

2005

# Global Medical Training Medical-Clinical Guidelines

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[www.gmtonline.org](http://www.gmtonline.org)

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Gaby Martinez



## GMT MEDICAL-CLINICAL GUIDELINES

### PREFACE

This is a very simplified compilation of some diseases that we commonly see in our clinics. You must refer to referenced sources for appropriate important details. This same comment applies to the medication list and dosages. Be aware that the information presented is accurate, but can be misleading because of its simplicity. It is meant only as a guide for the new student of clinical medicine while assessing a patient's health problem.

There are many good sources of medical details, both online and in print. The best to carry along is a pocket sized manual: "OXFORD HANDBOOK OF TROPICAL MEDICINE" (2<sup>nd</sup> edition)...less than \$40 from online bookstores.

I have written this so I take responsibility for any deficiencies / mistakes. It is meant to be periodically updated and revised, so I appreciate your comments about it. I will also have available to you the longer, more inclusive GMT Medical Manual that I previously compiled.

I would highly recommend that you read:

1. The Healing of America: A Global Quest for Better, Cheaper, and Fairer Health Care [Paperback]  
By T.R. Reid...a MUST read for all USA pre-professional health care students and professionals.

2. "Awakening Hippocrates", by Edward O'Neil, Jr., MD

"Martin Luther King, Jr., once said, "The racial problem in America will be solved to the degree that every American considers himself personally confronted with it". We can extend a similar analogy to the problem of global health inequality. This problem too will only be solved to the degree to which each of us feels personally confronted by it – particularly those of us in the health profession. That remains difficult if the overwhelming majority of health providers remain secluded away in the relative comfort of the industrialized world."

Domestically, I would add that this is, also, true regarding the shameful health inequality, inadequacy and inefficiency in the USA. We spend MUCH more money than ANY other nation in the world and rank below 36 other countries in our provision of healthcare [per the World Health Organization-WHO- of the United Nations].

Whether you fully realize it or not, you have chosen to personally confront these inequalities by coming on this GMT trip. Allow yourself to be open to experiencing all aspects of this GMT multi-dimensional first-hand experience. Yes, medical care is our focus, but please note that this trip experience is much more than that. It will help you to become a more completely informed person and professional. You will feel it.

The health care professionals /providers who know only medicine are not complete and do not really even know how to provide a complete, true and effective type of health care.

*Wil Johnson, M.D.*

Wil Johnson, M.D., U.S.A.  
Founder and Medical Director of Global Medical Training

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14. "SOAP" FORMAT FOR PATIENT ASSESSMENT

**Note:** Your patient assessment includes taking the patient's history of illness and physical exam of the patient, including the vital signs...every patient...recording that on the medical record/soap format. Anything else is INADEQUATE.

- Disease prevention
- Public health measures
- Patient/parent/family education

→ All of this must be done by you for every patient we see in the medical clinics and for everything we diagnose! A GMT M.D. will help you.

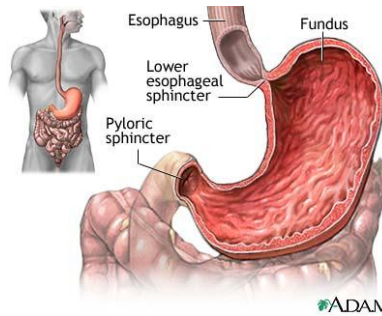
## 1. ABDOMEN

**A. GASTRITIS:** Inflammation of the stomach mucosa (lining)...may lead to ulcers & internal bleeding.

**Causes:** a) Chemical—alcohol, meds (Aspirin, etc), heavy smoking, spicy foods...b) Infection—Bacterial, Parasites (Roundworms, etc)

**Symptoms:** pain high in abdomen, midline (epigastrium)...often relieved by eating bland foods; worse late night; bleeding (bloody vomitus; black BMs)

**Treatment:** a) acid neutralizers / inhibitors [Tums, Maalox, Cimetidine, etc]  
b) Antibiotics



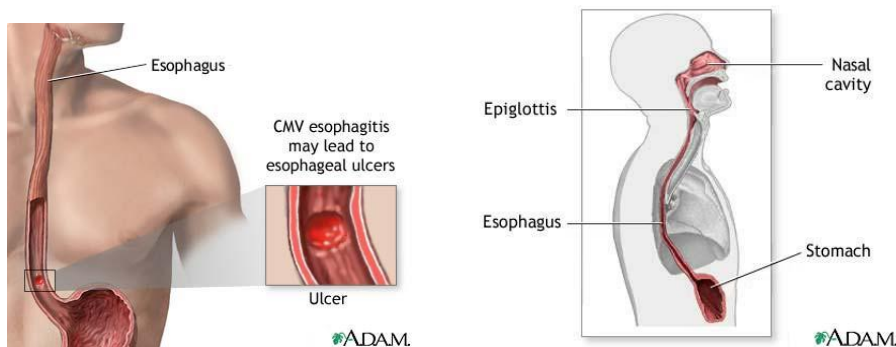
\*Author/Source of this image: Medline

**B. ESOPHAGITIS** / Acid Reflux of stomach acid up into the esophagus causing "heartburn"...

**Causes:** a) incompetent gastric sphincter...+/- a hiatal hernia b) chemical irritant..eg per roundworms, ASA (Aspirin)..

**Symptoms:** anterior mid chest burning; regurgitation of stomach acid / contents into mouth at noc. (night); relieved by antacids / acid inhibitors...

