**laboratory management**

It is an ongoing process that seeks to efficiently achieve the objectives of a medical laboratory.

The objectives of a medical laboratory are providing its customers (physicians on behalf of patients) accurate answers which contribute to clinical treatment.

**Good laboratory management is an increasingly important component of good laboratory practice**.

It has been focussed on raising the quality and functionality of already good-level clinical laboratories.

**Organisation Of Clinical Laboratories**

Clinical Laboratories may be organised into different sections.

The organisation depends on the site (public health hospital, physician office laboratory, or independent laboratory, etc.) and the complexity of testing. However, some general guidelines may be applied to a situation, and they are discussed as follows:

Microbiology Laboratory

Chemical & Biomedical Laboratory

Haematology Laboratory

Histopathology Laboratory

Molecular Biology laboratory

**Microbiology Laboratory**

Clinical Microbiology comprises essentially seven sections:

Aerobic and anaerobic bacteriology

Mycology

Mycobacteriology (also called Acid-fast Bacteriology, AFB)

Parasitology

Virology

Serology

Molecular diagnostics (PCR & DNA probe technology)

As it was mentioned before the organisation depends on many factors

**As it was mentioned before the organisation depends on many factors**. The following is also another organisation which has divided a General Hospital Microbiology Laboratory into various sections:

**Sample Receiving & Processing Section** Samples brought to the clinical microbiology are at first received by this section. Here sample are received and the samples are processed according to the nature of the sample.

**Urinalysis Section** In this section detailed report of urine samples including physical, chemical, microscopic examination is be prepared.

**Parasitology Section** Parasitology section deals with intestinal parasites. Samples of faeces are examined here for the presence of any intestinal parasite. Slides are prepared here inside a safety cabinet.

**Serology Section** In serology section immunological and serological tests are performed by different techniques like Latex agglutination, haemagglutination and antibody absorption.

**Mycobacteriology Culture & Sensitivity Section** In this section all TB smear, culture and sensitivity performed in two Bio-safety II cabinets to avoid risk of infection.

**Nose, Throat, Sputum and Urogenital Cultures and Sensitivity Section** Here cultures of respiratory tract and genital tract infections are prepared.

 **Wounds Culture and Sensitivity Section** Culture of wound swab, pus, aspirates, body fluids including CSF are the responsibility of this section.

**Urine Culture & Sensitivity Section** Different types of urine culture performed here including mid stream urine and catheter samples of urine. Each sample is processed and evaluated accordingly.

**Blood Culture and Sensitivity Section** In this section culturing of blood samples is carried out. Nowadays, this section is equipped by machines such as Bactec 9240, flourometric instruments. Each instrument is capable of running 240 samples at a time.

**Quality Control Section** In this section quality control of water, food products and environment is performed with the help of different media and colony counters.

**Mycology Culture Section** Requests for fungus smear and culture processed here in a bio safety II cabinet to avoid infection from fungal spore.

**Continuing Professional Development**

CPD , linked with continuing medical education, is a process of systematic learning that enables health workers to be constantly brought up to date on developments in their profession and thus ensure their competence to practice throughout their entire career.

Policies and programmes have already been established in a number of countries and, in some, participation is a mandatory requirement for the right to practice.

**Schemes for CPD are run by national professional bodies that are responsible for the practice standards of their members.**

The CPD process is based on obtaining “credits” for various qualifying activities, such as

attendance at specified lectures,

workshops, and conferences;

giving lectures; writing books or journal articles,

using computer- or journal-based programmes.

The credit points accumulate toward an annual required score.

**Financial Control**

Full costing of tests includes all aspects of laboratory function The amount allocated for staff salaries should include the cost of training and should take into account absences for annual leave or sickness.

It needs also to take into account the extent to which staff of various levels, as described earlier, are involved. Indirect costs may be apportioned to different sections of a department who share common overhead costs.