

CHAPTER 1 : PATIENT EVALUATION

1. For the following chief complaints, determine which ones are acceptable and which need to be changed. Then state for each complaint which question you would ask next; either clarify the chief complaint or proceed with the history.

- A. I feel tired all the time.
- B. I have a headache.
- C. My insides need adjustment.
- D. My baby is going to die.
- E. My wrist hurts.
- F. I have diarrhea.
- G. My blood keeps swirling around.
- H. I have been pregnant for 2 years.

2. Reorganize the following radio transmissions into standard form, making up any lacking information.

- A. "I have this kid here; two days ago he fell out of a tree and I think maybe he broke his arm."
- B. "Say, could you tell me what to do with this lady? She doesn't look too good and she could have malaria."
- C. "Johnnie has had a bellyache and now he's vomiting quite a bit. What should I do?"

3. For the following patients, determine if each vital sign is normal, nearly normal, or definitely abnormal; leave normal ones unmarked, underline- nearly normal ones and put a star next to definitely abnormal ones.

Patient	Pulse	Respiration	Oximeter	Temperature	BP
5 y.o. MK	110	22	99%	oral 37.0C	
1 day nat	110	32	97%	rectal 100. OF	
3 mo MK	105	45	98%	rectal 98.OF	
adult expat	160	42	96%	oral 38.5C	90/60
adult nat	60	12	92%	oral 99.2F	80/50
adult expat	60	14	85%	oral 41.8C	140/90
8 y.o. MK	70	20	93%	oral 100.OF	

4. Grade the patients below from the least sick (1) to most sick (4). Note that this is how sick they are, not how potentially serious their conditions are.

- A. A 34 y.o. black female who complains of a mild headache every morning, annoying, but it does not cause her to miss work. P 108, R 14, T 99.6F oral, BP 220/120.
- B. A 2 y.o. child who is asleep, will not wake up when pinched or stuck with a needle, and who is continually vomiting. P 180, R 34, T 105.6F rectal,
- C. A 10 y.o. child who has been ill, with a cough and decreased appetite for the 2 weeks. He will sit upright and talk to you, but sleeps when you stop talking. P 140, R 60, T 103.4 rectal.
- D A 6 month old baby whose mother brings him in for a shot so he won't fuss at night. He is eating and playing normally. P 120, R 30, T 37.1C rectal.

5. What could the following physical findings indicate?

- A. Loud tinkles in the abdomen in a patient with diarrhea.
- B. Fine, soft, crackly sounds in the lungs.

- C. "Swish" sound between heart sounds in a very pregnant lady.
- D. Can't bend head or neck in any direction,
- E. Can't bend neck forward but can turn and tip head from side to side.
- F. Ear pain and large neck lymph nodes in front of the neck.
- G. Large tonsils, not red, in a 3 y.o. MK who feels good.
- H. Whites of the eyes are gray in an African.
- I. Patient has cold skin and passes out whenever he stands up.
- J. Everyone in your village has a high urine pH.
- K. Urobilinogen is in the urine in a child with a fever.
- L. A child with severe diarrhea has a dry mouth.
- M. Whites of a patient's eyes are yellow.
- N. Everyone in a village has protein in the urine.
- O. There is slight protein in the morning urine of a 15 y.o. athlete.
- P. The inside of the mouth is pale in a patient who is tired.
- Q. Sugar in the urine of a patient on tetracycline.
- R. Sugar in the urine of a diabetic.
- S. Red tonsils and swollen lymph nodes in the front of the neck.
- T. Ketones in urine without sugar in urine, in a child.
- U. A large sore on the right arm with swollen, tender nodes in the armpit.
- V. After you push on an abdomen, you can't hear any bowel sounds afterward.
- W. Blood in urine in a male who has a lot of back pain.
- X. Bilirubin in the urine in someone who is vomiting and looks quite yellow.
- Y. Loud, crackly sounds in the lungs.

6. Make a problem list for the following This 3 y.o. national male presents with the chief complaint of vomiting for the past week. He first became ill about a month ago with up and down fevers. About three days ago he lost his appetite and became irritable. For the past 2 days he has sleeping almost continually; his mother has been unable to fully awaken him although he does rouse enough to swallow liquids. He vomits twice daily. P 160 R 70 T 104 rectal. The whites of his eyes are yellow. Eyes are otherwise normal. Mouth is dry. Ears are normal. Lungs have fine crackles on the lower right. Abdominal exam is normal' except for an enlarged spleen which all the children in the village have. Skin is normal except for a large skin ulcer on his left buttock. Extremities are normal in appearance and can be moved passively in all directions.

CHAPTER 2 : INFECTIOUS DISEASES

7. For the following patients, state if you would use gram positive antibiotics, gram negative antibiotics, both or neither.

- A. 42 y.o. national male with hepatitis
- B. 42 y.o. national male with pneumonia
- C. 2 y.o. expatriate female with ear infection
- D. 9 y.o. national with an ear infection.
- E. 3 y-o. male with chicken pox
- F. 1 y.o. .male with a cold
- G. 6 month old female with pneumonia
- H. 20 y.o. male with a urinary infection
- I. 10 y.o. female with a tropical skin ulcer

8. In Uganda, what public health measures would you employ for the following diseases which occur in your area? The top score is 4 for something that is common, is severe, the local people are concerned and motivated to with it, and it is easily treated or easily prevented. Order your priorities by multiplying the 4 numbers.

