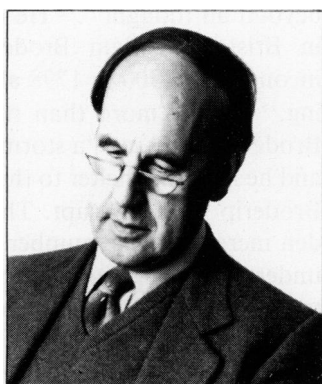

JAMES MACKENZIE LECTURE

The origin of the general practitioner

I. S. L. LOUDON, DM, FRCGP, DRCOG

Wellcome Research Fellow, University of Oxford, and
Honorary Archivist, Royal College of General Practitioners

I. S. L. Loudon



The search for the origin of the general practitioner

THE answer to the question: “When did the general practitioner first appear?” depends largely on how you define him in historical terms. Some have dated his origin from the Apothecaries’ Act of 1815 or the Medical Act of 1858.¹ Others, believing that the concept of ‘primary care’ crystallizes the essential nature of general practice better than any other, have attempted to trace that concept back to its inception in the search for the origin of the general practitioner. But the concept of primary care (in Great Britain at any rate) depends on the principle of referral which was introduced only gradually in the late nineteenth and early twentieth centuries.² The third and most common method of defining the term general practitioner can be summarized in a syllogism:

1. General practice consists of the practice of more than one of the main branches of medicine.
2. General practitioners are, by definition, those who undertake general practice.
3. Therefore, anyone in the past who practised more than one of the main branches of medicine was a general practitioner.

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This method, attractive at first sight, confuses instead of clarifying the search. It is far too broad and diffuse when it is applied in practice, for it could have applied to the large majority of medical practitioners before 1800, regardless of the appellation by which they were known at the time, and none of them would have recognized the term. None of these three approaches provides a satisfactory answer. The most logical, and to my mind the only satisfactory method, is to identify the period in which, for the first time, there was a substantial number of medical men, joined by a sense of corporate identity, who adopted and wished to be known by the title of ‘general practitioner’.

The justification for this approach is that when it occurred it was more than just a new and fashionable name. It indicated the existence of a group of medical practitioners—the new men of the profession—quite distinct from the physicians and surgeons, who openly and deliberately practised all branches of medicine, that is medicine, surgery, midwifery and pharmacy.³ They claimed that their training and the demands of the public entitled them to do so. They were, they said, “the medical favourites of the community”⁴ and “a body of men who exist because the wants of society have raised us up”.⁵ They even claimed that general practitioners “most perfectly represented the medical character”; they alone could be identified with the profession “of which the other departments are but partial members”.⁶ By 1830, the “raw licentiates” (of the Society of Apothecaries), the puppies of the profession, were boasting that “our education is now so good that we must supersede the physicians ere long”.⁷ Such remarks, indicating an unusual degree of self-confidence, were characteristic of the first general practitioners, and we can date the introduction of the term with some precision. It was unknown before 1800, and came into use increasingly between 1810 and 1830, becoming firmly established by 1840.⁸ The appearance of the general practitioner, and his fight for recognition and status within the profession, occupied the central position in the period of medical reform—a period of intense and often acrimonious upheaval in the medical profession that lasted throughout the first half of the nineteenth century.

The medical profession before 1800

Before 1800 it could be argued there was not one medical profession, but three: the physicians, members of a learned profession with a background of university education who dealt with internal disorders; the surgeons, who were craftsmen whose sphere was external disorders and any condition requiring manual interference; and finally the tradesman apothecary, whose legal role was to dispense the physicians' prescriptions until, through the Rose case of 1703–04, they won the right to "practice physic" (to visit, advise and prescribe), but to charge only for medicine supplied.⁹ This hierarchical tripartite division of medical men, too well known to need further elaboration, has the disadvantage of being so neat and intellectually attractive that it tends to obscure the extent to which, as Roberts put it, "the supposedly exclusive appellation of physician, surgeon and apothecary often bore little relationship to the type of practice pursued".¹⁰

