

Scientists develop canister bag for safe handling of respiratory secretions

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New Delhi, Sep 04 (India Science Wire): The world was already struggling with some highly infectious diseases like tuberculosis, influenza, when COVID-19 struck. It is a highly transmissible disease and spreads within fraction of a second. Infected patient's respiratory secretions are highly contagious and there are very high chances of spread of disease through this.

In a development that could bring huge relief for healthcare professionals, Sree Chitra Institute of Medical Sciences in Thiruvananthapuram has developed canister bags, lined with super-absorbent material containing an effective disinfectant. The bag has been named AcryloSorb. The method is meant for safe handling and disposal of respiratory secretions of patients in Intensive Care Units as well as of those admitted in wards with copious respiratory secretions.



AcryloSorb

“Disposal of respiratory secretions of patients suffering from highly contagious diseases such as COVID-19, tuberculosis (TB) and influenza, poses a high risk of infection among healthcare workers. In the canister bags, secretions are sucked into bottles or canisters using vacuum line and discarded through the waste fluid disposal system after subjecting to decontamination process. There is a high risk of contamination during the handling that poses a high risk to health workers. The disposal needs well-equipped sluice rooms with disinfection facilities. The canister bags can absorb 500 ml of secretions and solidify them immediately. And the presence of the disinfectant makes the whole system decontaminated within no time,” says a press statement issued by the institute.

The product has been tested as per international standards and the linear structure has a patented design, the institute states. Field trials of the in-house designed suction canister liner bags are being conducted at the institute. It's expected to bring the bag to the market at a cost of Rs 100 per bag.

Sree Chitra Institute claims the canister bag allows easy, spill-proof disposal of the biomedical waste. The press release reads, “Solidification and disinfection inside the bags eliminate the risk of secondary infections by avoiding spilling, and aerosol formation. Canister bags are enclosed in a customizable sealer bag which can pack it as spill-proof decontaminated biomedical waste disposable through incineration.”

The team that developed the technology include Dr Manju, S, Dr Manoj Komath, Dr Asha Kishore (who is also the Institute Director) and Dr Ajay Prasad Hrishu who are biomaterial scientists and clinicians - The institute has transferred the know-how of the bags to Romsons Scientific and Surgical Private Limited in Uttar Pradesh that produces medical devices. (India Science Wire)

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