

Drugs for UTIs and STDs



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Classification of UTI's

Clinical:

- Asymptomatic (98%)
- Symptomatic (1-2%)

Anatomical:

- Lower tract dis: asymptomatic bacteriuria and acute cystitis
- Upper tract dis: acute pyelonephritis

Urinary Tract Infections

- Predisposing factors: stricture, stone, obstruction, tumor, foreign body, DM
- Presentation: all can have dysuria, frequency, urgency
 - Cystitis: SP pain, mild/absent fever
 - Pyelonephritis: CVA/flank tenderness, fever
 - Perinephric abscess: Same as pyelo but persisting despite appropriate treatment

Choice of antibiotic depend on susceptibility pattern, include:

Amoxicillin (with or without clavulanate)

Cephlosporins (*first or second generation*)

TMP-SMX

Nitrofurantoin (long term use – urinary antiseptic)

Fluoroquinolone (ciprofloxacin or norfloxacin)

(not for pregnant women or children), first choice if other antibiotics are resistant.

Urinary Tract Infections

- **Treatment**

- Uncomplicated cystitis: empiric, 3 days.

- **TMP-SMX - 1DS tab BID X 3 days,**
- Ciprofloxacin - 500 mg BID × 3 days
- Nitrofurantoin - 50–100 mg QID × 7days

- Pyelonephritis

- **7 days ciprofloxacin 500mg po bid**
- 14 days (TMP-SMX, AG or cephalosporin)
- 5 days levo 750mg po daily

Uncomplicated UTI

Low-risk patient (*woman*) for recurrent infection.

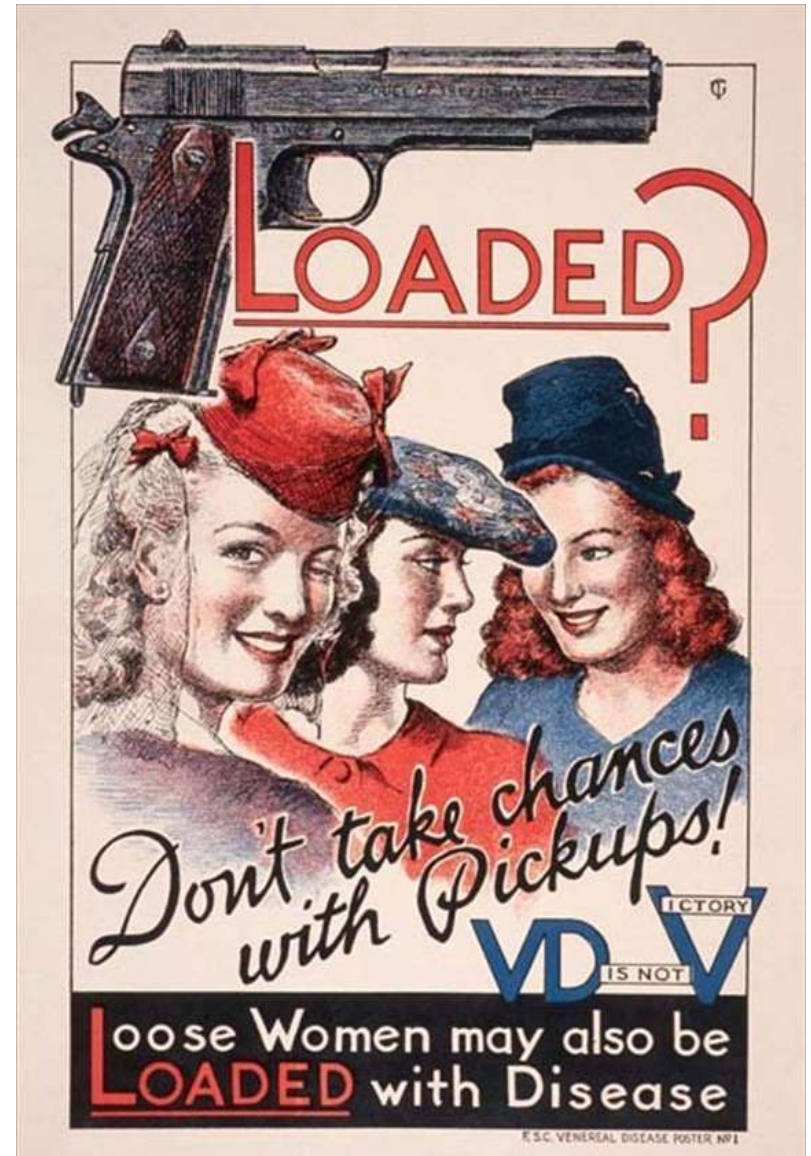
7~days antibiotic without urine test.

