecting the less fit employees to terminate their services
  - C. The structure of pre-employment and periodic examinations should be the same for all occupations
  - D. Occupational physicians should design the pre-employment and periodic examinations to make them cost-effective and group-oriented \*\*
  - E. Post-sickness examinations are used to jeopardize the employee's position

- 9. The most frequent cancer site in Middle-East women is:**
- A. Lung
  - B. Breast \*\*
  - C. Colorectum
  - D. Uterus
  - E. Ovary
- 10. The oligo-element that is said to have the greatest influence in inhibiting the formation of free radicals which can cause cancer is:**
- A. Iron
  - B. Selenium \*\*
  - C. Copper
  - D. Zinc
  - E. Mercury
- 11. Which of the following statements about child abuse is correct?**
- A. Child abusers are most often unrelated to the child
  - B. Most child abusers have psychotic or antisocial personalities
  - C. More than 95% of all serious head injuries of children under the age of one are due to physical abuse \*\*
  - D. It is unnecessary to report child abuse in most countries
  - E. None of the above
- 12. Which infectious agent is associated with high incidence of stomach cancer?**
- A. Hepatitis B Virus (HBV)
  - B. Human Papilloma Virus (HPV)
  - C. Helicobacter pilorii \*\*
  - D. Aflatoxins
  - E. Malaria species
- 13. The weight of high-school students who engage in competitive sports is compared to that of students who do not. The best way of testing whether differences are statistically significant between the two groups is to use:**
- A. Chi-square test
  - B. Correlation coefficient
  - C. Unbiased distribution
  - D. T-test \*\*
  - E. Multivariate analysis

**Q. 14-16:**

**This table shows data from a British study conducted by Doll and Hill in 1966 on smoking and age-specific mortality among male British male physicians**

Age (years)	Cigarette Smokers		Non-Smokers	
	Coronary deaths	Person-years	Coronary deaths	Person-years
35-44	32	52,407	2	18,790
45-54	104	43,248	12	10,673
55-64	206	28,612	28	5,710
65-74	189	12,663	28	2,585
75-84	102	5,317	31	1,462
<b>Total</b>	<b>633</b>	<b>142,247</b>	<b>101</b>	<b>39,220</b>

- 14. Using these data, calculate the incidence rate of coronary death among smoking British male doctors in the age range 55 to 64 years:**
- A. 44/10,000
  - B. 44/10,000
  - C. 72/10,000 \*\*
  - D. 72 person-years
  - E. 44 person-years
- 15. Based on the table, compute the rate ratio of coronary death for smoking male doctors relative to non-smoking male doctors in the age range 55 to 64 years:**
- A. 21/person-years
  - B. 12
  - C. 4/person-years
  - D. 1.47 \*\*
  - E. 0.7/person-years
- 16. Based on the table, calculate the risk of coronary mortality per 10,000 attributable to cigarette smoking for doctors in the age 55 to 64:**
- A. 83
  - B. 23 \*\*
  - C. 2.9
  - D. 1.47
  - E. 0.22

- 17. Exposure to occupational hazards...**
- A. Varies with individual susceptibility to the harmful effects of the hazardous agent
  - B. May be measured or assessed by an occupational hygienist\*\*
  - C. Is most reliably measured by placing sampling devices in the working areas
  - D. Will result in irreversible effects on health if the legal occupational exposure limit is exceeded
  - E. Levels below the legal limit cannot result in adverse health effects
- 18. An incidence rate cannot be calculated in a case-control study because**
- A. Only prevalence rates are available
  - B. It is not known how large is the population from which those cases arise \*\*
  - C. The exposure and the disease are measured at the same time
  - D. The odds-ratio does not require the measure of the incidence rates
  - E. The recall bias makes it impossible to determine which cases are new ones
- 19. Which of the following statements about domestic abuse is correct?**
- A. Most cases where a spouse is abused are isolated incidents
  - B. Among married women, less than 2% are beaten by their husbands over the course of a year
  - C. The majority of cases of battering of women are caused by alcohol or drug abuse
  - D. Presenting complaints among abused women seeking medical attention are often non-specific \*\*
  - E. None of the above
- 20. On a hot summer day in a large urban center, the emergency room department reports an increase in admission for asthma in children and young adults but not among patients suffering from chronic bronchitis. The most likely air pollutant responsible for exacerbation of asthma is:**
- A. CO
  - B. Ozone \*\*
  - C. NO<sub>2</sub>
  - D. Particulate matters
  - E. Lead