**Treatment:** similar re. Gastritis; surgery re H Hernia



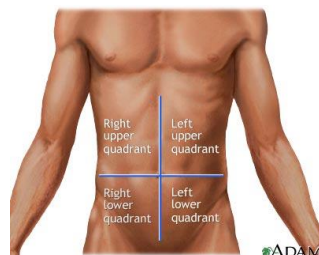
\*Author/Source of these images: Medline

**C. DYSPEPSIA:** upper abd. pain associated with eating.

**Causes:** Parasites (many); Gallstones [RUQ pain radiating to back]; Ulcers, etc.

**Symptoms:** bloating, belching, nausea, cramping, loss of appetite...

**Treatment:** Treat specific cause.



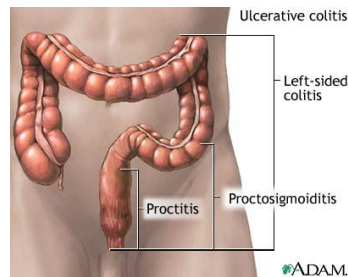
\*Author/Source of this image: Medline

**D. "COLITIS":** inflammation / infection of the colon [large bowel]...

**Causes:** Multiple

**Symptoms:** diarrhea, cramping, bloating, red blood in BM

**Treatment:** treat specific cause...eg parasites, bacterial or viral infection.



*\*Author/Source of this image: Medline*

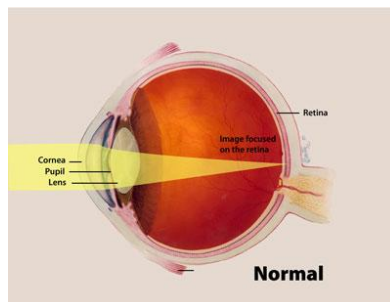
## 2. EYE

**A. CONJUNCTIVITIS ("Pink Eye"):** inflammation / infection of conjunctiva (mucosal lining of inner eyelids and over the sclera (*white outer eye*)).

**Causes:** External irritants; infections; allergies...

**Symptoms:** redness, pus formation, irritation...all externally. ...

**Treatment:** treat specific cause..antibiotics, allergies, etc.



Conjunctivitis

ADAM

*\*Author/Source of these images: Eye National Institutes of Health and Medline*

**B. CATARACTS:** clouding of the lens / posterior to the pupil....obstructs light to the retina. It's the most common cause of bilateral blindness worldwide.

**Causes:** advancing age, UV light, trauma, etc

**Symptoms:** progressive dimming of vision over several years

Grey-white appearance to the pupil (vs a total black)

**Treatment:** surgical removal of lens and insertion of artificial lens (relatively simple, but skilled surgical technique / costly)



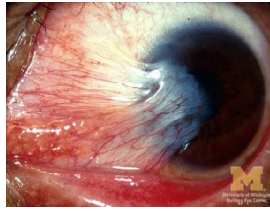
*\*Author/Source of this image: Eye National Institutes of Health*

**C. PTERYGIUM:** Thickening and growth of the conjunctiva...usually nasally..gradually covering the cornea & obscuring vision...very common .

**Causes:** airborne irritants, UV light

**Symptoms:** irritation, local redness, a "growth" progressing over years

**Treatment:** protect eyes from airborne particles and UV light; surgical removal (easily done by eye surgeon, but not usually necessary)



*\*Author/Source of this image: University of Michigan Kellog Eye Center*

### 3. EAR, NOSE, THROAT

#### A. EAR PAIN

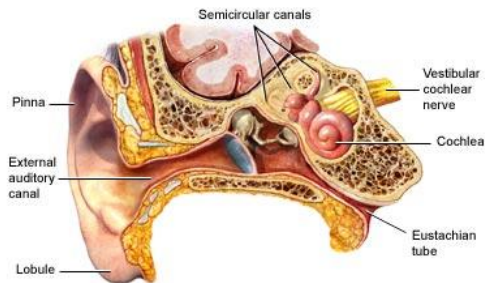
**Causes:** a) INFECTION: bacterial, viral, fungal

b) TRAUMA to external canal and drum...fingernail, Q-tip, insect, swimming, diving.....can rupture drum...2ndary infections

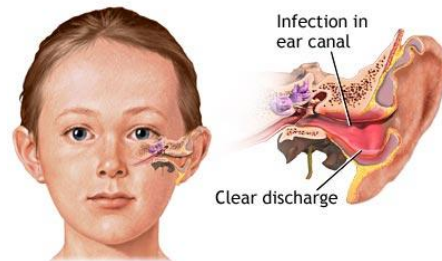
**Symptoms:** a) External ear canal...pain, swelling, redness...pain with external manipulation...enlarged lymph node, fluid drainage (cloudy to yellow pus)

b) Internal ("middle") ear...medial to ear drum...which is reddened, inflamed, with +/- fluid, pus formation

**Treatment:** treat specific cause...antibiotics, etc.



ADAM.



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*\*Author/Source of these images: Medline*

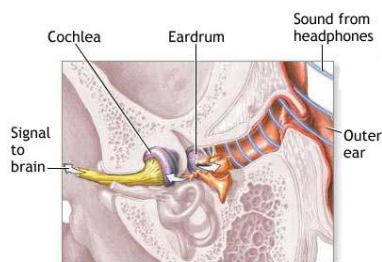
#### B. HEARING LOSS

**Causes:** can be associated with any of the above

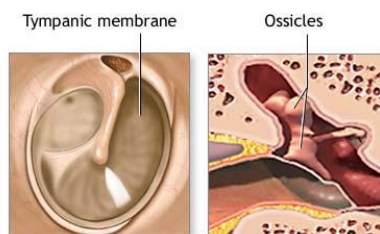
a) Ear wax plug obstructing the ext. canal

b) Middle ear fluid...infection, obstructed Eustachian tube (allergies, infection)

c) Loss of auditory nerve function...loud noise injury, trauma, aging



ADAM.



ADAM.

*\*Author/Source of these images: Medline*

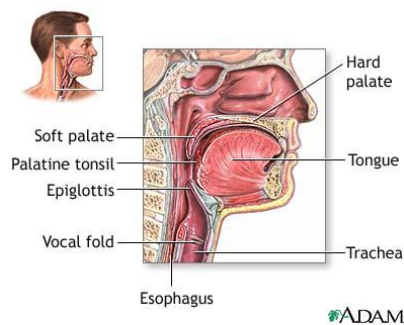
#### C. PHARYNGITIS / TONSILLITIS

**Causes:** Infection, roundworms

**Symptoms:** Inflammation (redness), pus formation, enlarged tonsils, causing soreness, difficulty swallowing, enlarged lymph nodes in the neck.

