



LOCAL PRODUCTION OF HAND SANITIZER

ST JOHN'S MEDICAL COLLEGE HOSPITAL

Sarjapur road, Koramangala, Bengaluru

Date: 26/03/2020

Version: 1

Background

COVID-19 due to SARS-CoV-2 has been declared as a pandemic by the World Health Organization on 11th March 2020. One of the most important preventive measure to cut the transmission of SARS-CoV-2 virus is frequent hand hygiene with soap and water or alcohol based handrub (ABHR). However, global panic over this coronavirus has caused a run on hand sanitizers as well as personal protective equipment for health care workers (HCWs).

In the wake of this global pandemic , St John's Medical College Hospital has set up a multi-disciplinary Coronavirus Taskforce Group to put in place one uniform policy based on the recommended guidelines that is implemented throughout the institute. One of the functions of this taskforce group is also to address the issue of non-availability of hand sanitizers and to provide PPE to its HCWs. The taskforce group has been coordinating with the Department of Pharmacy to produce hand sanitizers locally to meet the demands of the institute during this situation. This document details the steps involved in preparing the hand sanitizer locally. This is based on the Guide to Local Production: WHO-recommended Handrub Formulations by the World Health Organization.

Raw materials required in the preparation of hand sanitizer include-

1. Etahnol 96%
2. Hydrogen peroxide 3%
3. Glycerol 98%
4. Sterile distilled water
5. Perfume (optional)
6. Colouring agent (optional)

Ethanol will be stored in a plastic drum with screw cap. The amount prepared at one time is 40 liters and for making 40 liters of hand sanitizer 33,332 liters of Ethanol will be required. Hospital supply of hydrogen peroxide came in 6% strength and one bottle contained 420 ml. Therefore, this was diluted using equal quantity of distilled water to prepare 3% strength hydrogen peroxide. For making 40 liters of hand sanitizer 834 ml of 3% hydrogen peroxide will be required. For making 40 liters of hand sanitizer 4000 ml of glycerol will be required.

Steps

There are four steps. The required quantity of ethanol will be poured into an empty plastic drum with a screw cap. The required quantity of 3% hydrogen peroxide will be added to this plastic drum using a measuring jar. Glycerol is then added using a measuring jar and the jar will be rinsed with sterile distilled water and then emptied into the plastic drum as glycerol is very viscous. Screw cap will be closed to prevent evaporation.





Step 4: Adding 10 ml of perfume and colouring agent to the solution and mixing it using a spatula and distributing in 1000ml bottles

ETHYL ALCOHOL ANTISEPTIC

Hand sanitizer

NET VOLUME: 1000ml

DIRECTIONS FOR USE:

Apply a palmful of alcohol-bases hand rub and cover all surfaces of hands. Rub hands until dry.

CAUTION:

Keep away from flame and heat
 Keep out of the reach of children
 Avoid contact with eyes
 For professional use only
 For external use only

INGREDIENTS:

Ethanol 96% w/v
 Glycerol 98% w/v
 Hydrogen peroxide 3% w/v

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Labelling..information