

Design and fabrication of an instrument to assess the barrier properties of operation theatre gowns with reference to blood and blood-borne pathogens

Healthcare workers, involved in treating and caring for individuals injured or sick, can be exposed to biological liquids capable of transmitting disease. These diseases, which may be caused by a variety of microorganisms, can pose significant risks of life and health. This is especially true of blood-borne pathogens. Hence, operation theatre surgical garments are given protective coating to resist penetration.

However, instruments to assess the effectiveness of coating given on medical garments are not indigenously available. At present, fabrics that are coated with appropriate finishes are tested in foreign laboratories and marketed in India. Hence, SITRA has undertaken this project.

The major objectives of the project are:

To develop a low cost instrument to assess the resistance of materials used in surgical gowns to penetration by body fluids that potentially contains blood – borne pathogens.

To standardize the test procedure to be adopted for quality evaluation of surgical gowns made out of woven and non-woven materials.

The fabrication of the instrument has been completed. Calibration and fine-tuning of the instrument, incorporation of the computer peripherals with the instrument are in progress.



SITRA's Blood Penetration Resistance Tester (SBPRT)