Barriers to the timely implementation of e-prescribing

The E-prescribing concept is becoming realisable under modern healthcare initiatives however; there are notable barriers, which effect the implementation of e prescribing. This short essay aims to explore such barriers and understand the importance of such on the medical profession

Definition of e-prescribing and Components of electronic prescribing

Electronic prescribing involves several processes: drug ordering for inpatients, medicine administration (MA) drug prescribing for outpatients, and decision support. The process of drug ordering alone is considered as electronic prescribing, whilst others view the electronic prescribing process as requiring all process to be used in a coordinated way. For the purposes of this essay, the prescribing and administration processes are collectively called EPMA.

Barriers preventing the successful and timely implementation of prescribing

E-prescribing and medicines management is an integral component of incremental EPR. At present there are recognised barriers in place preventing such timely implementation;

o Software development

Many e-prescribing options available are based on US software. In the UK many successful implementations are based on a high degree of local customisation. Early instances in electronic prescribing have shown that software advances have not yet reached the stage where suppliers can rollout applications in a fast and effective manner.

Response time and speed of use is crucial. Overall e prescribing in not supposed to be any faster than the paper based system. The significant challenge for EPMA is moving from simple investigative order and results reporting systems. The challenge involves making the application simple and intuitive to use.

Across the NHS there is a non-standard, unified data dictionary. At present there is several drug dictionaries in use by trusts, EPR suppliers. There is a culture where sharing is limited hence the need for all parties to work together to find an appropriate solution. Thus far little has been done to create a de-facto standard data dictionary, which many agree would be useful. Another problem is the dataset for prescribing is not necessarily the same as required for dispensing/issue of drug procurement.

o Timescales for procurement and implementation

According to the British journal of healthcare computing and Information Management, for acute trusts the lead time to formulate a strategy, procure and implement EPR systems up to level three will at this rate be completed reasonably by 2005. Delays include the lengthy procurement process, building of local formulary and a testing phase.

o Cultural and organisational issues

There are important cultural and organisational issues that trusts need to comply with in order enable EPMA to be brought in successfully. For instance fears that EPMAs will “ de-skill” healthcare professionals have been

suggested. This is something that needs addressing before staff believe they are able to trust the system.

There is also the concern that EPR systems lack security. Many see lax security as being a major factor of discouraging trusts from actively driving forward the implementation of EPMA.

As a result of implementing EPMA considerable change is expected. Change cannot only threaten staff but can cause disruption and disharmony amongst employees. As a result adoption of new methods means that staff such as doctors, nurses and pharmacists will have to change many of the tasks they do, change their routines and even their established working relationships. This can jeopardise morale, whilst it is less traumatic to continue with tried and tested methods as opposed to creating new ones.

The successful introduction is heavily reliant on getting the culture and people issues appropriately aligned within the organisation.

Leadership is highly important

o Level of investment

EPR means that trusts will be required to invest around double their current annual expenditure, from some 1. 5% to 3% of total income. Once in place then EPR is expected to realise the benefits. Cash related benefits however, will only come into play from 2-3 years onwards. As a result trusts and other financial aids will have to facilitate the investment process.

o Lack of long term vision and strategy

A barrier that needs to be overcome is strategy. In many trusts there is the obvious absence of a cohesive and acute trust’s strategy. There is not yet an agreed model for the delivery of EPMA.

o Complexity of the prescribing process

Electronic prescribing is perceived as being more complex to implement then the basic ordering and results reporting of radiology and laboratory tests. Such is the added complexity of the task that it is acting as a deterrent to the further progress of many sites, even those who had intended to implement EPMA in the first instance. Many have stopped short of this aspect of EPR.

The main aspects to this complexity are

High risk of failure : The risks of being wrong financially and clinically are great. The potential impact on clinical services is such that many sites prefer not to proceed and be seen to fail.

IT-support requirements: EPMA requires a sophisticated level of IT support that is currently rare in the health service. Systems are required 99. 9% of the time, 24 hours a day, 365 days of the year

System-development personnel: The scale of commitment required within the trust is significant. The implementation team will be large, and probably require a minimum of one whole-time “ equivalent pharmacist seconded to the project for at least 18 months to undertake development” with ongoing support and enhancements requiring a similar scale of time.

Negative connotations

The NHSs past has been often associated with disaster, thus implementations of computerised systems, many perceive there being a negative outcome as a result.

Failure to transfer knowledge and experience

Evidence suggests that trusts are unwilling to learn from previous NHS experience. As a result implementations are likely to be delayed and problems are likely to be avoided.

Senior management and clinician commitment

Many successful EPMA projects have stressed the vital importance of senior management and clinician commitment. Many view these as vital components that need to be achieved if there is to be successful implementation. However, the greatest challenge to modern trusts is the lack of understanding and commitment there appears to be.

Inappropriately worded legislation and official guidance.

One of the crucial barriers the account for is legislation and official guidance. There are a number of acts and regulations that need to be accounted for in any EPMA process.

The Medicines Act (1968) and the Misuse of Drugs Act (1971) and other codes of ethics of professional bodies need full consideration when designing alternatives to the existing prescribing process. Although EPMA could

potentially ensure better adherence to existing data recording requirements of the above acts.

There are specific rules that relate to the existing paper-based process. These laws require legislative changes to be made before all electronic prescribing could be considered lawful.

Conclusion

E prescribing is viewed as an integral element of EPR. However, in implementing such changes notable barriers are in place making the task more cumbersome and difficult. Without these being realised the task of E-prescribing would be much more difficult. The above essay has highlighted the key elements of consideration. It is clear from the research initiated that many factors must be dealt with if e prescribing is to be as successful as it as the potential suggests.