Here are some important notes from our doctors, and they are arranged in chapter to chapter manner…

Chapter 3:

- The optimum temperature for *C. jejuni* is 42 C.

Chapter 4:

- Apathogen: is microorganism with the capacity to cause a disease in a particular host.
- Primary pathogens>>>>cause disease in normal person.
- Secondary pathogens>>>>cause disease in immunodiffecient person.
- Exotoxins have pharmacologically specific action because they act as enzymes (optimal pH,temperature).
- *B.Anthrax*'s capsule is formed of polypeptides while the others formed of polysaccharides.

Chapter 6:

(please for this chapte, go and read the pages after page 9 which are recording for dr.kambal's lecture)

- Penicillin can kill all the bacteria except the *mycoplasms*.
- No antibiotics will act on:
    1. Flagella.
    2. Capsule.
    3. Fimbrea.
- The pressure inside the bacteria is:
    - 5-10 in gram –ve.
    - About 25 in gram +ve. <due to cell wall>
- The bacteria can prevent itself by:
    1. Antibody entrance prevention.
    2. Breakdown of penicillin by penicillinase.
    3. Change the target (receptor).
- Aminoglycosides not affect Gram +ve , and not given orally.
- Rifampicins affect DNA. (((((very imp.)))))

Chapter 7:

- Disinfectants are not necessarily sporicidal, but may be sporistatic.
- Autoclave: special sterilization used in hospital.
- Application of moist heat: **(موجوده في سلايدات الدكتور)

c. Tyndallization

- The process involves boiling for a period (typically 20 minutes) at atmospheric pressure, cooling, incubating for a day, boiling, cooling, incubating for a day, boiling, cooling, incubating for a day, and finally boiling again.
- The three incubation periods are to allow heat-resistant spores surviving the previous boiling period to germinate to form the heat-sensitive vegetative (growing) stage, which can be killed by the next boiling step.

- The procedure only works for media that can support bacterial growth - it will not sterilize plain water.

- The recommended size filter that will exclude the smallest bacterial cell is 0.22 micron.

Chapter 8:

- We almost never swallow bacteria, only their toxin.
- Almost all bacteria reach the blood cause endocarditis.

Chapter 9:

- M-protein>> anti-phagocytic. P.4
- Group A streptococci can cause tonsillitis, pharengitis.. but flu is caused by viruses.
- In non-suppurative complication you will not see bacteria, only their effects. P.8
- In group B strept. >> remember meningitis.
- *S.anguis*>>can cause body cavity infection.. p.14

Chapter 10:

- In parasitic mycobacterium>>you have to isolate the patient.
- In environmental>>>you don't need because it's not transmitted from patient to another.
- The best method for diagnose M.TB is sputum under microscope. "the fastest method"
- We have 3 diseases that transmitted by airborne :>> TB, chicken box, Mesis.
- The most parts of the body affected by TB: bone, meninges, kidney.
- The primary TB is not infectious.
- *M.leprae* cannot grow in artificial media.. "v. imp."
- Environmental mycobacteria>>> do not respond to typical mycobacterial drugs. P.7
- *M.avium*>>> more in elderly with COPD.
- *M.scrofulaceum* >>> cause infection in children.

Chapter 11:

- *C.diphtheria* >> they like alkaline pH.
- We usually check for toxin from diphtheria, they usually are found in normal flora of throat but harmless. P.4
- *Listeria* >>>>they infect through dairy, especially soft chease.
- Listerolysin>>toxin, allows bacteria to live intracellularly..

Chapter 12:

- Whenever you see chocolate agar remember *haemophilus*."only haem without *staph. aureus*"
- *H.influenzae* one of the 3 most common causes of meningitis but with least complication.