

# Codes and systems used for reporting and sharing prescribing information

Suzanne Jones, Susan Holdsworth and Helen Kendall describe the prescribing reports and information systems available in England. Other reporting systems exist in Scotland (eg, Scottish Prescribing Analysis) and Wales (eg, Prescribing Audit Reports and Catalogues)

Prescribing data are used by many different organisations and health care professionals and this information is accessible in various ways, depending on who requires it. The Prescription Pricing Authority (PPA) provides most of the paper and electronic reports used in the NHS in England.

A range of information is available to meet the needs of a variety of health care professionals and organisations. Both paper and electronic systems are continually adapting to changes in pharmacy and the NHS. Some paper-based reports have been replaced by electronic versions and the drive is towards using IT to present prescribing data. However, the needs of prescribers should be taken into account and allowances made for different preferences for receiving information.

As the range of prescribers increases it is also important to provide prescribing information which will take their requirements into account. Feedback from stakeholders is, therefore, valuable for continual improvement of the systems provided.

## BNF coding system

In order for prescribing data to be easily accessed and retrieved it needs to be coded. The PPA uses a classification system based on the structure of the British National Formulary. A full code is made up of 15 characters starting with a two-digit chapter heading, followed by a two-digit section heading, a two-digit paragraph heading, a single digit subparagraph heading and a series of alphanumeric characters representing the individual product, strength, form and equivalent products. For example, gastrointestinal drugs are classified as "01" (chapter 1) and proton pump inhibitors as "010305" (chapter 1, section 3, and paragraph 5). These codes can be used to search for data on a product or group of drugs in an electronic database.

Modifications have been made to allow codes to be given to drugs and appliances that do not follow the main structure of the BNF. Pseudo BNF chapters, sections and paragraphs have been added to classify items that appear in appendices and to accommodate prescribable preparations not listed in the BNF, including unlicensed medicines.

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## Identify knowledge gaps

1. What reporting systems are available in England for prescribing data?
2. Who can access these paper reports and electronic systems?
3. What are the features of these systems?

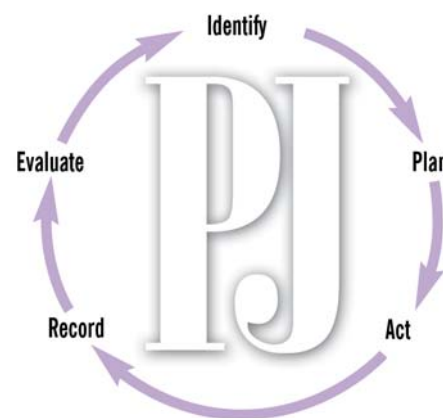
Before reading on, think about how this article may help you to do your job better. The Royal Pharmaceutical Society's areas of competence for pharmacists are listed in "Plan and record," (available at: [www.rpsgb.org.uk/education](http://www.rpsgb.org.uk/education)). This article relates to "the effective and efficient application of information" (see appendix 4 of "Plan and record").

## Prescription cost analysis

Prescription cost analysis (PCA) data cover all prescriptions dispensed in the community in England, including those dispensed by appliance contractors, dispensing doctors and items personally administered by doctors. Prescriptions from nurse prescribers, dentists and hospital doctors are included in the PCA statistics as well as prescriptions from prescribers in Scotland, Wales, Northern Ireland and the Isle of Man, provided they were dispensed in the community in England. Prescriptions written in England but dispensed outside England and items dispensed in hospitals or on private prescriptions are excluded.

PCA reports are published by the Department of Health from data provided by the PPA. Annual PCA data for the past five calendar years are available on the Department of Health website ([www.doh.gov.uk/prescriptionstatistics/index.htm](http://www.doh.gov.uk/prescriptionstatistics/index.htm)). Using the website allows you to find the number of items and the net ingredient cost (NIC) of almost any product dispensed in the community, in England. For example, in 2002, 2,533,700 items of Cipramil 20mg tablets were dispensed, at a net ingredient cost of £49,895,300. Each product is listed by chemical entity (eg, citalopram hydrobromide) and therapeutic class (eg, selective serotonin reuptake inhibitors). Data are also presented as NIC per prescription item dispensed.

