

Top 200 prescribed drugs as a tool for pharmacy teaching and training

WIN WINIT-WATJANA, DEANNE FRANCIS, & HUI M. HO

Practice and Policy, Department of Pharmacy, Health and Well-being, Faculty of Applied Sciences, University of Sunderland, Wharncliffe Street, Sunderland, SR1 3SD, UK

Abstract

Pharmacy students and pharmacists need to have in-depth knowledge of prescribed drugs to provide effective pharmacy services. This study aimed to develop a list of the UK's top 200 prescribed drugs with relevant details and to elicit students' perceptions of its format and usefulness. The drug list was devised using the Prescription Cost Analyses 2006 and 2007, and the students' opinions were gathered from a focus group of nine Level-4 MPharm students. The results showed that 115 drugs in the list (57.5%) were prescribed as generics, and three most commonly prescribed therapeutic classes were found in the central nervous system (28.5%), cardiovascular system (21.0%) and infections (9.5%). The focus group found the drug list was applicable to pharmacy education and training, and it should be in form of a booklet for quick reference. Further studies are required to assess the use of the drug list in practice.

Keywords: educational tool, pharmacy teaching, pharmacy training, top 200 prescribed drugs

Introduction

Pharmacy education around the world has gradually evolved in response to the changing pharmacy profession. In Britain, pharmacists can now provide medicines management services for patients in all settings, and the role of pharmacists is further expanded to cover supplementary and independent prescribing. The curriculum for training programmes in pharmacist prescribing was initiated by the Royal Pharmaceutical Society of Great Britain (RPSGB, 2008). Additionally, the White Paper for Pharmacy in England (the Department of Health, 2008) also outlines a bigger role for pharmacists to complement general medical practitioners (GPs) in promoting good health, preventing illnesses and providing care to meet individual needs. Therefore, pharmacy students are being equipped with clinical knowledge and skills, e.g. medicines management, clinical reasoning in pharmacy, health promotion and disease protection.

With respect to medicines management and prescribing, pharmacy students and pharmacists should be familiar with prescribed drugs in order to deliver optimum pharmacy services to clients. The question is how many products they need to know. In the US, 200 drugs most frequently dispensed in American communities were systematically assessed (Rucker, 1980), and the information of top 200 drugs for consumers has been compiled by the well-known Pill Book (Silverman, 2008) since 1984. Moreover, the data on top 200 prescription drugs in the US and other countries can be retrieved from the Intercontinental Marketing Services (IMS Health) database by subscription (Lamb, 2008). Therefore, it

is deemed appropriate for pharmacy students to learn at least 200 prescribed drugs in order to provide effective medicines management services.

As the concept of top 200 prescribed drugs is widely accepted in North America, the drugs with related disease states have been taught in some Doctor of Pharmacy (PharmD) programmes and continuing pharmacy education courses. Evans et al. (2006) created a top 200 prescribed drugs in form of a set of study cards for student pharmacists and evaluated their mastery of this learning tool in community pharmacy clerkship sites. Nevertheless, the use of top 200 prescribed medicines in Master of Pharmacy (MPharm) and postgraduate courses in Britain remain unexplored.

Prescribed medicines generally embrace branded and generic products. In the US that is the world's largest generics market, the generic drugs accounted for 67.3% of the 3.8 billion prescriptions dispensed in 2006 owing to the launch of new branded drugs and expensive biotechnological products (Lamb, 2007). These generics, such as simvastatin, clopidogrel and meloxicam, were primarily dispensed to Medicare Part D beneficiaries who were older people and disabled individuals (Lamb, 2007). In Britain, Thompson (2003) reported that it has long been the National Health Service (NHS) policy to increase the percentage of generics in order to achieve overall cost savings. In 2005, 59.3% of prescriptions in England were dispensed as generics that make up of 26% of the market value (Croft, 2007). The NHS asserted that more than 80% of all prescriptions for NHS patients in England are now written generically (NHS Direct, 2008). However, the proportion of

*Correspondence: W. Winit-Watjana, Practice and Policy, Department of Pharmacy, Health and Well-being, Faculty of Applied Sciences, University of Sunderland, Fleming Building, Wharncliffe Street, Sunderland, Tyne and Wear, SR1 3SD, UK. Tel.: +44(0)191 5153784. Fax.: +44(0)191 5153405. E-mail: win.winit-watjana@sunderland.ac.uk

generics in 200 drugs frequently prescribed is still unknown.

