Medicines optimisation – it’s everybody’s business

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It is unlikely to have escaped anyone’s attention that medicines optimisation is the latest buzz-phrase in pharmacy and prescribing circles. Unfortunately, as is so often the case with a new concept, there is a lot of misunderstanding as to precisely what is meant by the term.

There has been much debate about the concept. I have attended conferences and seminars focused on medicines optimisation, I have seen numerous references to medicines optimisation in health media and have participated in a number of discussions, using social media, about what is meant by the term.

There are some people, particularly pharmacists in primary care, who seem to think that medicines optimisation is just another term for medicines management. I have heard of a number of primary-care pharmacists who have changed their job titles from Medicines Management to Medicines Optimisation yet continue to do what they have always done.

Medicines optimisation is not synonymous with medicines management: it is a new approach to how we think about using medicines, although it is an evolutionary rather than revolutionary concept.

Medicines management
So what is the difference between medicines management and medicines optimisation? The word management is defined as ‘the act, manner or practice of managing, handling, supervision, or control’. The original concept of medicines management was developed at the turn of this century to encompass all activities surrounding the use of medicines.

In 2002, the National Prescribing Centre published Modernising Medicines Management: A Guide to Achieving Benefits for Patients, Professionals and the NHS, which...
defined medicines management as: ‘A system of processes and behaviours that determines how medicines are used by patients, and by the NHS. Effective medicines management will place the patient as the primary focus, thus delivering better targeted care and better informed individuals’.

Unfortunately, while the original concept sought to put the patient at the centre of activities involving the use of medicines, in practice the focus of medicines management teams in many organisations has been on systems and processes for managing, handling and controlling the use of medicines, and on managing prescribing budgets, rather than on how or whether patients use their medicines.

While there has been some great work since the concept of medicines management was first introduced, it is clear that, across the system, we have failed to tackle the major challenges facing improved quality in the use of medicines, and we certainly have not maximised the return from our investment.

The time has come to fundamentally change the way in which we view the use of medicines. We must shift our focus from managing medicines expenditure to improving our return on the approximately £13 billion investment we make on medicines in the NHS in England.

**Patient outcomes**

Historically, medicines have been considered a cost pressure. We use words such as cost, spend and budget in relation to the use of medicines. As a result, a prime focus has been on managing prescribing budgets. The financial systems within the NHS have driven this activity.

The use of medicines in primary care is one of the few areas of activity that is rich with data: we know who writes the prescriptions, for which medicines, in which location those prescriptions are dispensed and how much they cost. Unfortunately, we have less information about individual patient outcomes from the use of medicines, nor do we know whether individual patients actually use them as intended.

We have evidence, at population level, that the use of medicines has played a major part in improving outcomes. For example, the widespread use of statins has played a large part in the reduction of deaths from coronary heart disease, and the use of antiretrovirals has led to HIV becoming a long-term condition. However, in many cases we have little information about individual patient outcomes and only have proxy measures for success, eg reduction of HbA1c in diabetes, management of blood pressure, etc.

We know that there is huge variability in activity, healthcare expenditure, outcomes, etc, across England. Some variability is to be expected and is not necessarily a bad thing. However, there is increasing evidence that a lot of the variation is unwarranted. For example, within a PCT area there will be some GP practices that prescribe large quantities of statins, at relatively low cost per patient, that achieve significant reductions in cholesterol levels, while there are other practices that prescribe more expensive statins but achieve relatively poor control of cholesterol.

We need to analyse and understand the cause of such variation.

**Poor adherence**

We have failed to tackle the issue of poor adherence to medicines. National and international studies consistently highlight the fact that poor adherence is an endemic problem. A number of studies have shown that between a third and a half of medicines prescribed for long-term conditions are not taken as intended: improving adherence should lead to improved health outcomes.

We need to improve the amount and quality of information we provide to patients about their medicines. We need to reduce prescribing errors: the PRACtICe Study found an error rate of up to 5 per cent in prescribing in secondary care, the EQUIP Study found a 10% error rate in prescribing in secondary care, etc.

**Key points**

- medicines optimisation means getting the most out of medicines, and making best use of medicines
- it encompasses all aspects of medicines use including decisions about which medicines should be used, how they are supplied and how patients are supported to get the best outcomes from the use of their medicines
- the focus should be on improving the return on the NHS’s investment in medicines rather than managing prescribing budgets
- we should focus on reducing unwarranted variation in prescribing and outcomes
- between a third and a half of medicines prescribed for long-term conditions are not taken as intended: improving adherence should lead to improved health outcomes
- at least 6% of hospital admissions are due to adverse effects of medicines
- we need to reduce prescribing errors:
  - the EQUIP Study found a 10% error rate in prescribing in secondary care
  - the PRACtICe Study found an error rate of up to 5 per cent in prescribing in primary care
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Health-funded Evaluation of the Scale, Causes and Costs of Waste Medicines indicated that the gross annual cost of NHS primary- and community-care prescription medicines wastage in England is currently in the order of £300 million per year, and up to 50 per cent of that waste is likely to be cost-effectively preventable. The report indicated that significantly greater returns could be generated by better medicines use, as opposed to waste reduction per se.

Improving adherence could improve health outcomes. The report estimated that the opportunity cost of the health gains foregone because of incorrect or inadequate medicines taking in just five therapeutic areas (diabetes, hypertension, statins for secondary prevention, asthma and COPD, and schizophrenia) is in excess of £500 million per annum. So investing in supporting adherence is likely to be cost-effective.

Safety
We know that we harm people when they do use the medicines we give them. Estimates vary, but there is evidence that at least 6 per cent of hospital admissions are due to adverse effects of medicines.

In addition, prescribing errors are common; for example, the Errors – Questioning Undergraduate Impact on Prescribing (EQUIP) study found an error rate of up to 5 per cent in prescribing in primary care. So we need to do a lot better in terms of safer use of medicines.

We don’t provide patients with sufficient information about their medicines. For example, the National Outpatient Survey, undertaken by the Picker Institute, has repeatedly shown that less than half of patients feel that staff ‘completely’ tell them about medication side-effects to watch out for.

A new focus
There is a need to change our focus from how the system uses medicines to how we support patients to get the best from their medicines. Medicines optimisation better describes what we should be trying to achieve from the use of medicines. The word optimise means ‘to get the most out of’ or ‘make best use’, hence medicines optimisation better describes what we should be trying to achieve from the use of medicines.

It means getting the most out of medicines or making best use of medicines, and encompasses all aspects of medicines use including decisions about which medicines should be used, how they are supplied and, most importantly, how patients are supported to use their medicines.

Medicines optimisation is everyone’s business.

References

Declaration of interests
Jonathan Mason has received honoraria from Pfizer, Roche and Martindale.

Jonathan Mason is clinical adviser (medicines), NHS East London and The City, and pharmacy lead for the Dementia Calls to Action, NHS Institute for Innovation and Improvement.