**Treatment:** Antibiotics if bacterial etiology....symptomatic Rx if viral (most common etiology)



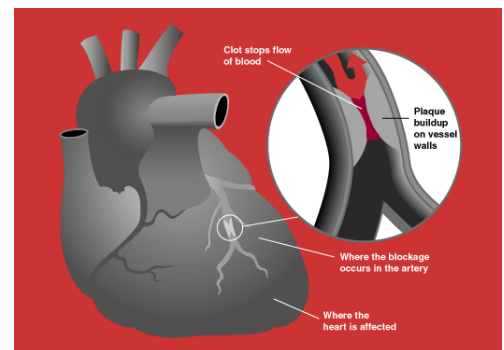
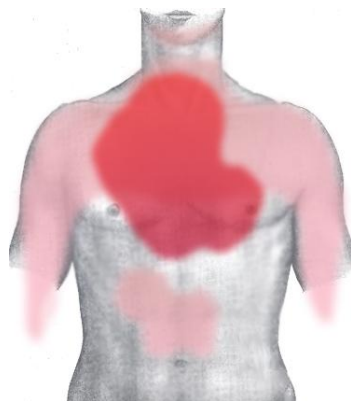
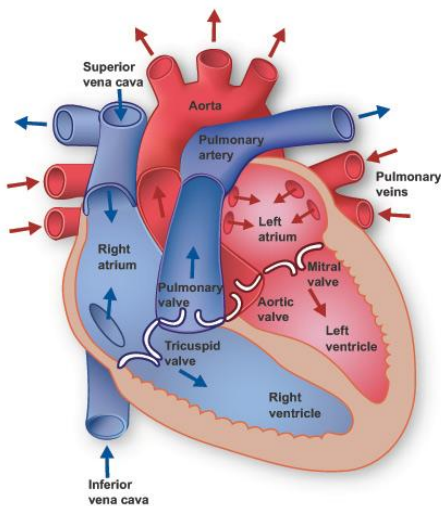


\*Author/Source of these images: Medline and James Heilman

## 4. HEART

PAIN...squeezing, tightness, generally acute anterior chest pain... may radiate to shoulder or jaw, nausea, sweating, lightheadedness, faint, worse with exertion...may be relieved by rest...= probable true heart origin. [Most chest pains are NOT of heart origin.]

We uncommonly see this type of acute presentation. In general, check Blood Pressure (BP), listen for murmurs (abnormal noises) and irregular rhythms; listen for lung sounds.....DO ALL OF THIS FOR ALL PATIENTS that we will be seeing...ideally.



\*Author/Source of these images: Texas Heart Institute, Jein Heuser, and U.S. Federal Government

## 5. MUSCULO-SKELETAL

**A. ARTHRITIS:** inflammation, infection, degeneration of joints

**Causes:** multiple types and causes...most common will be DEGENERATIVE JOINT DISEASE [DJD] / also called Osteoarthritis [OA].. which is a gradually progressive deterioration of the cartilages and bone ends of joints from chronic physical stress, trauma, aging.

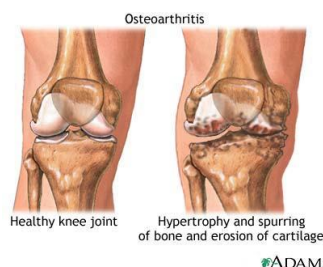
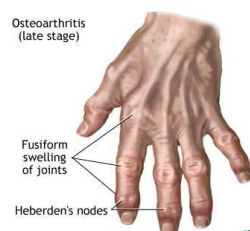
**Symptoms:** pain with use, weight bearing, walking, climbing ...relieved by rest and non weight bearing

There may be external joint enlargement, irregularities (bone spurs), redness, swelling, limitation of motion

**Treatment:** a) discuss proper body mechanics to ease physical stress

b) Anti-inflammatory & pain meds: Aspirin, Acetaminophen (Tylenol), Ibuprofen, Diclofenac, etc.

c) Surgery or joint replacements



\*Author/Source of these images: Medline

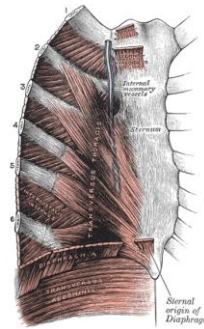
**B. COSTOCHONDRITIS:** Sprain & inflammation of the rib joint attachments to the sternum ("breast bone")

**Causes:** MOST COMMON CAUSE of anterior chest pain we will see; from physical trauma: lifting, pulling, pushing, carrying, direct force, arthritis.

**Symptoms:** Pain and tenderness with use of upper extremities and upon examination

EASY TO DIAGNOSE AND CONFIRM BY YOUR EXAM...very focal tenderness

**Treatment:** avoid physical stress..Rx same as for arthritis...will heal in 2-3 months if not repeated traumatized.



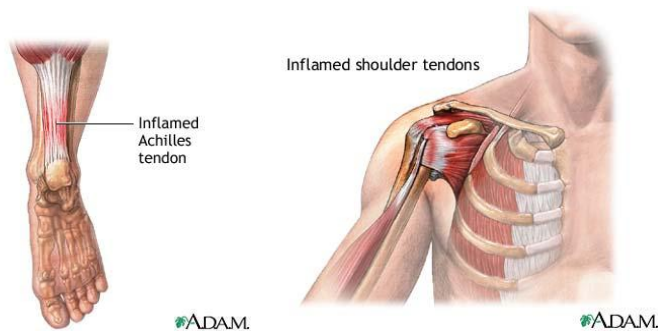
*\*Author/Source of this image: Gray's Anatomy*

**C. TENDONITIS:** inflammation of tendons...from overuse, trauma, underlying arthritis.

We'll see this mostly at the shoulders (biceps tendons) and elbows.

**Symptoms:** Pain with use and tender with direct palpation...therefore, EASY TO DIAGNOSE.

**Treatment:** rest, decrease activity level, ice for the first day or 2, NSAIDs. Strengthening, stretching when pain subsides



*\*Author/Source of these images: Medline*

## 6. PARASITES

Human parasites range from macroscopic (unaided visible) to microscopic and live inside and upon our bodies. Examples of the former are the intestinal "worms" and body lice.....re the latter are body mites [e.g. Scabies], fungi, and malaria....and many more. We'll see a lot of many of these. A few of the most common are:

**A. ROUNDWORMS**....primarily live in our intestines...transmitted fecal-oral and are "soil transmitted"...they infect about 25% of the world population, reaching 60-95% some places...COMMON IN C.A. The eggs are resistant to cold so live easily in the Northern climates, also.

Most infections are asymptomatic, but they can cause a broad range of symptoms because of their life cycle and population burden (#s of the adults present in the gut).