From an extensive literature search, there is no study directly involved in top 200 prescribed drugs and pharmacy education in European countries. This study was therefore intended to devise a list of the UK's top 200 prescribed drugs with relevant details and elicit perceptions of MPharm students about the newly developed list in terms of its structure and usefulness for pharmacy learning and practice. The study results may enable pharmacy academics and tutors to better prepare pharmacy students and pre-registration pharmacists for the future tasks.

Materials and methods

To achieve the study objectives, this study was divided into two phases that were all carried out from September 2007 to May 2008. Phase 1 was the development of a list of top 200 prescribed drugs using Prescription Cost Analysis (PCA) data available in 2006 and 2007 (the NHS Information Centre, 2007 & 2008) and expert opinions. The PCA data are derived from prescriptions written by general medical practitioners, dentists and hospital doctors in anywhere in the UK, but the medicines need to be dispensed in England. They exclude items dispensed in hospital or on private prescriptions. The prescribed drugs in the database are alphabetically arranged based on the therapeutic classes specified in the British National Formulary (BMA & RPSGB, 2008). The permission of PCA data application was sought from the NHS Information Centre with the permission number of 12060108. At the

outset, a set of inclusion and exclusion criteria was developed to select 200 drugs commonly prescribed from the PCA 2006 data. The criteria embraced:

- Only one drug, regardless of dosage forms and strengths, in each therapeutic class was chosen based on the highest number of dispensed items (per thousands).
- Some normally prescribed drugs with specific indications, such as eye preparations, contraceptives and combined drugs (e.g. co-amoxiclav), were included.
- Non-drug items, such as medical appliances and dressings, were excluded.
- Specifically used drugs, for instance, vaccines and antisera, biopharmaceuticals and immunoglobulins, rubefacients (e.g. creams, lotions and gels), and vitamin and mineral supplements, were not added to the list.

The list of 200 prescribed drugs was first devised in the first round by one of the research team (HMH) and undergone other two rounds of revision by the researchers (WW and DF), who are specialised in hospital and community pharmacy, with the consultation of two community pharmacists. The final draft of the drug list was later rechecked with the PCA 2007 data (the NHS Information Centre, 2008).

Phase 2 was to gather the opinions of MPharm students on the newly developed drug list. As most students at first expressed favourable attitudes towards the list, a focus group was

- 1. Overall impression
 How do you feel about the list of top 200 prescribed drugs?
- 2. *Usefulness*What do you think the list can be used for?
- 3. *Format and content*What do you think about details of the list in terms of format, content, colour, etc.?
- 4. Details of prescribed drugs
 Based on your experience, how many drugs in the list have you known in detail, but not just drug names?
- 5. Examples of prescribed drugs
 What are the first 10 drugs in the list that you are familiar with?
- 6. Teaching tool

What do you think about the list as a teaching tool? For example, Level-4 students at the beginning of Term 1 will receive the list and asked to study all the drugs shelved in Dispensing Lab in individual's time. Then, they will be asked to take an MCQ test of 50 items regarding the drugs on the list at the end of the year (Term 3).

7. *Specific drugs*Which drugs do you want to discuss in details and why?

- 8. *Use of the list for pre-registration training*In your opinion, do you think the list is useful for your pre-reg?
 If yes, how would you apply it to your training?
- 9. Additional suggestions
 What would be other suggestions or comments you want to make about the list?

Figure 1. Nine themes with questions for the focus group.

preferred to questionnaire or postal surveys. Roberts (2001) pointed out that focus groups are the most appropriate method of data collection where strong feelings and a consensus of opinions, and they enable the collection of greater breadth and diversity of experiences and opinions, compared with individual interviews. Thus, a focus group of MPharm students was convened based on the good focus group design (Chioncel et al., 2003). A total of 10 Level-4 MPharm students were purposively recruited to represent the whole class in terms of gender and races. In addition, nine open-ended questions with general and specific items were composed to reflect the study themes, as demonstrated in the panel (Figure 1).