**SECTION D**

- 1- We ask a technician to test 100 specimens of urine, of which 50 are known to us to contain sugar, the remaining 50 are free. In the 100 specimens the technician labeled 65 with sugar, 45 of which were known by us to contain sugar:
  - A. Complete a frequency distribution table to compare the technician's findings with the known correct results
  - B. If the technician works in a screening program to identify individuals for clinical work up. What are the implications of this validity scores(sensitivity and specificity) for the health status system?
  - C. What is the relevance of validity for epidemiological studies?
  - D. For some characteristics, the determination of validity may be difficult when an objective standard or set of criteria is not available. Consider health and related characteristics that you feel may be of this sort.
  - E. What can be done to determine or improve the validity of the measurement of these characteristics?
  
- 2- In an actual study in which two physician observers were used to determine cases, an investigation of their reproducibility was carried out. In this investigation, 183 persons were examined independently by both observers and rated as "normal", "Grade 1 byssionsis", or "Grade 2 byssionsis".  
(Byssinosis, a chronic lung disorder due to inhalation of cotton fibers, is an occupational hazard of textile workers). The results in the table below:

		Observer A			Total
		Normal	Grade 1	Grade 2	
Observer B	Normal	42	1	0	43
	Grade 1	6	47	17	70
	Grade 2	1	14	20	35
	Total	67	37	183	

- 1- Calculate the inter observer reliability for the three-way classification, and also for presence (Grade 1 and 2) or absence (normal) of byssinosis
- 2- What is the importance of reproducibility? (Just think logically and about life's examples)
- 3- What can be done about these sources of non reproducibility
- 4- From your own experience, can you think of health or other characteristics that are "more reliably" and "less reliably" categorized?



## Examples of Paper One in Family Medicine

### 1. The information in an adult patient's medical record

- A Should be discussed with the patient's family
- B Must never be released without the written consent of the patient
- C May be used for medical reports for insurance companies without consent
- D Can be used in medical audit if anonymous
- E Is the property of the doctor writing the record

**Answer: D**

### 2. A 47-year-old woman comes in because her 42-year-old sister has just been diagnosed as having breast cancer. The clinician's first maneuver should be to:

- A Have the patient prepared for breast examination
- B Reassure the patient that she has nothing to worry about
- C Obtain a full risk factor history
- D Get a family history of all cancers
- E Order mammogram.

**Answer: C**

### 3. A 6-year-old girl is brought to you by her mother who states that her daughter awoke with an earache. The patient resists attempts to engage her in conversation. All of the following issues are likely to be responsible for her reluctance to cooperate EXCEPT:

- A Fear of strangers
- B Fear of painful procedure
- C Shy temperament
- D No prior limit setting by parents
- E Fear of separation

**Answer: E**



Examples of Paper One in Family Medicine

**4. A 51-year-old woman with a long history of rheumatoid arthritis has normocytic-normochromic anemia. Her hemoglobin level is 9.8 g/dL with decreased serum iron, decreased total iron-binding capacity, and increased serum ferritin. What is the most appropriate treatment?**

- A Oral iron
- B Intramuscular iron dextran (Imferon)
- C Treatment of rheumatoid arthritis
- D Blood transfusion
- E Folic acid.

**Answer: C**

**5. Which one of the following is a characteristic of pubertal gynecomastia in males?**

- A Most cases are unilateral.
- B There is a preponderance of fatty tissue (lipomastia).
- C Ropy tissue is usually found at eccentric locations in the breast.
- D Resolution usually occurs within three years.
- E It is usually the first indication for pubertal change.

**Answer: D**

**6. You have recently made the diagnosis of Alzheimer's disease (primary degenerative dementia) in an elderly patient. Your advice to the family should include which one of the following ?**

- A Plan surroundings for the patient that will allow frequent changes in room decoration and furniture placement
- B Avoid a repetitive schedule of daily activities
- C Avoid leaving children with the patient because of the risk of child molestation
- D Avoid interfering with the patient's autonomy through such actions as locking doors or taking away car keys
- E Post signs to indicate where household objects are located

**Answer: E**

Examples of Paper One in Family Medicine

**7. A high-school runner who is a type 1 insulin dependent diabetic calls you before a match because his glucose level is high. You confirm that it is 270 mg/ dl (15 mmol), You should:**

- A Tell him to go ahead and participate , as the exercise will lower his glucose level to a normal range.
- B Encourage him to take concentrated glucose, as his glucose level should be 300 mg / dl or more before a strenuous match.
- C Advise him that type 1 diabetes is a contraindication to running.
- D Check his urine for sugar, if positive, don't let him participate
- E Have his urine checked for ketones and, if positive, do not let him participate .

