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Introducing CT scans into a clinical pathway to manage scaphoid fractures

Dr Merle Weber, Dr Jaycen Cruickshank
Ballarat Health Service Emergency Department, VIC

Initial x-rays are unreliable when confirming a clinically suspected scaphoid fracture. Current local practice is to immobilise the wrist in plaster for ten days with repeat x-rays, in order to not miss fractures. However this means that many patients who are subsequently found to not have a fracture are placed into plaster unnecessarily.

Advanced imaging (early Magnetic resonance imaging (MRI) and day four bone scans) are proven as an effective means of identifying scaphoid fracture, but are expensive, difficult to access and not often used. A research project at Ballarat Health Service has demonstrated that early computerized tomography (CT) scans are a reliable, accessible and cost effective alternative.

The NICS Emergency Care—Closing Gaps grant was used to support a project to introduce early CT scans into a “best practice” clinical pathway for suspected scaphoid fractures. The project aimed to validate the role for CT scans in a larger sample of patients.

The strategy to introduce CT into the management of suspected scaphoid fractures included adding the recommendation for early CT scanning to the department’s clinical guidelines, a specific educational intervention (using web-based education program meditates) and involvement of managers and clinicians from across the emergency department, orthopaedics and radiology. Implementation was assisted by a patient-specific reminder at the time of consultation.

Patient care and satisfaction in the Emergency Department improved as a result of this project. Conducting research and implementing the best evidence is now a core focus for the department. The project team will publish the findings of their study once a sufficient sample size has been reached.