

For consideration under COVID -19 Initiatives by NITs

Title: Intensive Care Management system for Coronavirus disease

Category: Surveillance

OUTCOME/ABSTRACT/DESCRIPTION:

Problem Statement

Isolation wards typically have few doctors and paramedics. The patients require frequent medical supplies and food. It also requires frequent visits between supply area and ward. We need to avoid human intervention/contact to the isolation wards to reduce exposure

Objective

The system reduces the risks for direct contact between patients and doctor's health-care workers, who are already at a high risk of workplace injury.

To design an automated system to determine the priority of patient's treatments based on the severity of their condition or likelihood of recovery with and without treatment.

System Design

An automated system to identify the patients based on RFID in delivering food and medicines and return back to the origin.

Greet patients and communicate with series of simple phrases.

Abstract

As coronavirus disease 2019 (COVID-19) spreads across the world, the isolation wards must prepare for the challenges associated with this pandemic. Streamlining of workflows for rapid diagnosis and isolation, clinical management, and infection prevention will matter not only to patients with COVID-19, but also to health-care workers and other patients who are at risk from nosocomial transmission.

Management of acute respiratory failure and haemodynamics is key and to carry trays of food and medicines. Critical care triage to allow the rationing of scarce in isolation wards where the resources might be needed. The system design will be efficient enough to reduce exposure risk to medical personnel and improve efficiency towards spreading the virus.

Expected Time-line: 6 Months to 1 year

Remarks: Funding requirement -Rs. 5 Lakhs

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