**Answer: E**

**8. A 32 year-old multipara with an intrauterine device (IUD) in place is hospitalized for treatment of acute pelvic inflammatory disease. The IUD should be removed:**

- A As soon as the diagnosis has been made.
- B As soon as antibiotics have been started.
- C As soon as adequate levels of antibiotics have been achieved.
- D 24 hours after antibiotics have been initiated.
- E Immediately after parenteral antibiotic injection.

**Answer: C**

**9. A 4-year-old boy is brought to the Emergency Department because of a high fever and inability to eat. He is noticeably drooling, has mild inspiratory stridor without cough, and resists the nurse's efforts to have him lie down. Which of the following statements is TRUE?**

- A You should use a tongue blade to visualize and rule out a swollen Epiglottitis.
- B A lateral soft tissue x-ray of the neck should be arranged while making arrangements for airway management in the operating room.
- C The most common cause of this condition is the respiratory syncytial virus.
- D The disease is most often seasonal with the highest incidence in the winter months.
- E All of the above.

**Answer: B**

**10. In which ocular condition does the patient perceive "flashing lights" (photopsia)?**

- A Retinal tear.
- B Retinal artery occlusion.
- C Retinal vein occlusion.
- D Iritis.
- E Endophthalmitis.

**Answer: A**

**11. A proposed procedure should meet several criteria before use in primary or secondary screening activities. All of the following, are criterion for accepting a screening procedure in practice EXCEPT:**

- A The disease or condition for which screening is conducted must have a significant impact on the quantity or quality of life.
- B If the procedure can detect the disorder before clinical manifestations develop, treatment in the asymptomatic state must yield better results than are possible after the disorder becomes apparent.
- C As long as a test is available, clinicians should apply the procedure regardless of the test's cost or morbidity.
- D Interventions for disorders identified at an early stage must demonstrate acceptable effectiveness, risk, patient acceptability, and cost.

**Answer: C**

**12. A 62-year-old female comes to your office complaining of a 7 Kg weight loss, anorexia, and vague abdominal discomfort. Physical examination reveals atrial fibrillation at a rate of 90, but is otherwise normal. Of the following, the most important test to order is:**

- A A urine culture.
- B A chest x-ray.
- C A serum thyroxin level.
- D Serum electrolytes.
- E A serum uric acid level.

**Answer: C**

Examples of Paper One in Family Medicine

**13. Regarding effective listening, which of the following statements is true:**

- A There is no difference between active listening and passive listening.
- B Effective listening is a skill that requires the physician to understand and empathize with the patient.
- C Eye-to eye contact is not a significant factor in establishing effective listening patterns.
- D Whether a physician sits or stands beside a patient when listening and discussing a patient's problem doesn't make a great deal of difference.
- E Listening, as a skill, can and should often be left to other health care professionals.

**Answer: B**

**14. Which one of the following drugs binds bile acids in the intestine and thus preventing their return to the liver via the enterohepatic circulation:**

- A Gemfibrozil.
- B Nicotinic acid (niacin).
- C Probucol.
- D Cholestyramine.
- E Lovastatin.

**Answer: D**

**15. What is the role of Propionibacterium acnes in the formation of acne?**

- A Infection of hair follicle with pustule formation
- B Bacterial stimulation of excess sebum formation
- C Bacterial breakdown of sebum, which stimulates inflammation
- D Bacterial stimulation of inflammatory enzyme systems in the skin
- E Leakage of bacteria to subcutaneous sites, resulting in low-grade cellulitis

**Answer: C**

**16. A 25-year-old male comes to the Emergency Department with the sudden onset of moderate to severe right-sided chest pain and mild dyspnea. A chest x-ray shows a loss of markings along the right lung margins, involving about 10% to 15% of the lung space. There is no shift of the mediastinum and the vital signs are normal. The best initial treatment would be:**

- A Strict bed rest.
- B Oxygen supplementation and close observation.
- C Decompression of the chest by insertion of a large-bore intravenous catheter into the right second intercostal space at the midclavicular line.
- D Immediate chest tube insertion to a water seal.
- E Thoracotomy for wedge resection of pulmonary blebs.

**Answer: B**

**17. To determine an odds ratio one would have to perform which of the following studies:**

- A A cross sectional/prevalence study.
- B A randomized controlled trial.
- C A cohort study.
- D A case study.
- E A case control study.

