

Press release: for immediate release, Tuesday 2nd June 2009

New technology at Great Ormond Street Hospital is aiding faster emergency referrals to its specialist paediatricians.

Thanks to the introduction of an innovative IT system at the Children's Acute Transport Service (CATS) hosted at Great Ormond Street Hospital for Children NHS Trust (GOSH), referring hospitals can now share perfect quality medical data on emergency patients more quickly and securely than ever before.

The product, named CATS-i, has been co-developed by software manufacturer Cimar UK and GOSH. Over the last 12 months, the technology has been trialled by the CATS team at GOSH. CATS is a paediatric intensive care retrieval service for the North Thames and East Anglia region. The team provides telephone advice and sends a specialist team to safely bring sick children back to the intensive care unit at GOSH and other tertiary centres. More than 50 hospitals in and around London regularly refer patients to the service.

Dr Padmanabhan Ramnarayan, consultant for the CATS team at GOSH and a co-inventor of CATS-i explains. "Previously, we simply relied on telephone conversations with referring clinicians and relatively low quality radiology (X-rays, CT scans) to make a quick assessment about a diagnosis. Radiology data would often be sent via courier, which loses us valuable time. In an emergency situation, every second counts and this is where CATS-i offers us a clear advantage. For example, in a recent case, a boy had been in a road traffic accident outside London and with the help of CATS-i we quickly determined from his medical data that he had a windpipe injury. The child was brought to GOSH by helicopter and was given life-saving treatment by our tracheal team."

CATS-i offers a unique web-transmission service which allows pristine medical images to be transmitted from any hospital in the UK to remote recipients anywhere, securely, reliably and fast via an internet browser. The images are losslessly compressed (i.e. retaining absolute image quality), secure and encrypted throughout, so patient data confidentiality is not compromised. The user cannot send anything until they have a secure token issued by the CATS office each time.

The CATS-i project was commended in NHS Innovations London's Innovator Awards 2008.

NHS Innovations London has recently brokered an agreement between GOSH and Cimar UK to distribute the co developed service.

Dr Ramnarayan continues: "We're very excited about this product being available commercially. It's satisfying to see something that we've worked so hard on being made available to others so that they can improve the service to their patients".

A prime-time BBC 1 series following the work of the CATS team is due to be screened later this year.

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Notes to editors

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- Great Ormond Street Hospital for Children NHS Trust is the country's leading centre for treating sick children, with the widest range of specialists under one roof. With the UCL Institute of Child Health, we are the largest centre for paediatric research outside the US and play a key role in training children's health specialists for the future. Great Ormond Street Hospital Children's Charity needs to raise £50 million every year to help rebuild and refurbish the hospital, buy vital equipment and fund pioneering research. With your help we provide world-class care to our very ill children and their families.
- NHS Innovations London identifies promising innovations, provide a swift, objective analysis of their commercial potential, secure appropriate intellectual property protection, finance and manage product development and support inventors and their teams to fast track ideas to market
- Cimar UK are the providers of the Cranium Radiology web sharing service, from which CATS-i has been derived and refined. Key to the secure service is Cimar's ABO lossless compression algorithm, for compressing radiology images without losing the images' original quality. Uniquely, each X-ray image is compressed, encrypted and transmitted 'on the fly' without the need to install special software to do so. Compressing medical images so they render in the same quality once received, has been part of the challenge. The ABO algorithm allows this to happen. Doing so without needing to install software has been the second breakthrough. Any PC with network permission to access the service can for the first time, transmit pristine images at high speed to other users along the patient clinical pathway.