# Ministerial Taskforce on Emergency Care 2011/12 Project Grants

# Project Final Report

**Project Name:** Ongoing "Clinical Initiatives Nurse (CIN) in Emergency Departments Educational Program"

**Hospital/Health Service/Local Health District:** Rural Emergency/Critical Care Southern Sector

## 1. Overview of the Project

The purpose of the Ongoing "Clinical Initiatives Nurse (CIN) in Emergency Departments Educational Program" was to provide continued training for an additional 40 nurses in Hunter New England Local Health District (HNELHD) Emergency Departments (ED) with a Clinical Initiatives Nurse (CIN). This training utilised the newly implemented redesign of "Clinical Initiatives Nurse in Emergency Departments Educational Program," developed by the Communication, Care and Clinical expertise In (ed) Nursing (CINed).

The project also addressed the value of the CIN role which incorporated the key concepts of the role description as articulated by the Ministry of Health. We looked at patient surveys, appropriate, timely occasions of service as evaluated through retrospective documentation, time to analgesia and safety in terms of did not wait , left at own risk and clinical incidences in the waiting room.

### Background Information about the Project

The CIN role was introduced into major NSW Emergency Departments in 2002 to assist in the assessment, education and plan or care of patients waiting to be seen. In 2009 The Garling Special Commission of Inquiry into Acute Care Services added CIN roles into all EDs who had >25,000 presentations in 2007-2008. CIN was declared to be a vital position, caring for people waiting in EDs for medical reviews (Emergency Care Institute NSW 2012).

In 2010 the CINed Project resulted in the development of a NSW state wide agreed educational program: "Clinical Initiative Nurse in Emergency Departments Educational Program". In 2010 / 2011 financial year funding was supplied to the HNELHD for the training of 40 ED nurses across The Maitland Hospital (TMH), John Hunter Hospital (JHH), Calvary Mater Hospital (CMH) and Tamworth Rural Referral Hospital (TRRH) who currently have a CIN role.

## 2. Objectives of the project

The purpose of the Ongoing "Clinical Initiatives Nurse (CIN) in Emergency Departments Educational Program" was to evaluate the CIN role across 4 diverse emergency settings in the HNELHD. The settings included a major tertiary referral centre (Level 6) John Hunter Hospital, a major rural referral setting (Level 5) Tamworth Hospital, The Maitland Hospital, a rural referral hospital (Level 4) and The Calvary Mater Hospital (Level 4). As diverse and geographically separated as these sites are, the project enabled standardised care for all waiting patients presenting to these 4 Emergency Departments in the HNELHD. As part of the evaluation 40 nurses were provided with supported education in the newly implemented "Clinical Initiatives Nurse in Emergency Departments Educational Program". The standardisation of the CIN role was an important aspect of this collaboration and the benefits of networking across the sites were highlighted. The care delivered by the CIN supported the priorities aligned to the defined tenants

of quality, safety, communication and initiation of care, ongoing management and re-assessment in the waiting room.

## 3. Scope of the project

The scope definition of the project only involved the ED's that are identified as having CIN roles in the HNE LHD: John Hunter Hospital, Calvary Mater Hospital, The Maitland Hospital and Tamworth Rural Referral Hospital. The budget requested for the project was $23,000 and this included:

- Funding of 40 RN positions for 2 days - $20,000 ($5,000 for each hospital involved) backfill.
- Additional $3,000 for accommodation expenses for Tamworth participants (2 x nights at $150 per night).

**In / Out of Scope**

| In | Out |
|---|---|
| ▪ Emergency Departments that have been nominated in the project. | ▪ EDs that do not have CIN roles and/or not nominated in the project. |
| ▪ Patients awaiting treatment and re-evaluation situated in the Emergency Department waiting room after triage. | ▪ Patients in the department. |
| | ▪ Local facility nurse initiated analgesia requirements. |

Generally the project remained within its defined scope although in some cases waiting patients that were allocated to a clinical area post triage were asked to complete a patient satisfaction survey.

Additional support was required to enable rural participants to attend the metropolitan program in terms of accommodation and travel due to the vast geographical area HNELDH incorporates. This was supplied by the HNELDH.

## 4. Methodology used in the project

The basis for the project approach was to utilise and refine the existing educational program and provide greater sustainability in implementing the state wide strategy. This was to be achieved through standardisation of the CIN role through the provision of consistent evidence based education for nurses working in this position. Key milestones to attain this goal were developed around the project phases as identified in the diagram below.


This project commenced in September 2011 in which we identified, engaged and established a meeting schedule for the Steering Committee. The members included:

1. Karen Taylor (A/CNC Rural Critical Care HNELDH).
2. Diana Williamson (CNC Emergency).
3. Elizabeth Smith (Nurse Manager TMH ED).

With Executive Sponsorship from Karen Kelly (Director of Nursing).

A project team was identified and key stakeholders from all Level 4 and above hospitals in the HNELDH were engaged. The members included:

1. Karen Taylor (A/CNC Rural Critical Care HNELDH).
2. Diana Williamson ( CNC Emergency ).
3. Rachel Meek (CNE MCH).
4. Richard Leighton (NUM Tamworth ED).
5. Michael Fahy (NE JHH ED).
6. Kim Blayden (CNE CMH).
7. Nicole Feenan (CNE TMH).
8. Nicole Lacey (A/CNE TMH).

The project team met and developed a set of performance measures, based around Key Performance Indicators (KPI's), safety outcomes and complaints, to assess the effectiveness of the CIN role in meeting the goals of the position. Current evidence based guidelines and/or protocols that support the initiation of patient care e.g. Nurse initiated analgesia (NIA), Nurse initiated x-ray (NIX) were established and were governed at each individual site.

Managers of the four ED's involved in the project provided availability of lecturers and resources for the required education, suitable venues and back fill of staff to support the participant's attendance at the course.

Course presenters were appointed and in conjunction with the project team, reviewed all the resources and suitability for the localised programs. An evaluation pro forma was developed to align with the project goals and points of evaluation. Two CIN courses were run over 2 days with 20 participants in each course.

The steering committee developed the evaluation tools and the project team reviewed the tools to ensure clinical appropriateness and major deliverables were addressed. A time line for data collection and collation was tabled to organise and ensure completion of the project was undertaken in a structured and timely manner.

The evaluation tools included:

1. Course participant's evaluation.
2. CIN Spot Audit tool.
3. Time to analgesia – Pain Audit Tool.
4. Patient Satisfaction Survey.
5. Review KPI's around patients who "did not wait" or "left at own risk".
6. Monitor for adverse outcomes i.e. patients that deteriorate in the waiting room and are identified and get a rapid response.

## 5. Measures of success of the project

**Course Evaluation by the Participants**

The learner centred evaluation obtained from the existing resources developed by NSW Health was utilised for the course evaluation (appendix 1). The return rate of the evaluation was 100% (40/40) but not all fields were completed on some evaluations. Overall, the CIN Course was reviewed positively by the participants. Fifty eight per cent (58%) (22/38) of the participants felt the program very much prepared them for the CIN role, 34% (13/38) quite a lot and 8 % (3/38) moderately.

Positive overall themed comments included:

The ***"Actual CIN role and perceived role from I/C differ greatly. Interesting that the focus is on communication rather than KPI's"***.

***"Thank you for providing guidelines of what is expected"***.

***"Good overall view of the CIN Role"***.

***"The venue is ideal, cold but good. Speakers all very knowledgeable and excellent a good standard and one of the best courses I have been to in Australia – Well done".***

The outcome of the program was to provide the participants with opportunity to achieve competency in the elements of the CIN role. How well was it achieved, according to the participants, 49% (19/39) very much, 44% (17/39) quite a lot and 8% (3/39) moderately.

In terms of the overall cohesiveness of the program, 54% (21/39) thought the program was very much unified, 38% (15/39) thought quite a lot, 8% (3/39) thought that moderate consistency had applied.

In relation to the overall presentation/facilitation of the programs, this was dependant on the individual presenters and the facilitators. According to the participants 64% (25/39) very much, 26% (10/39) were quite satisfied, 10% (4/39) were moderately satisfied in this domain.

The venue is always an important consideration of any course to facilitate an effective environment, 59% (23/39) felt the venue for the face to face content conducive to their learning, 36% (14/39) thought quite a lot and 5 % (2/39) was moderately impressed.

The flexibility of a program needs to accommodate the needs of the participants. In these courses 62% (24/39) thought it was achieved very much, 31% (12/39) quite a lot and 8% (3/39) was moderately agreed.

Critical examination of practice is important to reflect on past behaviour and may potentially change the way an individual performs in the workplace. 76% (29/38) believed the program prompted them to critically examine their practice very much, 23% (9/38) thought quite a lot.

In terms of motivation, 60% (23/39) of participants thought the program very much became an incentive, reinvigorated enthusiasm and 41 % (16/39) of participants thought the course motivated them quite a lot. An excellent comment which highlighted this premise was – ***"Excellent day today, re-igniting a former love of the job, Thank you"***.

The steering committee in consultation with the project team, decided on a one month time frame for the audit period. March 2012 was the month selected for consistency and the provision of an adequate time frame for collection and collation of the data.

**CIN Spot Audit**

CIN Spot Audit was developed by the steering committee and reviewed by the project team in regards to the application of theory to clinical practice (see appendix 2). The CIN Criteria (see appendix 3) as described in the "Clinical Initiatives Nurse in the Emergency Departments Educational Program", Resource Manual 2011 as cited by K McGrath (2006:5-6) was used to define the types of interventions and/or treatments that can be classified as a "CIN" to maintain consistency and integrity of the audit.

The goal was to audit a total number of 200 episodes of CIN interventions of 10 nurses from each individual site who had completed either of the two CIN courses, the audit period as previously specified was March 2012. The actual total number of patient records able to be audited for data collation was 190 due to the re-employment of some staff.

