Biomarkers Based Technology for Detecting Respiratory Infections Using Resin-B-Testing Kit

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Outbreak of pandemics such as Spanish Influenza, Ebola and Corona virus, the most recent one has had a challenge on mass testing of their infections and spread. Available medical personnel and equipment for testing are not enough to meet the expected thresh hold in containing the spread of such infectious diseases. When rapid testing is not done, containing the spread of an infectious disease becomes a challenge. Most developing countries have had challenges in carrying out tests on its citizens due to lack of enough medical test kits and personnel. Resin-B-testing Kit is an advanced device that has biomarker sensors used in detecting presence of respiratory infections particularly from both bacterial and viral. The device contains three sensors for; Isoprene, Ammonia and Nitric Oxide-which are Volatile Organic Compounds (VOC) released by metabolism of the microbial infections along respiratory tract. Infected people release specific MIX of the Volatile organic compounds and Nitric Oxide in their breath as a result of inflammation within their lungs. When the biomarker sensors detect presence of these compounds, radiation reaction occurs producing signals that are received on the monitor or transmitted remotely and wirelessly to the clinicians in the hospitals. Trials tests of the kit were done on patients in hospitals. As the infection progresses, the levels of V.O.C released in the breath can change hence this device too can be used to monitor the progress of the disease over time. This testing technology to be used in screening travelers in hotels, supermarkets, and in airports as it is cheap, saves time and can be performed by any person.

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