Disease	Frequency	Severity	Concern	Treat/Prevent
Enteric Fever	2	3	2	4
Measles	3	3	3	3
AIDS	3	4	4	2
African Sleeping Sickness	3	4	3	2
Hookworm	4	3	2	4
Loiasis	1	2	2	2
Malaria	4	3	2	4
Pneumonia	2	3	3	4
Diarrhea	4	3	2	4
Malnutrition	3	4	4	3
Hepatitis A	4	2	1	2

If the WHO gives you a grant to start a public health project, how would you spend the money?

CHAPTER 3 : DRUGS

9. For the following drugs, underline the part of the name represents the base,
- A. Sodium nitropruside
 - B. Piperazine citrate
 - C. Sodium penicillin V
 - D. Quinine sulfate
 - E. Chloroquine phosphate
 - F. Sodium heparin
10. 250 mg chloroquine phosphate tablets contain. 150 mg of chloroquine base in each. How much base is there in 500 mg, 750 mg, and 1 gram. of the drug?
11. Look up the following drugs and state if you would or would not use the drugs in the listed below each.
- Ampicillin:
- A: Child with an ear infection, no allergies
 - B: Adult with a urinary infection, penicillin allergy
 - C: Adult with a urinary infection, sulfa allergy
 - D: Child with. a cold only, no allergies
- Dipheahydramine:
- E: Teenager with hives, no allergies
 - F: Pilot about to off; hay fever, no drug allergies
 - G: Adult aational you just sutured; you want him to sleep 48 hours
- Metronidazole:
- H: Adult with dysentery and penicillin allergy; he has been drinking
 - I: Adult female with vaginitis; this helped last time; no allergies to medicines.
 - J: Child with dysentery; allergy to sulfa drugs
12. Calculate the following doses:
- A. Diphenhydramine comes as 50 mg/ml; your patient is 15 kg and the child dose is 1 mg/kg every 3 hours.
 - B. Penicillin comes as 250 mg tablets. You have a very sick 23 kg child and no injectable drug. The adult dose for the disease in question is, 1000 mg initially iv and 500 mg 4 times a day for 10 days; reduce the dose according to weight for children".
 - C. The Vitamin A you have obtained comes as 40,000 units per ml injectable. You have radio instructions to give a particular patient 10,000 units IM. How much you do you have to draw into the syringe? Into what part of the body will you inject it?
 - D. You want to give globulin at 0.12 ml/kg.. Your patient weighs 113 lb. How much does she get? How will you inject it?
 - E. The initial dose of quinine in cerebral malaria is 20 mg/kg. If you have an adult weighing 80 kg and the preparation contains 325 mg in each ml, how many ml will you use to make up the dose? If the patient is unconscious, how will you give it?
13. Look up the following drugs and figure how much to use:
- A. Praziquantel for a 20 lb child with schistosomiasis.
 - B. Piperazine liquid for an 11 lb child with pinworms.
 - C. Rifampin for a 25 kg child with tuberculosis.
 - D. Zinc for a 12 y.o. boy with ulcers on his legs due to sickle cell. He has never been treated before.

- E. Chloramphenicol for a 5 lb premature newborn with meningitis.
- F. Chloramphenicol for a 100 lb woman with a severe eye infection and meningitis. She may have pneumonia also.
- G. Penicillin, for a 159 lb man with secondary syphilis.

14. Your church sent you some drugs. You had requested metronidazole, diphenhydramine, praziquantel, phenytoin sodium, and prochlorperazine. You received Droncit, Compazine, Flagyl, and Dilantin. Which one or ones are you missing?

15. The only thiabendazole you can obtain is veterinary. They are huge tablets, containing 5 grams of drug in each tablet. You crush up a tablet and mix it with 100 ml of honey. For a 70 kg adult, how much of this mixture should you give per dose?

16. You are sent the following drugs, all 3 months expired. Which ones do you keep and which do you throw out? Penicillin V, Triple sulfa, Tetracycline, Lindane, Paromomycin, Paraldehyde, Dilantin, Benadryl.

17. How much of the following drugs would you give the patients in question?

Prochlorperazine:

- A. 5 kg child, vomiting, has sickle cell anemia.
- B. 70 lb child, vomiting; allergic to penicillin.
- C. adult, emotionally upset, allergic to compazine.

Praziquantel:

- D. 20 kg child with beef tapeworm.
- E. 50 kg adult with schistosomiasis Mansoni, diabetic.
- F. 30 kg child with pork tapeworm and a chronic eye infection.
- G. 50 kg pregnant woman with severe schistosomiasis, appears ready to die.

Tetracycline:

- H. 60 kg with acne, (had his appendix out).
- I. 80 kg adult with secondary syphilis, got sicker with his first dose.
- J. 10 kg 2 y.o. child with possible bronchitis.

