

# Improving e-discharge letters for Permanent pacemaker insertions at Wansbeck General Hospital

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## Abstract

670 patients attend Wansbeck General Hospital each year for elective and emergency permanent pacemaker insertion or modification. Elective patients for new devices attend the cardiology department on the day of procedure and are clerked onto the cardiology ward after insertion. Patients are discharged home the following day with a letter typed by a junior doctor.

Prior to October 2011, junior doctors were unaware of any guidelines regarding content of discharge letters due to poor accessibility. Vital information such as pacemaker model and indication for implantation were frequently absent from the typed summaries. In October 2011, the cardiology department reviewed the guidelines establishing the information required in all discharge summaries for pacemaker implantation and these guidelines were published on the ward in an easy to follow proforma for any junior doctor typing letters.

Eight essential criteria should be included in each letter; date and indication for insertion, pacemaker type, make and model, access route, complications, chest x-ray and device check results, and follow-up details. Finally, a copy of the letter was to be sent to the cardiology department for clinic follow-up.

Ten letters were audited prior to the proforma being issued. 0 letters contained 100% of the required information. Main criteria missing in most letters included indication for insertion (50%), make of device (0%), the route of access (10%) and cc to cardiology department (0%). 70 letters were audited in October 2012, one year following introduction of the discharge proforma. 100% of letters contained all of the eight essential criteria required by the departmental guidelines. 53% of the letters were also received by the cardiology department.

In conclusion, a set of easy to follow guidelines in the form of a published document on the cardiology ward has produced dramatic improvement in the quality of e-discharge letters for patients undergoing permanent pacemaker implantation.

## Problem

For current UK junior doctors learning how to write discharge letters is very much a 'see one, do one, teach one' approach, and judgement and experience dictate the information written in such letters. For patients undergoing complex medical procedures, such as permanent pacemaker insertion, important information regarding the procedure needs to be documented within the interim discharge letter sent to the patient's GP. Copies of this letter are also kept in the patients notes and a copy is sent home with the patient.

A lack of easily accessible guidelines meant that junior doctors struggled to identify the required information that should be documented in a patient's discharge letter after pacemaker insertion. As a result they were discharging patients with substandard discharge summaries that were of little use to GPs and follow up clinicians post-procedure. This was evident when a local GP had to phone the cardiology ward because the discharge letter they had received contained no explanation of the indication or follow up details for a pacemaker implanted in one of their practice's patients.

## Background

The Royal College of Physicians outlines essential headings that should be included in hospital discharge documentation in its April 2013 guideline 'Consistent structure and content standards for admission, handover, discharge, outpatient and referral records and communications'. This guideline does not, however, outline recommended information for specific procedures such as permanent pacemaker insertion. There are currently no national guidelines from the European Society of Cardiology regarding the information that should be contained within interim discharge letters written by hospital ward doctors.

Patients, GPs and follow up clinicians need comprehensive documentation of their patient's previous care to elicit an accurate past medical history. This is even more essential in the acute setting, where medical professionals need clear information regarding previous surgery such as a permanent pacemaker insertion. Failure to do so may result in needless expenditure of time and resources with compromise of patient care.

## Baseline Measurement

In this project, ten ward discharge letters were audited prior to the introduction of the discharge proforma on the cardiology ward. The letters were reviewed by hand to evaluate the information they contained. The following details were required to be included

according to the local trust guidance. These included: date and indication for insertion, pacemaker type, make and model, access route, complications, chest x-ray and device check results, and follow-up details. Finally, a copy of the letter was to be sent to the cardiology department for clinic follow-up. The results showed that all ten of the audited letters were missing significant and important pieces of information.

See supplementary file: ds1859.docx - "Percentage of discharge letters containing required information prior to introduction of proforma."

## Design

After discussion with the cardiology ward's junior doctors it was highlighted that the swift four month rotation of trainee medical staff was contributing to the problem. Junior doctors, sometimes in their first medical job, were required to produce discharge letters for pacemaker patients containing all of the relevant information stipulated in the trust guidelines. The problem was that these doctors did not know that these guidelines existed or where to find them.

