



**BCH 462**

# **Kirby-Bauer Test**



## **Objective:**

To test the ability of antimicrobial agents to inhibit the growth of microorganisms.

## **Kirby-Bauer test method:**

It is designed to test the ability of antimicrobial agents to inhibit the growth of microorganisms over an 18-24 hour period of contact.

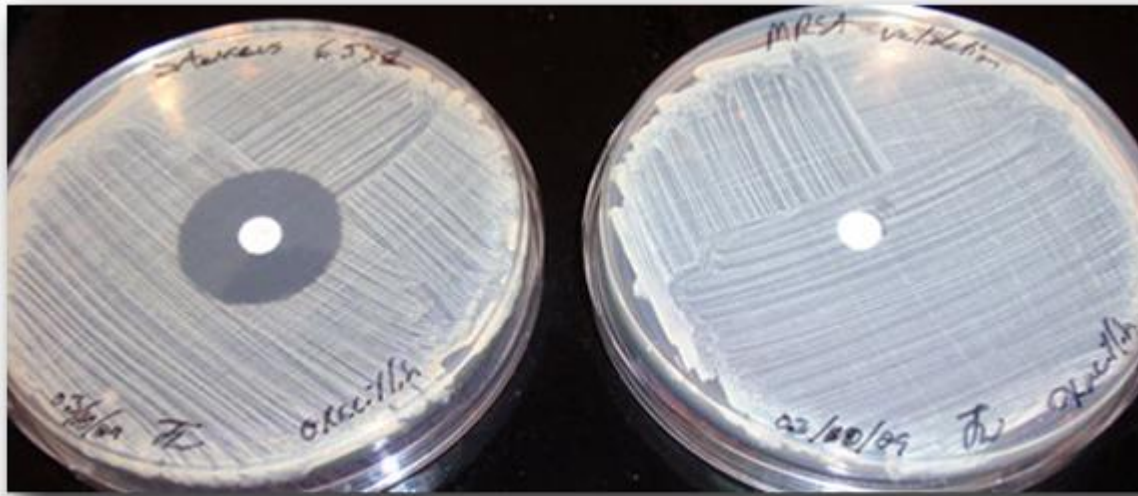
### Summary of Test:

- A microbial suspension is spread by a sterile swab, evenly, over the face of a sterile agar plate.
- The antimicrobial agent is applied to the center of the agar plate and incubated.
- If substantial antimicrobial activity is present, then a zone of inhibition appears around the test product.

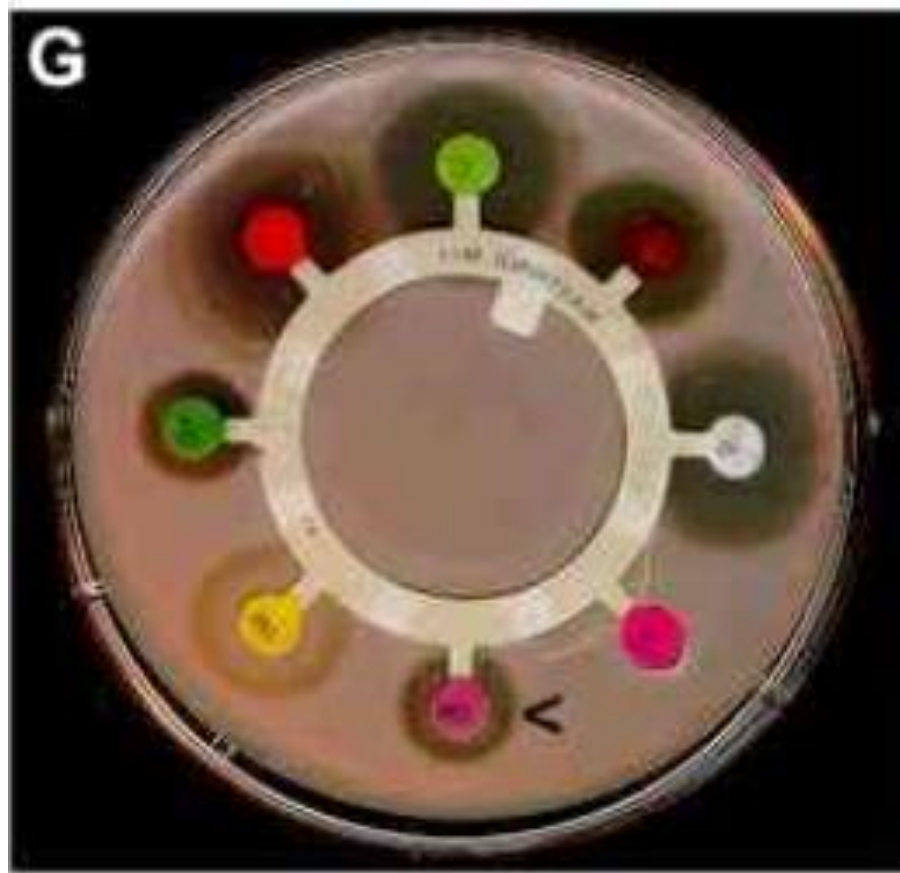
**The zone of inhibition**, is simply the area on the agar plate that remains free from microbial growth.

-The size of the zone of inhibition is usually related to the level of antimicrobial activity present in the sample or product.

- **A larger zone of inhibition usually means that the antimicrobial is more potent-.**



A zone of Inhibition is evident around the oxacillin disk for *S. aureus*, left, but not for Methicillin-resistant *S. aureus* (MRSA), right.



### **Tests for sensitivity and resistance to antibiotics.**

The size of the zones of inhibition of microbial growth surrounding the antibiotic disks on the plate are an indication of microbial susceptibility to the antibiotic.