18. The following patients are on the given drugs for the diseases stated. They develop the following new symptoms. Is the symptom due to the drug, the disease, either, or neither?

- A. 5 y.o. .national, given erythromycin for a strep throat. He starts vomiting,
- B. 7 y.o. national on erythromycin for a strep throat He develops a light sunburn-type rash 10 minutes after his first dose. it is not raised or itching.
- C. 20 y.o. missionary on praziquantel for schistosomiasis becomes nauseated.
- D. 24 y.o. on penicillin for syphilis, develops an itching rash with large raised blotches over his whole body.
- E. 17 y.o. MX. on sulfa for a kidney infection, starts having her peel off in large sheets.
- F. 10 y.o. MK, pale complexion, on doxycycline for malaria, gets a bad sunburn with -just a half hour in the sun.
- G. 18 y.o. MK, same as above, has malaria, gets sicker and his urine turns dark brown.

CHAPTER 3 REMEDIAL PROBLEMS:

- A. Ketamine comes in bottles of 50 mg./ml. The dosage for a child is 7-13 mg/kg. What are the least and greatest amounts you would give to a 15 kg child? Give your answer in mg and also in ml.
- B. Praziquantel comes in 600 mg tablets. The dose for schistosomiasis is 20 mg/kg every 8 hours for 3 doses. A 45 kg child needs the drug. How many (or what portion of a tablet) would you give per dose? How many tablets would you buy from the pharmacy for the whole treatment?
- C. Gentamycin comes in 80 mg/ml in syringes. It is injectable. A 20 kg patient needs 1 mg/kg every 8 hours for 10 days. How much should you order for her? Specify how many syringes containing 1 ml each.
- D. You have decided, in your language group, to start all the women and the children 1-3 y.o. (women's average weight 40 kg; children's average weight 12 kg) on chloroquine to prevent malaria. The total population is 10,000, of which you estimate, 15% are eligible women, and 10% are children in this age range. The adult dose is 2 tablets weekly, and the drug comes in tins of 1000. How many tins do you need for 6 months?
- E. You want to start a very sick patient on penicillin. He requires injectable Penicillin G, 2.4 million units every 4 hours. However, you only have oral 500 mg capsules. 500 mg = 800,000 units. How many capsules do you give, and how often?
- F. Four members of one family, 15, 24, 49, and 71 kg, all come down plague, requiring streptomycin for treatment. The normal dose of streptomycin IM is 1 gram daily for an adult 50 kg or more; it is 750 mg for an adult under 50 kg. What is the daily dose for each patient? How much should you order for 10 days?
- G. You have a 4 kg baby who is severely dehydrated; his skin hangs in loose folds and he is unconscious. How much rehydration fluid does he need? If he loses 100 ml of diarrhea over the first day you care for him and if you could only get 300 ml of his fluid from day 1 into him, much fluid does he need day 2?
- H. Your theophyllin comes in 200 mg tablets. Your 25 kg patient with asthma needs 5 mg/kg every 8 hours. He can't swallow tablets and the theophyllin tastes terrible so you need to mix it with something strong-tasting and sweet. Honey is ideal and you have a lot of it on hand. Write out specific directions for his mother (who is a bit slow) so she knows just what to do.
- I. You have an 80 kg, 16 y.o. boy with a dislocated shoulder. You must give him alcohol for relaxation. Your brew is 100 proof. How much does he get?
- J. You get some iron dextran which is 100 mg/ml. How many ml for a 7.0 kg child for whom you do not know the hemoglobin?
- K. The usual dose of tetrachloroethylene is 0.12 ml/kg. The drug is a liquid. If your average child is 15 kg, how many children could you treat with a liter of the drug?
- L. The most common diseases, from most common on down, in your area are: Pneumonia, Diarrhea, Malaria sensitive to chloroquine, Chancroid, Gonorrhea, Amebic liver disease. Typhoid fever, Measles, TB, and Syphilis. Choose 15 drugs (don't count immunizations) that would be most useful.

CHAPTER 4 : EMERGENCIES:

