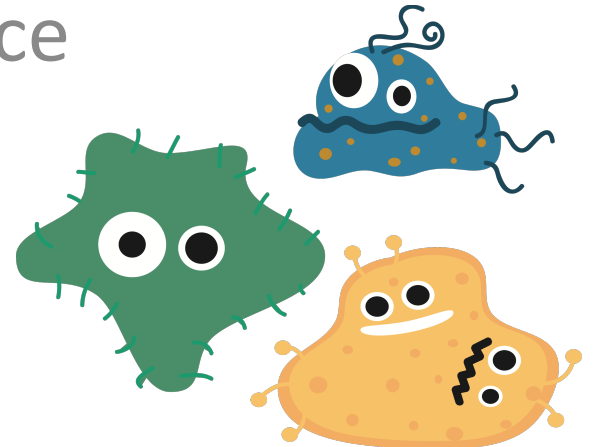




# Judicious use of antibiotics

Preventing resistance



# What are antibiotics?

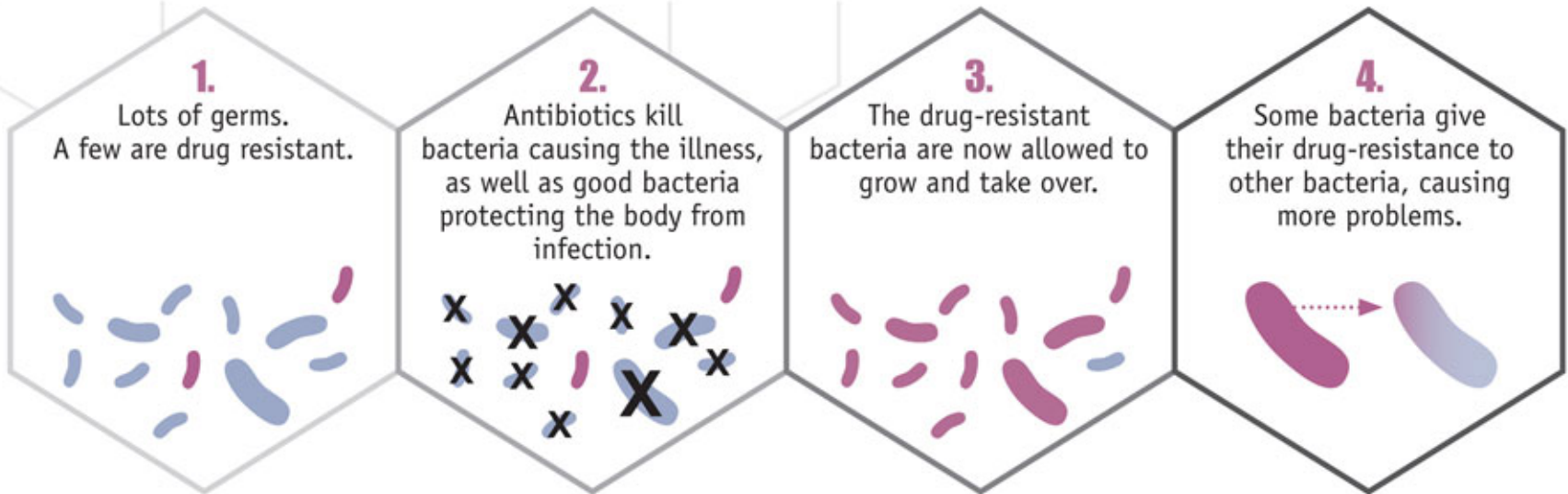
- Agents disrupting the growth of bacteria
- Ineffective against viral infections (Cold, influenza, rotavirus, etc.)



# Antibiotic resistance



## How Antibiotic Resistance Happens



CDC (Center for Disease Control)

# Misusing and overusing **ANTIBIOTICS** puts us all at risk

Using antibiotics  
without consulting  
an health professional

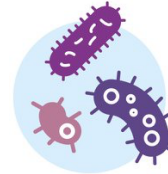
Not finishing your  
antibiotic treatment  
or taking more than  
recommended



Taking antibiotics when they are not needed accelerates emergence of antibiotic resistance, **one of the biggest threats to global health**



Antibiotic resistant infections can lead to **longer hospital stays, higher medical costs and more deaths**



Overuse of antibiotics can cause bacteria to become resistant, meaning current treatments will no longer work



Always follow the advice of a qualified health care professional when taking antibiotics



Antibiotic resistant infections can affect anyone, of any age, in any country



It is the bacteria itself not the person or the animal – that becomes resistant to antibiotics



When bacteria become resistant to antibiotics, **common infections will no longer be treatable**