The primary objective of the CIN SPOT Audit was to evaluate the requirements of the CIN role and the nurses' compliance. The following elements included:

1. Documentation and data entry.

2. Treatment/intervention and investigation commenced by the CIN.

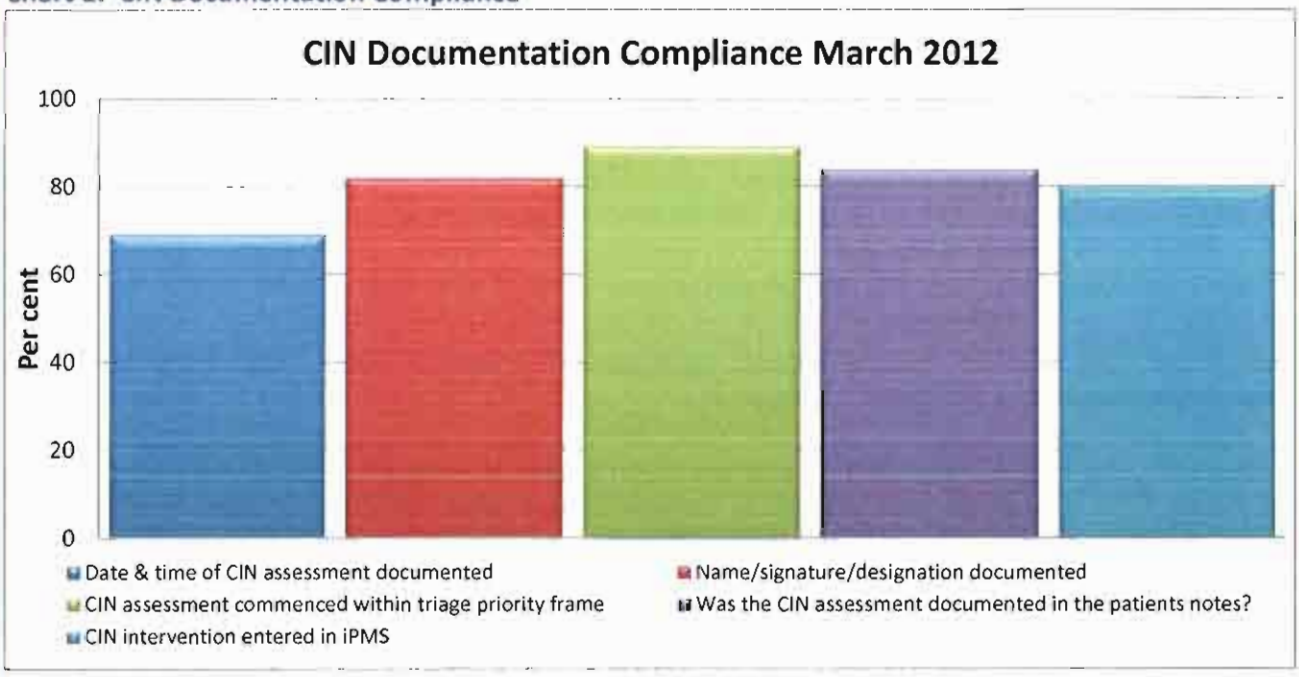
3. Types and effectiveness of the analgesia utilised by the CIN nurses.

4. Reassessment and escalation.

**Documentation and Data Entry**

Overall, the mandatory documentation and data entry fields were well articulated across all four sites, the data was collated and averaged to define the final results, these ranged from 69 to 89% (refer to chart 1). The documentation of date and time of the initiated CIN episode was averaged at 69% (131/190), name/signature/designation was identified in 82% (155/190) across all sites. CIN assessment commenced within the triage priority time frame was consistent at 89% (146/164). The CIN assessment was documented in the patient's notes at 84% (160/187). CIN intervention was electronically entered into the iPMs 80% (152/190) of the time.

**Chart 1: CIN Documentation Compliance**




The recommendation in improving this result is to promote targeted education on the importance of documentation at each individual site as the results and recommendations will be fed back to the mangers through a dedicated report at the completion of this evaluation.

**Treatment/intervention and investigation commenced by the CIN**

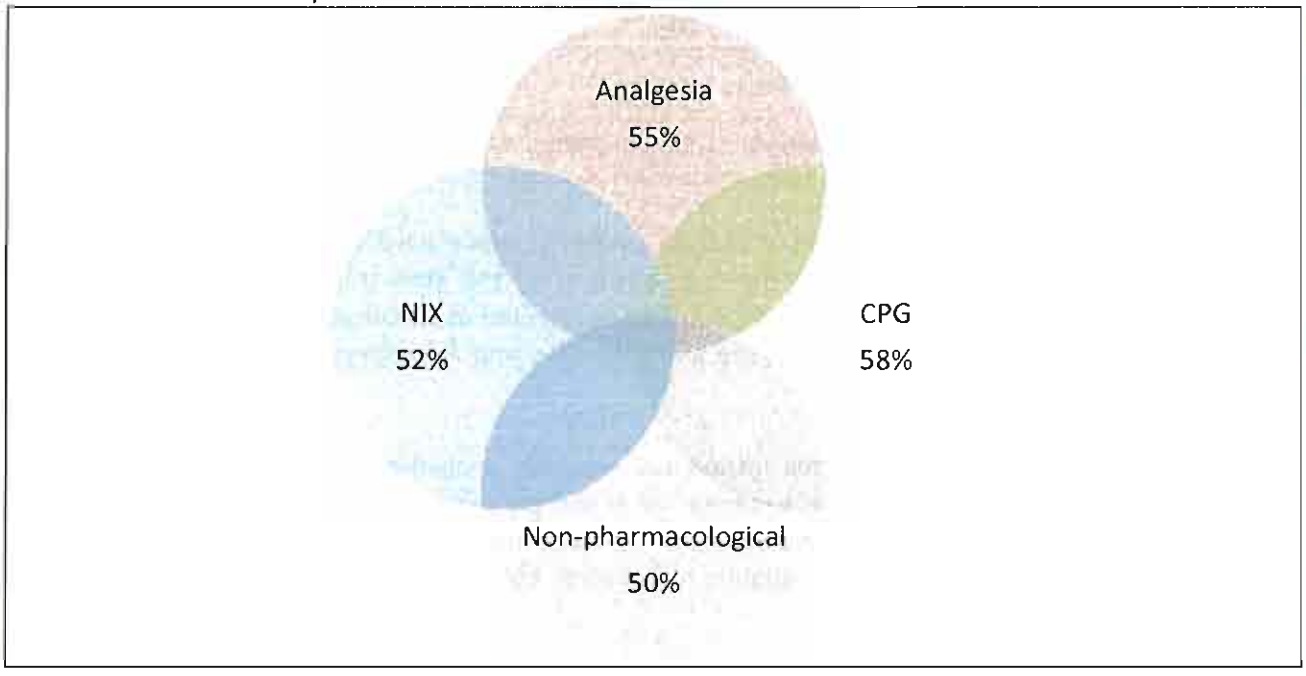
This section of the CIN SPOT Audit looked at the types of treatments, interventions and investigations that had been commenced by the CIN Nurses. The importance of this section of the audit was to see whether the range of advanced skills developed from attending the CIN Courses were adopted by the nurses. Enhancement of the CIN nurses skill level, aims at increasing their ability to meet the patients' needs, through the provision of a wider variety of appropriate interventions.

Analgesia was given to 55% (100/181) of waiting patients assessed by the CIN. This is aligned to what you would expect to see in patients attending the Emergency Department with the relief of pain being a major determinant in the quality of care provided. The commencement of clinical pathways lends itself to evidence based practice which is considered best practice for our patients and clinical care, these were commenced 58% (76/130) of the time and utilised waiting times therapeutically in a timely manner. Non pharmacological interventions were attended 50% (69/138) of the time which was audited on the specified CIN criteria.

NIX combines advanced physical assessment skills with superior decision making ability to enable and facilitate a diagnostic intervention. The CIN program provides the confidence and knowledge to safely facilitate an x-ray to the waiting patient and once again utilise non-productive time in the Emergency Department prior to doctor review. This is a good example of the advanced practice that is taught effectively with the program and was utilised 52% (42/81) of the time. The findings confirmed that the various treatment, intervention and/or investigation strategies were used consistently by the CIN`s.

Care provided by the CIN nurses to meet the individual patients needs can be multifactorial and may require a combination of interventions. For example a patient commenced on a CPG may require analgesia, the NIX protocol promoted and/or a non-pharmacological intervention. Chart 2 illustrates the initiative used with overlapping of other intervention that potentially have been initiated.