- If E.coli <20% resistant to ampicillin and TMP-SMX
- Nitrofurantoin 100mg BID for five days
- Or Fosfomycin 3gm Po once + pyridium

Cure rate 94%.

Sexually Transmitted Diseases

- Gonorrhea
- Chlamydia
- Trichomonas
- Genital Ulcerative Disease
 - Syphilis
 - Herpes
 - Chancroid
 - LGV



Gonorrhea

- Urethritis in males; cervicitis and PID in females
- **Treatment options:**
 - **Ceftriaxone 250 mg IM X 1**
 - Cefixime 400 mg po X 1
 - Alternatives:
 - Spectinomycin (not readily available)
 - Azithromycin (GI tract symptoms in 35% patients, expensive)
 - Pregnant:
 - Either of the above cephalosporins or spectinomycin or azithromycin
 - **Always treat for Chlamydia infection as well as co-infection rates are high**
 - **Always treat partners**

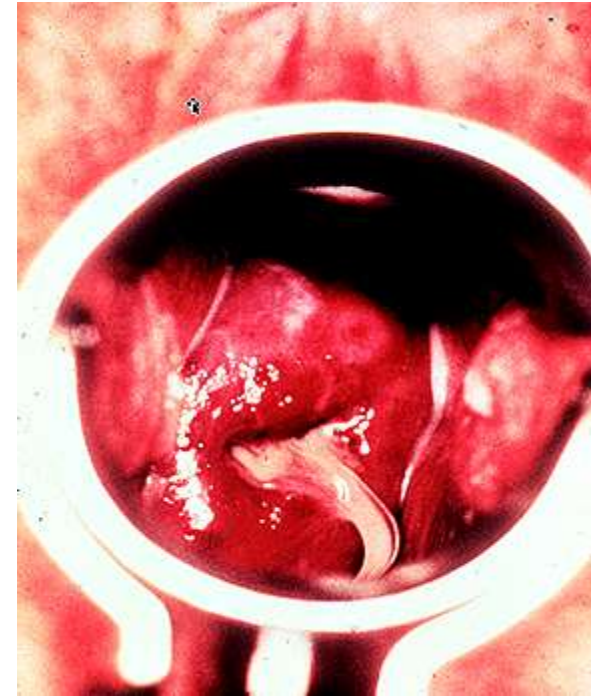
**VENEREAL DISEASE
COVERS THE EARTH**

**Learn to protect
yourself NOW**



Chlamydia

- Non-gonococcal urethritis (NGU) in males; cervicitis and PID in females
- Intracellular organism
- **Treatment options:**
 - **Azithromycin po X 1**
 - **Doxycycline po bid X 7 days**
 - Pregnant women:
 - Amoxicillin po tid X 7 days
 - Azithromycin po X 1
 - Need test for cure in 3-4 weeks
 - **Treat all partners of infected patients**



Trichomoniasis



- Intense pruritis with a malodorous, frothy, yellow discharge
- Pelvic exam demonstrates diffuse erythema of vaginal walls and cervical inflammation (**strawberry cervix**)
- Typically asymptomatic in men
- **Treatment options:**
 - **Metronidazole 400mg TDS po X 7 days**
 - Tinidazole 2 gm po X 1 dose
- Pregnant: 100 mg vaginal suppository or cream qd for 7 days: may relieve symptoms
- **Treat all partners of infected patients**

Genital Ulcer Diseases

- Syphilis – **painless ulcer**
- Genital herpes – **painful ulcer**
- Chancroid – **painful ulcer, tender nodes**
- Lymphogranuloma venereum – **painless ulcer, tender nodes**

SYPHILIS



ALL OF THESE MEN HAVE IT

WOMEN: STAY AWAY FROM DANCE HALLS

Syphilis Treatment

- **Primary, secondary, early latent (test and treat contacts):**
 - **Benzathine penicillin G IM X 1**
 - Alternative:
 - Doxycycline PO X 14 days
- **Tertiary (not neurosyphilis) and late latent:**
 - **Benzathine penicillin G IM q week X 3 weeks**
 - Alternative:
 - Doxycycline PO X 28 days
- **If pregnant + penicillin allergic: erythromycin**
- **If neurosyphilis + penicillin allergic: desensitize to penicillin**

