

Press Release

Issue date: 25 January 2008

New Monitors will increase patient safety during operations

The League of Friends at the Royal United Hospital has given a generous grant of £16,500 to the trust's anaesthetic department to be spent on high tech monitors used during operations.

The machines measure 'the depth of anaesthesia' and are called 'Bi-spectrum or BIS monitors'.

During a general anaesthetic, the monitors measure the electrical activity of the brain via skin electrodes placed on the patient's forehead. A processor then analyses the electrical activity in terms of its energy levels and its frequency and maps this over time. This information is then translated into a number that is a measure of 'depth of anaesthesia'. The information from the BIS monitor is integrated with information from other monitors and the anaesthetist's observations. This allows the anaesthetist to adjust the doses of anaesthetic drugs more precisely than can be done without BIS monitoring. The monitors are particularly useful for patients who are at high risk of becoming aware during their operations (e.g. because of obesity, pregnancy, trauma). Although awareness (becoming awake during an operation) is not common, some studies report it as occurring in as many as 1 in 500-1000 patients.

Consultant anaesthetist Doctor Tom Simpson has run a local trial on the usefulness of the machines. He says "major studies in other hospitals have shown the monitors can decrease the risk of awareness in high-risk patients by six-fold. In our audit the BIS monitors were particularly useful in patients who are too frail to tolerate high doses of anaesthetic drugs and helped patients recover sooner after very long operations. They allow the minimum doses of anaesthetic drug to be given, whilst guarding against the risk of awareness."

Consultant anaesthetist Doctor Monica Baird says: "The anaesthetic department is very grateful to the League of Friends for its generous gift of these monitors. They will help make anaesthesia safer for our most vulnerable patients, enhance recovery and in some cases lessen the need for intensive care after surgery."

Ends

Issued by Brigid Devlin, Communications office: Tel: 01225 82 5849