19. A 22 y.o. male is involved in a diving accident; he dove into shallow water. He comes out of the water holding his head firmly in his two hands, complaining bitterly of neck pain. He has a small bump on the top of his head. He is alert and denies other injuries. Respond.
20. A village health worker runs to get you from a location about 0.1 km away. He just gave a 1 y.o. child an iron. injection and he says now the child is dying. He is so excited you can't get any more. information from him. Respond.
21. You are at a small airport when you hear a howl as a mechanic had some hot antifreeze splashed on his face and in his eyes. Respond.
22. Your teenaged son falls and complains bitterly of pain in his left knee. He is alert and denies other injury. You can't see the knee because of his tight blue jeans which are rapidly getting much tighter as the knee swells. He refuses to take the jeans off because of pain. Respond.
23. A 16 y.o. MK in chemistry lab breaks a piece of glassware and lacerates his right thumb. There is a very thin stream of blood spurting up about 3 inches. Respond.
24. Your pastor from your home church is visiting and is preaching loudly in your village when he suddenly clutches his chest and collapses on the floor. He is not breathing and you can't feel any pulse. Respond.
25. Two missionaries fell in a nest of fire ants. One started running and screaming loudly, then collapsed. She is brought to you very short of breath, but her breathing is not noisy. Her hands are cramped. Her face is not swollen. Pulse Oximeter 97%. Respond.
26. The other of the two missionaries is brought to you. 10 minutes later, also very short of breath, but not as bad as the other one. Her breathing is very noisy whenever she breathes in, she cannot talk, and her face is very swollen. Her hands are not cramped. Puse Oximeter 90%. Respond.
27. An 11 y.o. MK comes in with a very bad looking right ankle after a hockey accident. The foot is moved to the left and back from where it should be. He is certain it is broken. The skin is intact. You can't send him out for a week because the plane is down for repairs. Respond.
28. A 25 y.o. missionary on seizure medicine ran out of his medicine 2 days ago. He has a seizure during a church service. Respond.
29. Your overweight mother-in-law comes to visit you in central Africa during the hot, dry season. After being at your place for 2 days, she scrubs down your whole house in one day. While she is making supper she collapses. P 120, R 18, T 108.2, BP 150/100. She is very hot and dry. As you try to examine her she has a small seizure. Her neck is not stiff. Respond.
30. An 18 y.o. female MK comes to you with the chief complaint of abdominal pain. While you are eliciting the history, she passes out. She is cool and sweaty. She is pale. Pulse 130. R 16, BP 60/0, T 96:0 oral. Respond.
31. A 14 y.o. national male comes with the chief complaint of shortness of breath. He was playing with friends and accidentally received an arrow wound on his left chest. Another boy pulled the arrow out. He has a large bole in his left chest through which air moves in and out. Respond.
32. You are substitute house parenting at an MK school and are awakened at 5 AM. by a 50 lb 6 y.o. boy. He is an asthmatic who ran out of his medicine last night. He is very short of breath and has prolonged expiration with wheezing. P 120, R 36. Respond.

REPRODUCTION SECTION

CHAPTERS 6-7: REPRODUCTION PROBLEMS [Note that these problems are duplicated in some of the case studies. If you have been assigned female problems in the case studies, you may skip over these.]

1. Jane is a 20 y.o. national who comes to you for prenatal care. This is her second pregnancy, the first having ended in a spontaneous abortion at two months. She very much wants this baby because she has been married five years, her husband is ill, and he wants a son before he dies. Her last menstrual period was ten weeks ago. She has no complaints. She has had some morning nausea without vomiting and a chronic cough for six months. She has had no immunizations, no allergies, no significant past illness except, the abortion mentioned. She is the only wife of a poor farmer who is very ill. Evaluation: weight 48 kg; P 100, R 20, BP 100/60, T 101.6. Physical exam is not remarkable, except you note the patient coughs continually. Urinalysis is negative. Stool is slightly positive for blood. Respond.
2. Barbara is a 24 y.o. married missionary who comes to you with her first pregnancy. Her last period was 4 months ago. Her chief complaint is lower abdominal pain, right and left equally, gradual in onset and getting somewhat worse for the past 4 weeks. She has had neither change in bowel habits nor difficulty nor pain with urinating. Her appetite is good. She had malaria 1 year ago and again 6 months ago. She has had all her appropriate immunizations. She has no allergies and has been treated for nothing serious in the past. This is her first term as a missionary and she is well adjusted. Evaluation: Weight 65 kg, P 66, R 18, T 98.4, BP 96/60. Urinalysis is negative. Stool is negative for blood. Pelvic exam shows the top of the uterus about half way between the pubic bone and the navel. She has slight lower abdominal tenderness, right and left both, without rebound. Respond.
3. Sharon is a single 18 y.o. MK, brought to you at 2 a.m. with severe abdominal pain. Some episodes of sharp pain had been present for 3 days, but the pain has been steady and severe for just one hour tonight. Sharon's last menstrual period was five weeks ago, but she is spotting slightly now. She has had slight nausea for the past week. She was treated for a pelvic infection while she was still in school 3 months ago. She had malaria at 12 and 13 y.o., but none since. She graduated from high school and returned home last week to spend the summer with her parents. She has been somewhat rebellious, but not seriously so. Evaluation shows weight 55kg, P 100, R 14, BP 110/80, T 98.0. Examination: head, neck, and chest are negative. On abdominal exam, Sharon has very localized lower right sided tenderness with rebound. Pelvic exam shows a positive chandelier sign with pain particularly to the right. She has slight bleeding from the cervix. You can't feel the right adenexa because of severe tenderness there. Left adenexa is normal. Respond.
4. Penny is a 29 y.o. single missionary who comes to you with the chief complaint of severe vaginal itching for six hours. Two days ago she came down with a urinary tract infection for which you gave a five day course of ampicillin, since she is allergic to sulfa drugs. Her last menstrual period was three weeks ago and was normal. She has had recurrent urinary tract infections but she never had problems with vaginal itching before this episode. She is newly arrived six months ago, well adjusted, working as a translator. Evaluation: weight 62 kg, P72, R 12, T 98.0, BP 96/62. Pelvic exam shows a thick white vaginal discharge with the genital pink parts being bright red. No chandelier sign. Both adenexa are slightly tender. Respond.
5. Julie is a 16 y.o. national female who comes with the chief complaint of nausea and vomiting for 8 weeks. She has vomited at least four times daily. Her last period was 10 weeks ago. This is her first pregnancy. She has had no immunizations; she has a penicillin allergy but no prior medical or trauma history. She is newly married to an older government official, being his third wife. Evaluation: Weight 45 kg, P 112 R 12, BP 96/60, T 98.0. Eyes and ears and throat are normal. Her mouth is dry. Heart sounds are normal and lungs are clear. Abdomen is negative.