**Chart 2: CIN Treatment / Intervention March 2012**

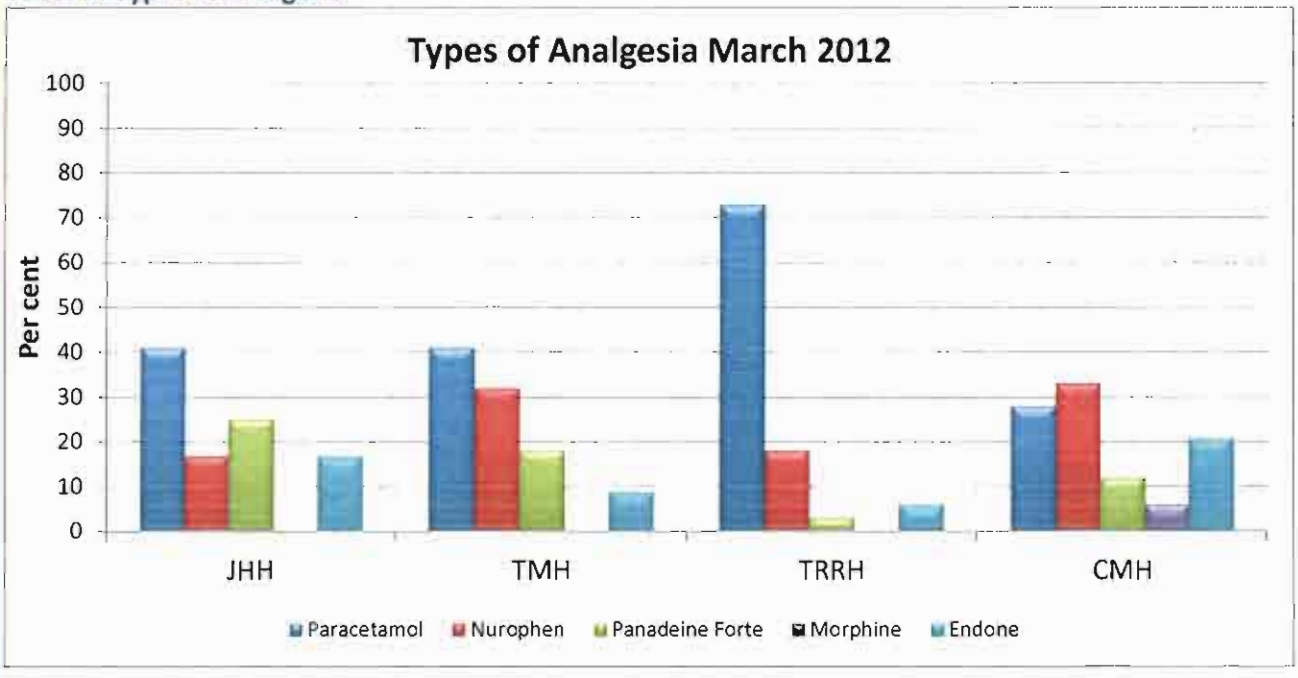



**Types and effectiveness of the analgesia utilised by the CIN nurses**

Provision of pain relief is one of the most common requests from patients presenting to the ED's. This section of the CIN Spot Audit reviewed the types of analgesia that was being utilised by the CIN nurses who had completed the CIN Courses. The NIA was developed as part of the state wide CIN Course to standardise use of analgesia and protocols for utilisation have been made available. However, some of the sites are still in the process of developing localised policies based on these protocols and implementation will be commenced when this process has been completed. Therefore at the time of the March 2012 audit, the CIN nurses at some of the sites involved in the project were unable to nurse initiate all of the types of analgesia specified in the NIA.

The types of analgesia available for use by the CIN nurses according to the NIA included paracetamol, Nurophen, Panadeine Forte and Morphine. Endone was only able to be administered to the waiting patients after obtaining a medical officers order. However, the frequency of the Endone utilisation was reviewed as there are currently protocols being developed at some of the sites to include this medication as part of the NIA scope. Chart 3 depicts the range of analgesia types utilised across the 4 study sites.

**Chart 3: Types of Analgesia**




On auditing the data, the preferred types of analgesia varied across the individual sites and the protocols of the individual hospitals impacted on the drug chosen. All the sites utilised the simple analgesia, Paracetamol and Nurophen, and these medications were selected as the drugs of choice at the site that had not introduced the NIA at the time of the audit. Endone and Panadeine Forte were both selected equally was across all the sites.

The oral analgesia was selected over the intravenous narcotic analgesia. There are mitigating factors around the reluctance of the CIN nurses to utilise the Morphine even though this narcotic medication is part of the NIA. The standing order stipulates that the intravenous narcotic analgesia must be administered in a safe environment that enables monitoring, observation and ongoing assessment of the patient.

The geographical nature of the waiting room and/or waiting area combined with an increasing number of patient presentations requiring CIN assessment and intervention is not always conducive to providing a safe environment with the ongoing capacity for monitoring, observation and assessment.

**Reassessment and Evaluation**

Part of the CIN role is to provide ongoing reassessment and escalation and/or referral if required. The goal of this final section of the audit was to identify whether the CIN nurses reviewed the treatment and/or intervention that had been commenced (See Chart 4). This included the following components:

- Establishing whether the CIN assessment and treatment was relevant and appropriate to the patients' specific presentation and analgesia given.

- The utilisation of a pain score by the CIN to provide a baseline for the reassessment process to evaluate the effectiveness of the treatment or intervention.

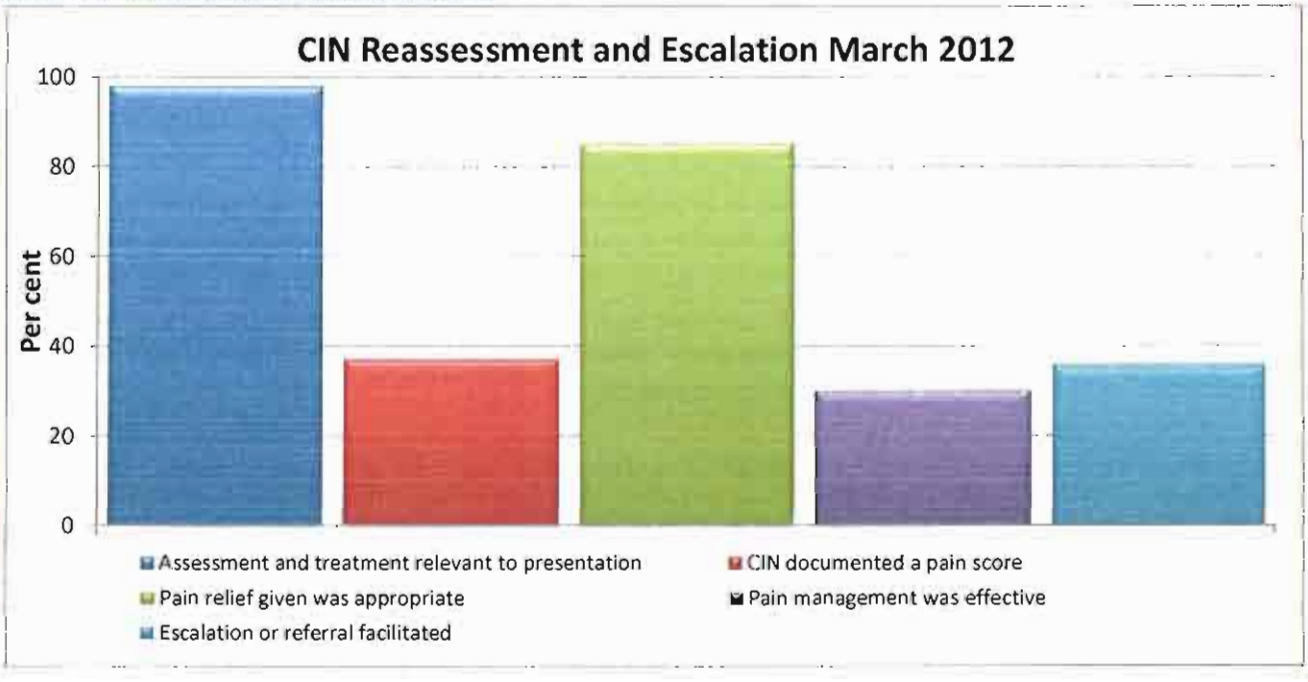
- Documentation in the patient notes of the reassessment of the interventions, treatment and investigations that had been attended and escalation or referral facilitated if initiated.

The CIN assessment and treatment was relevant to their presentation 97% (185/190) of the time and well done. The type of pain relief given by the CIN nurses was appropriate at 86% (107/125). The pain management was described as effective in the occasions of service was 77% (77/100).

A valid component of the CIN role encompasses re-assessment and re-prioritisation of treatment and management to ensure the effectiveness of the intervention and/or treatment commenced. A pain score was documented in only 27% (52/190) and the reassessment of CIN intervention was attended in 24% (46/190) of the patient presentations. A recommendation will be the promotion of re-assessment for each CIN intervention across all sites involved, however the reality of a busy emergency department with competing priorities is always the incoming and new presentations.

28% (54/190) of the patients required escalation or referral facilitated. The components of the escalation process included a referral to a medical officer if the CIN has reached the endpoint of the protocol, or the patient has been re- prioritised or referred. The smaller numbers of patients requiring escalation may be as a direct result of the effectiveness of the CIN role to provide patient safety through ongoing visual observations of the waiting area.