Also available on the DoH website are statistical bulletins that highlight changes in prescribing and trends during the past 10 years. For example, the number of prescription items per head has risen, from 8.9 in 1992 to 12.5 in 2002.



## PACT reports

GPs have received detailed feedback on their prescribing habits through prescription analysis and cost (known as PACT) reports since 1988. PACT data now incorporate prescribing by new prescribers (eg, nurses) and are available in paper and electronic formats.

NHS organisations such as primary care trusts use PACT data to monitor the volume and cost of prescriptions. To allow prescribing costs to be attributed to the correct practice and PCT budgets, the PPA maintains a database of all prescribers, who are also allocated a code.

The PACT standard report is a 12-page document giving information on GPs and their practices, which is issued to all GPs for the quarters ending March, June, September and December. It provides an analysis of the GP's prescribing during the quarter. The report includes a summary of prescribing costs, followed by a breakdown of prescribing. For example, information includes:

- The 20 drugs on which the practice has spent the most money
- The number of prescriptions prescribed
- The average cost per prescription item
- The top 40 BNF sections with respect to practice expenditure

The centre pages of the PACT standard report contain an article that discusses a topical aspect of prescribing and examines national prescribing trends over the previous five years. These centre page articles are also available on the PPA website ([www.ppa.org.uk](http://www.ppa.org.uk)). Topics covered over the past two years include:

- Drugs used in mental health
- Drugs used in diabetes

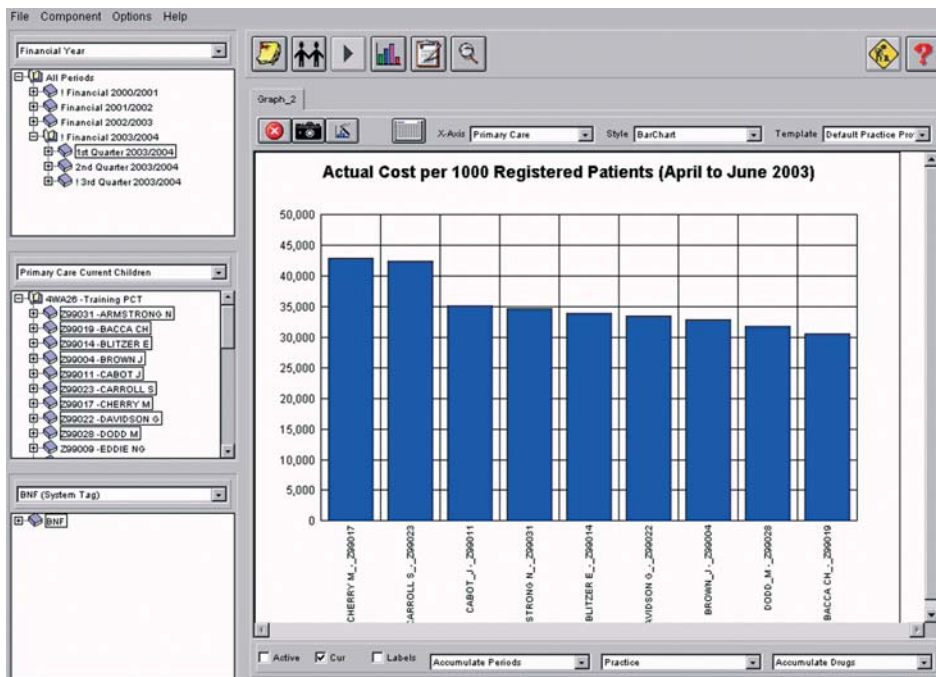


Figure 1: ePACT.net page (anonymised data)

- Cardiovascular prescribing
- Analgesics and non steroidal anti-inflammatory drugs prescribing
- Antibacterials drugs

A PACT catalogue is available at the prescriber's request. This provides a full inventory of prescriptions received by the PPA, prescribed by each GP or practice nurse in the previous 24 months. How PACT data are used will be looked at in the next article in this series.

