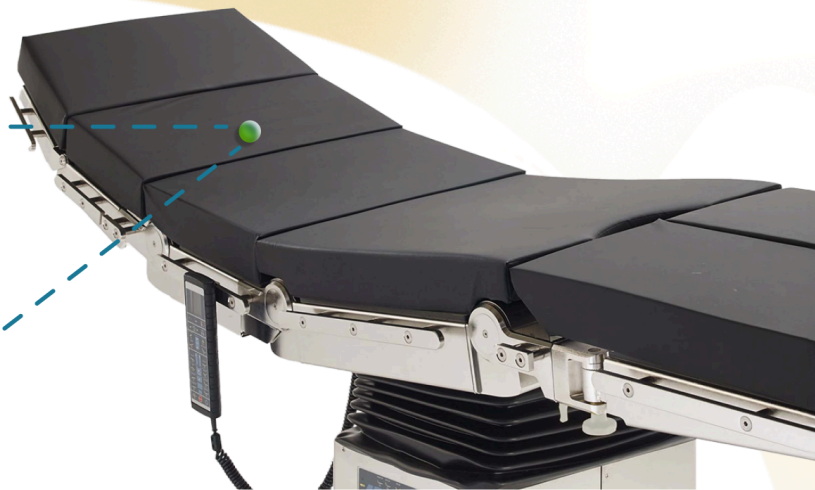
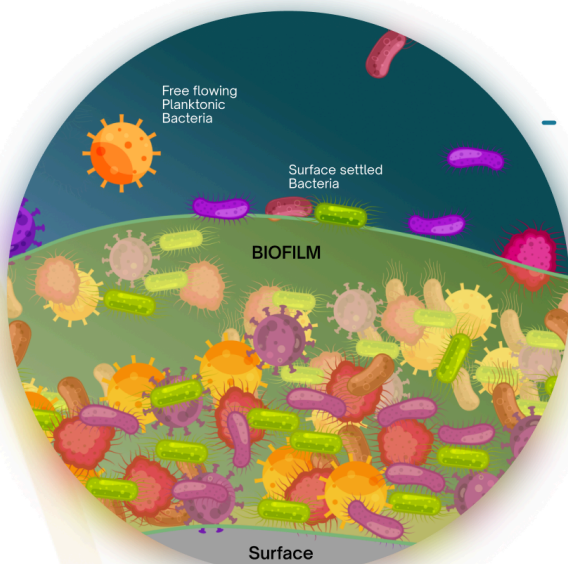


# Nosocomial Infection Control

Is Antibiotic an only  
answer to Infection?





**90%** of the world's bacteria live and multiply under the protective layers of **BIOFILM**

## NOSOCOMIAL INFECTIONS

According to the CDC report, on average, in the US, one Patient gets a Healthcare-associated infection out of 25 admitted.

