Paperless Radiotherapy: Reducing transcription

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Introduction
Towards Safer Radiotherapy (Donaldson, 2007) stated that transcription should be avoided where possible to reduce errors occurring. With the importance on using source data to eliminate this potential for errors to arise, Mount Vernon Cancer Centre (MVCC) has adopted a paperless workflow with this in mind; from referral to the last fraction of radiotherapy.

Methodology
A method needed to be adopted for paperless working. A focus group looked at the options and information required for each area of the pathway including referral, patient data capture at CT, planning information, treatment information up to the last fraction and creation of an end of treatment summary

MVCC now utilise;
- An electronic booking form from Casper (Cievért Ltd, Gateshead, UK).
- Dynamic documents in ARIA (Varian, Palo Alto, CA, USA) are used to record treatment setups.
- The journal - to record actions and histories throughout the treatment.
- On treatment toxicity scoring using the NCI CTCAE v4 system.
- All checks that are required on the treatment plan before, during and after treatment were assigned as tasks or checklists and made into a standardised CarePath.

All errors at MVCC are recorded on DATIX incidence reporting (DATIX, London, UK). This web based software can produce reports that can be used to collect the number of occurrences that happen before and after the system change took place. This study looked at the number of reports incidences that occurred due to transcription in the six months both before and after the digital processes were adopted.

Results
In total, there were 51 and 49 radiotherapy related incidents recorded on DATIX in the six months before and after the introduction of the paperless workflow respectively. The number of incidents related to transcription errors decreased from 29% (15/51) to 16% (8/49) since the paperless change. It’s noted that there was a small rise in reported incidences in other areas of the pathway due to a change in work procedure.

Conclusion
It's suggested the number of transcription errors was minimised through the adoption of the paperless workflow. It has also proved to be beneficial to have a centralised electronic incident reporting system to monitor and review incidents in a radiotherapy department, in order to streamline and optimise existing patient pathways.

One of the improvements seen with the digital system has been the removal of illegible handwriting and signatures. All documents that are approved now have timestamps and digital signatures for clarity as to who has been involved with each step of the patients’ care.

These documented incidences can be reviewed by the implementation team to find further ways to improve the flow of data between all the members of the multidisciplinary team.

Reference