One week before the focus group occurred, all students had been given the nine questions and a table of the detailed drug list, i.e. the generic/brand name, dosage form, dose, drug group, indication and volume of prescription, and requested to look through the material and prepare their views beforehand. They were reminded again two days before the session. The researcher WW was the discussion facilitator, whereas HMH was the process facilitator who made field notes and recorded relevant details during the session. The group discussion was audiotaped by a research assistant and subsequently transcribed to confirm the field notes. At the end of the session, each participant was given a small gift for their involvement. Data obtained from the perceptions were subsequently analysed and interpreted.

Results

In developing a drug list, the drug selection from the PCA database was conducted three rounds, the result of which is shown in Table I. Only 172 prescribed drugs in 11 therapeutics classes were initially included according to the selection

criteria. At last, 200 drugs were chosen, as detailed in Table II. Of these, there were more than half (68.0%) used in the central nervous system, cardiovascular system, infections and gastro-intestinal system. Five leading drug groups embraced antibacterial drugs (7.0%), drugs used in rheumatic diseases and gout (7.0%), antidepressants (6.0%), drugs used in hypertension and heart failure (5.5%) and analgesics (5.0%). In case of the prescription numbers in 2007, five leading drugs were aspirin, bendroflumethiazide, simvastatin, paracetamol and salbutamol. Apart from that, 115 drugs in the list (57.5%) were prescribed as generics, and the majority were in solid dosage forms, i.e. tablets or capsules.

In regard to the focus group, nine of 10 recruited students participated in the discussion. Of these participants, one each was White British male and female, and Black British male and female. The rest were two Malaysian males and three Malaysian females. For working experience, three students were currently working part-time in hospital, while the six had previous placements in community pharmacies. The session was started with the introduction of each participant and introductory queries. The lively discussion then continued with nine questions and perceptions of all participants, as elaborated below; an abbreviation "Pxx" in the brackets refers to the participant numbers 1-9, such as P03 = Participant no. 3.

Overall impression. Most participants were impressed with the drug list that provided some drug information for quick reference. Some participants suggested on the arrangement of the list: it should be arranged in alphabetical order for ease of use (P02 and P09) or based on the volume of prescriptions from the highest to the lowest (P01) with highlighted numbers in colour.

Table I. Top 200 prescribed drugs categorised by therapeutic classes from Rounds 1 to 3.

	Number of prescribed drugs (%)			
Therapeutic class	Round 1	Round 2	Round 3	
	(n = 172)	(n = 199)	(n = 200)	
Gastro-intestinal system	16	19	18 (9.0)	
2. Cardiovascular system	44	46	42 (21.0)	
3. Respiratory system	13	16	16 (8.0)	
4. Central nervous system	41	52	57 (28.5)	
5. Infections	17	21	19 (9.5)	
6. Endocrine system	9	17	17 (8.5)	
7. Obstetrics, gynaecology and urinary tract disorders	8	7	6 (3.0)	
8. Malignant disease and immunosuppression	3	3	5 (2.5)	
9. Nutrition and blood	3	5	4 (2.0)	
10. Musculoskeletal and joint diseases	11	12	15 (7.5)	
11. Eye	7	1	1 (0.5)	
12. Ear, nose and oropharynx	-	-	-	
13. Skin	-	-	-	
14. Immunological products and vaccines	-	-	-	
15. Anaesthesia	-	-	-	

Usefulness for pharmacy students and pre-registration pharmacists. All agreed the drug list was useful for hospital and community pharmacy practice and could be used as an academic tool or a guidance to most commonly prescribed medicines (P02). It expanded students' knowledge of prescribed drugs in terms of efficacy and safety, and was applicable to the revision of examinations (P01). Additionally, GPs were able to make use of the list as a reference for prescribing generic or branded drugs, and similarly the Government could exploit it to monitor GP prescribing for top 200 drugs (P05). When asked to rate the usefulness of the drug list on a scale of 1 to 5, where 1 means "the least useful" and 5 means "the most useful", most of them chose the scores 4 and 3 (i.e. four and two persons, respectively). Regarding preregistration training, the drug list might be of use to preregistration trainees, as it gave some details of mostly prescribed drugs, e.g. drug names and indications.