There is one respect in which this departure from the classical tripartite description was of crucial importance in the origin of the general practitioner: the rise of the surgeon-apothecary in the eighteenth century, indicating the merging of two supposedly distinct groups of medical men. Why did it occur? Consider general practice today, when infective disorders no longer are the prime cause of mortality and serious morbidity, and the scope of surgery has widened enormously: even now the majority of illnesses in the community are of a medical rather than a surgical nature. It was even more so in the eighteenth century. Very few surgeons could live by the practice of surgery alone; there were not enough surgical cases. The country surgeon, the army and naval surgeons—and indeed the vast majority of surgeons even in large towns and cities—all of these treated three or more medical cases for every surgical one.¹¹ Richard Smith junior (1772–1843), surgeon to the Bristol Infirmary, makes this clear in his manuscript records of provincial practice at the turn of the eighteenth century:¹²

"About the year 1793, there were in Bristol 35 professed apothecaries and twenty surgeons—amongst the latter there were eight or ten who considered it 'infra dig' to put 'apothecary' upon their doors; yet the greater part even of these practised physic and dispensed medicines . . . I commenced business in 1795 . . . was elected surgeon to the Infirmary in 1796, and in 1797 had painted 'Smith, Surgeon and Apothecary' upon my back door in Lamb St. . . . the front one, No.17 in College St. had only 'Smith Surgeon' . . . In 1803 I attended in all cases of fever, diarrhoea, phthisis and in fact cases purely medical as often as a patient chose to employ me. . . . A sickly large family was in those days an annuity of £50 . . . perhaps double the money."¹³

Not only did the majority of surgeons practise physic and pharmacy in order to survive, the apothecary would also undertake simple surgical procedures (and the majority of surgical procedures in the eighteenth century were simple) rather than lose his fee to a rival

practitioner. It seems likely that throughout England and Wales, and especially in small towns and villages, the majority of medical men, whether they were known as surgeons, apothecaries or both, were undertaking much the same kind of practice involving all branches of medicine. Moreover, when one examines the account books and day books of both surgeons and apothecaries in the eighteenth and early nineteenth centuries, one is immediately struck by the infrequency of surgical cases, the abundance of medical, and above all by the vast quantities of medicines dispensed and the financial dependence of the practitioner on dispensing.¹⁴ Richard Smith described the late eighteenth century as "the golden age of physic . . . the loads of physic were beyond all thought".¹⁵ He records that one apothecary in Bristol, William Broderip, earned the enormous income of £6,900 in 1798 almost entirely from dispensing.¹⁶ It was more than most physicians earned, but Broderip could see "a storm gathering upon the horizon and he flew for shelter to the bottle".¹⁷ A few years later Broderip was bankrupt. The storm consisted of a sudden increase in the number of dispensing chemists who undercut the regular practitioners (splitting the profits) to dispense their prescriptions. It was a new development in medical practice that has not received the attention it deserves.¹⁸ The short-lived and ineffective General Pharmaceutical Society of Great Britain, which ushered in the period of medical reform, was founded in 1794 by apothecaries "to remedy the evils of chemists and druggists".¹⁹

The same evils provided much of the impetus behind the single-handed attempt between 1804 and 1811 by a Lincolnshire physician, Dr Edward Harrison (1766–1838, MD Edin. 1784), to institute a programme of medical reform. The attempt was defeated by the Royal College of Physicians.²⁰ In 1812, apothecaries suffered another set-back in the form of a heavy tax on glass: it was raised "from five to forty-five shillings" as one of a series of tax increases to pay for the war, and it led to a series of protest meetings in London, the most famous of which took place on Friday, 3 July 1812 at the Crown and Anchor tavern in the Strand.

The Association of apothecaries and surgeon-apothecaries

At this meeting, Anthony Todd Thompson (1778–1849, MRCS 1800, MD St Andrew's 1826)²¹ suggested that the larger affair of medical reform was of more importance than petty protest about a tax on glass. He struck the right note at the right time and the first general practitioners' association, The Association of Apothecaries and Surgeon-Apothecaries, (the name was changed to The Associated General Medical and Surgical Practitioners in 1826) was founded there and then.²² George Man Burrows (1771–1846, MRCS, LSA), an intelligent, kindly man of patience and perseverance, was elected chairman.²³ Working at a prodigious rate he and his

committee of 40 produced a Bill for medical reform before the end of 1812, by which time 1,047 practitioners had subscribed to the Association.²⁴ The proposals in the Bill reflect a mixture of idealism and self-interest. It was proposed that all future general practitioners should be examined and licensed by a "fourth body", that they should be required to hold the diploma of Membership of the Royal College of Surgeons and that a school of medicine should be founded for their training. Thus the surgeon-apothecary would attain full legal status as the general practitioner, trained and legally licensed in medicine, surgery and midwifery, and clearly differentiated from unlicensed practitioners who should in future be subject to prosecution. It was also proposed that chemists and midwives should be examined and licensed.