**Chart 4: Reassessment and Escalation**



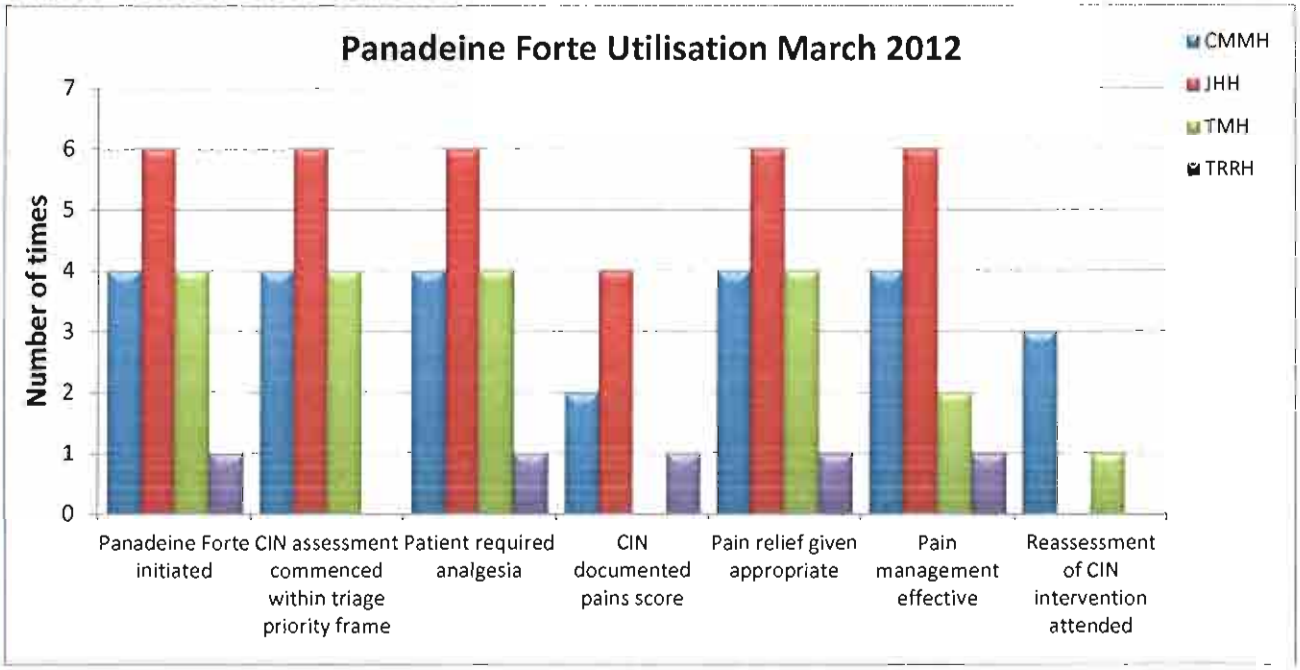

## Time to Analgesia

The provision of timely analgesia was an area that was seen by the steering committee as a priority for the patients waiting to be seen by a medical officer. The Pain Audit Tool (refer appendix 4) was developed and was used in conjunction with the CIN Spot Audit to provide a snap shot of the time taken for analgesia to be given by the CIN nurses. The aim of this audit was to look at the impact NIA had on

the provision of timely analgesia for the waiting patients by the CIN. The analgesic Panadeine Forte was selected as the medication to be reviewed as it is often used in the waiting room. (Refer to Chart 5).

Most of the areas including assessment by the CIN was commenced within the triage category time frame, the analgesia given was appropriate and the pain management was effective were relatively well done. However, the utilisation of a pain score and reassessment was not optimal across the majority of the sites.

**Chart 5: Panadeine Forte Utilisation**




## Pain Audit Tool Snap Shot

An inclusion and exclusion criteria was used in an attempt to identify the presenting problems in which Panadeine Forte was commonly utilised by the CIN in the waiting room. The inclusion criteria included the following iPMs ICD 10 codes; Abdominal pain, Pain acute, Injury, Renal colic, Back pain and headache. Chest pain presentations were excluded as the obvious assumption is that Morphine is the drug of choice. The information was further cross referenced with the ED Records and was reported according to the time taken for analgesia to be administered.

JHH ED and TMH ED were chosen to be audited as they were currently utilising the NIA. Ten patient records were selected as those patients who had been administered Panadeine Forte in the March 2012 CIN SPOT Audit and were confirmed by the Dangerous Drug Record (DD) entry from the two sites. This represented approximately 66% (10/15) of the total number of patient presentations reviewed in the March 2012 CIN SPOT based on the inclusion criteria and Panadeine Forte as the analgesia given.

According to the inclusion criteria of the Pain Audit Tool, the two main patient presenting problems identified as being administered Panadeine Forte were abdominal pain 60% (6/10) and injury 30% (3/10). 10% (1/10) presentations with cellulitis, not specified in the inclusion criteria, also received NIA Panadeine Forte from the CIN. Each of the presentations was reviewed according to the allocated triage category to establish whether the analgesia was delivered in the required time frame as per the triage to treatment KPIs and Australasian Triage Scale (ATS).

30% (3/10) of the patient presentations were classified as abdominal pain and were allocated a triage category 3. According to the ATS this is a "potentially life threatening and must be seen or have a treatment/ intervention commenced within 30 minutes" (ACEM 2000 revised 2005) and the triage to treatment KPI is 30 minutes.

70% (7/10) patients were allocated a category 4 and classified as "potentially serious requiring a treatment/intervention within 60 minutes" according to the ATS and the triage to treatment time is also 60 minutes" (ACEM 2000 revised 2005). The presenting problems that were allocated a category 4 included 30% (3/10) injury and 30% (3/10) abdominal pain.10% (1/10) had cellulitis which was not in the part of the inclusion criteria.

90% (9/10) were seen by the CIN within the required triage category time frame and the NIA analgesia was given to the patients within the required triage category time frame in 80% (8/10) of occasions. The time to analgesia given as NIA ranged from 10 to 13 minutes for the three patients allocated a triage category 3.

There were seven patients allocated a triage category 4, five of the seven were given analgesia according to the NIA and two had analgesia ordered by the medical officer. The time to analgesia given as NIA ranged from 9 to 25 minutes for five of the seven patients who received analgesia within the time to treatment KPI for a triage category 4. One patient received the NIA in 120 minutes and this was 60 minutes over the allocated triage category 4 treatment timeframe.

The next step was to compare the utilisation of the Panadeine Forte administration in regards to NIA and the utilisation of Medical Officer ordered analgesia. The NIA was utilised by the CIN in 80% (8/10) instances and a medical officer's medication order was utilised in 20% (2/10) triage category 4 presentations. There was a substantial time delay in the provision of the analgesia to the patient when the medical officer's order was obtained. The time to analgesia in the first instance was 50 minutes and even though this was within the triage category time frame of 60 minutes it was significantly longer than the majority of NIA administrations. In the second instance in which a medical officer's order for Panadeine Forte was obtained, the time to analgesia was 120 minutes and one hour over the allocated triage to treatment KPI time frame of 60 minutes. The Pain Snap Shot audit identified that the utilisation of the NIA is vital to the provision of timely analgesia to the waiting patients.

**Patient Satisfaction Survey**

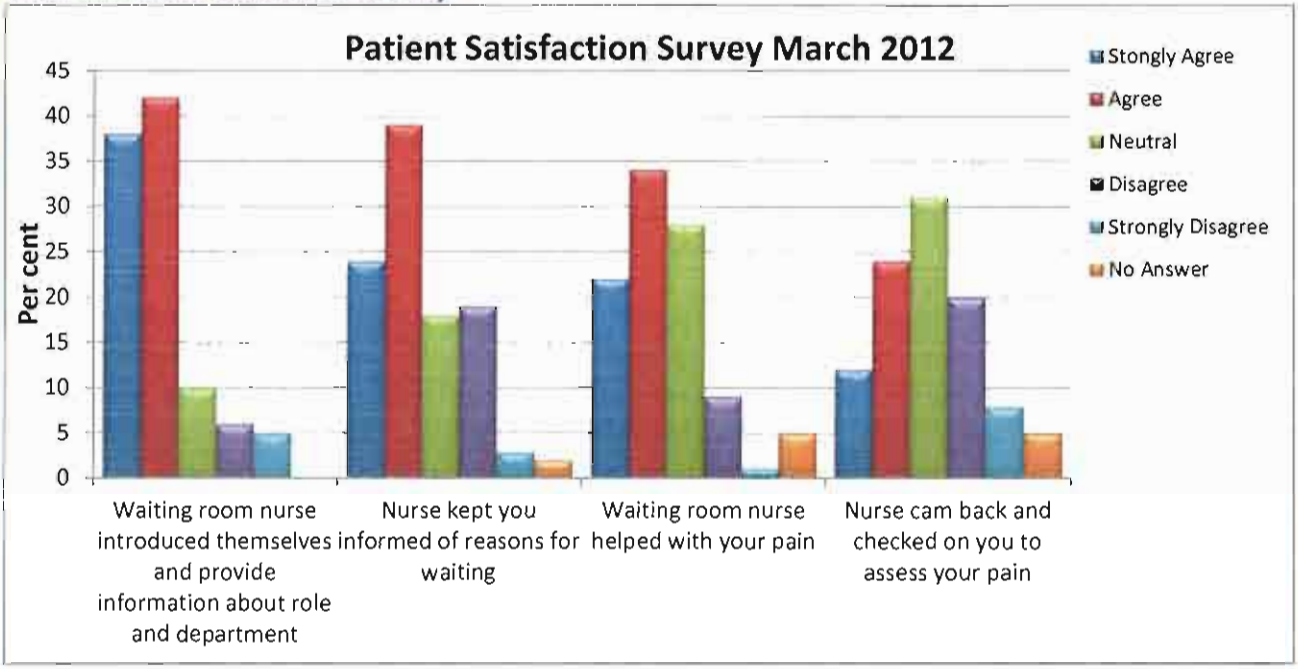
The patients and/or carers were also invited to participate in the evaluation process to gain insight into their perception of the delivery of care and communication on the ED processes provided to them by the nurses working in the CIN Role. Their input was crucial for improvement of the service provided as the focus of the CIN role is aimed at improving communication and access to care for ED patients. Therefore the goal of the survey was to assess the communication aspects of the role and the type and effectiveness of the treatment or intervention initiated by the CIN nurses.

The Patient Satisfaction Survey and patient information sheet on the CIN role was developed in consultation with the HNELHD Communication Unit (see Appendix 5). The questions were reviewed and adapted with the aim of enabling engagement from a broad range of patients and carers to participate in the survey. The information sheet outlined instructions for use and the offer of assistance that would be able to be provided by the site delegated person distributing the Patient Satisfaction Survey to the patients or carers who were unable to complete the form due to various reasons ie NESB.

The Patient Survey took place over the same one month period in March 2012 and the patients selected to participate included only those who had been seen by the CIN nurses who had specifically completed

the CIN courses. The evaluation process was to be unified across each of the sites and each of the patients was to be given an information sheet, survey and the CIN role pamphlet. The patient survey then was to be returned to designated hospital staff after completion by the patient or carer. The surveys were then secured and forwarded for collation. The goal was to obtain 200 patient surveys for review the return rate was 143 surveys across the 3 sites (see Chart 6). One site was unable to support this component of the evaluation.

