

Point of Care Test

Test to identify the cause for Rhinitis

A simple point of care test to Identify cause of acute and chronic rhinitis

Rhinitis is the inflammation of the nose. It is common and nearly affects everyone at one time or another. Infection and allergy are the primary causes of rhinitis. In the US “runny noses” are big business with over \$4 billion spent in prescription and over the counter treatment and incalculable costs to workplace productivity. The issue with the accurate treatment of rhinitis often entails an extensive exposure history, physical examination, nasal secretion examination under the microscope (“nasal smear”). Since physicians don’t have the time or the equipment available to them, therapy is often empirical. It is essential to understand the cause because the treatment of allergic rhinitis and infection rhinitis is vastly different. Currently, there is no technology available to diagnose the cause of rhinitis quickly and accurately. However, Virginia Commonwealth University researchers have come up with a novel device that would address this issue.

The technology

Researchers have built a novel device that will allow for a simple point of care test to identify the cause of both acute and chronic rhinitis. The device operates on a similar principle to that of an over the counter pregnancy test. The patient or physician will insert the device into the nostrils for sample collection. The collecting device will consist of a soft absorbent material i.e. sponge, cotton pad to a stiff/firm handle. The absorbent material will have embedded, antibodies to specific biomarkers that will distinguish allergy induced rhinitis, bacteria induced rhinitis and viral induced rhinitis. This binding will cause a color change in the material, specific to that antibody. Once the device is removed from the nose, the color will indicate the presence and cause of the “runny nose”. This is an entirely new method of detection because it will allow primary care physicians to quickly and accurately diagnose the cause of rhinitis and administer appropriate treatment. It will also allow the patient to understand what is causing their rhinitis. It will also help clinicians and pharmaceutical companies to test efficacy of new drugs in treatment of rhinitis.

Benefits

- » Quick and accurate diagnosis
- » Time saver
- » Easy to use
- » Easily available

Applications

- » Testing for cause of rhinitis
- » Clinical drug testing

Patent status:

Patent pending: U.S. and foreign rights are available.

License status:

This technology is available for licensing to industry for further development and commercialization.

Category:

Biomedical

VCU Tech #:

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External resources:

Contact us about this technology

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