Western Health
Western Health Medical Imaging News Update
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Taking the pain out of imaging choices

Back pain is often a challenging area to diagnose and deciding which medical imaging modality to assist with diagnosis can be challenging. Historically plain x-ray was the modality of choice, however, there are now a number of imaging alternatives to assist with diagnosis. Below is a summary of the different modalities and some guidelines on when to use them.

Plain X-ray Imaging – First Choice
Plain film imaging should be the first imaging study for chronic back pain and for new-onset back pain lasting longer than four to six weeks. Plain film is especially useful for detecting fractures and invasion of bone by multiple myeloma.

CT (Computed Tomography) scans — When further detail is required
CT scans are more sensitive than x-rays; they provide better soft-tissue detail and good detail of the vertebrae. These are particularly useful for disc injuries and where required, localised injections to assist with analgesia and reduction of inflammation with corticosteroid injections.

Western Health has a 128-slice low dose CT system, the GE Discovery 750HD. The highest resolution CT Scanner available today. This is only possible due to the new Garnet Gemstone Detector System which converts x-rays into light with extremely short afterglow so that it is ready to accept and process new information in a few microseconds before another projection is obtained . It is the most efficient detector system on the market and is the first new scintillator detector material in over 20 years. New image reconstruction methods allow radiation dose reductions of up to 50% as a routine across all body areas.
Imaging of metallic implants are no longer an issue when scanned on the HD CT scanner at Footscray. Painful Hip replacements, imaging of the spine post Fusion or Laminectomy with metal present can be assessed with much greater clarity when scanned with Metal Artefact Reduction Software (MARS). Loosened Hip Prostheses or periprosthetic fractures are now diagnosable with CT where this was once virtually impossible due to artefact from the metal across the rest of the image.

Bone Scans.
Bone scans are commonly used in back pain to determine if facet joint arthropathy, fractures or metastases are the underlying cause. A bone scan works by injecting a bone-seeking compound that contains technetium, a radioactive isotope, which emits gamma rays. Cells which are most 'active' in the target tissue or organ will take up more of the radionuclide. So, active parts of the tissue will emit more gamma rays than less active or inactive parts. Western Health has just installed 2 state of the art SPECT/CT scanners, which allow lower radiation doses, faster scan times and better anatomical resolution. Stress fractures can also be visualised on a bone scan.

For case discussions, advice on imaging choice or opinions experienced Radiologist are available on 8345 6234.

Despite providing the Imaging services for all inpatients and emergency patients at Footscray, Sunshine and Williamstown Hospitals, WHMI still has the capacity to rapidly meet the needs of private referrers and accepts all imaging referrals.

WHMI facilities are licensed under the Medicare agreement and will provide Bulk Billing to all patients with a referral that complies with Medicare Requirements.

Appointments available today for CT Scans

Walk-In X-ray facilities at all sites

Western Health

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