Format and Content. Most participants preferred a simple table that was handy (P01-04). Since BNF, according to participants, was construed as complex, a simple list like the one in the study was beneficial. To make the list more eyecatching and noteworthy, one student advised to have the list produced with high quality coloured paper (P05). The addition of appendix or index would make it perfect (P09). More information, such as major adverse effects and diet (e.g. grapefruit juice), should be incorporated into the list (P05).

Details and examples of prescribed drugs. The participants rated the number of prescribed drugs with which they were familiar as follows: 1-20 items (none), 20-40 (five persons), 40-60 (four persons), 60-80 (none) and more than 80 (none). One person affirmed that at this level all students should have possessed knowledge of prescribed drugs as much as possible before doing pre-registration training (P07). Most participants went through the whole list, but few had just looked at the first two pages that included common drugs. Nevertheless, 10 prescribed drugs primarily chosen were aspirin, atenolol, bendroflumethiazide, diazepam, ibuprofen, omeprazole, ramipril, ranitidine, salbutamol and simvastatin.

Teaching tool. A majority of participants conceded that the drug list was useful for long-term learning and prepared students to be more confident or competent before facing actual patients. Some also recommended the list should be dispatched to students doing placements or pre-registration training. This would allow them to learn the prescribed drugs, i.e. indication and related side effects, beforehand, and ease their placements. One participant (P02) also pointed out that the assessment of the drug list was not appropriate for Level-4 students owing to time constraints; they needed to finish research projects in time. Another participant (P07) proposed that the drug list could be early initiated at the second-year level, but the list should be issued to students several months in advance.

Specific drugs. A participant (P09) raised an issue of dispensing and drug selection, i.e. generics vs. brand-name drugs. For instance, they wondered why drugs, such as analgesics (e.g. paracetamol), produced by a big pharmaceutical company, e.g. Pfizer, are more expensive than generics or other brands (P05). It was clarified that drug pricing was a complex issue relating to the drug research and development, quality of ingredients, marketing, advertisement and supply chains. Another matter of concern was the cost-

effectiveness of drug therapy, which is associated with drug pricing.

Additional suggestions. Some participants preferred a format of booklets for prescription-only medicines (POM), as a booklet was already available for over-the-counter (OTC) medicines (P01 and P04). Other components of the drug list, e.g. the index and pictures of products, were also suggested in order to make it noticeable and easily accessible (P02 and P03).

Discussion

A list of top 200 prescribed drugs was developed using the predetermined criteria. It embraced all commonly prescribed drugs available in England and delineated prescriber's adherence to clinical practice guidelines, i.e. those of the National Institute for Clinical Excellence (NICE) and the Scottish Intercollegiate Guidelines Network (SIGN). This drug list differed from that of the American in that it derived from the PCA database, whereas the latter was obtained from drug sales. Nevertheless, it encompassed some blockbuster drugs, e.g. amoxicillin, and atorvastatin (LipitorTM), like the first 20 drugs of the US list (Lamb, 2008). Regarding generic drugs, they constituted more than half of this list, but in America accounted for approximately 20% of drug dollars in 2007 (Lamb, 2008). Although generic prescribing has been encouraged by the NHS, they have not yet offer significant savings to the country (Kanavos, 2007). The reasons might be the high cost of reimbursement from community pharmacy and the influence of pharmaceutical firms on GP prescribing. Given these barriers, it is envisaged that generics will be more widely prescribed and reduce the drug expenditure as a whole.

Drugs used in the central nervous system (CNS) were presented as high as 28.5% of the drug list because of numerous products rather than the high number of prescribed items. According to the Association of the British Pharmaceutical Industry (ABPI, 2006), drugs dispensed for the CNS are significantly high even though it is lower compared with those for the cardiovascular system (CVS). The ABPI report also confirmed the highest number of prescriptions mostly dispensed for circulatory disease, followed by infections, gastro-intestinal disease and endocrine disease (ABPI, 2006).

