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# Nurse Initiated X-Ray (NIX)

Initiative Type

Redesign

Service Improvement

Status

Sustained

Added

23 March 2021

Last updated

08 December 2023

URL

<https://clinicalexcellence.qld.gov.au/improvement-exchange/nurse-initiated-x-ray-nix>

## Summary

Nurse Initiated X-Ray (NIX) aims to streamline patient care in all areas of the Emergency Department (ED), through early initiation of investigations by nursing staff. NIX has been shown to improve the time to meaningful treatment, reduce the proportion of patients who do not wait for treatment,

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decrease the Emergency Length of Stay (ELOS) and improve patient and staff satisfaction, with most benefits for ambulatory patients.

### Key dates

Jul 2019

### Implementation sites

Originated at Logan Hospital, but now offered to all Queensland Health Emergency Departments

### Partnerships

Queensland Emergency Department Strategic Advisory Panel (QEDSAP); Office of the Chief Nursing and Midwifery Officer

## Key Contacts

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## Aim

To streamline patient care in all areas of ED by up-skilling nursing staff in the ED to initiate specific x-ray investigations.

## Benefits

- Improved patient flow.
- Improved time to meaningful treatment.
- Improved staff and patient satisfaction.

## Background

NIX is not a new concept and has been implemented in many Queensland facilities over the years, but less frequently sustained. Nurse Practitioner Sarah Brokenshire and Nurse Educator Carly Bland from Logan Hospital ED presented a NIX package to PROV-ED that demonstrated impressive outcomes.

NIX responds to increasing demand on EDs, where pressure to assess, diagnose and treat patients in a shorter timeframe requires the multidisciplinary health care team to work together to provide high quality, safe care. With appropriate governance, engagement from stakeholders, education, and completion of competencies, nurses can act autonomously within their scope of practice to initiate investigations, thereby streamlining the care of emergency patients.

## Solutions Implemented

NIX was introduced as part of a package of nurse-initiated protocols (along with pathology and medication ordering). It included:

- Development of work instructions and learning packages for senior nursing
- Online and face-to-face training
- Clinical skills assessment to determine competency
- Auditing and feedback to ensure compliance with the work instruction.

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## Evaluation and Results

Implementation of the three nurse-initiated protocols at the pilot site, demonstrated the following for patients triaged to the waiting room awaiting an acute bed:

- Reduction in average time to meaningful treatment from 61 minutes to 38 minutes post-implementation.
- Reduction in ELOS of 142 minutes
- Reduction in proportion of patients who did not wait for treatment from 4.5 per cent to 2.5 per cent

## Lessons Learnt

Cultural beliefs around nurse-initiated protocols are a potential barrier to implementing change. This can be overcome through appropriate stakeholder engagement, effective communication and well designed and implemented education packages.

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