The patient won't allow a pelvic exam. Urinalysis shows large ketones but is otherwise negative. Specific gravity is 1.035. Respond.

6. Marcie is a 17 y.o. national female with a history identical to that of Julie above. However, on evaluation you note that the whites of her eyes are yellow. Urinalysis shows large bilirubin as well as large ketones. Respond.
7. Patsy is a 32 y.o. married missionary previously infertile, now with her first, pregnancy. Last menstrual period was 6 months ago. She comes to you with the chief complaint of fever, itching, and shortness of breath. The fevers began three days ago when she was at a coastal mission station visiting friends. She took chloroquine since it seemed like malaria and got huge hives from it. It didn't touch the fevers, however, which continued and got worse over the past three days. Two hours ago she took another chloroquine which resulted in hives, facial swelling, and shortness of breath. A pilot who happened to be in the area immediately flew her to you, since you were the nearest person with medicines. More history is unobtainable since the patient is too short of breath and her husband is too upset. Evaluation shows her face swollen like a balloon. P 116, R 30, BP 70/30, no temperature taken at this time. She feels hot. There is prolonged expiration with very loud wheezing present. Respond to this immediate crisis. After the immediate crisis is past, the patient states there is a lot of chloroquine-resistant malaria on the coast. She had quinine available but was afraid of aborting if she took it. Physical exam shows a temperature of 105 now. The whites of the patient's eyes are slightly yellowish. There is no rash; heart, lungs, and abdominal exam are normal. Urine is positive for urobilinogen and blood. It looks brownish. Stool is negative for blood. Respond.
8. Lou is a 28 y.o. national who comes to you shy and embarrassed. First she won't tell you what the problem is. After much coaxing, she states she has a bad vaginal odor which has caused her husband to reject her in favor of other wives. She has slight vaginal irritation also. She has had all immunizations, no allergies, no prior illnesses or accidents. Evaluation: P 70, R 10, T 98.4, BP 92/58. Pelvic exam after much coaxing shows a frothy, bad smelling discharge with slight vaginal irritation. Rest of pelvic exam and rest of physical exam is normal. Respond.
9. Joyce is a 14 y.o. national girl who comes to you 7 months pregnant with the chief complaint of headaches for the past month. They are worse in the mornings and they involve the whole head. This is her first pregnancy. She has no other complaints. She also complains of swelling of the feet and unusual fatigue. She has had no immunizations. She has an allergy to iron injections- Social history shows that Joyce has been married less than a year, first wife of an older government official. Evaluation: Weight 64 kg, P 98, R 22, T 99.6, BP 186/146. Uterus size is normal for 7 months. She has marked swelling of her ankles. Heart sounds show a soft murmur. Lungs are clear. Urinalysis shows large protein but is otherwise negative. Respond.
10. Sheri is a 12 y.o. national girl whose mother brings her to you with the complaint of excessive menses. Her first menstrual period was 10 weeks ago. This was normal. She then skipped one period and her next menses began 2 weeks ago. She has been passing large amounts of blood and is now unable to stand up on her own. She has had one tetanus shot but no other immunizations. She has had malaria three times. She had severe diarrhea and measles as a baby, and had a sprained ankle 6 months ago. Evaluation: P 120, R 24, BP 92/40, T 98.8. Physical exam is negative except for very pale inner eyelids and a soft heart murmur. Urinalysis shows large blood. Stool is negative for blood. Respond.
11. Michelle is a 26 y.o. married missionary, who had a positive pregnancy test six weeks ago at the time of her first missed period. This is her second pregnancy; two years ago she delivered a female child who died of unknown cause shortly after birth. Now she has had vaginal bleeding which was slight for two days. It became heavy like a regular period three hours ago. The patient is upset and crying. Evaluation shows P 88, Respirations can't be counted because of sobbing, T 99.0, BP 116/78. General physical exam is normal. Pelvic exam shows a lot of blood. When you wipe some of this away, you find a piece of solid tissue, two inches in