When the eggs are ingested the larvae migrate through the blood stream into the lungs...coughed up...swallowed...mature into adult white worms about the size of large earth worms...and pass their eggs in the host's feces.

**Symptoms** range from minimal, if any,...to cough, sputum, intestinal cramping, bloating, protruding abdomen, diarrhea, constipation, bleeding...and when the adults move up into the stomach, esophagus, pharynx, mouth and nose (while sleeping) they cause nausea, vomiting, heartburn, sore throat, runny nose, restless sleep, teeth grinding, night crying, anxiety , etc. The larvae can sometimes migrate nearly anywhere in the body and end up in the eye, brain, liver, etc.

It's IMPORTANT TO REALIZE THAT THEY CAN CAUSE MINIMAL TO MULTIPLE SYMPTOMS ANYWHERE.

**Oral pill treatment** is very effective (see Pharmacy section), so we DO effectively treat this in our clinics.

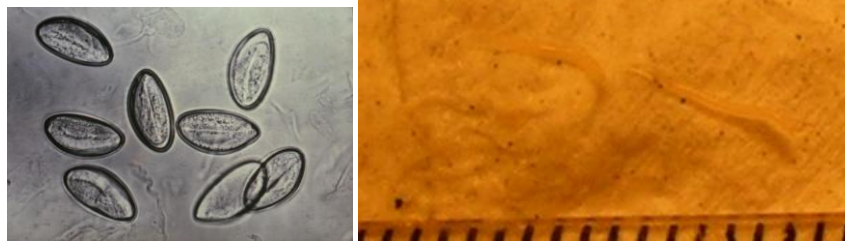
**PREVENTION:** PUBLIC HEALTH MEASURES; PATIENT/PARENT EDUCATION>> BY YOU, WITH EVERY PATIENT WE SEE IN CLINICS AND FOR EVERYTHING WE DIAGNOSE!





\*Author/Source of this image: CDC

**B. PINWORMS:** VERY COMMON cause of Pruritus Ani (peri-anal itching...**"Itchy Butt"**) in children...worldwide. Adults are about 10 mm long x 3-4 mm wide, white and live in the lower bowel. They lay their eggs on anal skin which creates **intense itching**...transmitted orally by fingers, fingernails, clothing, toys, utensils, soil / dirt. Also, occasionally VAGINAL deposits itch and cause a vaginal discharge in very young girls. Other symptoms can be irritable sleep, cramping, loss of appetite, bed wetting. Nicely **treatable**...as above re roundworms.



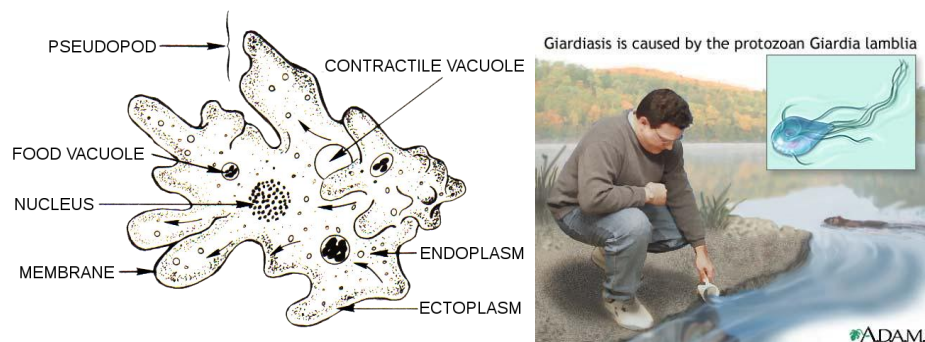
\*Author/Source of these images: CDC and Gasboy

**C. "AMOEBA" and "GIARDIA" OTHERS...(Entamoeba Histolytica: AMOEBIASIS )  
(Giardia intestinales: GIARDIASIS)**

Both are single-cell Protozoans...i.e. **microscopic intestinal parasite** infections transmitted by the fecal-oral route...primarily in contaminated water and food.

SYMPTOMS can range from nothing (often) to nausea, loss of appetite, malaise, **bloating, cramping, flatulence**, watery diarrhea, bloody diarrhea.

TREATMENT with Metronidazole tablets and prevention information.



\*Author/Source of these images: Pearson Scott Foresaman and Medline

**D. SCABIES:** a microscopic insect (mite) that burrows under the skin and nests there to lay eggs and hatch out larvae...migrate to other skin areas...burrow in and repeat the cycle.

They can be asymptomatic to very itchy...esp at night.

They are transmitted by prolonged direct skin to skin contact or contaminated clothing, bed sheets, etc. easily treatable.



\*Author/Source of these images: Sven Teschke and Kalumet

E. **FUNGI**...inhabiting our skin, are very common...eg “Athlete’s Foot, Ringworm, Jock Itch”....can occur anywhere...different species assume different visible patterns on our skin...some will itch...generally superficial, but can be deep and systemic.....all nicely treatable.

**PREVENTION:** PUBLIC HEALTH MEASURES; PATIENT/PARENT EDUCATION>> BY YOU, WITH EVERY PATIENT WE SEE IN CLINICS AND FOR EVERYTHING WE DIAGNOSE!

Below are examples of “ringworm” and “tinea versicolor”



*\*Author/Source of these images: Medline and the American Academy of Dermatology*

## 7. RESPIRATORY

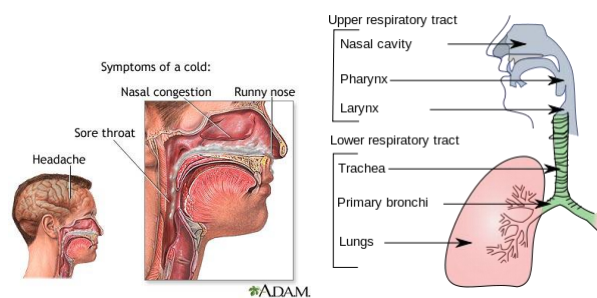
Our MOST COMMON will be VIRAL UPPER RESPIRATORY INFECTIONS [URI]....e.g. the common cold, minor sore throats, coughs (Bronchitis), sinusitis....and are treated with EDUCATION (TALK TREATMENT); explanation, reassurance, [+/- symptomatic meds]....namely, that they are self limited and self healing in 7-12 days and are NOT treated with Antibiotics ...allowing the body to develop a natural immunity.

