Improving health outcomes by reducing medicines waste

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Our series on adherence with prescribed medications considers how it can be improved and the cost of wasted medicines reduced. Here, Professor David Taylor looks at the causes of avoidable drug waste and the savings that can be achieved.

‘Waste’ is frequently taken to be inherently undesirable. The term implies needless expenditure and lost opportunities, along with environmental damage and a lack of care. In the context of medicines and the NHS it raises images of money that could have been better spent, of poor prescribers and wayward patients, and of toxic chemicals poured ‘down the drain’.

For many, the fact that government and academic reports alike have indicated that across the UK drug waste costs are probably running at between £500 million and £1 billion per annum leads them to believe that more needs to be done to stop this haemorrhaging of public resources.

Such data suggest a health service that is not only insensitive to the price of the drugs it dispenses, but is also lax with regard to maximising their value for patients.

Yet the truth is very different. The reality is that in today’s cash-limited NHS most staff members are aware of the need for prudent, cost-effective drug use. There is also evidence that the great majority of health service users – particularly older people who are more likely than any other group to be taking medicines – are mindful of the need to avoid waste of any type.

The politics of exaggeration

Critics of universal healthcare systems that provide treatments that are normally free at the point of delivery often argue that they drive inappropriate demand and irresponsible behaviour in areas such as pharmaceutical supply and consumption.

The implication is that if patients had to pay for each item, and if professionals and institutions were to lose income when they can be shown to have prescribed or supplied medicines ‘excessively’, then large sums would be saved and health improved into the bargain.

But there is in fact no reason to believe that medicines waste is more of a problem in the NHS than in other healthcare systems. Rather, there is strong evidence that punitive charging policies intended to foster better medicines usage would be likely to have perverse consequences that cost more than they save.
In fact, the recently announced 2014 Pharmaceutical Price Regulation Scheme caps the total cost of medicines to the NHS. Hence inappropriate local attempts to curb prescribing costs instead of maximising care quality could deprive patients of optimal treatment for no financial benefit to the service as a whole.

In the past, some critics may fear, some attacks on medicine waste may have been motivated more by a desire to undermine the public standing of health professionals or cause the NHS ‘brand damage’ than by a desire to enhance public health.

Prejudiced views regarding ‘patient irresponsibility’ and GP or nurse and care home staff incompetence may also have stemmed accidentally from some pharmacy-led efforts to highlight medicines-taking problems.

They may on occasions have even resulted from misguided attempts to justify pharmacists’ roles in the face of falling (generic) medicine costs and the perceived threat of automated dispensing.

It is of course true that pharmacists are better positioned to appreciate the scale of medicine wastage than others working in the health sector. But against this, they are arguably more responsible than others for minimising it and so for any persistent systemic failures. In the community it is GP budgets that are negatively impacted by needless medicines costs, while pharmacy returns can sometimes be increased as a result of supplying unwanted prescription items.

Justifiable medicines ‘waste’

Looked at dispassionately, the available evidence suggests that the total value of wasted medicines (as opposed to those that are incorrectly prescribed or taken, and so fail to generate optimal value) across England and the UK as a whole is unlikely to exceed 5 per cent of total pharmaceutical spending. This represents about 0.5 per cent of all NHS costs.

Further, not all such waste is unjustifiable and/or preventable. Some, for instance, occurs because patients’ conditions change. In other cases it is more cost-effective to ‘over-supply’ individuals and institutions such as care homes with medicines and subsequently to discard excess amounts than it would be to risk patients having to return for a repeat consultation, or to employ the additional staff required for a more tailored approach to pharmaceutical supply and care.

The average price of a (community use) medicine is now under £10 for a month’s supply. Employing a health professional like a nurse, doctor or pharmacist typically demands well in excess of £10 an hour. Saving people’s time and preventing wasted effort is often the real priority.

Figures like these help highlight the point that it can be more cost effective to write three-month prescriptions rather than to supply on a monthly basis.2

However, having said that, it can be broadly estimated that approaching a half of all medicines wastage in hospitals and the community cannot be justified and is associated with poor care standards and impaired health outcomes.

Examples of the causes of ‘bad waste’ range from the inadequate support of elderly and other individuals with conditions such as COPD who are prescribed inhaled medicines, through to the underuse of community pharmacy-managed repeat dispensing schemes and inadequate hospital systems.

In the latter, events such as ward or clinic returns of unused high-cost drugs that cannot be (or for whatever reason are not) reissued provide examples of the type of waste that should, and often could, be avoided.

Positive progress

Other causes of avoidable waste of medicines in hospitals and at the interface between the inpatient and primary and community care relate – as is now well known – to failures in areas such as encouraging the appropriate use of patients’ own drugs (PODs) and inadequate approaches to medicines reconciliation and discharge communication and support.

Correcting weaknesses in these areas is important because they can lead to harm that goes well beyond drug wastage. They are often the root causes of inappropriate prescribing and intentional and involuntary nonadherence in medicines taking. Together, such factors impose welfare costs well in excess of those associated with more narrowly defined drug waste.

Seen from this perspective, documents such as the 2012 DH Action Plan Improving the Use of Medicines for Better Outcomes and Reduced Waste3 offer good reason to expect continuing
progress. The introduction of local and/or national interventions aimed at further improving repeat prescribing and dispensing systems and incentivising pharmacists not to dispense prn medicines when people already have adequate stocks at home should help to ensure that NHS performance in this area is amongst the best in the world.

Delivering more effectively targeted support to people such as vulnerable individuals living alone in the community could further enhance the economic efficiency of medicines supply and use via health and wellbeing outcome improvements.

Conclusions
In isolation, the value of further cuts in medicines waste should not be overstated, especially if – as may be the case with some community campaigns – initiatives aimed at achieving them undermine confidence in the NHS and the people who work in it or who use its services.

In net terms it is unlikely that additional efforts aimed at drug waste reduction alone could generate cash savings of more than £50–£100 million a year. This, in today’s circumstances, is a useful but limited sum compared with the challenges facing the health service.

However, there is evidence that as part of an integrated approach to optimising the use of pharmaceutical and allied products – which should include addressing the underprescribing of cost-effective innovations as well as further curbs on needless drug supply – medicines waste management has a valuable part to play in public health improvement.

References

Declaration of interests
None to declare.

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