***And 1 patient died out of 9 Infected.***

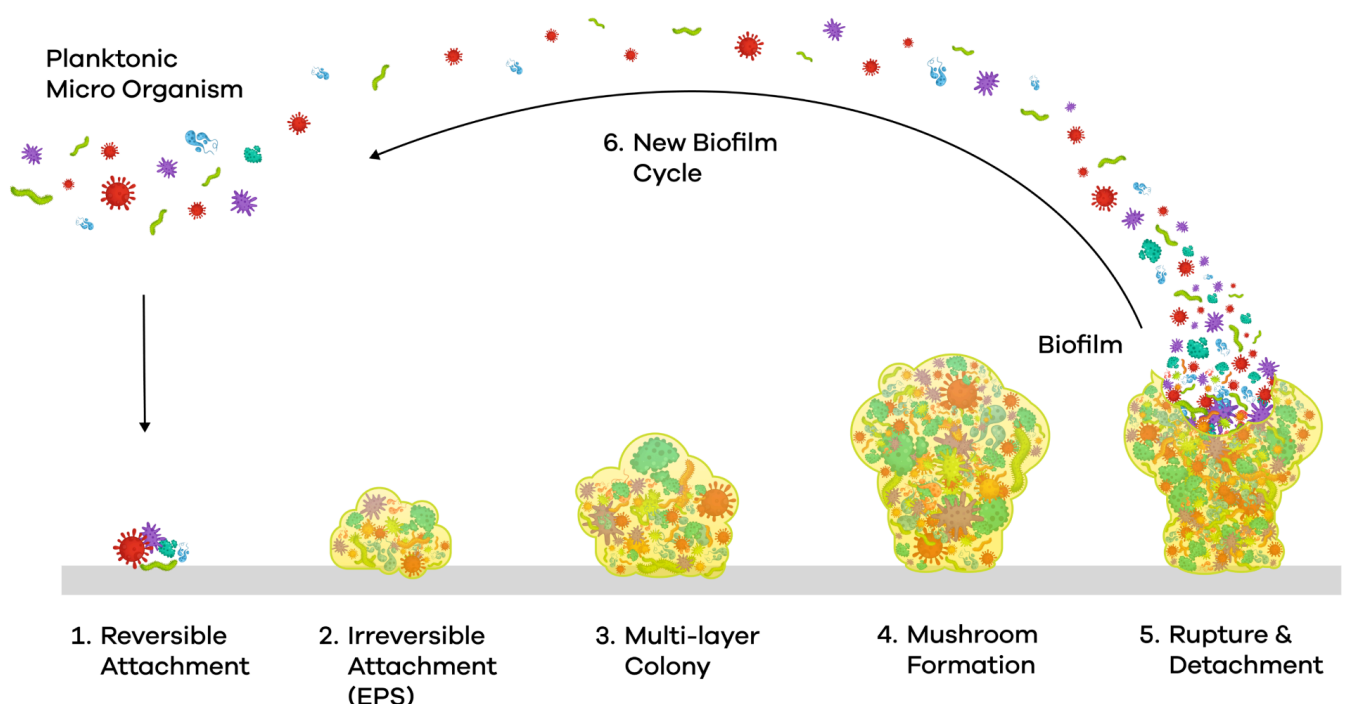
## CAUSE OF NOSOCOMIAL INFECTIONS

- Patient with Compromised Immunity
- **Multidrug-Resistant Organisms (MDRO)**
- Hospital Environment & BIOFILM
- Cleanliness & hygiene Standards
- Barrier less Centralised HVAC
- Ban on Formaldehyde Fumigation
- Surgical Instruments Sanitisation
- Implants & Transplants

BIOFILM is a source of constant contamination created by an accumulation of bacteria, which develops a protective matrix made of Organic polymers (EPS) polysaccharides, proteins, DNA, lipids, etc. Biofilms have a protective matrix that protects bacteria, making them more resistant to traditional cleaning and disinfection agents.

More than air-born atmospheric contaminations, hospitals have hidden surfaces inaccessible for conventional cleaning. Inside surgical equipment, under the bed, behind furniture, walls, ceilings, AC ducts, and light fixtures are usually impossible to clean. These surfaces are the source of biofilm formation. Biofilms are the protective layer underneath which bacteria and viruses hide and multiply.

## BIOFILM LIFE CYCLE



## FALLACIES:

- Conventional chemical cleaning is enough to get rid of surface micro-organisms growing under the Biofilm.
- Chemical cleaning can remove biofilms.

## FACTS:

- 80% of the microbes on the planet live and multiply under the self-developed protective layers of Biofilms.
- More than 50% of the surface areas are not possible to clean.
- Microorganisms under Biofilm are 10 to 1,000 times resistant to antimicrobial agents & biocides.
- Surfaces that are not thoroughly treated are bound to form Biofilms.

## Solution

*Treatment which is capable of oxidizing the Biofilms & bio growth underneath.*

*The technique should be the point of source.*

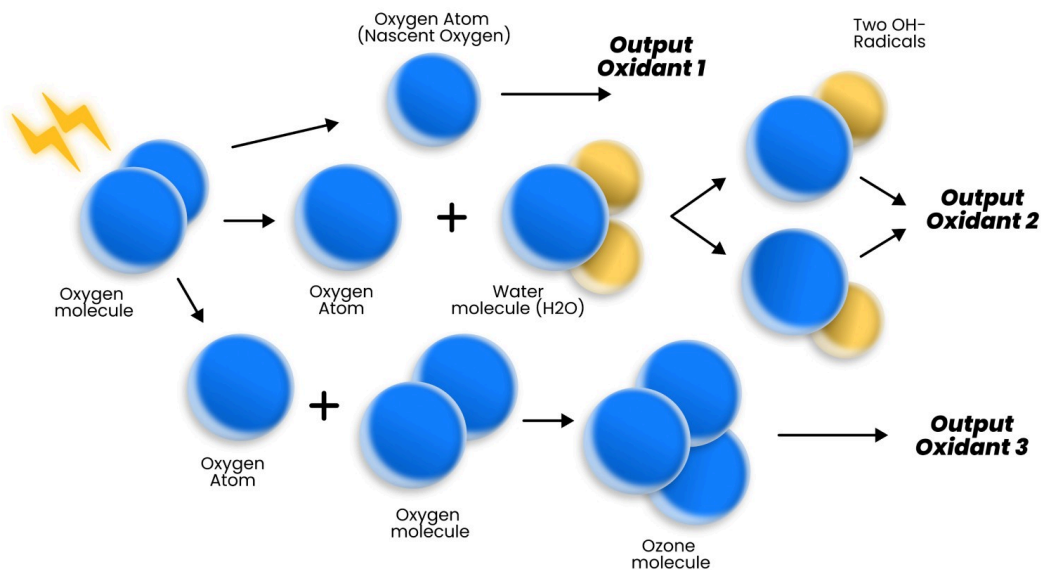
# ECONIC<sup>TM</sup>

**Electro-Chemical  
Oxidation (ECO)**



**Bipolar Oxygen  
Ionisation (BOI)**

Technology - "ECOBOI"



No  
Consumables



No  
Chemicals



No  
Charging



No  
Refill

## Integration

- Wall Mount Local Installation.
- As per HVAC Design.
- Retrofitting in Existing AHUs.
- Site-specific Distribution Design.



## AHU Integration



Non AHU Integration

## Application Spectrum:



Hospital



O.T.



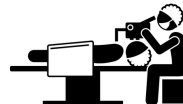
Transplant



I.C.U.



Veterinary



Ophthalmology



Orthopaedic



Pediatrics



Consulting

## Safety Compliances:



National Channel Partner