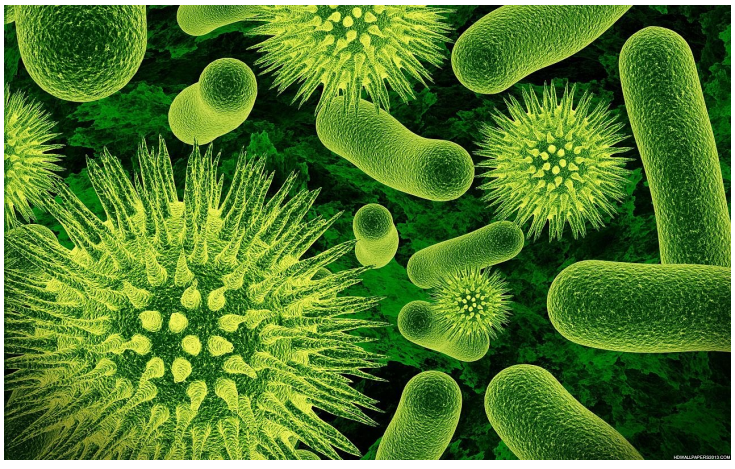
BioSpect
the business of Bi
24 years of leveraging the business of Bio
www.biospectrumindia.co

Saliva test developed for detecting Hepatitis E infection

20 July 2017 | News

The research team's new saliva test uses a different platform in which antigens are attached to fluorescent beads. These beads can circulate more easily through a liquid, potentially encountering more antibodies to a disease if they're present in saliva.



A saliva test developed by researchers at the Johns Hopkins Bloomberg School of Public Health nearly matches the performance of a blood test widely used to assess recent or past hepatitis E virus (HEV) infection.

Currently, the only way to test for both recent and past hepatitis E is through a blood test that checks for antibodies to HEV or blood or stool tests that check for HEV genetic material. Both sample types can be difficult to collect from patients in the field, and evaluating them requires resources that are often limited in low- to middle-income countries.

To address these challenges, researchers have developed a new hepatitis E test that uses saliva rather than blood or stool. The current gold standard for diagnosing hepatitis E is a blood test that uses a common diagnostic platform known as ELISA (enzyme-linked immunosorbent assay), which looks for antibodies to a disease with antigens typically attached to a solid surface.

The research team's new saliva test uses a different platform in which antigens are attached to fluorescent beads. These beads can circulate more easily through a liquid, potentially encountering more antibodies to a disease if they're present in saliva. Another advantage with this bead-based technology is that it allows for testing of a number of different antigen targets within the same saliva sample. So eventually one could test for multiple different infections in a single saliva sample.

The current hepatitis E saliva test devised by the researchers still involves equipment that's impractical to use in the field. The team plans to create versions of this test using more portable devices that can be used more easily to assess individuals where outbreaks happen in the field.