All entrants to general practice would be required to serve a five-year apprenticeship to an apothecary, which was the worst and most retrograde feature of the Bill. But it was not, as sometimes stated, imposed by the College of Physicians (although they approved of it) as a mark of the trade-status of the apothecary; it was included in the original Bill because of the difficulty of obtaining apothecaries' apprentices. There were other less important proposals, but the Bill as a whole was opposed by the Colleges of Physicians and Surgeons and by the chemists and druggists. When, finally, a greatly amended Bill was introduced it was on the condition that it was not a new reforming Act, but an amendment to the original Act of Incorporation of the Society of Apothecaries, who alone were to be responsible for the examination and licensing of the future general practitioners and the prosecution of the unlicensed.²⁵ The 1815 Act was an emasculated version of the original Bill.²⁶ The five-year apprenticeship was retained and the candidate for the Licence of the Society of Apothecaries (the LSA) was required to have spent a period (initially of six months) at a recognized hospital or dispensary. The Diploma of the Royal College of Surgeons was not compulsory, but was so frequently taken that the hallmark of the general practitioner was the dual qualification MRCS LSA, colloquially known as 'College and Hall'. All suggestion of a "fourth body"—an Institute or College of General Practitioners—was suppressed; chemists and midwives were not to be licensed. The Association had originally intended to provide the nucleus of a "fourth body" to administer the Act; instead they found that this power had been given to the Society of Apothecaries, who had never sought it originally but had accepted it when ordered (in effect) to do so.

There are two views concerning the Apothecaries Act. Some medical historians have classed it amongst the great reforming Acts of the nineteenth century, such as the Reform Bill of 1832.²⁷ Others have taken the contrary view and regarded the Act as the result of a degrading compromise by the Association and the Society of Apothecaries in the face of the reactionary and

Table 1. The relative number of general practitioners, physicians and surgeons in London and the provinces in 1847. Based on a random sample of 1,000 entries in the London, and 1,000 entries in the Provincial Medical Directory: Churchill, 1847.³⁸

| | Number | |
|-----------------------|--------|-----------|
| | London | Provinces |
| General practitioners | 680 | 853 |
| Physicians | 155 | 94 |
| Surgeons | 165 | 53 |
| Total | 1000 | 1000 |

Tables 1 and 2. The general practitioners in the sample were identified either by describing themselves in their entry in the directories as such, or, if no description or title was given, by the qualifications MRCS/LSA or LSA alone. About one quarter of the entries gave name and address only and nothing else. These were excluded from the samples. It is probable, however, that these entries were, with very few exceptions, from general practitioners. Therefore the proportion of general practitioners in the above table is probably an underestimate.

self-centred opposition of the Colleges of Physicians and Surgeons.²⁸ If the truth lies somewhere between these two views, it is probably closer to the latter view than the former. Certainly, few general practitioners were satisfied with the outcome.²⁹ They felt cheated and the Association continued until 1827 for the specific purpose of introducing amendments to the Act. They were entirely unsuccessful. However, in spite of its deficiencies, the Act was administered efficiently by the Society of Apothecaries. Between 1815 and 1833 they examined 6,489 candidates and passed 5,769 of them.³⁰ The rise of the general practitioner was due to the increasing number of middle-class families who "had long wished for a class of the faculty to whom they could apply with confidence in any description of case in which medical or surgical aid was necessary".³¹ The same families produced an abundance of young men who set their hearts on a career in medicine.

Competition in an overcrowded profession

The outlook for general practitioners following the Act of 1815 seemed promising; hence their pride and optimism. By the 1840s they formed over 80 per cent of the profession and held a wide variety of qualifications (see Tables 1 and 2). The increasing number and wealth of the middle classes should have sustained this new generation of medical men. No one disputed the assertion of a distinguished and very senior general practitioner in 1847:

"That the General Practitioners have ever been, and still continue, the ordinary professional attendants of many members of the aristocracy, of by far the greater proportion of the middle classes of society, and they may be considered exclusively the Medical Advisers of the labouring population of this country."³²