**Chart 6: Patient Satisfaction Survey**




The patients were asked whether the waiting room nurse introduced themselves and provided them with information about the role and the department. 38% (54/143) of the patients strongly agreed, 41% (59/143) agreed, 10% (14/143) responded neutrally, 6.2% (9/143) disagreed and 4.8% (7/143) of the patients strongly disagreed.

Comments included ***"Staff were pleasant + informative, triaged quickly, happy with treatment"*** and ***"Informed very well in regards to what was happening"***.

The patients and carers were asked whether the CIN nurses kept them informed of the reasons for waiting. 23.7% (34/143) strongly agreed, 39% (56/143) agreed, 12.5% (18/143) neutral, 18.8% (27/143) disagreed, 3.4% (5/143) strongly disagreed and 2% (3/143) did not complete this section.

Comments included ***"Informed of waiting time", "Happy with staff and wait times considering it is an emergency department"*** and ***"More resources for shorter waiting times"***.

Areas for improvement were identified from the following comments ***"It would be nice if the nurse would come and tell me what is going on. We were told by our GP that the paediatric registrar was awaiting our arrival and we would be admitted straight away. So more communication would make the waiting room more easily tolerable."***

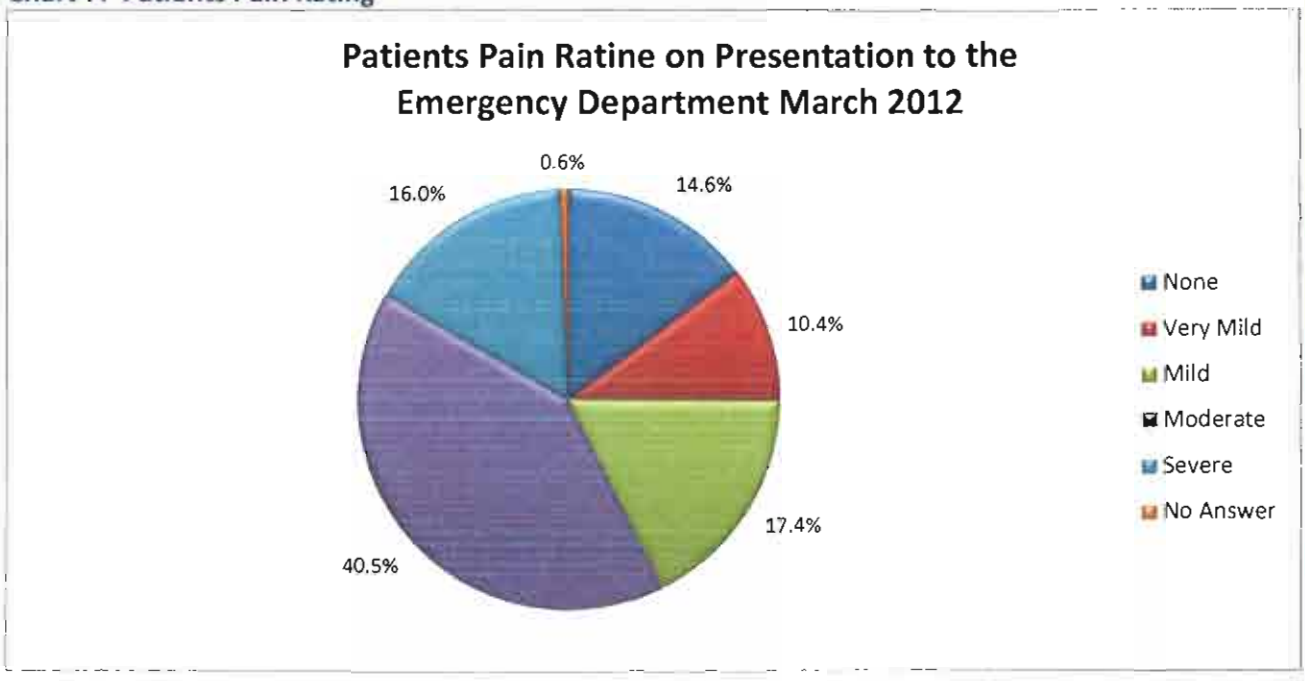
This response highlights a potential need for review of the information provided to external stake holders in regards to familiarisation with the ED processes to eliminate the unreal expectations and miscommunication occurring when patients are referred to the EDs.

*"The main problem was that people seemed to be being seen before us even though we had been waiting longer. No explanation was given to why that was. I know that the ER is a busy place but we felt a little ignored"* and *"Advice on approximate wait times would be nice"*.

**Patients Pain Rating**

The patients were asked to provide information using a verbal pain scale or words to describe their pain levels when they came to the ED's ranging from no pain to severe pain. Chart 7 was used to depict how the patients in the survey rated their own pain level.

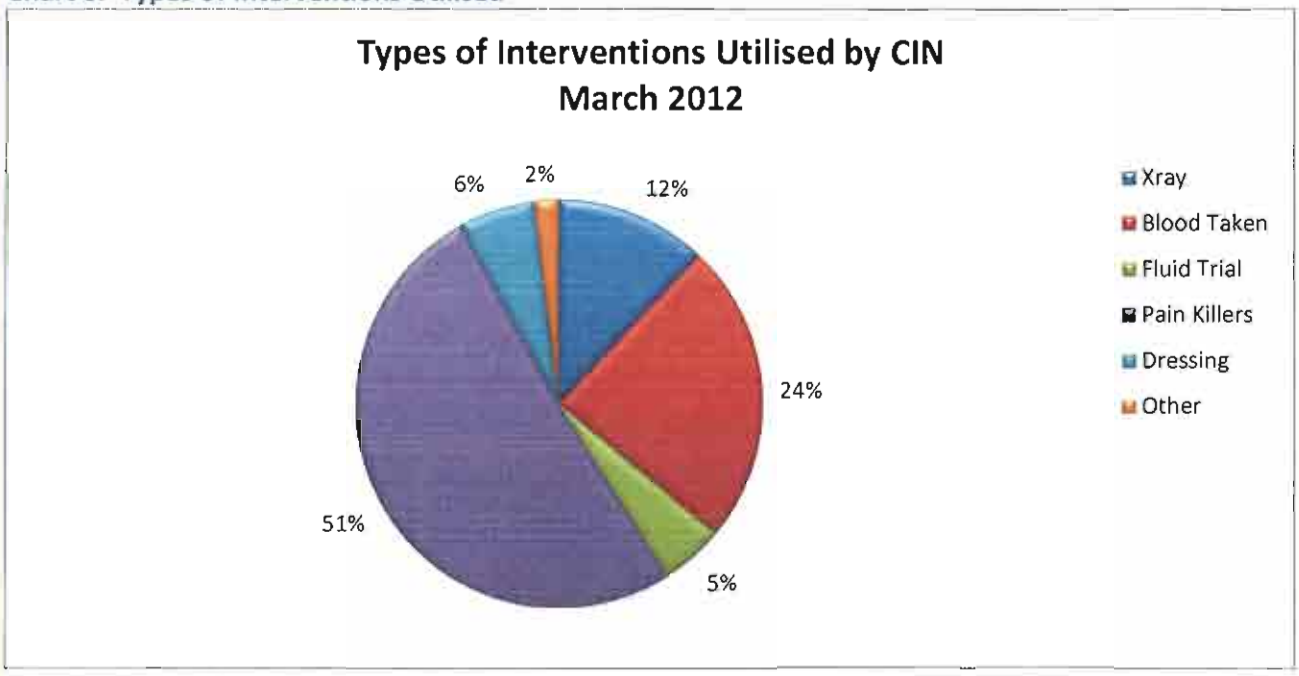
**Chart 7: Patients Pain Rating**




14.6% (21/143) said that they had no pain, 10.4% (15/143) described their pain as very mild, 17.4% (25/143) had mild pain, 40.5% (58/143) stated they had moderate pain, 16% (22/143) had severe pain and 0.6% (1/143) did not answer this section.

The patients and carers were asked if any treatments or interventions had been commenced by the CIN. The interventions and/or treatments were listed to assist the patients and or carers completing the survey. Analgesia was described as "pain killers" to eliminate any potential misinterpretation of the medical jargon that is used in the ED's. Chart 8 shows the types of interventions and/or treatments that the patients they had received. The aim of this question was to look at the various types of strategies that the CIN who had completed the training was able employ to expedite the patient's journey through the department and/or provision of comfort measures whilst waiting.

Chart 8: Types of Interventions Utilised




The patients were then asked whether the waiting room nurse helped with their pain. 22.3% (32/143) strongly agreed, 34% (49/143) agreed, 27.7% (40/143) responded neutrally, 9% (13/143) disagreed, 1.3% (2/143) strongly disagreed and 4.8% (7/143) did not complete this section.

Comments from the patients included ***"Nothing staff were helpful and friendly, waiting time to a minimum, no pain relief but could get some if needed"*** and ***"I preferred to wait for an assessment by a medical officer before taking medication"***.

The patients and/or carers were asked whether they knew why they were waiting. This question focussed on the communication on the ED processes and service provided by the CIN to the waiting patients. 83.9% (120/143) replied Yes, 12.5% (18/143) said No and 3.4% (5/143) did not provide an answer.

The final part of the CIN role is to provide reassurance and maintenance of patient safety in the waiting room through reassessment of the interventions and treatment. The following question was asked to gain insight into this process and the patients were asked whether the CIN came back and check on them to reassess their pain. 11.8% (17/143)of the patients strongly agreed, 23.7% (34/143) agreed, 31.4% (45/143) provided a neutral response, 19.5% (28/143) disagreed, 8.3% (12/143) strongly disagreed and 4.8% (7/143) did not complete this section.

Positive comments provided included ***"Nothing it was fine thank you"***, ***"The nurses did a great job. Surprisingly quick"***, ***"I cannot complain service was wonderful"*** and ***"Need more doctors and nurses, they do a great job with the resources that they have"***.