Regarding the focus group, nine Level-4 MPharm students could fully express their views during the discussion. This homogenous group was considered as more productive in terms of the group interaction and the depth of discussion achieved (Smith, 2002). As for other focus groups, the 'group effect' has an impact on individual opinions; responses may be modified in the light of other opinions and it tends to weed out false or extreme views (Ruff, Alexander, & McKie, 2005). As evidenced in the findings, almost all participants felt impressed with the drug list and had many comments on its structure and usefulness. The list was arranged based on therapeutic classes for the purpose of comparison within a group, and they found it difficult to use. As a result, they advised to arrange it in alphabetical order and make it as a booklet with product pictures and an index for quick reference. Although it might be best to have drug pictures attached, it would be difficult for generic drugs that have many different types of packaging for the same drug. With the advance in information technology, the drug list can be ideally installed in a hand-held computer or

personal digital assistant (PDA). In this study, the top 200 prescribed drugs were exactly the same over the years 2006 and 2007. Thus, the list should be at least updated every two years.

The lists of 50-100 prescribed drugs has in fact been used as part of in-house training and to ease ordering of drug stocks at community pharmacies, e.g. Boots the Chemist, and some hospitals (personal communications), but they are created based on the setting experience but not the national PCA database like this study. In addition to pharmacy practice, the drug list is also beneficial to other hard sciences, i.e. pharmaceutics and pharmaceutical chemistry. A good example is the study by Carroll & Oliveira (2006) that successfully designed an innovative teaching method to help the first-year PharmD students correlate biochemical concepts, which are perceived as sophisticated, with 200 medicines mostly prescribed to American patients. Especially interesting is that overall students rated the number of prescribed medicines of which they knew about 20-60 items. This is congruent with the number of drugs that most physicians generally utilise. According to the WHO Guide to Good Prescribing (de Vries et al., 1994/2000), most doctors routinely make use of only 40-60 drugs, but all clinicians are encouraged to make their own list of prescribed medication. To be 'fit for practice', pharmacists who are directly involved in medicines management had better familiarise themselves with 200 prescribed drugs at a minimum.

The validity and reliability of this study was a matter of concern. A focus group, which is a qualitative study, is often combined with other research methods, e.g. a questionnaire survey (Smith, 2002). Since the focus group was more suitable as mentioned earlier and the Level-4 MPharm students were overwhelmed by tests and coursework during the period of this study, it was not feasible to arrange another focus group or carry out any studies to achieve the triangulation.

In conclusion, this study could develop a list of top 200 prescribed drugs based on the set criteria and PCA data, and gather opinions of MPharm students on the structure and usefulness of the drug list. Pharmacy academics or pharmacists may get the most out of this list, but should keep in mind that different regions have different prescribing patterns. Additionally, the drug list could be incorporated into a training programme, as part of continuing professional development, for pharmacists and other health care professionals. Future studies are needed in order to assess the drug list in pharmacy students or pre-registration pharmacists before or during placements.

References

- Carroll, M.M., & Oliveira, M.A. (2006). Identification and design of novel teaching approaches that enhance the link between biochemical concepts and top 200 prescribed drugs. Paper presented at the annual meeting of the American Association of Colleges of Pharmacy, Sheraton San Diego Hotel & Marina, San Diego, California, Jul 5, 2006. Retrieved April 30, 2008, from http://www.allacademic.com/meta/p119124 index.html
- Chioncel, N.E., van der Veen, R.G.W., Wildemeersch, D., & Jarvis, P. (2003). The validity and reliability of focus groups as a research method in adult education.