Table 2. The qualifications and descriptions recorded by a random sample of general practitioners in London and the provinces in 1847. (Source as for Table 1.)

| | Number | |
|---|-------------------|-------------------|
| | London | Provinces |
| MRCS LSA | 357 | 451 |
| MRCS alone | 117 | 138 |
| LSA alone | 99 | 146 |
| In practice before 1815 | 16 | 24 |
| Total MRCS, LSA and pre-1815 | 589 (87 per cent) | 759 (89 per cent) |
| <i>Other descriptions, and qualifications held alone or together with the MRCS or LSA</i> | | |
| FRCS England | 2 | 14 |
| MD Edinburgh | 20 | 26 |
| LRCS Edinburgh | 7 | 10 |
| Glasgow qualification | 9 | 6 |
| MD St Andrew's | 15 | 3 |
| MD Aberdeen | 1 | 1 |
| MD university not specified | 1 | 6 |
| MD foreign university | 9 | 3 |
| MD Edinburgh and MD Heidelberg | 1 | 1 |
| FRCS Eng. MD Munich | — | 1 |
| Extra-LRCP London | — | 1 |
| MD London. LRCP London | — | 1 |
| MB or MD London | 8 | 3 |
| Irish qualification | 4 | 2 |
| GP Accoucheur LRCS Edin. | — | 1 |
| GP Accoucheur FRCS | 1 | — |
| GP Accoucheur MD Cantab. MRCP London | 1 | — |
| GP Accoucheur MD London | — | 1 |
| Surgeon in general practice | 5 | 10 |
| Surgeon Apothecary | 6 | — |
| Apothecary | 1 | — |
| Physician in general practice | — | 2 |
| No qualification recorded | — | 2 |
| Total | 680 | 853 |

But the optimism proved false. Medical education, compared with eventual income, was expensive, costing £500 to £1,000 in fees, board and lodging and so on, plus the minimum capital to set up in practice.

Incomes varied widely.³³ "In the same locality we can see two general practitioners—one driving furiously from square to square and from nobleman to nobleman—the other eking out a wretched revenue by selling matches, cold cream and Morrison's Pills; yet, the rank and education are the same."³⁴ Data are sparse, but it seems that incomes from general practice between 1815

and 1850 ranged from £50 to (unusually) £1,000 per annum, with an average income, particularly in the country, of £150 to £200 per annum, a level equal to that of "routine clerks, elementary school teachers and lower officials in the civil service".³⁵ Most were in single-handed practice like Henry Peart (1810–?1867, MRCS 1830, LSA 1829), who started in practice south of Birmingham in 1830. He earned £52 15s. 7d. in his first 18 months and survived only because his family subscribed £230 during that period.³⁶ A major cause of low income was an overcrowded profession. In 1840 it was stated that the number of general practitioners "is in fact not only very much beyond the demand, but very much beyond what is necessary to ensure a just and useful competition".³⁷ In 1834 the ratio of general practitioners to population in England and Wales was 1:1,000 compared with about 1:2,200 in the 1970s.³⁸ But large sections of the population, too poor to pay a doctor, received primary care from either the hospitals, dispensaries or poor law medical officers,³⁹ or received none at all. At the other end of the social scale some of the rich and the middle classes employed physicians. The population which employed and could pay a general practitioner was, therefore, considerably less than 1,000 per general practitioner. General practice has never been so crowded as then.

The attempt to establish a college of general practitioners

Not only was general practice overcrowded, with consequent poverty, the practitioners were dispersed and isolated. They alone had no college or institution devoted exclusively to their interests: "They were unknown as a collective body; they held no corporate rights—no council or executive to express their wishes or opinions—nor had they any Common Hall wherein they could assemble for the purpose of consultation."⁴⁰ General practitioners reacted by creating a large number of societies and associations, some of which are shown in Table 3. The reports of these associations are important sources on the state of general practice between 1815 and 1850. But the only one we consider here is the National Association of General Practitioners, founded in December 1844. The chairman and leading figure, Robert Rainey Pennington (1764–1849, MRCS 1787, FRCS(Hon.) 1843), was an eminent general practitioner rumoured to have earned £10,000 a year at the height of his career, when he boasted that he had attended every member of the Cabinet and every judge upon the bench.⁴¹ He was in his eighties by 1844 and had been active in the medical politics of 1812–15.