**Answer: E**

**18. Radiographic features of osteoarthritis of the knee include which of the following:**

- A Marginal erosions.
- B Juxta-articular osteopenia ( demineralization).
- C Loss of articular cartilage with narrowing of the radiologic joint space.
- D Osteonecrosis ( vascular necrosis).
- E High riding patella ( patella alta).

**Answer: C**

**19. In phenylketonuria**

- A Inheritance is autosomal dominant.
- B There is increased conversion of tyrosine to phenylalanine.
- C Severe mental retardation occurs in the absence of treatment .
- D Treatment may safely be stopped when the child has reached the age of 3.
- E Screening at the age of one month is necessary since the condition is not detectable until sufficient phenylalanine has accumulated.

**Answer: C**

**20. In Deafness all the following are correct EXCEPT:**

- A If the tuning fork is better heard on the mastoid process than the external auditory meatus, this is diagnostic of middle-ear disease
- B Absence of loudness recruitment excludes end-organ disease
- C Presence of severe distortion suggests middle-ear disease
- D Auditory fatigue is suggestive of a lesion of the auditory nerve
- E Meniere's disease deafness usually becomes worse before an attack of vertigo

**Answer: C**

**21. How is the term psychosis best defined?**

- A Behaviour marked by a break from reality
- B Behaviour marked by a fixed belief not in keeping with current life situation or circumstance
- C Behaviour not in keeping with the current environment in which the individual finds himself or herself
- D Behaviour marked by the sight of objects that are not present
- E Behaviour marked by the hearing of sounds that are not present

**Answer: A**

**22. A 30 year old man experienced sudden painfull swelling in his left calf. He had been playing golf the previous day. On examination there was obvious swelling and tenderness in the left calf with a positive Homan's sign. The patient was not febrile and had good peripheral pulses. A DVT was excluded by Doppler ultrasound . The most likely diagnosis is:**

- A Chronic posterior compartment syndrome
- B Rupture popliteal cyst
- C Tumor in gastroncnemius
- D Tear of gastroncnemius
- E Acute haemorrhage into posterior compartment

**Answer: B**

**23. Which of the following mechanisms is involved in the PPD skin reaction**

- A Activation of complement followed by recruitment of polymorph leucocytes (PMNS) to the site of reaction.
- B Stimulation of T lymphocytes and the recruitment and activation of macrophage.
- C Degranulation of mast cells following the engagement of IgE on their surface.
- D Killing of macrophages containing Mycobacterium tuberculosis by cytotoxic T lymphocytes.
- E Recruitment of polymorphio leucocytes (PMNS) and macrophages to the site of reaction following activation of clotting and complement cascades.

**Answer: B**

**24. With urinary tract infection in children of both sex, all of the following are true EXCEPT:**

- A All patients require radiological or isotpe investigation of kidenys
- B Repeated infections causes severe symptoms
- C Fever indicate pyelonephritis as opposed to lower UTI
- D Frequency and dysuria indicates low-grade infection when bacterial counts do not achieve 10<sup>5</sup>/ml
- E Infection may be diagnosed in the absence of puria and proteinuria

**Answer: D**





**PMP 1**

**Seven individuals of ages ranging from 2 to 63 years became ill with nausea, vomiting, abdominal pain, diarrhea, chills, and fever. The onset of symptoms began 12 to 24 hours after eating a suspected food. They were all members of a family who had a combined party. The food item common to all individuals was home made ice cream. Two persons at the gathering ate only this item; two other family members who did not eat the ice cream remained well.**

- 1. The incubation period of 12 to 24 hours suggests that the probable organism is:**
- A. Staphylococcus.
  - B. Salmonella.
  - C. Hepatitis A.
  - D. Bacillus cereus.
  - E. None of the above.

**Answer: B**

- 2. The diagnosis can most likely be made by:**
- A. Blood cultures.
  - B. Serum antibody titers.
  - C. Stool cultures.
  - D. Food specimen culture.
  - E. All of the above.

**Answer: C**

- 3. The ice cream had been prepared by mixing raw eggs, evaporated milk, pasteurized milk, sugar, and vanilla flavoring. The mixture was not cooked but frozen immediately after it was mixed. The ingredient most likely carrying the organism was:**
- A. Evaporated milk.
  - B. Pasteurized milk.
  - C. Eggs.
  - D. Vanilla.
  - E. Sugar.

**Answer: C**

**3. Immediate treatment of this condition is :**

- A. Symptomatic.
- B. Ampicilin.
- C. Chloramphenicol.
- D. Septrin.
- E. Immodium.