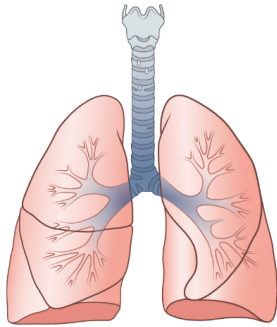
Using antibiotics  
for viral infections

Sharing your  
antibiotic treatment



# Common infections

- Respiratory infections
  - Pneumonia, bronchitis, Influenza
- Gastrointestinal
  - Viral parasitic gastroenteritis, gastritis (H. Pylori)
- Urinary tract infections
- Dermatological (skin) infections
  - Fungal infections (Ringworm), scabies, cellulitis
- Sexually transmitted diseases
  - Chlamydia, Gonorrhoea, Herpes, HIV, HPV, Syphilis
- Others
  - Conjunctivitis, sinusitis, otitis



## Respiratory complaints

Fever > 38°C

- Shaking chills
- Cold sweats



Sore throat

Cough

Yellow-green mucus

Chest pain

Throat exploration is needed

Auscultation is needed

- White exudate (pus)
- Neck adenopathies

- Crackles
- Ronchis
- Inconclusive auscultation

**Antibiotic treatment**





**Antibiotic treatment**



**Non-antibiotic treatment**

# GASTROINTESTINAL SYMPTOMS

Diarrhea & vomiting

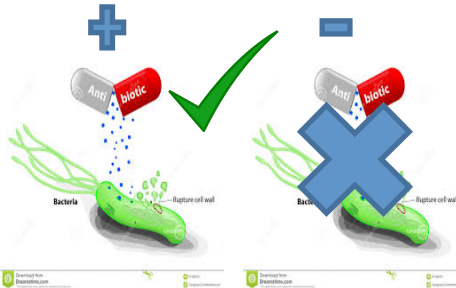
WITHOUT blood -mucus

WITH blood-mucus



Upper abdominal pain

Urea breath test



Lower right abdominal pain

Painful at percussion or/and rigid abdomen



Heartburn

Reflux, sore throat, cough

RECOMMENDATIONS:  
- Raise bed headboard  
- Wait 2 hours after meal before going to bed  
- Do not eat spicy food

Reevaluate

NOT GIVE ATBX AND GO HOSPITAL IF:  
- Red rash  
- Lack of urine  
- Dark urine

Clinic for further testing

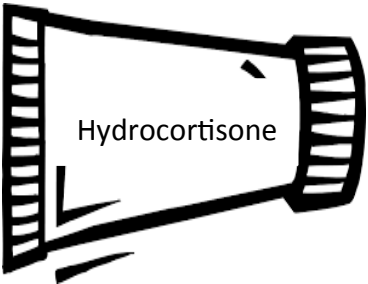




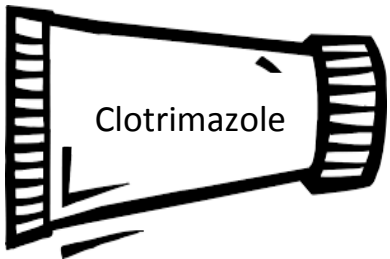
# SKIN CONDITIONS

Itchiness

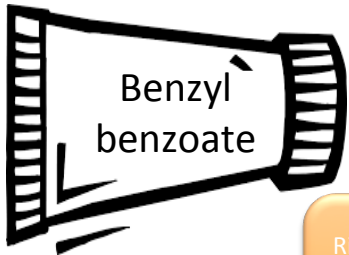
Atopic or allergic dermatitis (eczema)



Fungal infection (i.e ringworm)



Scabies



\*Permethrin cream=  
Best treatment  
+ Oral Fluconazole  
or Griseofulvin (if refractory)

Pain, redness swelling, pus

Cellulitis (Bacterial skin infection)



Risk factors:  
- Recent injury  
- Diabetes  
- Low immunity

If rapid progression or fever



# Urinary complaints

Low abdominal pain

Going to pee often

Red urine (blood)

Incomplete evacuation sensation

Burning sensation while urinating

Urinary stick



**Antibiotic treatment**

- Leukocytes
- Nitrite
- Blood

Nitrofurantoin, TMP-SMX or amoxicillin-clavulanate

Fever > 38°C

- Shaking chills
- Cold sweat
- Untempered feeling

Lower back pain



Antibiotic + Hospital



Provisionary diagnosis:  
**Urinary tract infection**

Tests	Results / Resultats / Resultados / Ergebnisse						
Leukocytes/Leucocytes Leucocitos/Leukozyten	neg.	trace	+70	++125	+++500	NBC/ $\mu$ L	
Nitrite/Nitritos Nitrit	neg.	trace	pos.				
Urobilinogen/Urobilinogène Urobilinógeno	0.1	+Normal→1(16)	2(33)	4(66)	8(131)	$\mu$ mol/L	
Protein/Protéines Proteínas	neg.	trace	+30(0.3)	++100(1.0)	+++300(3.0)	++++1000(10) mg/dl (g/L)	
pH	5	6	6.5	7	7.5	8	8.5
Blood/Sang Sangre/Blut	neg.	Hemolysis trace	+25	++80	+++200	Non Hemolysis +10	++80 RBC/ $\mu$ L

