Prescribing Issues and Concordance

"We are heading towards Pharmageddon" - Paul Flynn, MP for Newport West.\(^1\)

Drug treatment is the most common form of treatment in primary care. Prescribing is the most common intervention in the NHS across all sectors, and after staffing costs, accounts for the second highest area of expenditure in the NHS. Although prescribing is an important part of primary care, it has frequently been described as unnecessary and wasteful. "Polypharmacy" is an increasing problem, highlighted by a 2013 report from the Kings Fund.\(^2\)

Prescribing statistics\(^3\)

The Health and Social Care Information Centre (HSCIC) collects and publishes prescribing data and analyses prescribing trends in England. Its 2014 report on prescribing between 2003-2013 shows the following from information about prescriptions dispensed in the community:

- There were 1,030.1 million prescription items dispensed in the community in England in 2013. This was a 3% increase from the year before, and a 58.5% increase from 2003.
- The average number of prescription items per head of population in 2013 was 19.1. This has gone up from 18.7 in 2012, and from 13.0 in 2003.
- The total net ingredient cost of prescriptions dispensed was 8.6 billion in 2013. This is an increase of 14.8% since 2003.
- The leading British National Formulary (BNF) section in terms of net ingredient cost for the past seven years has been "Drugs used in diabetes". The leading section in terms of numbers of items dispensed is "The cardiovascular system".
- The average net ingredient cost per item has fallen from £11.56 in 2003 to £8.37 in 2013. However, there was a slight rise between 2012 and 2013 for the first time in three years. The fall in the previous years, however, means the average cost per head of population has fallen slightly to £160.18 per year from its peak in 2010. This figure was £150.61 in 2003. Falling costs have been due largely to the patents expiring on leading drugs (resulting in huge savings on, for example, atorvastatin where cost fell by 124 million in 2012-13) and the increasing use of generic prescriptions.
- 90% of all prescription items are dispensed free of charge.

Elsewhere in the UK:

- Similar trends can be found on the Information Services Division (ISD) Scotland website.\(^4\) In the 2013-14 year, 98.8 million items were dispensed in Scotland, with number of items also increasing year on year. Generic prescribing has also been increasing steadily.
- Annual dispensing statistics are published by calendar year by the Welsh government. 76.2 million items were dispensed in 2013. The average net ingredient cost was £7.40, with drugs for treatment of the central nervous system accounting for the highest cost.\(^5\)
- In Northern Ireland, statistics are published by calendar year by the Business Services Organisation.\(^6\)

An ageing population has led to the increased presence of multiple morbidity, and inevitable polypharmacy. In those aged over 65 it is estimated that one in six receives 10 or more drugs.\(^7\)

Some of the pressures to prescribe have come from unexpected sources. The drive to meet GP contract targets has encouraged GPs to prescribe increasing amounts of medicines and to chase patients who decline to take them as advised. This might in part explain the comment in the 2009 guidance from the National Institute for Health and Care Excellence (NICE) that between a third and a half of medicines that are prescribed for long-term conditions are not used as recommended.\(^8\)
Another influential factor is the "pill for every ill" culture which has been fuelled by the media and is now firmly embedded in the nation's psyche. New guidelines and diagnostic criteria have been accused of medicalising normality in many clinical areas and fuelling prescribing.\(^9\)\(^,\)\(^10\)

**Prescribing information**

Prescribing Analysis and Cost (PACT) is a series of reports which tells GPs what they have prescribed and how much their prescribing has cost. This is now produced in England by NHS Prescribing Services in electronic web-based format (ePACT).\(^11\) Data can be compared by prescriber, by practice and by organisation in order to inform on prescribing costs and trends. It is updated monthly, six weeks after the end of the prescribing month.

**Prescribing guidelines**

There are many guidelines to safe responsible prescribing available.

- The General Medical Council (GMC) issued "Good practice in prescribing and managing medicines and devices" in 2013.\(^12\) This has detailed guidance about good medical practice with regards to prescribing. It includes sections on:
  - Keeping up to date.
  - Shared prescribing.
  - Repeat prescribing.
  - Reporting adverse reactions.
  - Remote prescribing.
  - Prescribing of unlicensed medicines.
  - Prescribing for yourself or those close to you.
  - Consent.
  - Sharing of information.

- The British Medical Association (BMA) website contains further guidance on prescribing.
- The BNF contains essential prescribing information and detailed instructions about all the drugs used by the NHS, as well as how to write prescriptions.\(^13\)
- Clinical guidelines from NICE and Scottish Intercollegiate Guidelines Network (SIGN) provide specific prescribing advice in some areas.
- The Medicines and Healthcare products Regulatory Agency (MHRA) provides regular drug safety updates and alerts.\(^14\)

**Repeat prescriptions**

Repeat prescriptions are estimated to account for two thirds of primary care prescriptions and 80% of medicine costs.\(^15\) A benefit of repeat prescriptions is that they reduce patient inconvenience as well as the professional workload. A disadvantage is the reduction of patient-doctor contact, resulting in potential clinical problems. Some patients may be eligible for a repeat dispensing scheme, whereby they can obtain repeat prescriptions for up to a year from their community pharmacy without having to contact their GP surgery. The pharmacist monitors the ongoing need for the prescriptions and checks they continue to be appropriate.