- International Journal of Lifelong Education, 22(5), 495-517.
- Croft, A. (2007). *Opportunities and challenges for generic drugs in the UK*. West Sussex: Espicom.
- de Vries, T.P.G.M., Henning, R.H., Hogerzeil, H.V., & Fresle, D.A. (2000). *Guide to good prescribing: a practical manual*. Geneva: the World Health Organization. (Original work published 1994)
- Evans, C., Foushee, L., & Al-Achi, A. (2006). Top 200 prescribed drugs learning tool and objective evaluation instruments in community pharmacy clerkship sites. *Journal of the American Pharmacists Association*, 46(2), 292-293.
- Kanavos, P. (2007). Do generics offer significant savings to the UK National Health Service? *Current Medical Research and Opinion*, 23(1), 105-116.
- Lamb, E. (2007). Top 200 prescription drugs of 2006. *Pharmacy Times, May*, 34-37.
- Lamb, E. (2008). Top 200 prescription drugs of 2007. *Pharmacy Times, May*, 20-23.
- NHS Direct. (2008). *Medicines information: why can the same medicine have different names?* London: Author. Retrieved June 8, 2008, from http://www.nhs.uk/ conditions/medicinesinfo
- Roberts, K. (2001). More than the sum of the parts: focus groups in health care research and evaluation. *Paper presented at the qualitative evidence-based practice conference: taking a critical stance, Coventry University, May 14-16, 2001*. Retrieved April 30, 2008, from http://www.leeds.ac.uk/educol/documents/ 00001715.htm
- Rucker, T.D. (1980). The top-selling drug products: how good are they? *American journal of Hospital Pharmacy, 37(6)*, 833-837.
- Ruff, C.C., Alexander, I.M., & McKie, C. (2005). The use of focus group methodology in health disparities research. *Nursing Outlook*, *53*(*3*), 134-140.
- Silverman, H.M. (2008). *The pill book* (13th ed.). New York: Bantam.
- Smith, F. (2002). *Research methods in pharmacy practice*. London: The Pharmaceutical Press.
- The Association of the British Pharmaceutical Industry (ABPI). (2006). Facts & statistics from the pharmaceutical industry: Medicines and the NHS. London: Author. Retrieved February 10, 2008, from http://www.abpi.org.uk/statistics/section.asp?sect=4
- The British Medical Association (BMA) and the Royal Pharmaceutical Society of Great Britain (RPSGB). (2008). *British National Formulary (BNF) no. 55*. London: The Pharmaceutical Press.
- The Department of Health. (2008). *The White paper: pharmacy in England: building on strengths delivering the future*. Norwich: Information Policy Division.
- The NHS Information Centre. (2007). *Prescription cost analysis 2006*. London: Author. Retrieved November 15,

- 2007, from http://www.ic.nhs.uk/statistics-and-data-collections/primary-care/prescriptions/
- The NHS Information Centre. (2008). *Prescription cost analysis 2007*. London: Author. Retrieved May 19, 2008, from http://www.ic.nhs.uk/statistics-and-data-collections/ primary-care/prescriptions/
- The Royal Pharmaceutical Society of Great Britain (RPSGB). (2006). Outline curriculum for training programmes to prepare pharmacist prescribers. London: The Pharmaceutical Press. Retrieved February 10, 2008, from http://www.rpsgb.org/ pdfs/indprescoutlcurric.pdf
- Thompson, A. (2003). Patent expiries how should they affect prescribing advice? *Pharmaceutical Journal*, 271(7272), 587-589.

Table II. Top 200 prescribed drugs in alphabetical order.