The patients and/or carers were also asked to provide comments in regards to improvements that maybe adopted to make their stay in the waiting room more comfortable. Areas for suggestions for improvement provided by the patients and carers included ***"Somewhere to lay"***, ***"Area where people can recharge their mobiles"***, ***"Provide coffee facility"***, ***"More resources for shorter waiting times"*** and ***"Provide drink cups for water"***.

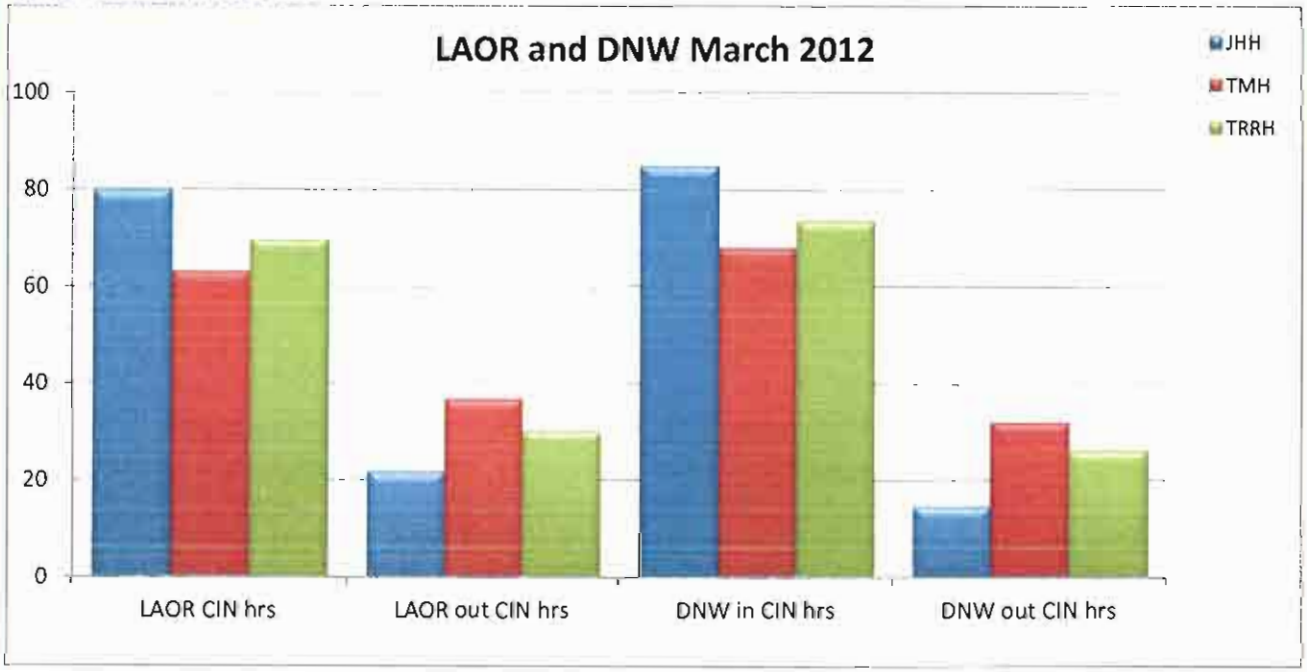
## KPI's Left at Own Risk and Did Not Wait

This audit section was to review KPI's did not wait (DNW) or left at own risk (LAOR) during the time each site has CIN coverage compared with the time there was no designated CIN. LAOR refers to "any person who leaves against advice after treatment has commenced. DNW refers to "any person who leaves before treatment is commenced by a clinician".

The objective was to identify if the initiation of treatments/interventions and /or investigations according to the specified CIN criteria provided by the CIN nurses to the waiting patients impacted on the numbers of patients discharged as a DNW. The presumption was that there would be more LAOR rather than DNW during the designated CIN hours than in the out of CIN hours.

Each site was asked to utilise the Patient Management System ( iPMs) report RH_ED0218A report Did Not Wait/Left Own Risk in Detail during the designated CIN hours and out of CIN hours at each site for the month of March 2012 as depicted in Chart 9.

**Chart 9: LAOR and DNW**




## John Hunter Hospital ED

Over March 2012 6119 patients attended the JHH ED. There were 276/6119 (4.5%) of the total presentation for the month discharged as Left at Own Risk (LAOR). During the designated CIN working hours of 0700 to 2400hrs there were 216/276 (80%) patients LAOR. 6.96 per day equating per day equating to 0.4 patients per hour between 0700 and 2400hrs. Out of CIN hours between 2400 to 0700hrs there were 60/276 (21.7%) patients LAOR. 1.93 per day equating to 0.27 patients per hour LAOR for the month.

There were 183/6119 (2.9%) of the total presentations discharged as Did Not Wait (DNW) for the month of March 2012. There were 156/183 (85%) patients discharged as DNW 5.90 per day equating to 0.34 patients per hour between 0700 and 2400hrs. 27/183 (14.7%) of patients DNW 0.87 per day equating to 0.12 patients per hour between 2400 and 0700hrs.

**The Maitland Hospital ED**

3280 patients presented to the TMH ED for March 2012. There were 106/3280 (3.2%) of the total presentation for the month discharged as LAOR. During the designated CIN working hours of 1100 to 2130hrs there were 67/106 (63%) patients LAOR. 2.16 per day equating per day equating to 0.18 patients per hour between 1100 and 2130hrs. Out of CIN hours between 2130 to 0700hrs there were 39/106 (36.7%) patients LAOR. 1.2 per day equating to 0.1 patients per hour LAOR for the month.

There were 153/3280 (4.6%) of the total presentations discharged as Did Not Wait (DNW) for the month of March 2012. There were 104/153 (67.9%) patients discharged as DNW 3.3 per day equating to 0.2 patients per hour between 1100 and 2130hrs. 49/153 (32%) of patients DNW 1.5 per day equating to 0.1 patients per hour between 2130 and 0700hrs.

**Tamworth Rural Referral Hospital ED**

Over March 2012 2811 patients attended the TRRH ED. There were 76/2811 (2.7%) of the total presentations for the month discharged as LAOR. During the designated CIN working hours of 0700 to 2200hrs there were 53/76 (69.7%) patients LAOR. 1.7 per day equating per day equating to 0.1 patients per hour between 0700 and 2200hrs. Out of CIN hours between 2200 to 0700hrs there were 23/76 (30.2%) patients LAOR. 0.7 per day equating to 0.08 patients per hour LAOR for the month.

There were 259/2811 (9.2%) of the total presentations discharged as DNW for the month of March 2012. There were 191/259 (73.7%) patients discharged as DNW 6.16 per day equating to 0.4 patients per hour between 0700 and 2200hrs. 68/259 (26.2%) of patients DNW 2.1 per day equating to 0.2 patients per hour between 2200 and 0700hrs.

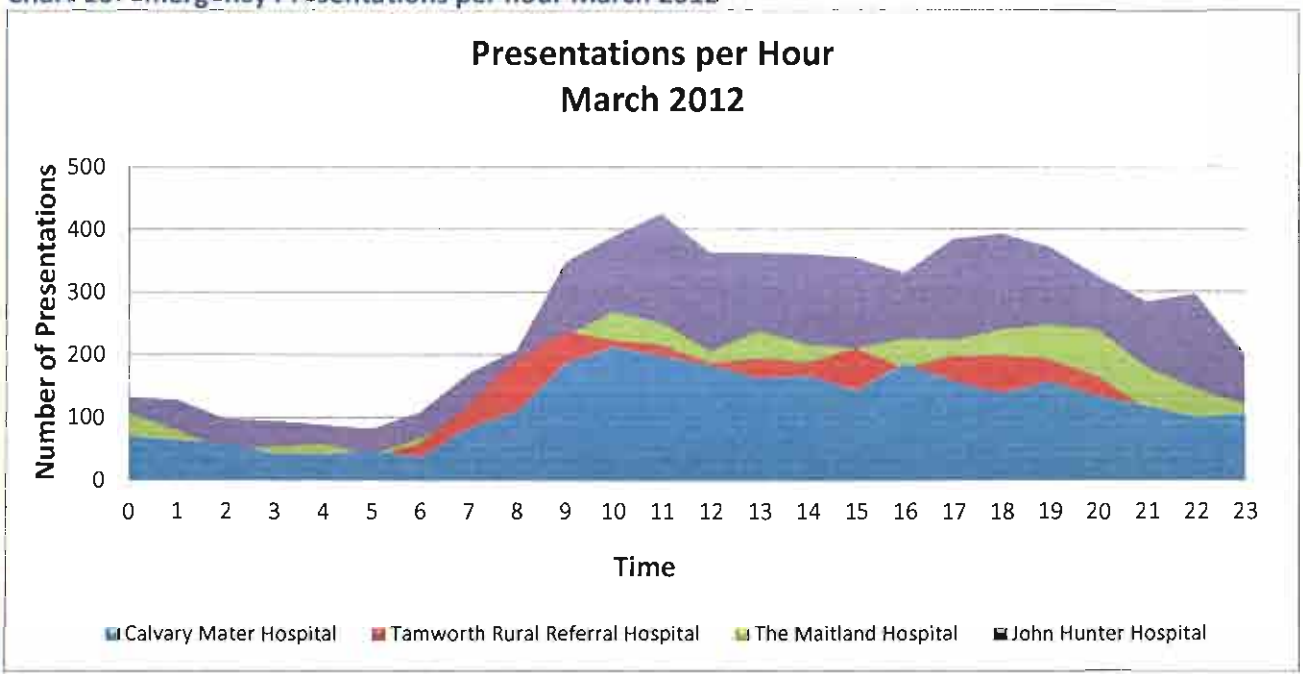
**Calvary Mater Hospital ED**

At the CMH there were a total of 2411 presentations for March 2012. 24/2411 (0.9%) of the total presentations for the month discharged as LAOR and 128/2411(5.3%) patients discharged as DNW. 6.3% (152/2411) of the total presentations had either LAOR or DNW for the month. LAOR 24/152 (15.7%) 0.7 per day equating per day equating to 0.03 patients per hour and DNW 128/152 (84.2%) 4.1 per day equating to 0.1 patients per hour over the 24 hour period.