- diameter and one inch thick, which appears like placenta. It is stuck in the hole in the middle of the cervix. After you remove this, the bleeding slows way down. Respond.
12. Darlene is a 25 y.o. married missionary with the chief complaint of vaginal itching for two days. She is not pregnant; she is using birth control pills. Evaluation shows P 66, R 16, T 98.2, BP 112/68. Pelvic exam shows a frothy odorless vaginal discharge with moderate vaginal irritation. Respond.
 13. Sheila is a 40 y.o. married missionary with the chief complaint of lower abdominal pain which began yesterday at the start of her period. She is doubled over with pain. She vomits once as she comes in. She has had four normal children. She is not pregnant; her husband had a vasectomy three years ago. She has had some pain with intercourse for ten days. Otherwise she felt fine until this morning. She's had all immunizations, no allergies, nothing else of significance. The patient has been married for 20 years. There is some friction in the home. Evaluation: P 104, R 20, T 100.2, BP 108/64. In the lower abdomen there is marked tenderness with rebound. On pelvic exam, there is blood and pus coming from the cervix. There is a markedly positive chandali sign, the pain being the same on the two sides. Respond.
 14. Diana is a 20 y.o. national female who comes in with the chief complaint of vaginal bleeding. She is pregnant, near term. She started having contractions an hour ago. A half hour ago, she began to have bright red vaginal bleeding, with continuous pain even between contractions. She soaked 6 pads. She has had two previous pregnancies, one living child. She has had no immunizations, no allergies, no past medical or trauma history. She is the only wife of a poor farmer. Evaluation: P 140, R 14, BP 70/0 T 97.0. Abdominal exam shows a very tender uterus without rebound. There is blood pouring out of her vagina. Respond.
 15. Shelly is a 30 y.o. wife of the local police chief who comes to you with the complaint of infertility. They and you live in northern Ghana. She had one child early in their marriage. The child would have been 10 y.o. this month, but he died of diarrhea when he was two. Shelly has had occasional fevers and chills, some discomfort with urinating, but otherwise she has no other complaints. She has had two tetanus shots and one oral polio immunization. Otherwise her history is negative. Respond by listing the specific things you would inquire about and what you would look for on physical exam.
 16. Ellen is an 18 y.o. national female, first pregnancy, second missed period last week. She comes for routine prenatal care. She complains of shortness of breath with exertion. She had one tetanus shot one year ago, along with an oral polio. She is newly married and an only wife. Evaluation: P 118, R 32, pulse oximeter 86%, T 98.8, BP: 130/40. Physical exam shows head, ears, eyes, and throat to be negative. Lungs are clear. Heart sounds are a back and forth "whoosh- shoosh" sound, like heavy machinery. Abdominal exam is negative. The patient will not allow a pelvic exam. Urinalysis is negative. Respond.
 17. You are called to a delivery of a baby. The child is a breech, out up to the navel with head and shoulders still in the mother, apparently stuck. The child is facing the mother's right, his back to her left. Respond.
 18. A 14 y.o. pregnant girl is brought to you because of crazy behavior. She appears to be full term. She is shouting, screaming, and tearing her hair. Vital signs: P 110, R can't obtain, T 98.0, BP 240/140. As you go to check her otherwise, she has a seizure'. Respond.
 19. You deliver a baby and the placenta just won't deliver, none of it. Respond.

INJURIES SECTION

CHAPTER 8: PAIN PROBLEMS

1. How would you relieve the following pains?
 - A. Minor headache
 - B. Menstrual cramps
 - C. Multiple cuts on a hand
 - D. Bruised hand from a rock rolling over it
 - E. Fractured hip
 - F. Fractured wrist with bones moved out of place
 - G. Anesthesia for a badly cut finger tip
 - H. Muscle relaxation for a dislocated shoulder

CHAPTERS 9, 10: SOFT TISSUE PROBLEMS

2. An adult national female, 60 kg, spilled some boiling oil. The front of her right thigh is burned in entirety; the area looks white and she has no pain sensation in it. The front of her right lower leg and foot and the entire front of her left leg (hip to toes) are burned but these areas are red and blistered. You cannot send the patient out for a week. She refuses to stay in or nearby your home. Respond.
3. Two days later, the patient above comes back to be rechecked. The white front of her right thigh is still white. The lower part of both legs, the areas around the ankles, have broken blisters with thick yellow drainage, increasing redness, and increased pain. Some of the dressings are off, and some are stuck on. The remaining dressings are filthy. Respond.
4. Your national house helper got his left arm in the wringer of your gasoline-powered washing machine. His entire arm from the base of the fingers to the elbow is moderately black and blue and swollen. He is howling with pain. Respond.
5. A national with a nasty temper dropped a railroad tie on his right foot, then kicked the tie in a rage. He comes to you now with the toenail of the great toe entirely black and blue and he says that there is a splinter underneath the nail. You can't see the whole splinter, but you can see a brown piece sticking out the end of the toenail. It is too small for you to get your forceps on it. Respond.
6. A local mechanic accidentally injected some grease into his right thigh from a grease gun. This happened two days ago. He comes limping in to you in severe pain, running a high fever. His entire right thigh and leg are swollen up to 3 times its normal size. Respond.
7. You receive a text message that a friend in the next village was bitten by a sea snake while swimming in the South China Sea off the coast of Malaysia. Her husband does not have a medical manual, so he asks you if this is serious and if so, what he should do about it. Respond.
8. A 2 year old 15 kg national male has second degree burns on his entire right arm, all the way around, and half of his right leg, just the front, upper leg and lower leg both. Respond.
9. You are awakened one night by an awful noise and excruciating pain in your right ear. A cockroach crawled into it. He is unhappy with his environment but can't seem to get his body out so is struggling furiously hitting against your ear drum. Respond.
10. You are visiting in the south Pacific area and know very little of the local language. You are about to go swimming when someone who knows a little English points to the area and says "stone fish". You can't communicate any further. Are you worried?

