Electronic Prescribing:

Briefing for Nurses

NHS
Connecting for Health

Introduction

Electronic prescribing (ePrescribing) systems can help improve the safety and efficiency of healthcare by aiding the choice, prescribing, administration and supply of medicines.

The safety and effectiveness of ePrescribing systems depends on all staff groups being actively engaged in their development and use.

Benefits of ePrescribing include:

- Prescribers accurately and clearly enter complete medication orders.
- As they do this the system can provide relevant patient information, for example on allergies, as well as details about drugs. ePrescribing systems can also offer advice or warnings as prescribing takes place.
- Prescription data can be stored securely and communicated to other members of the healthcare team without the risk of paper records being lost.
- Pharmacists can access drug orders remotely using the computer, and check and amend as required.
- Nurses who administer medicines have clear and legible medication orders. The system may help them to prepare for drug rounds, confirm the identity of patients, and record administration.
- Medication records can be accessed remotely by healthcare professionals.

Not all ePrescribing systems fully support all these aspects of medicines use, but most do to some degree.

ePrescribing systems provide a full audit trail and the data they hold allow many innovative uses that can help in medicines management and support a culture of reflective practice.

ePrescribing is a powerful and important innovation for the whole care team. When ePrescribing projects are being planned it is important that all healthcare professional groups are involved and that they remain involved as the system comes into use.

A successful initial implementation is the start, not the end, of running a successful system.

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Nurses are primary users of ePrescribing. Four or five times a day on every ward an ePrescribing system will be in use for scheduled medication administration rounds, as well as in between for once-only and 'when required' doses.

Medicines use is often complex and demanding. The ability of an ePrescribing system to help maintain an accurate administration record, and allow detailed review and audit, can be very important for high quality care.

The experience of nurses in most trusts that have implemented ePrescribing systems is that the initial period of use is challenging. It is not easy to let go of a familiar and trusted system like the paper drug chart and some people are fearful that their knowledge of computers is not sufficient.

ePrescribing systems also often change the way that drugs are supplied to the ward or clinic and the way in which pharmacists work on wards.

However most nurses report that, once they have experienced ePrescribing for a few months, they would never want to go back to a paper based system.

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At the ward and trust level, ePrescribing can help specialist and senior nurses to monitor and manage medication. For example, the infection control team can gain more detailed antibiotic use data than could be easily available from a paper based prescribing system.

Nurses must be a part of the team who prepare for ePrescribing: they must ensure that ePrescribing projects take into account the concerns and desires of nurses, as well as communicating the purpose and benefits.

Clinical Decision Support

ePrescribing systems provide various degrees of clinical decision support (CDS) to help prescribing and administration of medicines. CDS ranges from the very basic – access to a drug dictionary – to the more complex, such as checking medication orders against patients' laboratory results.

CDS can be roughly divided into two areas: decision constraint, stopping people doing daft things, and decision support, guiding and informing users.

Initial ePrescribing implementations will usually have limited decision support – focused mostly on constraints – but, with experience, more active support, warnings and context-specific guidance can be added.

Participation in planning the move to ePrescribing

Nurses have a vital role in helping to plan and implement electronic prescribing.

Among the key areas they must contribute to are:

- How the changeover from paper to computer will be phased and how it will be accomplished safely.
- How ward or clinic medication-related procedures should change.
- How training (initial and ongoing) will be organised.
- What support services will be available both during the initial implementation phase and throughout the life of a system.
- What the back-up and recovery procedures are, given that computers can and do stop working.
- How new insights and lessons learned can be collected as the system is used, and fed into the ongoing development of the system.

ePrescribing systems can contribute to better healthcare

Reduction in the risk of medication errors as a result of:

- More legible prescriptions.
- The requirement for complete medication orders.
- Alerts for contra-indications, allergic reactions and drug interactions.
- Useful guidance for both inexperienced and experienced prescribers.

Process improvements as a result of:

- Improved communication between different departments and care settings.
- Reduction in paperwork-related problems - fewer unavailable or illegible drug charts.
- Clearer, and more complete, audit trails of medication administration.
- Data made available for analysis, including audit and research.

ePrescribing projects naturally divide into three phases: before, during and after implementation

Before is about establishing what is to be done, bringing the right people together and mobilizing resources. In almost all cases this is undertaken by a multi-professional steering group or project board, where together with doctors, pharmacists, managers and IT specialists, nurses must be represented and speak up.