As per the data provided the LAOR and DNW patients only represented a very small percentage of the overall discharges from the EDs. The presumption was that there would be an increased number of patients LAOR rather than DNW – this did not occur. The data was diluted due to sheer volumes.

The designated CIN hours occur during the busiest presentation times for the ED's and as per the data obtained from Business Objects for March 2012, there is a substantial increase in the number of patients presenting during these hours across all of the ED's as per Chart 10 making it extremely difficult for the CIN nurse to actually see all the waiting patients.

Chart 10: Emergency Presentations per hour March 2012




As a result the patients selected by the CIN nurses for assessment would be seen according to their priority or urgency of need rather than based specifically on the time that the patients arrive.

Other mitigating factors that impact on the waiting room also need to be considered and may include the activity within the ED department themselves, such as high priority patients requiring additional resources, external factors such as access block and awaiting registrar reviews. These factors can all impact on the flow of the ED's thus limiting the CIN nurses ability to meet all of the waiting patient's needs.

## Monitoring for Adverse Events

Monitoring for adverse events was highlighted as an area for review. The steering committee in conjunction with the project team decided to utilise the reporting of SAC 2, the Incident Management System (IIMs) and patient and/or carer complaints for the one month period of March 2012 to identify adverse outcomes in relation to the waiting room or waiting patients.

The sites were asked to monitor for any adverse outcomes that only occurred during the designated CIN hours when the nurses who have attended CIN course were working in the CIN role or providing CIN support to the waiting patients. Each site was to provide feedback in the form of a brief summary of the number of incidents relating to the waiting room and escalation process if required. For the March 2012 audit period there were no adverse outcomes/events and or rapid responses in the waiting room reported by any of the sites.

## Communication Strategies of the Project

Effective communication was critical to the success of the project. The communication strategy aimed to facilitate the dissemination of information regarding project to key stake holders through a range of mediums both formal and informal.

Formal communication included the development and distribution of the project plan, establishment of meeting schedules for the Project Team and Steering Committee. Feedback on the progress of the project was provided through distribution of the meeting minutes.

Informal communication included email and the two courses provided an opportunity for face to face discussion.

Networking between the various sites was encouraged and enabled the transference of information not only on the CIN Project but as an avenue to other types of initiatives and clarification of ED processes promoting consistency and standardisation across the sites. This also included the sharing of information and resources on previously developed advanced nursing initiatives such as Nurse Initiated Pathology (CPATH) that may be adopted, further encouraging the standardization of ED processes and practices.

## 5. Discussion

The opportunity for adoption of this current model of care is already available for use by all the ED's Level 4 and above that has a designated CIN nurse across the state through the 2010 the CINed Project. The HNELHD Ongoing "Clinical Initiatives Nurse (CIN) in Emergency Departments Educational Program" project was undertaken in 2011/2012 as prescribed by the NSW Health format and was conducted over two days of face to face teaching. The project was successful due to the fact that another 40 nurses have been trained according the State wide standardised CIN program increasing the core numbers to 80 across the 4 HNELHD Emergency Departments.

The participant evaluation of the 2 day CIN program highlighted the increased confidence and autonomous practice the ED nurse perceived and translated to better job satisfaction. The increased number of CIN trained nurses also ensures patient safety with less documented incidences of deteriorating patients left in the waiting room thus improving patient outcomes. The CIN also provided an improvement in the ED KPI's in terms of "time to treatment" and "discharge times" as well as patient satisfaction and service delivery.

What would we change?

There were two main issues identified with the ability of the sites to deliver the original project as prescribed. Firstly participant attendance at a two day course can create difficulty for the individual sites due to the potential inability to back fill staff owing to the lack of funding or personnel resources.

Secondly, part of the accreditation process for this course is the completion of competency sign off. The current process involved the course participants returning to their individual sites for competency sign – off. This became an ongoing issue of varying degrees at the individual sites due to the limited availability of educators to completely sign off and accredit the participants.

A two pronged approach has been put forward to address this issue. Firstly, the resources produced by NSW Health, currently available online, are to be utilised as the participant resource. The power points provided by the original "Clinical Initiatives Nurse in Emergency Departments Educational Program" reviewed by the project team, would be made available for participant use. This could be achieved either through the provision of a CD or the potential development of an online site. The overall aim is to provide the participant with the necessary resources and information prior to attendance at the course. The expectation will be based on adult learning in which the participant will work through the program independently with onsite supervised mentoring provided by the RN's hospital.

The Face-to-face mode would be reduced to a one supported study day rather than a two day course and the structure of this one day would be changed from the current didactic approach. This day will incorporate the roles and collective expectations of the CIN to ensure patient safety and advocacy is aligned to the NSW health role description. As well as utilising the allocated study day to assess the participants' competency through written examinations for nurse initiated x-rays and nurse initiated analgesia, and practical teaching and assessment skills for abdominal and respiratory assessment.

There was much to learn from the project evaluation, the main being that a highly trained advanced practice nurse is still limited by work priorities and the volume of patient presentations to busy level 4-6 centres. Documentation remains an issue in completing the legitimate practice of the nurse. This model is transferable and is an effective tool to standardise and educate nurses in the requirements of the CIN Role. Patient satisfaction, quality and safely are the tenants of good clinical care with communication being paramount top the entire process and is supported by this project.

## 6. Conclusion

The project has enabled each of the individual sites the opportunity to assist in the development and provision of this education through the engagement of key people i.e. CNE's, NM and NUM's. Familiarisation with the standardised tools and the educational process will enable this course to be implemented at each individual site reducing the need for participants to travel to distant geographical locations to partake in the CIN education. However, the availability of this education is also dependent on the allocation of funding and staffing levels to support the individual sites ability to release and back fill staff.

Suggestions for outcome and evaluation to identify the effectiveness and appropriateness of CIN processes and role effectiveness to be utilised at the individual sites are as follows:

- Formal and informal feedback following the one day study day to be obtained from both the participants and presenters to allow for ongoing evaluation of the program provided incorporating inclusion/revision of the Program format based on best practice developments.

- Continued utilisation of the formal evaluation forms, produced by NSW Health, to be given to students at the completion of their program to identify whether the course is still delivering the desired education and meeting their educational needs.

- On-site education adopted to provide further opportunities for education and evaluation of the participant's clinical skills in their clinical practice setting.

- Engagement with on-site radiology personnel and medical officers to provide support and learning opportunities to the participant's enable evaluation of their clinical skills in the clinical practice setting.

Suggest that each individual site develop a plan to monitor the participants who have completed the program to evaluate the success of the CIN role in regards to the following areas:

- Monitoring of IIMs notifications and adverse patient events to identify the skills acquisition of RNs who have undertaken the CIN Program.

- Regular review of ED KPIs to identify the appropriateness and effectiveness of the CIN practices.

- Regular review of documentation in regards to mandatory requirements.

- Monitoring of the nursing workforce to identify the retention of RNs and follow up with the CIN Program attendees to identify job satisfaction and job confidence.

- ED patient x-ray audits of NIX are undertaken as per radiology guidelines for radiation safety.

## 7. References


1. Australasian College of Emergency Medicine (ACEM) 2000 revised August 2005: Guidelines on Implementation of the Australasian Triage Scale for Emergency Departments <13 August 2012>.

2. Clinical Initiatives Nurse www.ecinsw.com.au/models_of_care <13 August 2012>.

3. NSW Health Clinical Initiatives Nurse in Emergency Departments Educational Program Resource Manual 2011:5-6.


Pekgate
~~Chief Executive~~ sign off on project final report

Name: KAREN KELLY

Signature: K. P. Kelly

Date: 12.10.12

## Appendix 1: CIN Participant Evaluation

# Clinical Initiatives Nurse (CIN) Program Course Evaluation

**Course Title**: CIN Program

**Date(s):** 1st & 2nd of December 2011

**Venue:** The Maitland Hospital Education Centre, Level 3

**Facilitator:** Nicole Feenan

Participants Name (optional) .....

NSW Health aims to provide high quality training and development opportunities. We would be grateful if you would assist us in our endeavours to continually improve the administration and content of our courses by completing this survey.

The first section of the evaluation relates to the course as a whole. Comments about individual sessions are invited in the next section. For each rating item, circle the number which best indicates your reaction. For example, the answer scale is:

1 - Not at all 2 - A little 3 - Moderately 4 - Quite a lot 5 - Very much

**Section 1**:

| | 1 ☹ | 2 | 3 | 4 | 5 ☺ |
|---|---|---|---|---|---|
| **1.** The aim of this program was to prepare you for the CIN role<br>How well has it achieved this aim for you? | | | | | |
| **2.** The outcome of the program was to provide you the opportunity to achieve competency in the elements of the CIN role<br>How well has it achieved this aim for you? | | | | | |
| **3.** To what extent were you satisfied with the overall cohesiveness of the program? | | | | | |
| **4.** How satisfied were you with the overall presentation/facilitation of the program? | | | | | |
| **5.** Was the venue for the face to face content conducive to your learning? | | | | | |
| **6.** Was the overall program suitably flexible to accommodate the needs of the participants? | | | | | |
| **7.** Has your attendance at the program prompted you to critically examine your practice? | | | | | |
| **8.** How motivated are you to further your learning experiences? | | | | | |

Please make any comments or suggestions about the overall organisation and conduct of this program.