The easiest method to improve this problem was to create a discharge template for junior doctors writing letters for patients having permanent pacemakers implanted. This would be permanently located next to the computer that was used to type the summaries. The template would essentially be a published version of the guidelines giving ward doctors a quick and easy to follow document when typing discharge summaries.

## Strategy

The proforma was discussed with and approved by the hospital's consultant cardiologists.

It was then put up on the cardiology ward next to the computer used to type discharge letters. A random selection of ten discharge letters in the month following the proforma's introduction were audited against the criteria highlighted in the guidelines to gauge its effectiveness. The ward's junior doctors gave very positive feedback regarding the simple yet comprehensive document. The proforma's results were so positive that it was left on the ward for re-audit in one year's time.

One year later and the original proforma had been lost and retyped by one of the junior doctors on the ward at that time. The proforma had been incorrectly transcribed and one of the important criteria (copying discharge summaries to the cardiology department) was no longer at the foot of the document. As a result, the original proforma was re-issued and also published onto the trust intranet so that it could be quickly re-printed if the original was lost. It was also decided that for patients who had to be boarded to other medical wards, a copy of the proforma would be printed and attached to the patients notes by the catheterisation laboratory staff. This would enable the junior doctors from other medical wards to produce discharge letters to the same standard as the cardiology

ward.

The ward clerks were also informed at this point that they needed a fourth copy of each letter to send to the cardiology department.

The audit cycle will be completed again for a third time in October 2014.

## Results

Evaluation of the intervention was initially measured at one month post introduction of proforma and then at one year post introduction. Ten discharge letters were audited in the month following the proforma being placed on the cardiology ward. Each letter was accessed from the departments online discharge database to assess which pieces of information it contained against the recommendations set out in the trust guidelines.

This initial audit revealed that all ten letters in the month following the introduction of the proforma contained 100% of the required information as set out in the guidelines. This included 1) Date of insertion 2) Indication for insertion

1. Pacemaker type (DDDR VVIR etc)
- 4) Manufacturer and model
- 5) Route
- 6) Complications
- 7) Post op CXR and check results
- 8) Follow-up details and finally whether a copy of the letter was received by the cardiology department.

One year following the introduction of the proforma, 70 discharge letters were again audited via the same method as 11 months previously. Again all 70 letters contained 100% of the required content. However only 37 letters (53%) had been copied across and received by the cardiology department secretaries. Please see discussion for how this is going to be addressed for the next cycle of improvement.

See supplementary file: ds1860.docx - "Proforma Results"

## Lessons and Limitations

The life of a ward junior doctor in the NHS is a very busy one. They frequently have to multi-task, which can lead to errors. The impact of this can vary from minor to life threatening. Training rotations every four months means that these doctors have to learn new and rotation specific skills very quickly. This project has shown that a simple document can dramatically improve the quality of discharge letters by giving these doctors a quick and easy guide to the information that needs to be contained in such documents.

The one year cycle has shown that only half of the letters are being copied to the cardiology department despite the effectiveness of the proforma in the other eight areas. This has highlighted that change and improvement is a gradual process; sometimes all areas cannot be targeted at once. Clinical audit is invaluable in this process, enabling healthcare professionals to evaluate their department's performance in specific areas against local and national standards.

## Conclusion

A set of guidelines in the form of a simple published document on the cardiology ward has enabled regularly rotating junior doctors to produce consistently high quality e-discharge letters for patients leaving hospital after undergoing permanent pacemaker implantation.

The project has highlighted that clinical guidelines need to be readily accessible to those using them in order to be as effective as possible.

## References

RCP London. Consistent structure and content standards for admission, handover, discharge, outpatient and referral records and communications. April 2013.

[http://www.rcplondon.ac.uk/sites/default/files/consistent-standards-for-admission-handover-discharge-outpatient-and-referral-2013\\_0.pdf](http://www.rcplondon.ac.uk/sites/default/files/consistent-standards-for-admission-handover-discharge-outpatient-and-referral-2013_0.pdf)

## Declaration of interests

Nothing to declare.

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