11. A 21y.o- missionary gets a piece of compost in his right eye while gardening. You wash it out immediately, but it feels slightly irritated afterward. Two hours after that he develops severe pain in the eye, with redness and tearing. Respond.

12. Two MK's are involved in a dirt bike collision. They hit their heads together and both are knocked unconscious. Tim wakes up in about 20 minutes, vomits twice, and asks over and over what happened. He knows his brother and where he lives and the date. His pupils are fine. He has a huge bump on his forehead. Respond.

13. Mike, the other MK, was knocked unconscious also. He was out for only about 2 minutes, then woke up and was fine for about an hour. He became very irrational and irritable about a half an hour ago, then fell totally unconscious about 5 minutes ago. His left pupil is quite a bit larger than his right one, and it does not get smaller when a light shines in it. He does not respond to pain. Respond.

14. Tim and Mike, when they collided, also involved a young admirer, Sharon, aged 12, who was watching the race. She was knocked down and is uninjured except for a scraped right cheek with some dirt ground into it. She is an undisciplined child who will not let you approach within 6 feet of her to examine her wound or treat her. Her parents will be back in a week. Respond.

15. A neighboring missionary will be flying out to a remote area where he will remain for 4-5 days before returning. He comes to you because he has a minor cold and wonders if he should take something for it either before or after he flies, since last time when he flew with a cold he ruptured an ear drum. Respond.

16. A 10 y.o. national was punched in his right eye. When you look at the eye, the lower half of the brown colored part is full of blood. There is a lot of swelling around the eye, but he is still able to open it. He can still see with it. The white of the eye is a little red, and he is able to see somewhat out of the eye. Respond.

17. Your 12 y.o. son was watching welding. He awakens about 6 hours later with excruciating pain in both eyes, with the eyes somewhat reddened and watering a great deal. Respond.

LACERATIONS

18. Your neighbor is using a chain saw to cut firewood and swings it around in the process. He barely grazes the ear of your 6 y.o. son who is watching. The child has 5 lacerations of the outer ear, only one of which is deep enough to need sutures. They appear to be clean. You can't send him out. Respond.

19. Your 2 y.o. daughter is running and she falls down, lacerating her chin underneath, in the midline. She is able to open her mouth without complaint. When you check the inside of her mouth, you notice that her top front teeth made a large laceration inside her lower lip, but this does not go through to the outside. The outer laceration is clean by the usual criteria. Respond.

20. A 14 y.o. national male is brought to you with an arrow sticking out of his left upper chest. He had walked for 2 miles from the scene of the accident to your house. The wound was made accidentally by his father. The child is upset, but his color is good. P 90, R 20, BP 100/50. You can send him out right now for \$1000 or tomorrow for \$100. Respond.

21. A 42 y.o. white missionary got too close to a bar fight. One of the pieces of flying glass hit his right upper arm just above the elbow. He was bleeding badly but was smart enough to hold direct pressure over the wound with a clean handkerchief. He arrives at your house now, still holding pressure which has stopped the bleeding except for an occasional slow drip. He complains that his right arm, below the cut is numb and cold. When you look at it, it is a strange grayish color

(including the fingernails) and completely cold. He has no sense of feeling at all on the thumb side and very little on the little finger side. When you send an urgent message for a plane to evacuate him, the pilot says that if he comes right away, he will have to cancel the flight of an important government official, and pleads with you to hold the patient overnight so he can come in the morning. Respond.

22. You pull on a hangnail and two days later have redness and swelling on the side of the nail where the hangnail came off. Respond.

23. Four days ago you sutured the foot of a national who had stepped on a machete knife and had a severe laceration. It was originally a dirty wound that you cleaned and then sutured after it was uninfected. You had sedated him, but he had disappeared and you had not been able to find him between the suturing and today. Now he arrives with the foot red and swollen. The sutures, between the third and fourth toes on the bottom of the foot, are still in place. The skin on the top of the foot is red, taut, and shiny. The foot is extremely painful. Respond.

24. An 8 y.o. national female comes to you with a knife wound to her abdomen, just to the left of her navel. You are new in the language group and can't find out how it happened. The wound is four inches long, but you can't be sure how deep it is by looking. You can send her out, but it will cost you your entire income for the next 2 months. Respond.

25. A 1 y.o. MK is brought to you because of a cat bite to her face. She is a beautiful child and her mother wants you to suture the cut so she won't have a scar, even though it is neither deep nor long. Respond.

26. A 20 y.o. national comes to you with a cut on his leg that he got yesterday when working in his garden with his machete. There is some dirt in it, but it does not appear infected. He wants you to stitch it up. Respond.

27. Your 9 y.o. son cut his eyebrow 8 hours ago, right after you had left for the day. You are tired and feel sick when he presents this to you at the end of the day. Respond.

28. Two nationals were fighting when one hit the other across the abdomen with a machete. The victim is brought to you on a homemade stretcher with bowel hanging out of his abdomen. The plane will be in in 2 hours to take him out. P 120, R 16, BP 80/0. His skin is cool and slightly moist. Respond.