The National Association was founded in order to establish the "fourth body" in the form of a Royal College of General Practitioners in Medicine, Surgery and Midwifery. The proposal was included in an ambitious Bill of Reform which, had it been accepted, would have repaired all the worst defects of the 1815 Act. The

Table 3. Chronological table of certain events of importance in the history of the origin of the general practitioner.

| | |
|---------|--|
| 1540 | The Company of Barber-Surgeons of London established. |
| 1617 | The Society of Apothecaries established. |
| 1704 | The decision of the House of Lords in the case of the Royal College of Physicians of London v. William Rose, apothecary. |
| 1745 | The Company of Surgeons established. |
| 1794 | The General Pharmaceutical Society of Great Britain established, and ushers in the period of medical reform. |
| 1800 | Foundation of the Royal College of Surgeons of London. |
| 1804-11 | Dr Edward Harrison's attempts to institute medical reforms. |
| 1812 | The Association of Apothecaries and Surgeon Apothecaries, which became The Association of General Medical and Surgical Practitioners in 1826. |
| 1815 | The Apothecaries Act. |
| 1823 | Publication of <i>The Lancet</i> . |
| 1830 | Foundation of the Metropolitan Society of General Practitioners. |
| 1831 | Thomas Wakley attempts to establish the London College of Medicine. |
| 1832 | Foundation of the Provincial Medical and Surgical Association. The Provincial Association becomes the British Medical Association in 1855. |
| 1834 | Select Committee on Medical Education. |
| 1836 | Webster's short-lived 'British Medical Association.' |
| 1843 | Royal College of Surgeons of England and the FRCS established. |
| 1844 | Foundation of the National Association of General Practitioners in Medicine, Surgery and Midwifery, which resulted in The National Institute of Medicine, Surgery and Midwifery in 1846. |
| 1845-50 | The first attempt to establish a Royal College of General Practitioners by the Association and the Institute of General Practitioners. |
| 1847-48 | Select Committee on Medical Registration. |
| 1858 | The Medical Act of 1858. |

details of the Bill and the reasons for its ultimate rejection are complex.⁴² Here we can only note the main proposal that everyone entering the medical profession should first take a preliminary examination (nicknamed the little-go), where they would be examined by physicians and surgeons. Then a choice of future career as either physician, surgeon or general practitioner would be made and a second and final examination before registration would be taken at the appropriate College of Physicians, Surgeons or General Practitioners. It was a simple, sensible plan. The stultifying five-year apprenticeship and the link with the Society of Apothecaries would be abolished; future general practitioners would be trained and examined by their peers. But the Bill met with implacable opposition from the Colleges of Physi-

cians and Surgeons, who produced many and often petty objections. The totally absurd condition was imposed that in the case of general practitioners alone, the order of the examinations should be reversed—the preliminary examination by physicians and surgeons being the second and final examination, a decision that was justified by complex and specious reasons. The National Association regrouped under the title of the National Institute of Medicine, Surgery and Midwifery. Agreement on the principle of founding a College of General Practitioners was achieved at a joint conference; the agreement was signed in 1848 by the representatives of the Colleges of Physicians and Surgeons, the Society of Apothecaries and the new National Institute representing the general practitioners. Then the College of Surgeons suffered a change of heart and backed down.⁴³ The foundation of a College for General Practitioners was delayed for more than a century.

The failure of the general practitioners to achieve their main aim—equality with the physicians and surgeons—is a subject of great interest and complexity. The difficulty of introducing a monopolistic Bill in an age of liberalism, libertarianism and *laissez-faire* was one factor;⁴⁴ the increasing dominance of the voluntary hospitals in medical education and the total divorce of general practice from teaching was of great importance; the incompetence of general practitioners in the area of medical politics was notable; but, above all, the ruling councils of the Royal Colleges of Physicians and Surgeons were guilty of so often displaying disdain towards general practice while at the same time repeatedly blocking all attempts by general practitioners to advance and improve their branch of medicine. The initial optimism amongst general practitioners between 1820 and 1850 faded away.

Today it is gratifying to have lived and worked through a period in which an energetic and able group of general practitioners in the 1950s founded the present College and overcame many of the same kind of difficulties that defeated R. R. Pennington and his colleagues in the late 1840s. To my mind there is no doubt of the enormous contribution of this College to the standard and standing of general practice; but, from the historical point of view, it is extraordinary how long it has all taken.