		Drug group*			Drug group*
1	Aciclovir (G) [†]	5.3.2	51	Cyclizine HCl	4.6.0
2	Alendronic acid (G)	6.6.2	52	Desloratadine	3.4.1
3	Alfacalcidol (G)	9.6.3	53	Dexamethasone (G)	6.3.2
4	Alfuzosin HCl	7.4.1	54	Diazepam (G)	4.1.2
5	Alginates (combined)	1.1.2	55	Diclofenac Na (G)	10.1.1
6	Allopurinol (G)	10.1.4	56	Digoxin (G)	2.1.1
7	Alverine citrate	1.2.0	57	Dihydrocodeine tartrate (G)	4.7.2
8	Aminophylline hydrate	3.1.3	58	Diltiazem HCl	2.6.2
9	Amiodarone HCl (G)	2.3.2	59	Dipyridamol	2.9.0
10	Amitriptyline HCl (G)	4.3.1	60	Docusate Na	1.6.2
11	Amlodipine (G)	2.6.2	61	Domperidone (G)	4.6.0
12	Amoxicillin (G)	5.1.1	62	Donepezil HCl	4.11.0
13	Anastrozole	8.3.4	63	Dosulepin HCl (G)	4.3.1
14	Aspirin (G)	2.9.0	64	Doxazosine mesilate (G)	2.5.4
15	Atenolol (G)	2.4.0	65	Doxycycline hyclate (G)	5.1.3
16	Atorvastatin	2.12.0	66	Dutasteride	6.4.2
17	Azathioprine (G)	8.2.1	67	Enalapril maleate (G)	2.5.5
18	Azithromycin dihydrate	5.1.5	68	Ergocalciferol	9.6.4
19	Baclofen (G)	10.2.2	69	Erythromycin (G)	5.1.5
20	Beclomethasone dipro. (G)	3.2.0	70	Escitalopram oxalate	4.3.3
20 21	Bendroflumethiazide (G)			•	
	* /	2.2.1	71	Esomeprazole magnesium	1.3.5
22	Betahistidine HCl (G)	4.6.0	72 72	Ethinylestradiol+levonorgestr	
23	Bezafibrate (G)	2.12.0	73	Etodolac	10.1.1
24	Bisacodyl (G)	1.6.2	74	Etoricoxib	10.1.1
25	Bisoprolol fumarate	2.4.0	75 76	Ezetimibe	2.12.0
26	Bumetanide (G)	2.2.2	76	Felodipine	2.6.2
27	Buprenorphine HCl	4.7.2	77	Ferrous sulphate (G)	9.1.1
28	Bupropion HCl	4.10	78 7 0	Fexofenadine HCl	3.4.1
29	Candesartan cilexitil	2.5.5	79	Finasteride	6.4.2
30	Captopril (G)	2.5.5	80	Flucloxacillin Na (G)	5.1.1
31	Carbamazepine (G)	4.8.1	81	Fluconazole (G)	5.2.0
32	Carbimazole	6.2.2	82	Fludrocortisone acetate	6.3.2
33	Carvedilol (G)	2.4.0	83	Fluoxetine HCl (G)	4.3.3
34	Cefalexin (G)	5.1.2	84	Flupentixol HCl	4.3.4
35	Celecoxib	10.1.1	85	Fluticasone+salmeterol	3.2.0
36	Cetirizine HCl (G)	3.4.1	86	Folic acid (G)	9.1.2
37	Chlorpromazine HCl (G)	4.2.1	87	Furosemide (G)	2.2.2
38	Ciclosporin	8.2.2	88	Gabapentin (G)	4.8.1
39	Cimetidine (G)	1.3.1	89	Gliclazide (G)	6.1.2
40	Cinnarizine (G)	4.6.0	90	Glimepiride (G)	6.1.2
41	Ciprofloxacin HCl (G)	5.1.12	91	Glipizide (G)	6.1.2
42	Citalopram HBr (G)	4.3.3	92	Glyceryl trinitrate SL spray (G) 2.6.1
43	Clarithromycin (G)	5.1.5	93	Haloperidol	4.2.1
44	Clindamycin HCl (G)	5.1.7	94	Hydroxychloroquine sulphate	
45	Clobazam	4.8.2	95	Hydroxyzine HCl	3.4.1
46	Clopidogrel	2.9.0	96	Hyoscine butylbromide	1.2.0
47	Co-amoxiclav (G)	5.1.1	97	Ibuprofen (G)	10.1.1
48	Co-Beneldopa	4.9.1	98	Imipramine HCl (G)	4.3.1
49	Codeine phosphate (G)	4.7.2	99	Indometacin (G)	10.1.1
50	Colchicine (G)	10.1.4	100	Irbesartan	2.5.5

 $^{^{\}ast}$ Drug group based on the British National Formulary no. 55 (BNF, 2008). † $\,G$ = Generic drug.

Table II. Top 200 prescribed drugs in alphabetical order (contd.)

