



جامعة الانبار - مركز دراسات الصحراء



العلوم	الكلية
التقنيات الطبية	القسم
Medical Microbiology	المادة باللغة الانجليزية
الاحياء المجهرية الطبية	المادة باللغة العربية
الثانية	المرحلة الدراسية
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Medical Microbiology	عنوان المحاضرة باللغة الانجليزية
الاحياء المجهرية الطبية	عنوان المحاضرة باللغة العربية
١	رقم المحاضرة
https://en.wikipedia.org/wiki/Medical_microbiology	المصادر والمراجع
/https://www.ncbi.nlm.nih.gov/books/NBK7627	
https://www.cdc.gov/lab-training/php/courses/microbiology-series.html	

محتوى المحاضرة

UNIVERSITY OF ANBAR

Medical Microbiology Lab 1

Medical microbiology : (also known as clinical microbiology) is a subdiscipline of microbiology dealing with the study of microorganisms (parasites, fungi, bacteria, viruses) capable of infecting and causing diseases in humans .

علم الاحياء المجهرية الطبية (علم الاحياء المجهرية السريرية) : تخصص فرعي من علم الاحياء المجهرية والذي يتعامل مع الاحياء المجهرية التي لها القدرة على ان تسبب امراض للإنسان مثل (طفيليات، فطريات ، بكتيريا و فايروسات)

Medical microbiology aims to :

- 1-Identify** microorganisms(through examination of their phenotypic features (e.g., shape, structure, reproduction, physiology, and metabolism, etc.).
- 2- Determine** their pathogenic mechanisms(Virulence factors), treat and prevent their duplication .

- ١- التعرف على الاحياء المجهرية (من خلال صفات النمط الظاهري او المظهري مثل الشكل ، التركيب، التكاثر، الفسيولوجية والعمليات الابضية)**
- ٢- تحديد الالية الامراضية او (ما تسمى بعوامل الضراوة) العلاج ، الوقاية وطريقة التضاعف**

Depending on the type of infection suspected ,bacteria can be sampled from various areas are:

- 1- Blood (Sepsis)
- 2- Cerebrospinal fluid (CSF)
- 3- Bronchitis (Pneumonia)

- 4- Strep throat.
- 5- Urinary tract infection (Kidney infection)
- 6- Stool culture .
- 7- Wound infection in a cut or burn.
- 8- Food poisoning.

Microbiologic Examination (how to diagnosis bacteria) by :

- 1- Microbial culture
- 2- Microscopy
- 3- Biochemical test
- 4- Serodiagnosis
- 5- Antibiotic susceptibility testing (AST): The disc diffusion or 'Kirby-Bauer' method

- Microbiology laboratory safety instruction :

- 1- Treat all microorganisms as potential pathogens.
- 2- Wear protection (goggles or glasses , laboratory coats and gloves are strongly)
- 3- Keep all personal belongings (including cell phones) in a separate area. Wash your hands before handling these items.
- 4- Sterilize equipment and materials .
- 5- Disinfect work areas before and after use.
- 6- Wash your hands (before and after working) Nondisinfectant soap will remove surface bacteria and can be used if disinfectant soap is not available. **Gloves may be worn as extra protection.**
- 7- Never pipette by mouth .
- 8- **Never** eat or drink in the lab, nor store food in areas where microorganisms are stored.



9-Autoclave or disinfect all waste material

10- Clean up spills with care. Cover any spills or broken culture tubes with a **70% ethanol or 10% bleach solution**; then cover with paper towels. After allowing the spill to sit with the disinfectant for a short time, carefully clean up and place the materials in a biohazard autoclave bag to be autoclaved. Wash the area again with disinfectant. **Never** pick up glass fragments with your fingers or stick your fingers into the culture itself; instead, use a brush and dustpan.