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3. See: Medical reform. *Morning Chronicle* 6-12 March 1841, reprinted in *Provincial Medical and Surgical Journal* (1841), 2, 151-155: "The public stood in need of a general practitioner—that is, one who could officiate in all departments of the profession, and dispense medicines as well as prescribe. This species of practitioner, which had sprung up insensibly, got to such an extent, that the formal recognition of this new department became indispensable."

Prescribing Information

Zantac

RANITIDINE

Uses

st
Indications: Zantac Tablets are indicated for the treatment of duodenal ulcer, benign gastric ulcer, post-operative ulcer, reflux oesophagitis and the Zollinger-Ellison syndrome.

Mode of action: Zantac is a highly effective, rapidly acting histamine H₂-antagonist. It inhibits basal and stimulated secretion of gastric acid, reducing both the volume and the acid and pepsin content of the secretion. Zantac has a relatively long duration of action and so a single dose effectively suppresses gastric acid secretion for twelve hours.



uple
Dosage and administration

Adults: The usual dosage is one 150 mg tablet twice daily, taken in the morning and before retiring. It is not necessary to time the dose in relation to meals. In most cases of duodenal ulcer, benign gastric ulcer and post-operative ulcer, healing occurs in four weeks. In the small number of patients whose ulcers have not fully healed, healing usually occurs after a further course of treatment. Maintenance treatment at a reduced dosage of one 150 mg tablet at bedtime is recommended for patients who have responded to short-term therapy, particularly those with a history of recurrent ulcer.

In the management of reflux oesophagitis, the recommended course of treatment is one 150 mg tablet twice daily for up to 8 weeks.

In patients with Zollinger-Ellison syndrome, the starting dose is 150 mg three times daily and this may be increased, as necessary, to 900 mg per day.

Children: Experience with Zantac Tablets in children is limited and such use has not been fully evaluated in clinical studies. It has, however, been used successfully in children aged 8-18 years in doses up to 150 mg twice daily without adverse effect.

Contra-indications

There are no known contra-indications to the use of Zantac Tablets.

Precautions

Treatment with a histamine H₂-antagonist may mask symptoms associated with carcinoma of the stomach and may therefore delay diagnosis of the condition.

Accordingly, where gastric ulcer is suspected the possibility of malignancy should be excluded before therapy with Zantac Tablets is instituted.

Ranitidine is excreted via the kidney and so plasma levels of the drug are increased and prolonged in patients with severe renal failure. Accordingly, it is recommended that the therapeutic regimen for Zantac in such patients be 150 mg at night for 4 to 8 weeks. The same dose should be used for maintenance treatment should this be deemed necessary. If an ulcer has not healed after treatment for 4 to 8 weeks and the condition of the patient requires it, the standard dosage regimen of 150 mg twice daily should be instituted, followed, if need be, by maintenance treatment at 150 mg at night. Although the incidence of adverse reactions in clinical trials of one year's duration and longer has been very low and no serious side effects have been reported with Zantac treatment, care should be taken to carry out periodic examinations of patients on prolonged maintenance treatment with the drug as a safeguard against the occurrence of unforeseeable consequences of drug treatment.

Like other drugs, Zantac should be used during pregnancy and nursing only if strictly necessary. Zantac is secreted in breast milk in lactating mothers but the clinical significance of this has not been fully evaluated.

Side effects

cytic
 No serious adverse effects have been reported to date in patients treated with Zantac Tablets. There has been no clinically significant interference with endocrine, gonadal or liver function, nor has the drug adversely affected the central nervous system even in elderly patients.

Further information

Drug interactions: Ranitidine does not inhibit the cytochrome P450-linked mixed function oxygenase system in the liver and therefore does not interfere with the effects of the many drugs which are metabolised by this enzyme system. For example, there is no interaction with warfarin or diazepam.

Pharmacokinetics: Absorption of ranitidine after oral administration is rapid and peak plasma concentrations are usually achieved within two hours of administration. Absorption is not impaired by food or antacids. The elimination half-life of ranitidine is approximately two hours. Ranitidine is excreted via the kidneys mainly as the free drug and in minor amounts as metabolites. Its major metabolite is an N-oxide and there are smaller quantities of S-oxide and desmethyl ranitidine. The 24-hour urinary recovery of free ranitidine and its metabolites is about 40% with orally administered drug.

Use in renal transplants: Zantac has been used without adverse effect in patients with renal transplants.