29. A 15 y.o. MK sustains a cut over the back of his hand. He is unable to straighten his middle finger, but he can move the other fingers normally in all directions. He has no numbness and the color of his fingernails changes properly in both directions. Respond.

BONE AND JOINT INJURIES

30. You are playing baseball when you catch a ball on the tip of your finger. The finger, from the last joint out to the end, hangs down and you can't straighten it at all. It is somewhat tender at the last joint, but the rest of the finger and the hand are fine. Respond.

31. During a football game a 12 y.o. MK sustains an injury to his right knee. The knee cap is moved to the left; it is on the inside of the knee joint rather than the front. The patient has a good pulse in the foot; he can feel the foot and wiggle his toes. He has a surface scrape on the knee, but no deep lacerations. Except for the knee cap, the leg is about the right shape. The closest hospital is 2 days away. Respond.

32. An 11 y.o. MK in the same game also sustains an injury to his right knee. His whole lower leg is moved back from where it should be so there is a step type appearance at the kneecap. The foot is a

strange color and cold. He cannot wiggle his toes or move his ankle at all. The closest hospital is 2 days away. Respond.

33. A 7 y.o. national is running when he falls, hitting his left shoulder on a rock. He comes to you now with swelling and pain in front of his left shoulder, about midway between the tip of the shoulder and the midline of the chest. The pulse in his left hand is good, he can feel the hand and wiggle his fingers fine. There is no break in the skin. You cannot send him out. Respond.

34. A 44 y.o. missionary woman trips and falls on her outstretched arm. She comes to you complaining of pain in her right elbow. Most of the pain is on the outside of the elbow, just below the elbow creases. She can bend her elbow fine, but she can't turn her hand palm up without a great deal of pain. She has a good pulse in her wrist, her fingernails change color fine, and she can feel and move her fingers. There is no break in the skin. You can send her to a hospital if you like, but she does not want to go. However, her director lives next door and he can force the issue. Respond.

35. A 30 y.o. airplane mechanic falls out of an aircraft onto his outstretched hand. He has no pain in his elbow, but his wrist hurts right at the base of his thumb. He can't give you a very good grip, but the shape of the wrist looks normal. The fingernails are pink and change color fine with pressure, and he can feel and wiggle the fingers. You can send him to a hospital if you like. Respond.

36. A 15 y.o. MK comes to you with a left index finger that is moved out of place right at the joint at the base of the finger. The finger is moved toward the back of the hand and toward the wrist. There is a definite abnormal "step" right at that place. The fingernail is normal color and he can feel the tip of the finger. He cannot move the finger. There is no break in the skin. You can send him to a hospital, but it will be expensive and it will take 4 days to get him there. Respond.

37. A 9 y.o. national fell out of a tree and his parents bring him to you complaining loudly of pain in his right leg, between his knee and his hip. The thigh bone is curved forward, toward the front of the body, giving the leg an abnormal shape. There is no break in the skin. He can feel and slightly wiggle his toes, and his foot is warm, with a good pulse. He denies any other injuries. You can send him out by road today, 8 hours over very bumpy roads, or you can keep him for 10 days and fly him out to a hospital. His vital signs are normal except for a fast pulse of 130. Respond by stating how you will treat him now and how you will transport him, if you decide to do so.

38. A 5 y.o. national falls out of a tree. His left arm is a strange shape, with the lower arm and the elbow moved forward from where it should be, the "step" being about 2 inches above the elbow. The little finger side of the hand is numb, there is a pulse, and the hand color and temperature are normal. There is a deep but very small laceration over the front of the arm, at the point of the "step". You can send him out to a hospital if you want, but you are short on support this month and it will be expensive. His parents can't pay. Respond.

39. A 14 y.o. national is running when he steps into a hole and turns his left ankle. The ankle immediately becomes very black and blue and swollen. Most of the tenderness is about an inch above the bony bump on the side of the ankle. The pulse in the foot is good, and he can feel the foot and wiggle his toes. The skin is not broken. His parents do not want him sent to a hospital, but you might be able to force the issue if you tried hard enough. Respond.

40. Another national, this one 18 y.o., gets a similar injury, but for him the tenderness is in front of the bony bump on the side of the ankle. Pulse, sensation, and motion in the foot are all good. The skin is not broken. Respond.

41. Yet a third national, this one 10 y.o., with a similar injury has no pain in his ankle, but on the bony bump on the side of his foot, half way between the little toe and the heel. Pulse, sensation, and motion of the foot are all good, and there is no break in the skin. Respond.

42. Two teenaged MK's are wrestling when one howls. The other lets him up and he stands, holding his left arm with his right, and complaining bitterly of left shoulder pain. You can't seem to find any one point that is more sore than any other; he doesn't like you pushing anywhere and claims the entire shoulder hurts. The shoulder is a funny shape, as if it had been pushed in on the side. The pulse in the wrist is present but somewhat weaker than the other side. The patient has sensation and motion in the hand. The skin is not broken. You can send the patient out by road, 8 hours over fairly good paved roads. Respond.