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Among the most important issues that the project board must consider, and to which nurses should contribute, is the phasing of the implementation.

As front-line clinical staff, during roll-out nurses will have to deal with patients who move between areas of the hospital that are using ePrescribing, and those that are not - potentially printing out medication records when patients move to a paper-based ward, and then re-entering data to update the medicines record on their return to an ePrescribing ward. This is extra work, but also poses an important safety concern. For this reason a rather faster implementation across the whole hospital may be appropriate so as to ensure a reduced period of working a dual system, even if this demands more resources to support the shorter period of changeover to ePrescribing.

Training, too, is an important concern where nurses should make a substantial contribution to planning. Training will be important for all staff, but it has to be the right kind (active, focused on essentials, a mix of on-the-job and classroom-based), given at the right time (shortly before use begins), and given using the same system (hardware and software) as will be used in practice.

Support for all staff needs to continue beyond formal training, backed up by easy reference materials, plenty of opportunities for informal consultations, and always with an appropriate person available to answer questions 24/7.

Some nurses may take the role of ePrescribing super-user, undertaking training of all types of healthcare professional, answering questions, providing support and feeding back problems and concerns to the development team.

During the change-over period from paper-based prescribing to ePrescribing particular care needs to be taken to support people as they start to use the new system. The standard of care given must be maintained, and this requires some monitoring of how the new system is being used. If safety concerns are raised then they must be swiftly addressed. At the time of changeover, extra people will need to be available round the clock to transfer data to the new system, offer support to new users, and deal promptly with issues as they arise.

One common question that nurses quite reasonably ask is, "What happens if the computer crashes?". The answer to this question needs to be very clearly established, and everybody needs to know what the back-up procedures are, and to have used them. Aspects to consider might include who is in charge of printing off backup paper medication records; how long will it take for my ward's records to come; how do the

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records get to me on the ward (do I have to send a staff member to get them) and finally, who do I give the paper records to once the ePrescribing system is up again, because the data needs to be entered back into the system (and I am far too busy to do this!)

After, when ePrescribing is established and in use, it still needs to be actively supported and managed. For example, when new staff join they need to be trained, given log-in rights and supported in their initial use.

Indeed, an ePrescribing system needs active management throughout its life, and nurses should be part of that role. The systems must continue to be developed and improved, partly initiated by feedback from users such as nurses.

As ePrescribing comes into use, the ways that things are done will change. For example, nurses will have more information available as they prepare for drug rounds and administer medicines, pharmacists will be able to screen new medication orders using terminals away from the ward, or formulary controls may be introduced.

People will accommodate and react to these and similar changes in different ways. Nurses and others who use ePrescribing will need to monitor what happens and ensure that good, safe care continues to be given.

Sometimes changes made to the way medicines are used will be clearly beneficial to all, but sometimes there will need to be a careful judgement made as what is the right practice and how strongly it should be enforced. Certainly the computer should never be allowed to prejudice the safety of care. But equally, neither should opportunities to improve practice by changing the way that medicines are managed be avoided for fear of change itself.

With experience, nurses and other healthcare professionals often find that some tasks are not as easy to do as they could be, or that some aspect of the routine of medication administration could usefully be changed. A good ePrescribing support team will be eager to hear about such requests and insights. Their job, beyond the initial implementation, is to continue to adapt and develop the ePrescribing system to gain extra benefits in terms of medicines management as well as patient safety and patient care.

ePrescribing in hospitals

This briefing is one of the outputs of a project commissioned by NHS Connecting for Health (NHS CFH). The project involved gathering experiences and opinions from people in a number of hospitals in England who had been part of the implementation of ePrescribing systems. The ideas presented here are based on the actual experiences of NHS staff who have worked on ePrescribing implementations.

A copy of the full report and briefings aimed at other staff groups can be found at: www.connectingforhealth. nhs.uk/eprescribing

Any comments or queries about the briefings or report should be directed to the ePrescribing programme at NHS CFH at eprescribing@nhs.net