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Health Economics Unit

Can the Electronic Prescription Service reduce pressure on hospitals?

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Background

National work is underway on the implementation of the Electronic Prescription Service (EPS) in secondary care settings. The EPS enables eligible FP10 prescriptions to be sent electronically to community pharmacies, reducing the need to wait in hospital for prescriptions or delivery of physical prescriptions.

The adoption of EPS in secondary care aligns with the 10 Year Plan's shift of hospital to community and may provide an opportunity for acute and community trusts to realise financial savings.

The Health Economics Unit developed a budget impact (BI) tool for trusts to demonstrate the incremental financial impact of EPS relative to BAU, using local data to model different uptake and implementation scenarios. The focus of the tool is on FP10 prescriptions that can be safely and affordably dispensed via EPS in a community pharmacy.

Methods

We developed a budget impact analysis tool in Excel from two perspectives: that of an acute hospital trust and of a community health trust. As EPS is primarily a system to improve the prescribing and dispensing workflow, the financial impact of EPS on the trust is derived from prescribing activity.

The structure of the tool was guided by logic models developed to understand the differential impacts of EPS compared to BAU. Extensive stakeholder engagement was undertaken with pharmacists and analysts across trusts to inform the logic models.

Acute

In the acute setting, we focused on outpatient prescribing activity. For FP10 prescriptions currently dispensed in trust outpatient departments, the prescription is sent electronically to the hospital outpatient dispensary (either outsourced or in-house). Under EPS, eligible prescriptions will be dispensed in a community pharmacy.

Figure 1 presents the logic model for moving from dispensing in a hospital outpatient pharmacy to dispensing in a community pharmacy.

EPS is likely to have an impact on the cost of medications, dispensing fees (community pharmacy and outsourced hospital pharmacy), couriering medications and staff time on dispensing medication (in-house pharmacy).

Currently hospitals pay for drugs under their own confidential pricing frameworks. Under EPS, the trust will reimburse community pharmacies using Drug Tariff rates.

Figure 1: Logic model for acute trust setting

Inputs	Activities	Outputs	Outcomes	Financial Impact
• Implementation Costs • Cost of Licenses • Ongoing EPS Support	• Prescriber enters prescription into EPS system rather than hospital outpatient system • Patient chooses local community pharmacy • Prescription sent electronically to local community pharmacy (via Spine) • Medicines dispensed in community pharmacy rather than outpatient dispensary in hospital	• More prescriptions processed via EPS and dispensed in community pharmacies • Fewer prescriptions dispensed in hospital outpatient pharmacy	Reduced costs for couriering medication	Cash releasing saving
			Drugs costs differences (drugs now being dispensed in the community)	Likely additional cost
			Dispensing fee reduction (drugs now being dispensed in the community)- if outsourced pharmacy	Cash releasing saving
			Dispensing fee introduction (drugs now being dispensed in the community) - if hospital owned pharmacy then previously no dispensing fees	Likely additional cost but could in house pharmacies have operational costs
			Reduction in hospital staff dispensing time	Cash releasing saving with option to model as income gen (TBD)

Community

In the community trust setting, a paper-based prescription workflow is used to prescribe and dispense FP10 prescriptions in community pharmacy. Figure 2 presents the logic model for digitising the workflow under EPS.

Expenditure on medication and dispensing fees does not differ between EPS and BAU. EPS is likely to have an impact on the cost of couriering medications; staff time spent on prescribing, administration and governance of paper FP10s; and stationery costs.

Figure 2: Logic model for acute trust setting

Inputs	Activities	Outputs	Outcomes	Financial Impact
• Implementation Costs • Cost of Licenses • Ongoing EPS Support	• Prescriber enters prescription into EPS system rather than handwriting prescription under FP10 workflow • Patient chooses local community pharmacy • Prescription sent electronically to local pharmacy (via Spine) • Medicines dispensed in community pharmacy as before but electronically rather than paper based	• More Prescriptions now delivered via EPS electronically rather than via handwritten physical FP10s (excl. MDAs) • Previous FP10s dispensed in community, still dispensed in community (no change drugs costs)	Reduced admin time for prescriber from no longer handwriting prescriptions	Cash releasing saving w/ option to model as additional income generating appmts
			Reduced stationery costs for paper FP10 pads	Cash releasing cost saving
			Reduced staff time for admin and governance of FP10 paper pads	Assume offset with EPS ongoing support / governance
			Reduced costs of posting prescriptions / couriering medications (mileage)	Cash releasing cost saving
			Trust access to real time prescribing data and patterns compared to previous 2-3 month lag via NHS BSA	

Results

The tool will be adapted locally by each trust. As such, the results will reflect each trust's local data, confidential medicines pricing framework and anticipated uptake and implementation scenarios.

The main output of the tool is the annual and aggregated net budget impact of EPS implementation and operation relative to BAU over three years. Table 1 described the categories of financial impact.

Table 1: Impact categories, definitions and examples

Impact	Subcategory	Definitions	Examples of costs
Cashable	Cost-incurring	Direct increase in budget incurred as a result of transition to EPS	• EPS licences • Staff FTE for implementation • Paper FP10 stationery • Postage and courier services • Reclaiming prescription charge
	Cash-releasing	Direct reduction in budget associated with EPS relative to BAU	
	Cost neutral	No change in budget relative to BAU	
	Income-generating	Delivers additional revenue to Trust	Additional appointments resulting from staff time savings in outpatient pharmacy
Non-cashable	Efficiency loss	Inefficiency in use of resources without direct impact on budget	Staff time spent on: • Dispensing • Prescribing • Administration and governance of paper FP10
	Efficiency gain	Improvement in use of resources without a direct reduction in budget	

We can expect savings for trusts to arise from:

- Reduction in need for postage and courier services
- Lower dispensing fees in community (acute)
- Ability to reclaim prescription charges (acute)
- Reductions in prescribing time and management of paper FP10s (community)

The tool includes pre-programmed sensitivity and scenario analyses, such as probabilistic sensitivity analysis; one-way deterministic sensitivity analyses; income-generating activities due to staff time-savings, and conservative and optimistic net BI estimates.

Conclusion

The Budget Impact (BI) tool will allow NHS England to assess the financial impact of the shift to electronic dispensing in community pharmacies by aggregating BI results across all trusts. There are some limitations to note:

- Processing historic prescription activity data to include only prescriptions eligible for EPS will be a challenge due to differences in drug nomenclature used by hospitals and the Drug Tariff.
- Drug expenditure in the tool under BAU and EPS reflects data at a point in time. However, the Drug Tariff is updated once a month, with changes in price concessions within the month, and hospitals may negotiate different pricing frameworks.
- While the tool is adaptable and includes placeholders for any cost differences not considered in the implementation and operation of EPS, there may be systematic differences and national variation across NHS trusts that are not captured.
- A&E/UEC, virtual wards and homecare are not captured in our scope due to differences in reimbursement arrangements and challenges in identifying eligible prescriptions from trust stock data.