***Methods for Measuring the increase in the numbers of bacteria***

1. Total count ( Direct microscopic count of bacteria).
2. Viable count (Indirect microscopic count of bacteria).
3. Total count ( Direct microscopic count of bacteria)

Can directly estimate the number of cells in the sample of liquid media by

the microscope and this method is characterized such 1-ease of take place 2- speed to obtain its results, but they do not distinguish between viable and dead cells and to conduct that there are several methods.

A-Breedś Counting Method

This method does not distinguish between live and dead cells.

**Work method**

1-Prepare a clean glass slide and draw them square area of 1 cm.

2- Serial dilution are prepared.

3- Spread 0.1 ml over the square by loop and let to dry on the air.

4- Fixed by heat and dye by simple stain.

5- Exam by the oil immersion and calculate the number of cells in a

number of random microscopic fields.

**TBC=Total Bacteria Count**

MF=Microscopic Factor (number of microscopic field in

1 cm2e)

MF= 5000

TBC= Avg. number of cells **×** MF **×** 100 **×** dilution inverted

B- Haemocytometer ( counting chamber)

The most common method of enumerating the total microbial cells is the

direct counting of cell suspension in a counting chamber of known volume using a microscope. Originally designed for performing blood cell counts.