At the end of its first 60 days in operation, John Lucjan, Medical Imaging – Team Leader at the new Emergency Department at Brisbane’s Princess Alexandra Hospital (PAH) says that radiographers and medical staff have settled in, the minor bugs have been resolved and the facility is meeting all of its goals.

Located in Woolloongabba, south of the city’s CBD, the hospital, together with the Royal Brisbane and Women’s Hospital north of the city centre, take the majority of Brisbane’s emergency cases.

Tim Way, Assistant Director – Medical Imaging (and AIR President) said that the smooth opening of the imaging facility was the outcome of extensive consultation and analysis of priorities over the 24-months – from the initial planning meeting to handover of the finished project. The project team members were PAH staff Paul Dall’Alba, Rita Forni, Dr Andrew Staib and Tanja Shaw and imaging staff Wayne Nuss and Tim Way.

Imaging equipment installation was completed in mid September, followed by testing and staff training. The first emergency case was received on 30th November and by the end of December, 4500 cases had been seen, representing an increase of 12% over the December 2009 total.

“The big emphasis was on patient flows and appropriate clinical design,” Tim Way told Spectrum. “By siting the imaging facilities towards the front and centre of the Emergency Department, we have minimised the patient backtracking that wasted resources and time in the old Emergency Department.

“We consulted widely and benchmarked against medical imaging facilities in emergency departments in comparable hospitals across Australia and New Zealand.

“Any move of this nature is complex. It took extensive consultation with the architects, clinicians and builders to ensure the design and build would best meet clinical needs of a major trauma centre.
“And, while new equipment was being installed and existing units transferred, we had to maintain imaging services in the old Emergency Department.”

Equipment is a mix of brand new and existing equipment. $3.7 million has been spent on new imaging equipment including a Siemens CT Somatom Definition Flash that takes pride of place; two Siemens YSIO x-ray suites; and an Agfa DX-S – CR digitizer. Tim Way, Sally Ball, Jit Pratap and a team of x-ray engineers, were responsible for the installation, testing and commissioning.

From the end of November through to early January, staff radiographers undertook fast-track training on the new equipment, which included the Siemens CT, to provide 24 hour on site imaging coverage from early January. The hospital currently employs 85 radiographers, with 60 who would be regularly rostered to the Emergency Department.

John Lucjan comments: “The staff could not be happier with the image quality, speed, reduced radiation dose and the overall productivity of the Siemens CT.”

The new facility has seven rooms: one CT Scanner, two trauma rooms, one medical resuscitation room with two bays, a negative pressure room and two general x-ray rooms. With an eye to the future demand, space has been set aside for an ultrasound machine, to be added when funding is available.

Two existing Carestream Directview DR9500 x-ray machines were transferred to the trauma rooms. These rooms have direct access to the Siemens CT.

A Philips Optimus x-ray unit with an extended ceiling gantry covers two medical resuscitation bays. Imaging in these bays is conducted with CR plates utilising needle phosphor technology and the imaging plates are processed in the new Agfa DX-S digitizer.

The two new Siemens YSIO x-ray suites, each comprising wall stand with integrated detector, table with wireless detector are located in the general imaging area. Both are equipped with synchronised gantry positioning. A Kodak 8000c digital panoramic and cephalometric system is available for OPG and dental imaging.

To date, the negative pressure room has not been used and is standing by for the day when medical staff suspect that a patient may have an unidentified infection, at which point the facility’s Shimadzu Mobile Art mobile x-ray machine will come in handy.

Clockwise: John Lucjan team leader; Jit Pratap; The radiologists reporting room is fully integrated with the hospital’s Agfa Impax PACS system

Princess Alexandra Hospital redevelopment

The hospital’s $134 million redevelopment budget has been allocated to pay for the new Emergency Department, a new medical assessment and planning unit (MAPU); a helipad with elevator to ground level; and expanded oncology capabilities that include three more bunkers and a new PET scan facility.

Phase 1 saw the helipad on the roof of the main building competed and handed over in May last year. It features a lift from the roof directly to the Emergency Department. Helicopters used to land in an open area in front of the hospital and critically ill patients carried into the hospital on stretchers.

Phase 2 covered the Emergency Department and the MAPU, which will be handed over in February. The 30-bed MAPU unit will be managed by the Division of Medicine and will have 12 beds with cardiac monitoring, an electro cardiac room and a physiotherapy gym.

Expansion of the hospital’s oncology facilities is being undertaken in Phase 3. This phase includes construction of three extra cancer treatment bunkers; support areas for the bunkers; increased treatment planning area; expansion into a former outpatient area; and the molecular imaging PET/CT unit.