**Answer: A**

**4. After 24 hours the symptoms persisted in some individuals, management of these individuals would be:**

- A. Continue symptomatic treatment for further 24 hours.
- B. Change the oral Ampicillin to parental.
- C. Change the drug you started earlier.
- D. Add anti-diarrheal drug to his regime.
- E. None of the above.

**Answer: A**

**PMP 2:**

**A 45-year-old man has complained of increasing abdominal girth, fever, and malaise for the previous 4 months; he has denied having cough. Physical examination shows a markedly enlarged spleen but no lymphadenopathy. Laboratory evaluation shows a normal chest x-ray, hemoglobin concentration 15 g/dl, a white blood cell count of 45,000 cells/ $\mu$ l with no blasts seen on the blood smear, and a platelet count of 750,000/ $\mu$ l.**

- 5. The most likely diagnosis is**
- A. Malignant lymphoma.
  - B. Acute leukemia.
  - C. Chronic myeloproliferative disorder \*.
  - D. Pulmonary tuberculosis.
  - E. Myelodysplastic disorder.

**Answer: C**

- 6. The laboratory evaluation for the differential diagnosis of this problem might include all of the following tests EXCEPT**
- A. Measurement of leukocyte alkaline phosphatase levels.
  - B. Chromosomal evaluation.
  - C. Bone marrow aspiration and biopsy.
  - D. Flow cytometric analysis \*.
  - E. Determination of red blood cell mass .

**Answer: D**

- 7. Evaluation of chromosomes shows a normal male karyotype. The leukocyte alkaline phosphatase level is low-normal, and the bone marrow is hypercellular and shows a myeloid-to-erythroid cell ratio of 10:1. Of following conclusions, which is most appropriate?**
- A. Chronic myelogenous leukemia (CML) is excluded, and the patient has a leukemoid reaction.
  - B. CML is excluded; therefore, the patient has an excellent prognosis and will be monitored every 6 months.
  - C. CML is excluded, and further workup will differentiate polycythemia vera from agnogenic myeloid metaplasia.
  - D. CML has not been excluded and further workup should include a molecular examination for a BCR-abl proto-oncogene translocation \*.

**Answer: D**



**ARAB BOARD OF MEDICAL SPECIALIZATION  
FAMILY MEDICINE**

**STATION NO.**

**AIM:** This station tests your skills in history taking from a patient presenting with a clinical problem.

**DATA** Mr. Adel Jassim \_\_\_\_\_ aged: 30 attends your clinic with a clinical problem.

**TASK:** Proceed with taking the relevant history in order to evaluate this patient's problem.

**N.B:** An examiner with a check list will supervise you. No need to explain to him.

**FAMILY MEDICINE**

**OSCE Station Scoring Sheet / Check list**

Station No:	Station Value:
Station Description: <b>Social Problem &amp; Alcoholism</b>	Possible full marks: <b>60</b>

Candidate's Name: _____	A = Mastered / Comp. answer B = Partial answer C = Not attempted / Wrong
Registration No: _____	
Date: _____	

NO	EXPECTED ANSWERS	A	B	C	MARK
1	<b>Greeting &amp; introduction</b>	2		0	
2	<b>Evaluating presenting problem:</b> - e.g. onset, duration, course etc.	6		0	
3	<b>Exploring alcohol drinking habit:</b> - e.g. Amount, kind, frequency, symptoms of dependency, withdrawal symptoms, etc.	6		0	
4	<b>Occupational / work history:</b> e.g. Current job, work absenteeism, relation with the supervisors and colleagues etc.	4		0	
5	<b>Social relations:</b> - e.g. Relationship with wife, children, friends, peers. Violence, quarrels, antisocial behaviour etc.	6		0	
6	<b>Evaluating patient's psychological issues:</b> - e.g. Sleep pattern, mood changes, crying spells, appetite, hallucinations, delusions, suicidal ideations etc.	6		0	
7	<b>Inquiring past medical problems:</b> - e.g. D.M, Liver problems, C.V.D, admissions etc.	4		0	
8	<b>Personal habits:</b> - e.g. Smoking, drug abusing, addictions etc.	6		0	
9	<b>Family history:</b> - e.g. Alcoholism, psychiatric problems etc.	4		0	
10	<b>Use of appropriate communication skills:</b> - e.g. Questioning skills, listening, responding, clarifying and summarizing.	8		0	
11	<b>Awareness of non-judgmental approach:</b> e.g. Projection of self believes and values.	4		0	
12	<b>General Organization</b>	4		0	
	Station Value x Total marks				* Total mark
	Final mark = -----				* Final mark
	Possible full marks				-----