Electronic care records give nurses access to information that can transform patient care

Electronic care records will create single, standardised records for NHS patients in England. This will ensure that the fullest clinical picture is available to all nurses, and enable the NHS to improve the quality of patient care and support the transformation of clinical services (DH, 2006).

INTRODUCTION

In Modemising Nursing Careers – Setting the Direction (Department of Health, 2006), the chief nursing officer for England argued that nursing must change to meet the complex global challenges facing the health service. It is widely recognised that a greater use of information technology would empower nurses to meet these challenges, particularly when set against the backdrop of quality, productivity, value for money and changing public expectations.

Although nurses have tended to be slow adopters of information technology (National Nursing Research Unit, 2009), the introduction of local IT systems and widespread use of products and services from the National Programme for IT in England means that it is rapidly becoming integral to every aspect of their working lives.

While most will be involved in using only some of these technologies, all nurses will be involved in using the electronic care record, which is being developed and implemented throughout the NHS in England.

BACKGROUND

The ECR has been identified as one of the main factors enabling the NHS to improve the quality of patient care and support the transformation of clinical services (DH, 2008). It would achieve this by doing the following:

- Providing healthcare professionals with a tool for clinical practice that gives them access to accurate and up to date information about patients;
- Supporting current and ongoing clinical management;
- Establishing an integrated record of the care given by NHS organisations as patients move between primary, acute and tertiary care;
- Providing a rich source of reliable and valid information to support research and a whole range of quality and performance monitoring systems – often called the “secondary uses” (Brennan, 2007).

Responsibility for developing and implementing the ECR lies with NHS Connecting for Health, the strategic health authorities and NHS organisations. To ensure the ECR fulfils its purpose, NHS Connecting for Health is charged with providing the national infrastructure, technical standards and clinical terminology standards that would ensure compatibility between systems.

Providing it is used to maximum effect, the ECR has the potential to support safe, timely and high quality care with clear health outcomes and to tackle poor record keeping practices (Saranto and Kinnunen, 2009). It could also enhance the ability of individual nurses to audit, research and innovate.

PATIENT CARE

Increasingly, nurses need to work in and across a range of settings, both as leaders and members of multidisciplinary teams, ensuring that care is organised and integrated around patients’ needs through individualised pathways.

Key to this is the ability to share well structured and unambiguous clinical and social information that supports the underlying assessment, planning and workflow of patients’ care pathways. The main source of this information is the nursing record.

Assessment

Bellack et al (1992) argued that a comprehensive assessment is essential to accurate nursing diagnosis and the implementation of well designed cost effective interventions that improve health outcomes and promotes patient welfare.

Electronic systems enable healthcare professionals to agree the content of initial and specialised assessments based on existing evidence, guidelines and policy. Once agreed, standardised documentation can be developed and made available across health communities and clinical networks. This, in turn, allows mandatory elements of data collection to be captured as part of the routine workflow.

Care Planning

Building on the use of standardised assessment, electronic records can also support evidence-based preconstructed care plans built from reusable building blocks of care such as the management of acute pain and the management of intravenous lines. Standardising terminology encourages nurses to develop care plans from bland statements of intent to unambiguous, prescriptive and systematised Nomenclature of Medicine Clinical Terms (SNOMED CT) coded actions. For example, using “calculate the fluid intake” needs of the patient rather than “ensure adequate fluid intake” offers practitioners the opportunity to base care on structured, actionable knowledge, the impact of which is measurable, quantifiable and can be adjusted in response to a patient’s condition.

Using an ECR system that can be shared across the healthcare team, irrespective of location, enables coherent and consistent...
care planning across the patient pathway. It can also support the bundling together of appropriate interventions, the inclusion of quality indicators and a prospective approach to discharge planning, all of which are associated with high quality care.

Incorporating all patient records into one electronic format, rather than a collection of separate paper records, should improve communication between teams, and allow decision making to be based on real-time data, with the fullest clinical picture available to all.

Patient education
Nurses are ideally placed to have a significant impact on patients’ wellbeing by enhancing their understanding of their health status and ability to contribute to self care. The ECR will support this role in a number of ways:

- Consistency in approach and information: shared records allow nurses to personalise information for each patient, and make it accessible at all points along the care pathway. This increases patients’ confidence in the quality of information and education the receive and ensures consistent messaging from different healthcare professionals.
- Empowering patients: holding the clinical record electronically can allow planned interventions, such as retinal photography, to be scheduled routinely, or key results or health markers to be viewed graphically as a time line. Viewing and using clinical information in this way gives nurses an opportunity to influence and lead on prevention and health promotion.

Education is a significant part of nurses’ role in supporting patients in their homes. The ECR is part of a wider system that enables community nurses to consult with other practitioners and share monitoring and reporting on emerging problems and issues. Remote consultation can be supported through simple email and text services or by sophisticated telemonitoring equipment connected to centrally located nurses and other healthcare professionals.

Leading and managing
Frontline nurses have a responsibility to ensure that resources are used in a way that maximises the safety, health and wellbeing of their patients and optimises productivity and delivers value for money. Bringing this set of challenges together within existing financial and performance frameworks is likely to be difficult to achieve unless nurses and other clinical professionals exploit some of the opportunities offered by the ECR.

Managing across care pathways
Often patient outcomes depend critically on how effectively the care pathway is managed. A redesigned pathway supported by electronic records with standardised clinical documentation will support comprehensive, multidisciplinary assessment of illness severity. Identifying comorbidities, disabilities and social needs is the most likely way to achieve faster clinical decision-making, reduce readmissions, cut mortality and secure an overall improvement in patient experience.

Handover
Patient handover between staff at different points in the system is always an area of potential risk (Patterson et al, 2004). This risk is exacerbated by paper-based systems in which information is frequently rewritten and interpreted. The ECR allows information to be electronically collated, structured and communicated; Heart of England Foundation Trust has reported significant benefits for both staff and patients.

Managing records
With electronic records, any changes to clinical documentation and record keeping can be managed centrally, with the removal of earlier versions.

Managing clinical documentation in this way not only removes the risk of multiple, modified versions but also improves the overall standard, assurance and governance of all clinical documentation. Consolidation of the electronic record will also lead to a more productive use of nursing time.

Researching and improving practice
Nurses have a duty to participate in or lead research and audit that develops the profession’s knowledge base, informs best practice and supports quality improvement.

Taking information from paper-based records is time consuming, inconsistent, often lacking in governance and frequently incomplete. By using structured documentation and coded data within the ECR, nurses’ ability to collate and report against patient outcomes as well as quality and performance indicators is simplified, repeatable and manageable across large cohorts of patients.

In addition, access to large amounts of data increases research value and makes discovery and comparison more robust and significant.

CONCLUSION
While this article has focused on the advantages of the ECR, eminent researchers such as Greenhalgh et al (2009) and Urquhart and Currell (2005) have advised caution. They point to the paucity of good evidence, potential disadvantages and a range of complex issues such as data standards that can reduce their efficacy.

Nonetheless, many NHS trusts are using electronic records and managing such issues as they arise. They recognise a standardised, legible and objective record that is accessible to patients and clinicians is the minimum requirement for safe and effective care.

REFERENCES