Chancroid

- Common worldwide, usually related to sex for drugs
- Caused by **Haemophilus ducreyi**
- **Painful genital ulcers with tender suppurative inguinal lymphadenopathy**
- **Consider only after syphilis and HSV excluded**
- Diagnosis made by inguinal LN biopsy
- Re-examine in one week to evaluate for ulcer improvement
- Treatment options:
 - **Azithromycin 1 gm PO X 1**
 - Ceftriaxone IM X 1
 - Ciprofloxacin PO X 3 days
 - Erythromycin PO X 7 days

Lymphogranuloma Venereum (LGV)

- Caused by *Chlamydia trachomatis* serovars L1-L3
- Painless ulcer at inoculation, resolves, followed by unilateral tender inguinal lymphadenopathy which may suppurate, drain
- **Treatment of choice:**
 - Doxycycline PO X 21 days
- **Alternative treatments:**
 - Azithromycin X 3 weeks
 - Ciprofloxacin X 3 weeks
 - Erythromycin X 3 weeks
 - Cotrimoxazole X 3 weeks

Anyone out there still awake?



DOCTOR-PATIENT COMMUNICATION

A 20 year old lady was diagnosed with SLE and you have decided to start her on prednisolone

- What instructions will you give while starting the patient on prednisolone?

Prednisolone

Instructions to the patient -

- should be taken regularly
- no abrupt stopping of drug after prolonged use
- If problems (infections, accidents) arise during therapy, contact the physician

Students must know - why the therapy should not be discontinued abruptly; what happens during infections and accidents?

A 25 year old lady wishes to postpone her pregnancy. You have decided to start her on oral contraceptive pills (OCPs).

- What instructions will you give while starting her on OCPs?



Instructions to the patient - start on 5th day of menstruation, one white tablet to be taken daily for 21 days followed by one black tablet to be taken daily for 7 days. Start the second cycle of therapy from next day regardless of menstruation. If a tablet is missed, take two tablets on the next day. If more than two tablets (for 2 days) are missed, stop OCPs and switch to other methods of contraception.

Students must know - what are the other methods of contraception; if the patient conceives what to do?

A 20 year old male was diagnosed with type 1 diabetes mellitus and you have decided to start him on huminsulin.

- What instructions will you give while starting the patient on huminsulin?

Huminsulin (isophane insulin 70% + soluble insulin 30%)

Instructions to the patient -

- take meals half an hour after taking the drug,
- carry a diabetic card always
- carry candy or sugar
- symptoms of hypoglycemia (fainting, dizziness, excessive sweating, tremors, palpitation) if noticed consume candy or sugar
- if symptoms persist visit the physician.

Students must know - why to carry a diabetic card; why meal should be taken half an hour after administering the drug; rationale for the above combination?

A 30 year old lady was diagnosed with hypothyroidism and you have decided to start her on levothyroxine.

- What instructions will you give while starting the patient on levothyroxine?

Levothyroxine

Instructions to the patient -

- Take on empty stomach in the morning
- follow-up every 2 weeks for titrating the dose (based on blood TSH level)

Students must know - what are the precautions to be taken by the physician while prescribing this drug; why levothyroxine is preferred over liothyronine; why tablets are dispensed in dark bottles; how long to give the therapy?

Drug Promotional Literature (DPL)

Evaluate the given drug promotional literature using 'WHO criteria for evaluating DPL'.

WHO CRITERIA “Criteria for ethical medicinal drug promotion (1988)”	Basalog (Insulin)
1. International Non-proprietary Name (INN) / approved Generic name	
2. The brand name	
3. Content/Strength of active ingredient (s) per dosage form or regimen	
4. Name of other ingredients known to cause problems (adjuvants, preservatives, base)	
5. Approved therapeutic uses/indications	
6. Dosage form / regimen if present	
7. Side-effects and major adverse reactions	
8. Precautions and Warnings	
9. Contraindications	
10. Major drug interactions	
11. Name and address of the manufacturer and distributor	
12. References to scientific literature as appropriate	

Drug Promotional Literature (DPL)

All 12 criteria if mentioned – (2 marks)

All 12 criteria correctly answered- (2 marks)

- **Total marks – 4**

Have you had more than enough?



The End.