Urinary complaints

Red urine  
(blood)

Urinary stick

Provisionary  
diagnosis:  
**Schistosomiasis**

Tests	Results / Resultats / Resultados / Ergebnisse									
Leukocytes/Leucocytes Leucocitos/Leukozyten	neg.	trace	+70	++125	+++500	WBC/ $\mu$ L				
Nitrite/Nitritos Nitrit	neg.	trace	pos.							
Urobilinogen/Urobilinogène Urobilinógeno	0.1	+Normal	1(16)	2(33)	4(86)	8(131) $\mu$ g/dl ( $\mu$ mol/L)				
Protein/Protéines Proteínas	neg.	trace	+30(0.3)	++100(1.0)	+++300(3.0)	++++1000(10) $\mu$ g/dl(g/L)				
pH	5	6	6.5	7	7.5	8	8.5			
Blood/Sang Sangre/Blut	neg.	Hemolysis	trace	+25	++80	+++200	Non Hemolysis	10	++80	RBC/ $\mu$ L

ONLY Blood

Non-antibiotic  
treatment

Praziquantel



# Male Genitalia

## Sexually transmitted diseases

Antibiotic treatment ✓

Burning sensation while urinating + Urethral secretion

Chlamydia or Gonorrhea ✓



NO PAIN

Syphilis ✓

Unique ulcerated lesion without exudation

Genital Ulcer

PAINFUL

Chancroid ✓

Big multiple ulcers with secretions

Herpes

Small multiple lesions with liquid

Itchiness + multiple lesions

Candidiasis ✗



(Bacterial)



Gonorrhoea

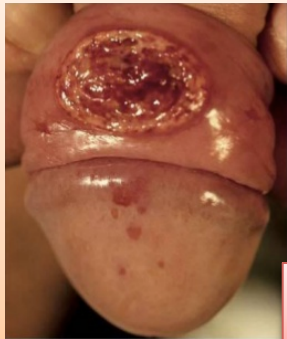


Chlamydia

Ceftriaxone i.m.  
+  
Azitromicin tablets



Papilloma virus



Chancroid (bacterial)

Ceftriaxone i.m.



Herpes (viral)

Acyclovir tablets



Syphilis (bacterial)

Penicillin i.m.



Candida (fungal)

Clotrimazole cream

# Female Genitalia



Gonorrhea/Chlamydia (bacterial)

Cefixime tablets  
+  
Azitromicin tablets



Papilloma virus



Chancroid (bacterial)

Ceftriaxone i.m.



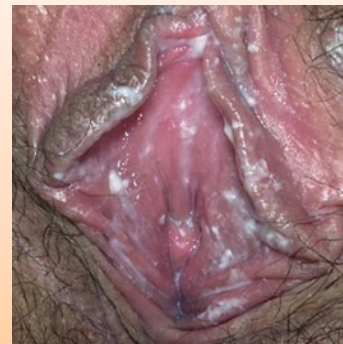
Herpes (viral)

Acyclovir tablets



Syphilis (bacterial)

Penicillin i.m.

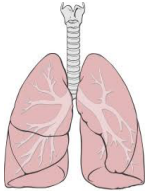


Candida (fungal)

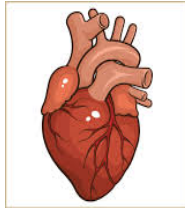
Clotrimazole cream



IMMEDIATE HOSPITAL TRANSFER IF:



- Sudden or severe Shortness of breath



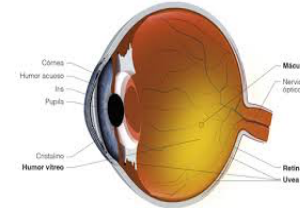
- Thoracic pain irradiating to arm or jaw
- Severe upper abdominal pain



- Acute loss of vision
- Can't move half of the face or the body (paralysis)
- Acute loss of sensitivity
- Problems speaking
- Loss of consciousness



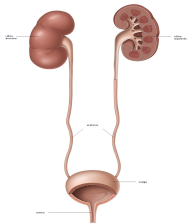
- High fever ( $>38^{\circ}$ )
- Red spots on the body
- Night sweats and fever
- Loss of consciousness



- Acute and severe eye pain
- Red painful eye
- Photophobia
- Red eye associated with strong headache



- Rapid abdominal swelling
- Vomiting blood
- Yellow skin (jaundice)



- No urine
- Severe bleeding in the urine
- Severe pain in lower back with fever