



IMPLEMENTATION & INTEGRATION OF INFECTION CONTROL IN HOSPITALS



Reinste
Nano Ventures



A COVID19 Research Consortium Funded Product
Biotechnology Industry Research Assistance Council
A Government of India Enterprise

As per “Accreditation Standard Guidelines made for Infection Control for Hospitals and Healthcare providers”, it is mandatory to keep hospital premises sanitized and contamination free which is a vigorous task to achieve.

Design considerations for Planning New Operation Theatres

OT Construction:

- a) The AHU of each OT should be **dedicated one** and should not be linked to air conditioning of any other area for all OT constructed.
- b) Window & split A/c **should not** be used in any type of OT because they are pure re circulating units and have convenient pockets for microbial growth which cannot be sealed.
- c) **Paint- antibacterial, anti-fungal**
- d) OT door – automatic/ Hermetically Sealed/Touch free (preferable)

NABH guidelines for Hospitals, Annexure 2nd Edition April 2016

The following Hospital Infection Control Policies are needed to be framed and practiced and monitored by the **Hospital Infection Control Team (HICT)** and **Hospital Infection Control Committee (HICC)**.

- 1. Guidelines for prevention & control of infections
- 2. Antimicrobial policy
- 3. Surveillance policy
- 4. Disinfection policy
- 5. Isolation policy
- 6. Policy for investigation of an outbreak of infection

National Centre for Disease Control (NCDC), MoHFW.

So far, Indian hospitals have been confronting Hospital Acquired Infections (HAI) mentioned below, which were not as transmissible and deadly as **COVID-19** and its Hybrid forms. Therefore, as per recent studies, the conventional methods of using **soap solution**, **disinfectants**, and **fumigation** to combat such contagion are not very effective and feasible after some extent for patients, visitors and healthcare staff protection.



Common HAI's	<ul style="list-style-type: none"> • Bloodstream infection • Urinary tract infection • Pneumonia • Surgical-site infection 	
Common Microbes the Hospital Premises deal with	<ul style="list-style-type: none"> • E.coli, • Enterococcus spp., • Staphylococcus aureus, • Klebsiella spp., • Salmonella spp., • Candida spp., • Pseudomonas spp., • Corynebacterium spp., • Acinetobacter spp., • Coagulase Negative Staphylococcus (CNS), • Proteus spp. • Pseudomonas aeruginosa • Serratia marcescens 	<ul style="list-style-type: none"> • Staph. epidermidis • Enterococcus faecalis • Anaerobic bacteria such as Bacteroides spp. • Shigella spp. • Campylobacter spp. • Clostridium difficile • Aeromonas and Plesiomonas spp.



To overcome such predicament, **Reinste Nanoventures Pvt. Ltd.** has developed made in India, Coatings, funded and supported by Biotechnology Industrial Research Assistance Council (BIRAC), A Government of India enterprise under **COVID-19 Research Consortium (Grant No.BT/COVID0017/01/20 for Long-acting Virus Propagation inhibition Coatings for Various Surfaces)**. These paints* are proven to be very useful for the hospital surfaces and instruments (mechanical as well as for digitals) to avoid any further contamination or transmissibility.

Conventional Method V/S Warrior™ Anti-microbial Coatings		
Properties	Conventional Methods	Warrior™ Anti-microbial Coatings
• Target Bacteria	Yes	Yes
• Target Virus	Yes	Yes
• Target SARS CoV-2	No	Yes
• Usage on Digital Instruments	No	Yes
• For Regular Usage	Fumigation: No	Yes
• Corrosive On Metal	Yes	No
• Flammable	Yes	Yes
• Durability	Fumigation: 3months	Up to ~ 6 months
• Efficient on SARS CoV-2	No Proof	99.99% effective, tested
• Microbial Neutralization Rate	No Proof	Initially 6/8 minutes, reaches up to 100% in 10 Mins.
• Ease of application	Require Machines	Easy to apply by paint brush or sprayer.
• Dirt Repellent	No	Yes

It has been **recommended** to use **Warrior™ Anti-microbial Coatings*** as it is the perfect choice over conventional methods to keep various surfaces of hospitals sanitized and contamination free for a long period of time, keeping the staff, patients, visitors, and employees safe along with helping in curbing this pandemic situation. Although all paints/ coatings* are initially anti-microbial due to presence of volatile organic compounds (VOC), but after the evaporation of VOC content, the paint/coating* layer become susceptible to microbes. Whereas **Warrior™ Anti-microbial Coatings*** will not allow microbes to grow and survive on applied surface.



Recommended Paints/Coatings* For Various Surfaces		
Surfaces	Types of Surfaces	Recommended Paint*/Coating
Absorbent Surfaces	Leather, Textiles	Warrior LTeX Ag+ Shield, Warrior ADTL Ag+ Shield
Non Absorbent Surfaces	Plastics, Metals, Ceramics, Glass, Wood, Stone, Concrete.	Warrior Dura Ag+ Shield Warrior Silver Surface Shield; Warrior AquaPerl Surface Shield; Warrior Micro Surface Shield; Warrior Universal Surface Shield; Warrior Microbial Ag+ Shield; Warrior Clear Coat Ag+ Shield; Warrior Germi Shield Cleaner

Warrior™ Door Hangers Make Sure that the Premises are Safe to Use and are Sanitized.

Warrior™ antimicrobial coating prevents the spread of Bacterial and viral infections by destroying the microbes on contact Surfaces



***Disclaimer:** This is not a medical device and for use only as a paint/Coating, does not guarantee 100% prevention against infection and is not a cure.

Reinste Nano Ventures Pvt. Ltd.
 A-118, Level-II, Sector 63, Noida, U.P., 201301, India
 P: 0120-4781212/213, M: 9810662669
 Website: www.agsterilized.com/ www.hiyka.com
 Email: info@reinste.com

