

Background:

Acute infections and sepsis, as leading causes of morbidity and mortality, represent a major burden to healthcare systems around the world. In the UK and US, respectively, 3.5 and 15 million people are assessed annually for acute infection and sepsis in A&E and Emergency Departments.^{1,2} Current acute infection and sepsis diagnostics lack the necessary sensitivity and specificity to be truly effective in ED settings.³ Addressing this significant unmet need, novel diagnostics are being developed. The HostDx™ Sepsis diagnostic currently under development (Inflammatrix, Inc.) informs on the presence, type (bacterial vs. viral), and severity of infection by reading the host immune response (mRNA patterns from whole blood). The test's algorithm combines the expression levels of 30 genes into clinically actionable scores to predict the likelihood of bacterial infection, viral infection, and 30-day mortality (see figure 1).

