



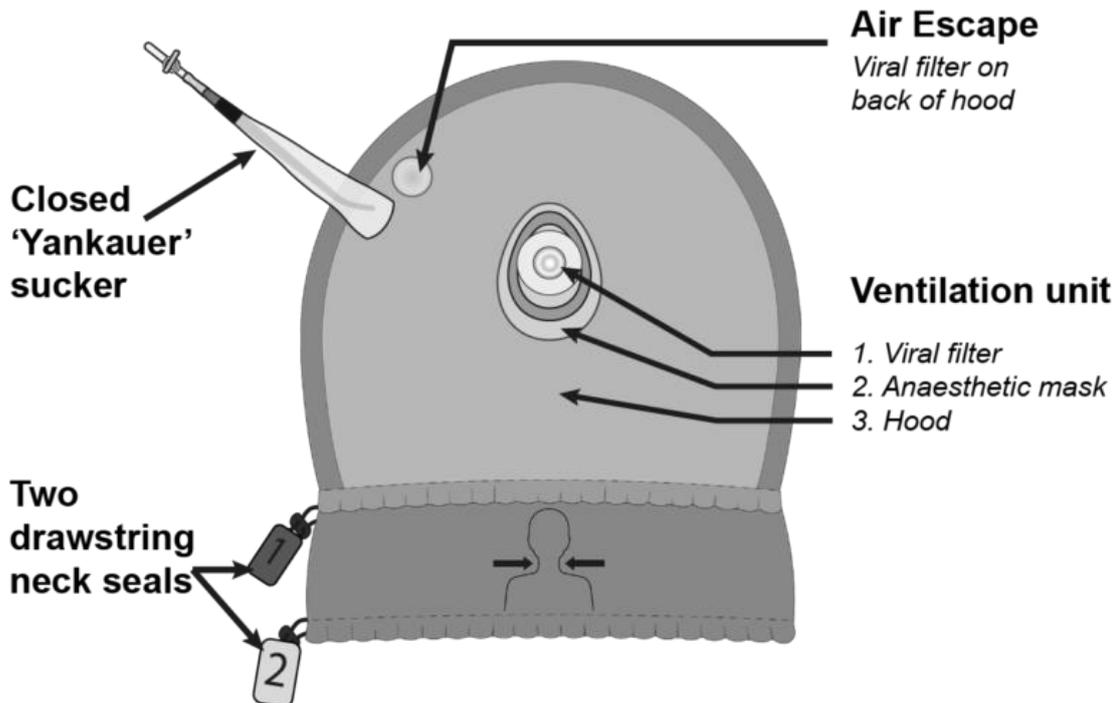
# Innovative Medical Technology Overview: Plain Language Summary

IMTO 04-21

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The SARUS (safer - airway - resuscitation) - CPR hood™ to protect first responders from biohazards.

## Clinical Hood



## What is CPR?

Cardiopulmonary resuscitation (CPR) can be a lifesaving procedure for people whose heart has stopped. It is an emergency procedure that combines chest compressions with artificial ventilation. Sometimes a balloon-type pump attached to a mask is used to push air into the lungs of the person who is being resuscitated. Immediate resuscitation gives patients the best chance of survival.

## What are the risks to the rescuer?

Performing CPR may put the rescuer at risk of infection by breathing in particles from the patient or by coming into contact with body fluids including blood, saliva and vomit.

## What is innovative about the SARUS-CPR hood™?

The SARUS-CPR hood™ can be slipped over the head of the person whose heart has stopped, and secured so that rescuers are able to quickly start CPR procedures and be protected from possible infections.

## What we did

There is no published evidence about the use of the hood. We looked at the results from small and unpublished tests of how well the hood could contain particles, and if CPR can be carried out correctly using the hood. We also explored safety concerns for the person wearing the hood in this emergency situation.

## What we found

Tests of how well the hood contained particles showed that less than 1% of particles introduced into the hood reached the zone of air where the rescuers face would be during CPR.

In a small trial where the hood was used by doctors performing CPR on a manikin, the doctors were able to carry out the important steps of CPR with the hood in place though the initial stages took longer than with the standard equipment.

There were some potential safety concerns. In a test with one volunteer, the flow of blood from the head was reduced when wearing the hood, which could harm the patient and possibly make the CPR less effective. The experience of waking up inside the hood might lead to emotional distress.

## What are our conclusions?

Further studies of the hood are required to assess if it is safe and can provide benefits for rescuers and people who need CPR.

## Future work

A trial in a cardiac care unit is planned to test how easy the hood is to use, remove and dispose of.

This plain language summary is based on IMTO 04-21, October 2021