	Drug	Drug group*		Drug	Drug group*
101	Isosorbide mononitrate (G) [†]	2.6.1	151	Pizotifen hydrogen malate (C	
102	Lactulose (G)	1.6.4	152	Prednisolone (G)	6.3.2
03	Lamotrigine (G)	4.8.1	153	Pregabalin	4.8.1
04	Lansoprazole (G)	1.3.5	154	Prochlorperazine maleate (G) 4.1.1
05	Latanoprost	11.6.0	155	Procyclidine HCl (G)	4.9.2
06	Lercanipine HCl	2.6.2	156	Promethiazine HCl	3.4.1
107	Levocetirizine HCl	3.4.1	157	Propranolol HCl (G)	2.4.0
08	Levothyroxine Na (G)	6.2.1	158	Quetiapine	4.2.1
09	Lisinopril (G)	2.5.5	159	Quinine sulphate (G)	5.4.1
110	Loperamide HCl (G)	1.4.2	160	Rabeprazole Na	1.3.5
11	Loratadine (G)	3.4.1	161	Ramipril (G)	2.5.5
12	Lorazepam (G)	4.1.2	162	Ranitidine HCl (G)	1.3.1
113	Losartan potassium	2.5.5	163	Risedronate Na	6.6.2
14	Mebendazole	5.5.1	164	Risperidone	4.2.1
15	Mebeverine HCl (G)	1.2.0	165	Rosiglitazone maleate	6.1.3
16	Mefenamic acid (G)	10.1.1	166	Rosuvastatin	2.12.0
17	Meloxicam (G)	10.1.1	167	Salbutamol (G)	3.1.1
18	Metformin HCl (G)	6.1.2	168	Salmeterol	3.1.1
119	Methadone HCl (G)	4.1.0	169	Senna (G)	1.6.2
120	Methotrexate (G)	10.1.3	170	Sertraline HCl (G)	4.3.3
121	Methyldopa (G)	2.5.2	171	Sibutramine HCl	4.5.2
22	Methylphenidate HCl	4.4.0	172	Sildenafil citrate	7.4.5
23	Metoclopramide HCl (G)	4.6.0	173	Simple Linctus (G)	3.9.2
24	Metoprolol tartrate (G)	2.4.0	174	Simvastatin (G)	2.12.0
125	Metronidazole (G)	5.1.11	175	Sodium valproate	4.8.1
26	Mirtazapine	4.3.4	176	Spironolactone (G)	2.2.3
127	Montelukast Na	3.3.2	177	Sulfasalazine (G)	1.5.0
128	Morphine sulphate	4.7.2	178	Sulpiride (G)	4.2.1
129	Nabumetone (G)	10.1.1	179	Sumatriptan succinate (G)	4.7.4
130	Naproxen (G)	10.1.1	180	Tacrolimus	8.2.2
131	Naratriptan HCl	4.7.4	181	Tadalafil	7.4.5
132	Nicorandil	2.6.3	182	Tamoxifen citrate (G)	8.3.4
33	Nifedipine	2.6.2	183	Tamsulosin HCl (G)	7.4.1
134	Nystatin (G)	5.2.0	184	Temazepam (G)	4.1.1
135	Oestrogen conjugated	6.4.1	185	Terbutaline sulphate	3.1.1
136	Olanzapine	4.2.1	186	Tibolone	6.4.1
137	Omega-3 ethyl esters	2.12.0	187	Tiotropium bromide	3.1.2
38	Omeprazole (G)	1.3.5	188	Tolterodine tartrate	7.4.2
139	Orlistat	4.5.1	189	Tramadol HCl (G)	4.7.2
140	Oxycodone HCl	4.7.2	190	Tranexamic acid (G)	2.11.0
141	Oxytetracycline (G)	5.1.3	191	Trazodone HCl (G)	4.3.2
142	Pancreatin (G)	1.9.4	192	Trifluoperazine HCl (G)	4.2.1
43	Pantoprazole Na	1.3.5	193	Trimethoprim (G)	5.1.8
44	Paracetamol (G)	4.7.1	194	Valproic acid	4.2.3
45	Paroxetine HCl (G)	4.3.3	195	Valsartan	2.5.5
146	Perindopril erbumine	2.5.5	196	Venlafaxine HCl	4.3.4
47	Phenobarbital (G)	4.8.1	197	Venaraxine ITCI Verapamil HCl (G)	2.6.2
148	Phenoxymethylpenicillin K (6)		198	Warfarin Na (G)	2.8.2
149	Phenytoin Na	4.8.1	198	Zolpidem tartrate (G)	4.1.1
ィサフ	i nenywin iva	4.0.1	177	Zoipiuciii tartrate (U)	4.1.1

^{*} Drug group based on the British National Formulary no. 55 (BNF, 2008). † G = Generic drug.