

PRESS RELEASE

FOR IMMEDIATE RELEASE

Contacts:

Laura James, Marketing Manager NHSIL

E-mail: laura.james@nhsinnovationslondon.com Tel. 020 7380 1711

Joy Ellery, Director of Communications University Hospital Lewisham

E-mail: joy.ellery@uhl.nhs.uk Tel. 020 8333 3082

NEW, RAPID, LOW COST SCREEN FOR ESBL SUPERBUG MAY SIGNIFICANTLY REDUCE FATAL HOSPITAL INFECTIONS

London 11th December 2007. NHS Innovations London Ltd. (NHSIL) and University Hospital Lewisham today unveiled their new, rapid, low cost screen to detect bacteria called ESBL-producers (ESBLs) which infect several thousand people in the UK each year and which are resistant to common antibiotics.

The ESBL Selective Broth diagnostic test is suitable for mass-screening of hospital patients due to its low costs, simplicity of use and short processing time (18 – 24 hours). It is likely that mass-screening of patients using the test would significantly reduce the spread of ESBL-producing bacteria in hospitals because ESBL-positive patients can be cared for in a way that prevents the further spread of the bug. Most current methods for diagnosing ESBLs are undertaken in a microbiology laboratory by expert biomedical scientists. They are expensive and slow, taking a number of days to yield results because a pre-culture of bacteria is required. As such they are not useful for testing large patient populations.

Extended spectrum β -lactamase producers (ESBLs) are a class of superbug that are found in both the community and in hospitals in the UK. Recent reports suggest that in Britain alone ESBLs are infecting several thousand people a year and that the incidence of infections is increasing rapidly (1). Delayed recognition and inappropriate treatment of severe infections caused by ESBL producers with cephalosporins has been associated with increased mortality (2). Treatment options for patients infected with ESBL-producing bacteria are limited as a result of the ESBLs' resistance to common antibiotics.

The ESBL Selective Broth test comprises a broth in a tube and this changes colour to indicate the presence of ESBL in a skin swab sample. It is easy to use and can be undertaken on the ward where it provides results within 18 – 24 hours. The diagnostic is already in use at University Hospital Lewisham and was formulated by a team of microbiologists working at the hospital under the guidance of Dr Gopal Rao.

'The early identification and isolation of infected patients is central to the success of a hospital's anti-infection strategy and we believe this test will enable hospitals to give patients greater confidence in terms of their risk of contracting ESBL-producing bacteria', commented Joy Ellery from University Hospital Lewisham. 'We are currently using this diagnostic test as a preliminary screen of all Intensive Treatment Unit (ITU) patients at Lewisham and we are recruiting 2 -3 other Trusts to evaluate the test in their ITU units. If all goes well, the product could be on the market in a year.'

NHS Innovations London Ltd. (NHSIL) worked with University Hospital Lewisham to evaluate and protect the novel screen with a view to licensing it to an industry player for product validation, manufacture and distribution worldwide. The project was funded through the NHSIL Xpedite™ Innovation Fund. The expertise of NHS Innovations London has fast-tracked the idea to market, meaning patients will benefit from this new diagnostic test quicker. If commercially successful, University Hospital Lewisham will be able to reinvest revenue derived from sales of the diagnostic test in further development to improve patient health for the future.

NHSIL works to help hospital Trust staff understand how to convert their ideas into tangible products or services. Its mission is to effectively identify, protect, develop and disseminate groundbreaking and worthy new inventions and technologies from the NHS with healthcare benefits or commercial potential. In its first year NHSIL has developed an impressive product pipeline (including therapeutics, diagnostics, medical devices, equipment, software and educational products) with 14 products in development, 4 in clinical trials and 19 in commercialisation. With a further 100 projects currently progressing through its state-of-the-art Xpedite™ High Throughput Innovations Management process, NHSIL is continuing to maximise the benefits for both the Trusts and the patients they serve.

References:

1) Health Protection Agency (2005): Investigations into multi-drug resistant ESBL-producing Escherichia coli strains causing Infections in England.

<http://www.hpa.org.uk/publications/PublicationDisplay.asp?PublicationID=26>

(2) Health Protection Agency (2005): Specialist and Reference Microbiology Division. QSOP51 Laboratory Detection and Reporting of Bacteria with Extended Spectrum β -Lactamases.

<http://www.bsac.org.uk/db/documents/qsop51i1.1.pdf>