

PRACTICUM SUMMARY REPORT

Project Title: Paediatric cannulation and venepuncture procedural improvement project

University/Organization Name: University of Dundee

Health System Sponsor Name: Dr Clerihew, Paediatric Consultant

Aim of project (1-2 sentences)

To have 100% of venepuncture and cannulation procedures in paediatric areas of the hospital being done in less than 2 attempts, with appropriate supportive measures being offered to all, by 31st May 2012.

Planned changes tested (2-3 sentences)

We will use checklists and ask patients and their parents about their experience of having a cannula inserted or blood taken. Each week we will introduce an intervention (we will report our findings and make all staff aware of correct procedures. We will also implement staff training if found to be necessary - all permanent staff on the paediatric ward to be appropriately trained will ensure newer, rotating staff will also experience appropriate training) and then repeat the checklists, aiming to target 20 patients a week. We will also distribute questionnaires to the paediatric staff to assess their knowledge and use rates of different analgesics.

Predictions (2-3 sentences)

We expect to find that procedures are taking more than 1 attempt; we would ideally like to reduce this to 1 attempt. We want to eliminate any adverse outcomes of more than 4 attempts. We also expect that inappropriate or no analgesics are being used at times and aim to improve this. We predict that not every child will be given appropriate distraction. If distraction is wanted or suitable for the child it should always be used.

Results

Present your results with a graph(s).





Summary of results (3-4 sentences):

Results showed that supportive measures/number of attempts was variable day by day. This showed an inconsistency in the delivery of care on ward 29. The run charts show that interventions involving our presence on the ward were effective in the short term, and the interventions involving education and training of staff caused a more sustained increase in performance in terms of supportive measures and attempts. Neither measure reached 100% although they both showed improvement and it is possible that once training has been implemented in all new staff, that this will be reached.

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Learning (4-5 sentences)

Comparison of questions, predictions, and analysis of data:

We questioned whether there could be an improvement made in the carrying out of venepuncture and cannulation in paediatric areas of Ninewells Hospital. We predicted that for many patients these procedures would take more than one attempt, and that not all patients would be offered appropriate supportive measures. We found that this was indeed a problem, particularly on Ward 29, so we used this ward as the focus of our interventions. On analysis of the data we found a significant increase in % of patients being offered supportive measures and also having their procedures carried out in less than two attempts – however, neither reached the 100% that we aimed for. On reflection we realise that this may require longer term work in order to change the system sufficiently to achieve this.

Impact on systems (3-4 sentences)

Discuss the project's significance on the local system and any findings that may be generalizable to other systems:

The project has raised awareness of the correct guidelines for venipuncture and cannulation in paediatric areas of Ninewells. Those in charge of training new start staff are now using the guidelines and the training DVD, so the correct information is now part of the system. This is transferable to other paediatric areas in the hospital – and this has already been implemented, with the resources being spread to A&E and Ward 40 (neonatal unit).

Conclusions (3-5 sentences)

Summarize the outcome of the project. Is this project sustainable? What are the requirements for sustainability?

The project, although not achieving the 100% has caused a clear improvement in the way that cannulation and venepuncture is carried out on Ward 29. A greatly increased % of patients are now being offered adequate supportive measures and are having their procedure carried out in less than two attempts. The project is sustainable, because the training resources that were created as interventions are now part of the system, and are being used to train all new start staff.



Reflections/Discussions (5-7 sentences)

Discuss the factors that promoted the success of the project and that were barriers to success. What did you learn from doing this project? What are your reflections on the role of the team?

The project was a success because the team committed to making small changes in a small area of the hospital, in a manageable time frame. The workload was split well and fairly, and the expertise of the sponsor was extremely useful in setting up realistic aims for the project and also in analysis of the data. Using small sample sizes to get just enough data meant that enough PDSA cycles were able to be run in the four weeks that meant several interventions were possible. It meant that we were able to identify the problem early and address it – by means of training resources, that we could put into place and then assess their effect. This meant that we were able to see the effect our interventions had on the system to ensure that they were sustainable once our presence on the ward was no longer there. Barriers to success included some difficulty in achieving adequate sample sizes when the ward was very quiet, however this was overcome eventually for each cycle. Responses from the doctors to the questionnaires was also lacking at first, but we learnt that by raising awareness (going into handover) this increased the return rate, as the doctors were aware of the objectives of the project.

By signing this document (electronic signature is acceptable), I attest that the information provided by the learners in this project is accurate.

LEARNER(S):

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Area of Study:	Medical Student	Area of Study:	Medical Student

FACULTY SPONSOR:

Signature:	Dr Linda Clerihew	Signature:
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HEALTH SYSTEM SPONSOR (if different from faculty sponsor):

Institution:

AUTHORIZATION

Do the learners, faculty sponsor, and health system sponsor authorize this project for publication at www.ihi.org?



🗆 No