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# Protecting patients from noise at world-famous children's hospital Great Ormond Street


## Case Study Key Facts

- GOSH receives in excess of 250,000 outpatient visits and 43,000 inpatient visits every year
- It is the UK's largest paediatric centre for intensive care, cardiac surgery and cancer treatment
- GOSH offers the UK's widest range of specialist children's health services on one site
- Construction work is underway for a brand new iMRI suite

## Creating new facilities for world-class paediatric care and meeting demand for services

Since 1852, Great Ormond Street Hospital (GOSH) has been an international centre of excellence in child healthcare. It is the main centre for child heart surgery in the UK and one of the largest centres for heart transplantation in the world. GOSH is committed to the development of new facilities appropriate for world-class paediatric care and research, and to providing more space to meet the growing demand for its services.

Its current redevelopment programme includes the Southwood Courtyard project, which involves the construction of a three-storey building adjacent to its existing operating theatres in the centre of the site. This will house a new Intraoperative Magnetic Resonance scanner suite (iMRI), which will enable surgical teams to check whether complex procedures have worked before their patients wake up, as well as physiotherapy and rehabilitation facilities. The construction project is being led by the Kier Group.

- Construction project led by the Kier Group
- Construction work taking place in sensitive 'live' hospital environment
- Essential that noise and dust levels constantly monitored and managed
- Imperative that noise levels kept under 85dB at all times
- Highly effective monitoring vital for patient comfort and key requirement of CMP

## Monitex Noise Monitor: Benefits

- Access data remotely
- Receive automatic SMS and/ or email alerts
- Weather data can be integrated into the reporting
- Audio recording available
- 7-day battery life with continuous operation
- Demonstrates compliance with noise regulations

## Monitex Dust Monitor: Benefits

- Automatic upload & data storage
- Robust weatherproof enclosure with solar shielding
- <10 minute set up time
- Accurate real-time measurement of TSP, PM10, PM2.5 or PM1
- Measures and reports data at 1 minute intervals
- MCERTS certified accuracy
- 20 years of onboard storage

## The challenge

Given that construction work is taking place within a highly sensitive 'live' hospital environment (as well as being located in a busy residential area), it was absolutely essential that noise and dust monitoring was implemented, so that hazard levels could be constantly assessed and managed all around the site.

For the Kier on-site project manager, it was imperative that noise levels were kept below 85dB at all times. Not only was this vital for patient comfort, it was a requirement of the company's strict Construction Management Plan for the project.

Kier and RVT have worked together for many years, and share a passion to protect the health of site workers and the general public during construction projects. Given their mutual commitment to eliminating on-site hazards, RVT was the obvious choice when selecting the best approach to be used for assessing noise and dust at the GOSH site.

## The RVT solution

RVT came to assess the situation, and subsequently recommended and fitted a number of Monitex Noise Monitors, as well as some Monitex Dust Monitors. Static units were positioned all around the site, so that an accurate and continuous picture of noise and dust levels could be gathered and reviewed, in order to ensure patient safety and protect the general public.

RVT's Monitex Noise and Dust Monitors provide assurance that dust and noise are under control. This innovative technical equipment is installed to continuously monitor hazard levels in real time, and provide regular up-to-the minute alerts and reports via email or text. The monitors provide effective and clear measurement of hazards within critical working environments. There is no need to install software, as the systems are linked to an intuitive web-based reporting platform.

**"We required a noise measuring method that could notify us prior to specific thresholds being reached. The noise monitors installed provide notifications of the level of noise we are creating, which helps us organise our works, particularly for the quiet times we need to observe"** Project Manager, Kier