The common viruses (“common cold; flu”) are usually characterized by various combinations and degrees of mild sore throat, nasal drainage (clear to cloudy / yellowish), headache, malaise, muscle aches, fever (+/-), cough (+/- mild sputum / phlegm). On **EXAM** they appear only mildly to moderately ill; pharynx reddened with no exudates (pus), lungs clear.

**PNEUMONIA: Pt. generally appears more ill; +/- respiratory distress; higher fever; lethargy; frequent cough**

**EXAM: Stethoscope: Generally hear fine crepitant rales (crackling sounds in the alveoli)**

YOU MUST DO AN EXAM TO VERIFY ALL OF THIS; THE LUNGS MUST BE CLEAR OF ANY ABNORMAL SOUNDS BY STETHOSCOPE EXAM TO RULE OUT PNEUMONIA AND CONFIRM BRONCHITIS; **DO THIS ON ALL SUCH PATIENTS.**



*\*Author/Source of these images: Medline and Lord Akryl*

## 8. SKIN

Mostly, we’ll see the Fungal and Scabies mentioned previously...and PYODERMA=pus forming bacterial skin infections...can occur anywhere (when on the face we call it “pimples”). Commonly also called Impetigo, Boils, Abscesses. All are very treatable with antibiotics...[+/- incisional drainage]

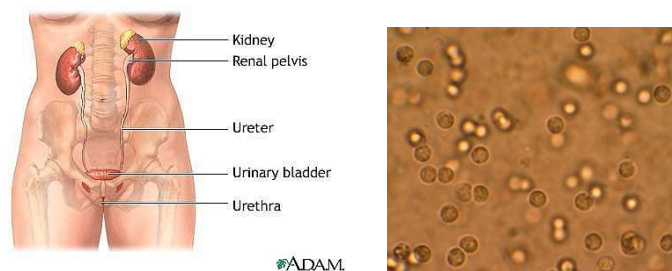


*\*Author/Source of these images: Department of Health and Human Services and Medline*

## 9. URINARY / GENITAL

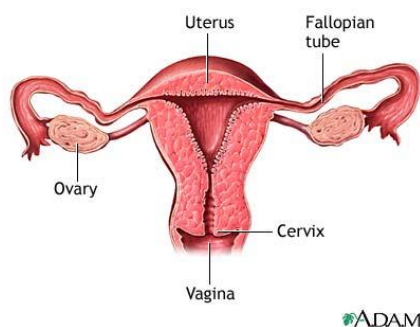
**A. URINARY TRACT INFECTIONS (UTI's):** include Urinary Bladder infections (CYSTITIS) ...the most common...and KIDNEY infections (uncommon). The former present with painful, frequent urination (day and night), incomplete emptying of bladder, pressure sensations, +/- blood, minimal or no fever, and NOT appearing sick. True kidney involvement presents with significant fever, malaise, lethargy, +/- blood, and often quite sick appearing.

\*\*\*\*People frequently complain of “kidney pain/ infection/ problems,” but almost always have a muscular, spine, or joint problem in the back, pelvis, or hips. I'll explain how to differentiate this.



*\*Author/Source of these images: Medline and Bob J. Galindo*

**B. VAGINITIS:** vaginal infections with a VAGINAL DISCHARGE are frequently seen.



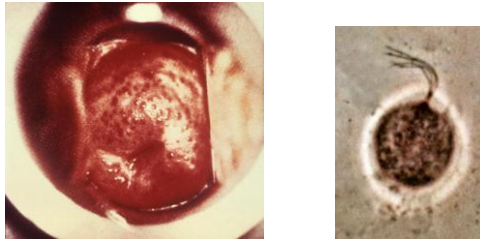
*\*Author/Source of this image: Medline*

**C. CANDIDA:** is caused by a yeast organism...white curd-like discharge...ITCHY...very common...easily treatable.



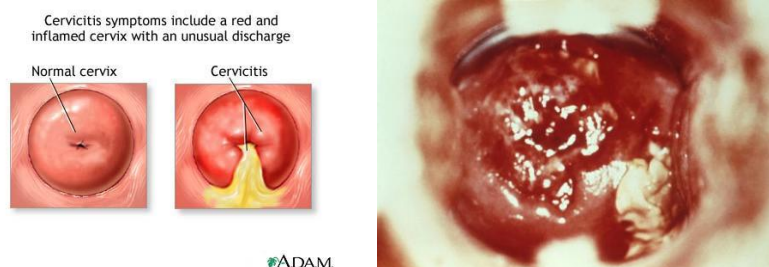
*\*Author/Source of these images: CDC and Graham Colm*

**D. TRICHOMONAS & BACTERIAL VAGINOSIS...**profuse, more watery, +/- smelly discharge.....treatable...sexually transmitted...discuss.



*\*Author/Source of these images: CDC and Graham Colm*

**E. CERVICITIS:** infection of the uterine cervix can cause a discharge and is usually a STI [Sexually Transmitted Infection]..eg as N. Gonorrhea or Chlamydia T...if untreated this can progress into PID (below)....antibiotic Rx and Prevention – Public Health discussion.



*\*Author/Source of these images: Medline and CDC*

**F. PELVIC INFLAMMATORY DISEASE (PID)...**usually from a STI...an infection of the Fallopian Tubes (between the uterus and the ovaries)

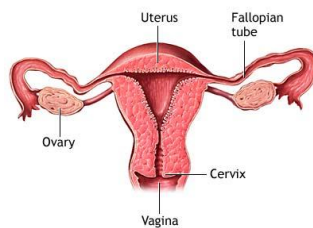
This can be a **SERIOUS, PAINFUL** problem...develops gradually over a few weeks and results in deep pelvic pain often associated with painful intercourse and menses, pain with walking, lifting, pressure on lower abdomen, +/- fever, infertility.

**EXAM: YOU WILL NEED TO GENTLY BUT FIRMLY PALPATE THE DEEP ABDOMINAL-PELVIC REGION TO ELICIT PATIENT PAIN OVER THE INFECTED ORGANS. Pain lateral to the midline confirms tubal involvement...bilateral? Midline tenderness indicated uterine involvement.**

**ANTIBIOTIC Rx** works well if the infection is of a relatively short duration, but can be slow to respond on longer-standing cases. If the infection is very severe; if abscesses develop and/or rupture, **SURGERY** is required and often/usually results in permanent infertility.