**ePACT.net** PACT data in an electronic format (ePACT.net) is an NHSnet-delivered service, accessible via the PPA website. It allows users on-line access to 36 months' of prescribing data held on the NHS prescribing database. Users can choose to look at data by reporting period (ie, month, quarter), prescribing organisation (eg, practice, primary care trust) and BNF classification.

ePACT.net is accessible by staff at PCTs, hospital trusts and strategic health authorities

### Panel 1: Data available on ePACT.net

- Budgets and expenditure forecasts
- Costs and volumes of prescribing
- Prescribing totals by GPs, locums, trainees, nurse prescribers, extended formulary nurse prescribers, pharmacist prescribers
- Prescribing from the nurse and extended nurse formularies
- Prescriptions dispensed through the repeat dispensing pilots and under local pharmaceutical services
- Patient list sizes
- Low income scheme index scores for practices
- Average daily quantities and defined daily doses

(SHAs), and national users including the DoH, the National Institute for Clinical Excellence, the Commission for Health Improvement, the National Prescribing Centre and the Prescribing Support Unit. Information is provided at a variety of levels including prescriber, practice and PCT level for PCT users, PCT and SHA level for SHA and national users, and specialty and trust level for hospital trust users.

Prescribing can be analysed comparatively using denominators such as patient list size, prescribing unit (PU), age-sex temporary resident originated prescribing units (ASTRO-PU) and specific therapeutic group age-sex related prescribing units (STAR-PU) as discussed in the previous article in this series (*PJ*, 17 January, pp58-60).

Panel 1 shows the types of data available from ePACT.net. Figure 1 shows an ePACT.net page. The graph compares the actual cost per 1,000 registered patients for GP practices within a PCT. For example, we can see that Dr Cherry's practice (names have been changed) spent the most per 1,000 patients from April to June. A "tagging" facility allows the selection of data to be saved for repeat analyses. Tags can be shared among users (eg, to assist in the monitoring of formularies within a PCT).

All data can be displayed in tables or graphs. Results from a search can be saved to disk or exported to other PC applications. For a large query that would take time to process on-line the user can start a search and view the results later.

### Prescribing Toolkit

The Prescribing Toolkit is another on-line system provided by the PPA. It enables users to compare their prescribing performance against other NHS organisations using predefined drug lists and indicators. For example, Figure 2 shows a Prescribing Toolkit page.

## Panel 2: Prescribing Toolkit reports

**Commission for Health Improvement indicators** The Commission for Health Improvement reviews the clinical governance arrangements that are in place at primary care trust level to ensure patients receive a good quality of care. All PCTs are assessed on their performance against a limited number of key targets and a larger number and range of indicators, four of which relate to prescribing. These four prescribing indicators are now included in the toolkit and provide comparisons with local and cluster-matched PCTs.

**Potential generic savings** This potential generic savings report shows products that have been prescribed by proprietary name and the difference in cost if they had been prescribed by generic name.

**Specialist drugs** The specialist drug report shows the costs for a pre-defined list of drugs where prescribing is usually initiated by specialists in secondary care.

**Prescribing indicators** Prescribing indicators are measurements used to demonstrate prescribing performance over time (see *PJ*, 3/10 January, pp21-2).

**Nurse prescribing indicators** Nurse prescribing indicators give information on the cost of prescribing from the original Nurse Prescribers' Formulary and the Nurse Prescribers' Extended Formulary.

**Cost and volume comparators** Cost comparators show the cost of prescriptions for the highest cost British National Formulary chapters and volume comparators show the volume of drugs prescribed for some of the most frequently used groups of drugs.

The graph allows the prescribing of atypical antipsychotic drugs by different health authorities to be compared. The same range of organisations are authorised to use the toolkit as for ePACT.net. The toolkit is different from ePACT.net in that the parameters (eg, BNF chapter) cannot be altered so freely.

Annual reports compare the latest financial year with the previous two years. Quarterly reports compare the latest quarter with the equivalent quarters in the previous two years. Data can be selected to produce reports at practice, PCT, and SHA levels and can be presented in either tables or graphs.

Panel 2 shows the reports available in the toolkit. Tagging is now available for the drug lists defined in the toolkit reports. For each report, PCT users can compare their prescribing against other local and "cluster-matched" PCTs. Clusters are groups of similar PCTs that have been matched using data sources that are significant in explaining