When reviewing each repeat prescription, consideration should be given to the following:\(^16\)

- Is it effective?
- Is it necessary or still required?
- Will the patient take it?
- Is the present formulation appropriate?
- Does it provide the most cost-effective treatment available?
- Has the patient had a clinical review within the previous 15 months (or shorter if clinically appropriate)?

In its guidance on Medicines Adherence, NICE also recommends considering the following at review:\(^8\)

- Offer repeat information and review, especially when treating long-term conditions with multiple medicines.
- Review at agreed intervals patients' knowledge, understanding and concerns about medicines and whether they think they still need the medicine.
• Ask about adherence when reviewing medicines. Clarify possible causes of non-adherence and agree any action with the patient (including a date for follow-up).
• Bear in mind that patients sometimes evaluate prescribed medicines in their own way (for example, by stopping and starting them and monitoring symptoms). Ask the patient if they have their own way of weighing up their medicine.

Electronic prescriptions\(^{[17]}\)

Increasingly, GP practices are using the Electronic Prescription Service (EPS). This allows prescriptions to be sent electronically to the chemist or dispenser of the patient's choice. This should improve both efficiency and convenience for all concerned. Access to the relevant system is through the use of smart cards. A GP applies an electronic signature to the prescription by using the PIN number for their smart card. A prescription can be cancelled at any point up until it is dispensed.

Concordance\(^{[18, 19]}\)

In recent years there has been a move away from the term "compliance", which suggests an element of compulsion, to "concordance", in which prescriber and patient enter into a partnership concerning the use of medication.

The cornerstones of concordance include:

• The level of information given to patients.
• Side-effects.
• The costs of medication.
• The effect on lifestyle.

NICE guidance refers to the term "non-adherence" and identifies two types: intentional (the patient decides not to follow the treatment recommendations) and unintentional (the patient wants to follow the treatment recommendations but has practical problems).\(^{[8]}\) Guidelines advocate a non-judgemental discussion in which the patient's perceptions and preferences are explored. These two types can overlap.

The discussion should, where relevant, include:

• What will happen if they don't take the medicine.
• Non-pharmacological alternatives.
• Reducing or stopping long-term medicines.
• Fitting medicines into their routine.
• Choosing between medicines.

The patient should also be given adequate information covering:

• What the medicine is, how to use it and likely benefits.
• Likely adverse effects and what to do if they think they are experiencing them.
• What to do if they miss a dose.
• Whether another prescription is needed and how to obtain further supplies.

Although not evidence-based, NICE recommends considering the following interventions if there is a specific need:

• Suggesting patients record their medicine-taking.
• Encouraging patients to monitor their condition.
• Simplifying the dosing regimen.
• Using alternative packaging.
• Using a multi-compartment system of medicines.
• Considering options to reduce prescribing costs if this is an issue.
**Special clinical scenarios**

**Children**

- Parents are mainly responsible for the administration of medicines to their children, so both the concordance of the parent and of the child should be considered.
- Concordance in children is influenced by the formulation, taste, appearance and ease of administration of a preparation.
- Prescribed regimens should be tailored to the child's daily routine.
- Treatment goals should be set in collaboration with the child/parent.

**The elderly**

Important principles include:

- Effective communication.
- Keeping regimens simple.
- Giving reminder charts, concordance aids and special written instructions.
- Consider monitoring concordance by counting returned tablets or checking plasma drug levels.
- Review medication regularly. Stop medication which is unnecessary, or causing harm.
- Consider potential practical difficulties such as difficulty in opening child-proof containers, poor vision, difficulty swallowing, and means of accessing repeat prescriptions. Discuss solutions where appropriate such as blister packets, pre-filled dosette boxes, non child-proof containers, large print labels, liquid formulations, delivery of medication, etc.
- Awareness of problems of polypharmacy. This is more common in the elderly, and the 2013 Kings Fund report made recommendations for improvements needed.\[2\] They included longer GP appointments to deal with polypharmacy, more research as most studies exclude patients with multiple morbidities, and consequent changes to guidelines where appropriate. Although use of multiple items of medication may extend and improve life, there is a risk of increased interactions, side-effects, concordance issues and potential for reduction in quality of life.

One study found that large quantities of medicines, confusion and lack of knowledge as to why a medicine had been prescribed contributed to non-compliance. Appropriate communication between the pharmacist and patient, patient education and aids such as medication cards and referral for medication review could improve compliance in this age group.[16]

**Further reading & references**

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