REMEMBER THIS IS AN STD...SO...:

PREVENTION: PUBLIC HEALTH MEASURES; PATIENT/PARENT EDUCATION>> BY YOU, WITH EVERY PATIENT WE SEE IN CLINICS AND FOR EVERYTHING WE DIAGNOSE!



*\*Author/Source of this image: Medline*

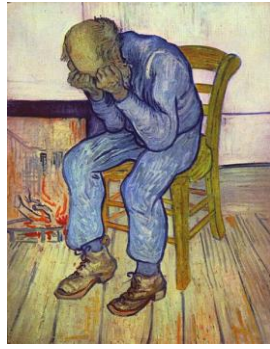
## 10. MENTAL HEALTH

Nearly all illnesses involve the complex interaction between the PSYCHE & the SOMA (Mind & Body)...therefore the term "PSYCHOSOMATIC". This **MUST** be considered with all patient presentations.

Mental illnesses account for about 13% of global disease...will increase... is common throughout the tropics...and frequently not recognized or treated...[WHO survey]

Depression, anxiety, suicidal, psychoses, drug / alcohol abuse, spousal / child abuse, post traumatic stress syndrome, learning disabilities, retardation, social shunning of the disabled ...are not uncommon.





*\*Author/Source of this image: Vincent Van Gogh*

## 11. PREVENTION—PUBLIC HEALTH

### INNOCENT VICTIMS?

Significant and often severe, prolonged neglect of Public Health by governments, health authorities, and communities contributes to widespread illnesses which could be easily prevented by well known and achievable methods. Potable water, proper fecal/waste disposal, improved hygiene, community infectious disease control methods [re infectious diarrhea, parasites, STDs, etc.], birth control, and better health care access / treatment are some examples. THIS IS A HUGE GLOBAL PROBLEM.

Basic immunizations are commonly widely administered, in general, in the C.A. countries so we do not become directly involved with this. The World Health Organization [WHO], of the United Nations, is primarily responsible for this around the world and has done a remarkable job.

In our clinics, we need to address the above with nearly ALL of our patient clients...as best we can. Discussions about infectious disease prevention, hygiene, water purification (Chlorine; boiling), human and animal waste disposal, etc. should be discussed at every opportunity. This should be an automatic aspect of our general treatment plan for all patients and families.

The most common causes of morbidity and mortality on earth are: **Malaria, Tuberculosis, HIV/AIDs, Contaminated water**, (the major cause of disease and death in millions of children annually), and **PREGANCY** (A WOMAN DIES EVERY 90 SECONDS FROM COMPLICATIONS OF CHILDBIRTH; 90+% ARE PREVENTABLE by well-known medical means).

By simple deduction, **SEXUAL INTERCOURSE (SI) IS THE SINGLE MOST DANGEROUS ACTIVITY** that humans engage in, **ESPECIALLY FOR FEMALES AND THEIR BABIES (SI>>PREGNANCY+HIV/AID+STD=MAJOR DISEASE AND DEATH)**, but **no one is going to stop doing sex! The big shame is** that all of the above are treatable and preventable by well known means: medications, protective disease barriers, Public Health measures, universal access to professional healthcare and education.

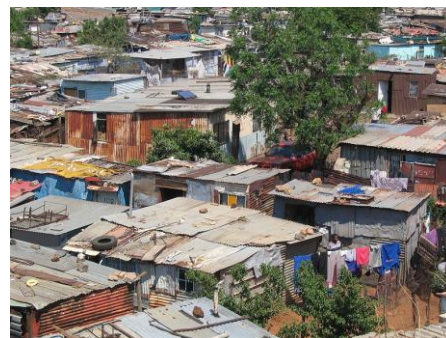
*So why are these things not done universally [including in the USA...shame, shame]?* The multiple reasons are also well known. If they are not known to you, do a little research and/or come on a GMT trip; we will discuss these things; in context.

One for instance: The five major causes of maternal mortality—hemorrhage (severe blood loss), sepsis (infection), unsafe abortion, hypertensive disorders (pregnancy complications associated with high blood pressure, including preeclampsia and eclampsia=“Toxemia”), and obstructed labor—are **ALL** treatable if the woman has access to trained healthcare workers at a well-equipped health facility.

So is anyone out there willing to advocate for social and medical justice for women of the world? Check out <Every Mother Counts.com> and other sites.

BTW plenty of men need ‘help’, too, realize it or not. And the children? Innocent/Helpless victims?

**PREVENTION: PUBLIC HEALTH MEASURES; PATIENT/PARENT EDUCATION>> BY YOU, WITH EVERY PATIENT WE SEE IN CLINICS AND FOR EVERYTHING WE DIAGNOSE!**