**Section 2:**
In this section of the evaluation we would appreciate some constructive comments about individual sessions. This data will be used when we are planning future courses and to provide presenters/facilitators with feedback. We would appreciate your comments about any aspect including content, presentation/facilitation, use of teaching aids and internal flexibility in accommodating the needs of the class.

**Day 1**

**2.1 Overview of the CIN Role**

Comment

**2.2 CIN Communication**

Comment

**2.3 Waiting Room Mangement**

Comment

**2.4 Limb Assessment**

Comment

**2.5 Respiratory Assessment**

Comment

**2.6 Respiratory Practical Workshop**

Comment

**2.7 Sepsis**

Comment

**Day2**

**2.8 Mental health patients in the waiting room**

Comment

**2.9 Drug and Alcohol in the Waiting Room**

Comment

**2.10 Elderly in the Waiting Room**

Comment

**2.11 Abdominal Assessment**

Comment

**2.12 Pain Assessment and Management**

Comment

**2.13 Recognition of the Sick Child/Paediatric Red Flags**

Comment

**2.14 CIN Documentation**

Comment

**2.15 Accreditation**

Comment

***Thank you for your cooperation and contribution – it is greatly appreciated.***

**Please note**: If you would like to discuss this course evaluation with the facilitator, please complete details below to indicate your preferred method of contact.

**Name:**

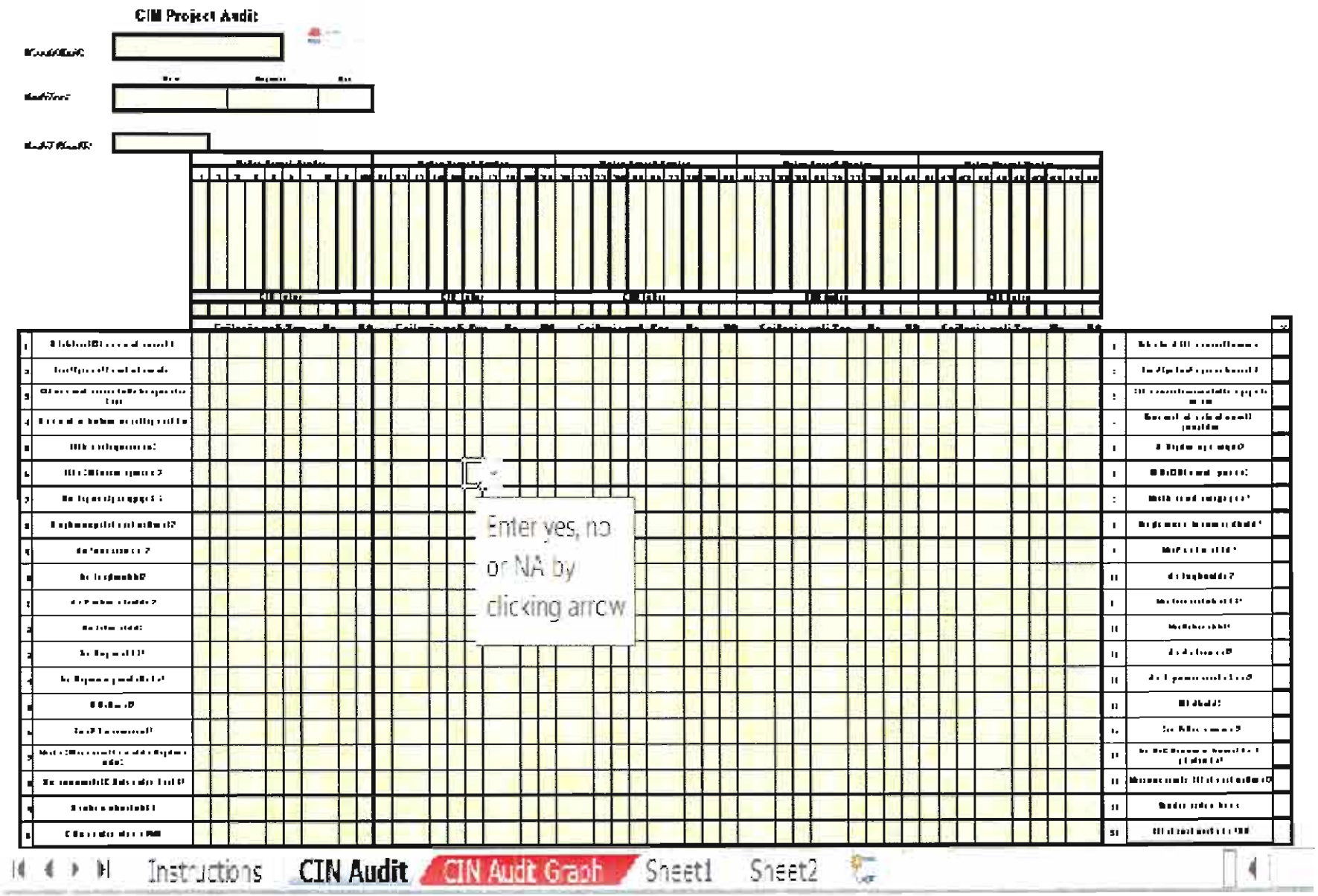
**Contact details:**

Telephone:

Email:

Address

## Appendix 2: CIN SPOT Audit Tool



## Appendix 3: CIN Criteria

**Clarification of Nurse Seen**
The following information is to be used for clarification with the CIN spot audit as per the CIN manual.

**Nurse seen time may be captured as time of commencement of active treatment where treatment is commenced using:**

- Formal clinical pathways - these may include (but not be restricted to) chest pain, asthma, stroke, etc or those which use clinical order protocols for the initiation of radiological and pathology investigations.
- The NSW rural emergency clinical guidelines for adults.
- Protocols that include both assessment and treatment. Examples of these include:
  - Isolated limb injuries (including sprains, strains, minor fractures, assessment against Ottawa ankle rules and the initiation of rest, ice and elevation).
  - Abdominal pain.
  - Wound management (not first aid).
  - Fever.
  - Minor PV bleeding.
  - Chest pain.
  - Shortness of breath.
  - Gastroenteritis and oral hydration.
- Medication standing orders for pain relief, symptom control and tetanus prophylaxis.
- Any care delivered by a nurse practitioner.

**Under the definition of commencement of active treatment, nurse seen time should not be captured in the following instances:**

- Undertaking physiological observations.
- Urinalysis unless part of a clinical pathway.
- Undressing of patients and preparation for examination.
- Routine pathology collection and placement of an IV, which is not part of a clinical pathway.

Appendix 4: Pain Audit Tool

**Pain Audit Tool – Panadeine Forte**

| Triage Category | Seen by CIN within triage category time frame<br><br>Yes or No | NIA Panadeine Forte<br><br>Yes or No | MO ordered Panadeine Forte<br><br>Yes or No | Time to analgesia (in minutes) | Presenting Problem (see inclusion criteria) |
|---|---|---|---|---|---|
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## Appendix 5: Patient Survey and Information Letter

# CLINICAL INITIATIVES NURSE PROJECT

*Issued: 01/03/2012*

INFORMATION FOR PARTICIPANTS

Introduction
You are invited to take part in a survey about your experience while in the waiting room or waiting to be seen by a medical officer. The survey is specifically related to the communication and treatment provided by a Clinical Initiatives Nurse.

This survey is private with no personal details (eg name, birthdate etc) being collected. Your responses, along with others, will be used to identify ways to improve the emergency department waiting experience.

Background
We aim to achieve the best care for every patient in the emergency department. NSW Health has introduced the Clinical Initiatives Nurses to care for patients in major emergency department waiting rooms including the John Hunter Hospital, Calvary Mater Newcastle, Tamworth Rural Referral Hospital and The Maitland Hospital.

The Clinical Initiatives Nurse is usually on duty during the busiest times in the emergency department and works collaboratively with other team members to provide coordinated care.

Please see brochure provided.

Aim.
NSW Health is looking for ways to improve access and flow in the emergency department. This will help deliver faster, safer, quality care and improve the experience for patients and their carers.

This survey is designed to learn about your waiting experience to improve the service for patients in the future

If you have had an experience and you feel we could learn from it, we are keen to hear from you. All feedback is given full consideration

Voluntary Participation
Participation is entirely voluntary. You do not have to take part in this survey. Whatever your decision, please be assured it will not affect your medical treatment or your relationship with the staff who may care for you in the future at this hospital.

Confidentiality
Completed surveys are confidential and will only be seen by the researchers and a data entry officer.

The combined results may be presented at a conference or in a scientific publication, but individual participants will not be identifiable in such a presentation.

Non English-Speaking Patients
If you need an interpreter please ask the person who has given it to you

If you require any assistance with filling out the survey, please ask the person who has given it to you.

Thank you for your participation.

# CLINICAL INITIATIVES NURSE PROJECT

Please circle one response only to the following questions

1. Did the waiting room nurse introduce themselves and provide you with information about the role and the department?

| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|
| Strongly Agree | Agree | Neutral | Disagree | Strongly Disagree |

2. Did the nurse keep you informed of the reasons for waiting?

| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|
| Strongly Agree | Agree | Neutral | Disagree | Strongly Disagree |

3. How much pain did you have when you came to the emergency department?

| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|
| None | Very Mild | Mild | Moderate | Severe |

4. Did the waiting room nurse help with your pain?

| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|
| Strongly Agree | Agree | Neutral | Disagree | Strongly Disagree |

5. Did the nurse come back and check on you to assess your pain?

| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|
| Strongly Agree | Agree | Neutral | Disagree | Strongly Disagree |

6. Did you have any of the followlng while you were waiting? (please tick the box)

- ❑ X-ray
- ❑ Blood taken
- ❑ Fluid trial
- ❑ Pain killers
- ❑ Dressing

7. Did you know what you are waiting for? (please tick the box)

- ❑ Yes
- ❑ No

Comment

What could we have done to make your stay while you were waiting better?