

Electronic Prescribing in the UK

Opportunities and Challenges

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Electronic Prescribing (EP) in the UK

- Concerned with automating the prescribing process in secondary care
- Closely associated with the Electronic Patient Record (EPR) (Connecting for Health (CfH) National Care Records Service (NCRS))
- Distinct from the electronic transfer of prescriptions (eTP) between GPs and Community Pharmacies (the Electronic Prescriptions Service)

Electronic Prescribing in the UK

- Current UK position - EP used in a minority of hospitals
- Survey of 188 UK hospitals conducted in 2000 - 89.4% had no EP system, 11% were using EP, but only 2% of hospitals had full EP services
- There is a lack of more current information on EP usage

Electronic Prescribing in the UK

- Pioneer Hospitals

- Wirral Hospitals
- Burton on Trent
- Southmead Hospital Bristol
- Sunderland
- Recent second generation implementation -
Winchester

Electronic Prescribing - Benefits & Opportunities

- Availability of a full electronic prescribing history
- Clearer and more legible prescriptions
- Streamlining of hospital business processes
- Decision Support available
- Comprehensive audit trail
- Reduction in medication error rate

Availability of a full electronic prescribing history

- All prescribed items are recorded on the EPR in a clear and consistent manner
- Requires comprehensive drug database
- Use of predefined orders (PDOs) to support data capture
- Can view a patients electronic prescribing history remotely and in different hospitals

Clearer and more legible prescriptions

- Completeness of prescriptions dependent on full data capture
- Clarity of record will depend on screen/form design, size of fonts etc
- Usability of system will depend on user familiarity with forms (eg. Standard forms already used in the hospital)

Streamlining of hospital business processes

- Reduction of medicines ordering turn-around times, due to electronic link from wards to pharmacy
- May streamline the discharge process
- Existing business processes/SoPs may need to be modified
- Process benefits may not be equally realisable in different healthcare economies

Decision Support (DS) available

- DS tools can help with drug interactions, duplicate therapy, allergies, doses, contraindications etc
- Third party databases provide comprehensive data to support DS
- Problem of “warning fatigue”
- Are there any prescriptions that should be disallowed?

Comprehensive audit trail

- Useful for investigating critical incidents and “near misses”
- Can be used to investigate and confirm unauthorised use of the system
- Can be used to provide management reports and to resolve disputes
- How can user lists be maintained (locums, bank staff etc)

Reduction in medication error rate

- US analysis of 1111 prescribing errors - 64.4% of errors can be prevented by EP, a further 22.4% can be prevented by EP dependent on system design
- System design is critical in some areas (controlled drugs, continuous infusions)
- EP systems can introduce new hitherto uncharacterised errors

Electronic Prescribing in the UK

- Challenges to Progress

- Connectivity of systems
- Standards for data transfer (eg dm+d)
- Scalability and performance of complex EP systems across hospital sites or bigger environments
- Managing Change with all stakeholders

Electronic Prescribing in the UK

- Challenges to Progress (2)

- Adequate communication of research outcomes between EP experts/implementers and stakeholders
- Commercial interests of the IT industry
- CfH
- See: Goundrey-Smith S.J. “Is Electronic Prescribing a Holy Grail?” Pharm. J. (2004) 272: 412

Any Questions?

- Review of EP issues in the UK: Goundrey-Smith S.J. “Electronic Prescribing - experience in the UK and system design issues” Pharm. J. (2006) 277: 485-489
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