*\*Author/Source of these images: Jonathan McIntosh and Matt80*

## 12. PHARMACY MED LIST & DOSE GUIDELINES

MEDICATION	DOSE	INDICATIONS
<b>ANTBIOTICS</b>		INFECTIONS
AMOXICILLIN 250, 500 mg capsule 250mg/5ml suspension	ADULT: 250-500 mg. q 8 HRS CHILD: 20-50 mg/KG/DAY IN DIVIDED DOSES q 8HRS	BACTERIAL
AMPICILLIN 250, 500 mg	ADULT: 250-500 mg QD	BACTERIAL
AMOXICILLIN /CLAVULANATE 125,250,500 mg tab	ADULT: 500-875 mg q 8 HRS CHILD: 20-40 mg/KG/DAY IN DIVIDED DOSES q 8HRS	BACTERIAL
CEPHALEXIN 250, 500 mg	250-500 mg q 8 HRS	BACTERIAL
DOXYCYCLINE (VIBRAMYCIN) 100 mg TAB	100-200 mg/D ..taken q 12 hrs MALARIA PROPHYLAXIS 100 mg DAILY	BACTERIAL
ERYTHROMYCIN 250 mg TAB	ADULT: 250-500 mg q 6 HRS CHILD: 30-50 mg/KG/DAY DIVIDED IN 4 DOSES	BACTERIAL
METRONIDAZOLE 500 mg TAB	ADULT: 250-500 mg TD	Amoebiasis, Giardiasis, PID, Trichomonas, Bacterial Vaginosis
TRIMETHOPRIM/SULFA 80/400 mg. DS TAB= 160/800 mg---- SUSPN= 200/40 mg/5ml  EYE / EAR DROPS ...variably in stock  Multiple other Antibiotics.....variably in stock  Neomycin / Bacitracin Ointment.....  Chloroquin 150 mg ( as base) tab.....	160 mg q 12 HRS CALCULATED AS TRIMETHOPRIM CONTENT CHILD : 8-10 mg/KG/DAY IN DIVIDED DOSES 2-4 TIMES DAILY CALCULATED AS TRIMETHOPRIM CONTENT  2-4 x / day.....for Skin Infections  Malaria prevention and treatment....as directed	BACTERIAL...urinary, skin, respiratory
<b>FUNGAL</b>		
CLOTRIMAZOLE 1% CREAM	TOPICAL 1% CREAM APPLIED HS or BD	Skin or Vaginal fungal / yeast
Miconazole 1% cream	same	Skin
GRISEFULVIN 125, 250, 500 mg TAB	ADULT: MICRONIZED 500-1000 mg/DAY... IN 2-4 DOSES CHILD: 10 mg/KG/DAY IN 2-4 DOSES. ULTRAMICRONIZED 330- 750 mg/D	Deeper / more extensive fungal infections
NYSTATIN 100,000 U tabs	Vaginal, HS or BD	Vaginal Candida (Yeast) Infection
<b>PARASITES</b>		
ALBENDAZOLE 400mg chewable tabs	ADULT: 400 mg. AS A SINGLE DOSE CHILD: 1-3 yrs-- ½ adult dose	Ascariasis (Roundworm), Pinworms & other parasites
MEBENDAZOLE 500 mg Chewable tab	> 1 yr age----100 mg PO BD X 3 Days ...for..... > 1yr age—100 mg as a Single Dose for PINWORMS	Ascariasis (Roundworm)— alternative to Albendazole
BENZYL BENZOATE 25% SOLUTION	Adults: Apply HS x3 nights Child : Dilute 1 part to 2-4 parts	Scabies.....child dilution varies w age / size



	H2O	
<b>GASTRIC ACID INHIBITOR</b>		
Cimetidine 200 mg tab	200-400 mg BD or 400-800mg HS	Gastritis, Peptic Ulcer, Esophagitis
Ranitidine, Previcid, etc variably available		
<b>Anti-Inflammatory, Pain, Fever</b>		
ASPIRIN 100-500 mg TAB	ANALGESIA: 325-650 MG q 4-6 HRS. ANTI-INFLAMMATORY 2.4-3.6 GM/DAY INCREASED GRADUALLY 3.6-5.4 GM/DAY CHILD: 60-90 MG/KG/DAY	As below...ASA is the standard med for all the below...avoid w Gastric Ulcers, Gastritis, febrile children..
Acetaminophen (Tylenol, etc.) tabs / Liquid	As directed	Pain, fever, malaise...
Diclofenac 50 mg – Enteric Coated Tabs	Varies—Adult: 1-2 tabs BD	Arthritis, tendonitis, bursitis, etc
Ibuprofen 200 mg tab	Varies---Adult: 1-2 tabs BD	Same
Prednisolone 5 mg tabs	Varies	Inflammation...inclg skin
Beta Methasone 0.1% cream	Varies	Skin Inflmtn. ( a Cortisone prep)
Hydro Cortisone cream & others variably	Varies	Same
<b>ANTI HISTAMINES</b>		
Chlorpheniramine 4 mg tab	1-2 BD	Allergies
Diphenhydramine 25, 50 mg tab (Benadryl)	1-2 ...2-3 X / Day	Same
Multiple / variable “cold” preparations ...decongestants, cough, etc. ...	Varies: I PERSONALLY DO NOT RX THESE AND DO NOT BUY THEM FOR CLINICS *** (BELOW)	Symtomatic Rx of upper respiratory Sxs
<b>VITAMINS &amp; IRON</b>		
Multivitamins...variable	1 / Day	
Ferrous Sulfate 325 mg tabs	1 / Day, maintenance...TD for TX	Anemia...Iron Deficient type

These meds are nearly all interchangeable with another EQUALLY EFFECTIVE medication. Therefore, if we deplete one med, there is another one that can be substituted. In this respect, we rarely “run out of” any medicinal group. The exception can be pediatric vitamins. Often, these are not available in Pharmacies in C.A. VITAMINS BROUGHT DOWN BY STUDENTS ARE GREATLY APPRECIATED...ESPECIALLY PEDIATRIC VITAMINS.

We purchase meds to be prescribed according to the above standard dosing guidelines. We buy in quantities that normally are sufficient for the expected numbers of patients we will see. Significantly EXCESSIVE DISPENSING OF MEDS IS NEITHER APPROPRIATE NOR GOOD MEDICINE. This will be monitored by the Chief of Medicine and the Pharmacy Supervisor.

- **ALL PRESCRIPTIONS MUST HAVE A DOCTORS SIGNATURE ON IT.**
- **DOCTORS ARE TOTALLY RESPONSIBLE FOR THE FINAL DIAGNOSIS AND TREATMENT PLAN FOR ALL PATIENTS.**
- **THE DOCTOR’S SIGNATURE MUST BE ON ALL COMPLETED MEDICAL RECORDS FOR ALL OF THE PATIENTS THEY SEE.**
- **ALL MEDICAL RECORDS WILL BE COLLECTED/REVIEWED BY THE MEDICAL DIRECTOR WHO WILL TABULATE DATA FROM THESE.**
- **THEY MUST BE LEGIBLE.**

#### **ABBREVIATIONS**

#### **ABBREVIATIONS**

S=Hx=Subjective/History ...O=Px=Objective/Physical Exam...A=Dx=Assessment/Diagnosis...P=Tx=Plan/Treatment

1/D = ONE PER DAY

BID = TWO PER DAY

TID = THREE A DAY

QID = FOUR A DAY  
HS = AT BED TIME  
AC = BEFORE MEAL  
PP = AFTER MEAL  
Q /q= every...e.g. in...Every day=qd  
PRN=AS NEEDED (in Spanish "Por Razón Necesaria")  
Mg=milligram.....ml=Milliliter....cc=cubic centimeter....K=Kilogram...L=Liter

## **ADDENDUM**

1. \*\*\*\*In October 2007 a FDA advisory panel recommended that pediatric cold and cough products NOT be used for the 0-5 age groups, citing serious doubts about the effectiveness and safety. There is no evidence that kids' cold syrups, etc. improve symptoms, and **ACCIDENTAL OVERDOSING** is too easy; there are **NUMEROUS PEDIATRIC DEATHS, ANNUALLY**. This applies to both OTC and the Rx meds.
2. A randomized three-way trial shows only **HONEY** – not dextromethorphan (Robitussin, etc.) – **significantly more effective for cough relief than placebo**. Not only is honey safer, remarked a companion editorial in *Archives of Pediatric and Adolescent Medicine*, it's also cheaper and easily available. **NOTE** that honey should not be recommended or used for children less than one (1) year of age because of the rare risk of Infant Botulism [Clostridium botulinum bacterial spores uncommonly found in honey and corn syrups].