Product licence number 0004/0279

Basic NHS cost (exclusive of VAT) 60 tablets £27.43.

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19. Good, John Mason (1796). *The History of Medicine so far as it Relates to the Profession of Pharmacy*.
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21. Anthony Todd Thompson, whose father was Postmaster General in Georgia, settled in practice in Sloane Street in London at the age of 22 years and soon acquired a large practice. With George Man Burrows and William Royston he became joint editor of the *London Medical Repository* in 1814. He became the first Professor of Materia Medica and Therapeutics at London University in 1828 and Professor of Medical Jurisprudence in 1832. He became a licentiate of the Royal College of Physicians of London in 1828 and a Fellow of the College in 1842. He was always a firm believer in the drug treatment of disease.
22. The best contemporary accounts of the Association of Apothecaries and Surgeon Apothecaries are to be found in Burrows, George Man (1823). *Introductory essay. Transactions of the Association of Apothecaries and Surgeon-Apothecaries*, 1, i-clxv. Burrows, George Man (1817). *A Statement of Circumstances Connected with the Apothecaries' Act and its Administration*. London: J. Callow. The most important modern assessment of the Association and the Apothecaries' Act is: Holloway, S. W. F. (1966). The Apothecaries' Act, 1815: a re-interpretation. Part I, The origins of the Act. *Medical History*, 10, 107-129. Part II, The consequences of the Act. *Medical History*, 10, 221-236.
23. George Man Burrows was born at Chalk near Gravesend, educated at Kings' School, Canterbury, and apprenticed to a surgeon-apothecary in Rochester. He attended Guy's and St Thomas's Hospital medical school and settled in London as a general practitioner. At the age of 45 years, and almost certainly out of a mood of bitterness at the outcome of the Apothecaries' Act, he became a physician (MD St Andrew's, LRCP 1824, FRCP 1839) and opened and ran a small, private asylum in Chelsea followed by a larger one, The Retreat, in Clapham, spending the rest of his life working on the treatment of insanity. The second phase of his life was marred by an action against him for the signing of an order for the committal of a "gentleman supposed to be insane" without having examined the patient.
24. *The Medical and Physical Journal* (1813), 29, 165-172, 258-259, 340-349, lists the members of the Association of Apothecaries and Surgeon Apothecaries.
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30. Records of the Society of Apothecaries. Guildhall Library, London, MS 8211/1.
31. Yeatman, J. C. (1815). Remarks of the Profession of Medicine in Sicily; an exposition of the principal evils to which it is subject in Great Britain; and observations on Medical Reform. *Medical and Physical Journal*, 34, 186-193.
32. Pennington, R. R. (1847). Memorial of the National Institute of Medicine, Surgery and Midwifery to the Rt Hon Sir George Grey. *Provincial Medical and Surgical Journal*, 11, 48-50.
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39. Loudon, I. S. L. (1981). The origin and growth of the dispensary movement in England. *Bulletin of the History of Medicine*, 55, 322-342.
40. Pennington, R. R. (1847). *Provincial Medical and Surgical Journal*, 11, 76. See also *The Report of the Select Committee on Medical Registration* (1848). PP 1847-48 XV, Q. 935 & Q. 1149-1152.
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42. The main sources on the history of the National Association of General Practitioners and the attempts to establish a Royal College of General Practitioners are: *Three reports by the joint deputation of the Society of Apothecaries and the National Association of General Practitioners appointed to confer with the Secretary of State on the subject of the incorporation of general practitioners in medicine, surgery and midwifery* (1846). London. *An address from the Society of Apothecaries to the general practitioners of England and Wales on the second report of the joint deputation* (1848). London. Also, numerous reports in the *Lancet* and the *Provincial Medical and Surgical Journal* for the period 1845-47.
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Address for reprints

Dr I. S. L. Loudon, Wellcome Unit for the History of Medicine, University of Oxford, 47 Banbury Road, Oxford OX2 6PE.

Eustachian tube dysfunction

Although eustachian tube obstruction is commonly thought to be a major factor in the development of persistent otitis media with effusion, sophisticated measurement of eustachian tube function found little useful correlation with other clinical indicators of disease.

Source: Square, R., Cooper, J. D., Hearne, E. M. *et al.* (1982). Eustachian tube function. Children with otitis media. *Archives of Otolaryngology*, 108, 567-568.