Infant Botulism... A Mayo Clinic doctor in a Mayo Pediatric newsletter says the following, below, down.

*"So even though it is rare, it should be avoided < one year of age. Same for corn syrups; for the same reason. Cough is a symptom, so the cause must be diagnosed first...then appropriate specific treatment. Most of the time, in our clinics / Pediatrics, it is viral and the treatment, if any, is generally palliative only. When appropriate, I then advise honey instead of the potentially more toxic / lethal Rx and OTC cough syrups, decongestants, etc. when > one year of age...I usually add another year, in general, as a safety cushion."*

Question: Is it true that honey can cause infant botulism?

Answer from Jay L. Hoecker, M.D.

*"Yes, honey can cause infant botulism. Honey is a known source of bacterial spores that produce Clostridium botulism bacteria. When ingested by infants, these bacteria make a toxin that can cause infant botulism, a rare and serious form of food poisoning. For this reason, infants under 12 months of age should never be fed honey. Infant botulism affects a baby's nervous system and can result in death. Most babies with infant botulism, however, do recover. Signs and symptoms of infant botulism include:*

- *Persistent constipation*
- *Floppy arms, legs and neck*
- *Weak cry due to muscle weakness*
- *Weak sucking and poor feeding*
- *Tired all the time (lethargy)*
- *Difficulty breathing*

*Botulism spores may also be found in low-acid home-canned foods and corn syrup. For this reason, you should avoid feeding these foods to infants."*

## **13. GMT Guidelines & Information for Physicians**

### **GMT OBJECTIVES**

- To provide free health care to needy people
- To teach students clinical medicine
- To provide students with an international cultural experience

### **GMT METHODS**

1. We take students and free medicine to communities where health care is needed. We work as a close TEAM and you are an important / crucial member of our team.
2. We organize 4-5 day clinics in various structures (churches, schools, etc) in those communities.
3. Our ability to acquire and transport medicines is limited, therefore we try to develop a PHARMACY of the most needed meds only, and limit the quantity of the prescriptions given out consistent with good medical practice. When we use up specific meds, we try to purchase locally (when possible) or substitute an equivalent med that we have in stock. It is important that we are reasonable and prudent about this. A list of our core meds is available to you along with standard dosing guidelines for some common health problems (taken from standard medical references...see the Pharmacy / Meds section).
4. It is VERY IMPORTANT to take time to teach the students clinical medicine. Most of them will be pre-medical university undergraduate level...some will be first year medical school students...a few are non-medical majors. All will have had limited previous exposure to clinical medicine. These students are highly motivated, very intelligent, and have come to learn and to serve. This is a HIGH PRIORITY with them. Our teaching approach is student centered interactive learning. They must actively assess the patient's problem by doing a history, physical exam and the analytical evaluation, all with your guidance / oversight. You have the final responsibility for the diagnosis and treatment decisions; however, you will explain your reasoning to the students and answer their questions. They will expect this.
5. Please teach about your culture / country, also...and explain how this impacts upon health problems, public health issues, and the delivery of health care in your country and community
6. Please talk to me about ANY problems with the above. We are flexible, adaptable and open to all suggestions for improvement, increased effectiveness and efficiency. We truly appreciate your help and knowledge about local conditions and health problems. We invite you to freely share this with us so that we may together provide the best health care possible under these conditions
7. THANK YOU for your willingness to share your help, knowledge and skills with us in our efforts to provide needed health care and to educate our future health care providers.

Sincerely,

*Wil Johnson, M.D.*

Dr. Wil Johnson, M.D.  
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815-622-1605

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### 13. SOAP FORMAT MEDICAL RECORD

S=Subjective=patient history

O=Objective=physical exam

A=Assessment=diagnosis

P=Plan=treatment plan

**PATIENT MEDICAL RECORD**  
(Remember: Subjective-Objective-Assessment-Plan)

Date: \_\_\_\_\_  
Name: \_\_\_\_\_ Age: \_\_\_\_\_ D.O.B. \_\_\_\_\_ Sex: \_\_\_\_\_

☐ S I Primary Problem: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

A. Brief Hx of P.P.: 1) Duration: \_\_\_\_\_  
2) Severity: \_\_\_\_\_  
3) Recurrence(s): \_\_\_\_\_  
4) Pattern(s): \_\_\_\_\_  
5) Infection Exposures: \_\_\_\_\_  
6) Any treatment(s): \_\_\_\_\_  
7) Other: \_\_\_\_\_

B. Sec.Problem(s): 1) \_\_\_\_\_  
2) \_\_\_\_\_  
3) \_\_\_\_\_

II Past History: 1) Surgery \_\_\_\_\_  
2) Chronic Illnesses \_\_\_\_\_  
3) Allergies: 1) To Medications \_\_\_\_\_  
2) Environmentals \_\_\_\_\_  
4) Medications \_\_\_\_\_

III Family/Social Hx: \_\_\_\_\_  
\_\_\_\_\_

IV Review of Systems: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_ Sign. Or Initials: \_\_\_\_\_

☐ O Vital Signs: T \_\_\_\_\_ PR \_\_\_\_\_ BP \_\_\_\_\_ Wt. \_\_\_\_\_ Ht. \_\_\_\_\_  
Gen. Appearance: \_\_\_\_\_  
P.Ex.: \_\_\_\_\_  
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☐ A  
☐ P

Signature: \_\_\_\_\_