

Book Reviews

Surgical And Medical Treatment

In Art: Alan EH Emery, Marcia LH Emery. Royal Society Of Medicine Press, October 2005. 138pp. £45.00. ISBN 1-853-15695-7



This is a fascinating compilation of sixty-six paintings chosen by the authors to demonstrate the relationship between medicine and art from 1275 BC to 2002. Paintings are taken from all over the world and deal with all branches of medicine (including some which are no longer mainline practice!).

Each painting is accompanied with a potted biography of the artist and a commentary which places the painting in its context: sociological, medical and artistic.

Whilst I was aware of some of the paintings, many are new to me. I particularly liked the portrait of Sir Alexander Morrison by Richard Dadd – the father of Psychiatry in the United Kingdom. This is a stunning portrait by an inmate and is absolutely timeless in its style.

The mediaeval representations of consultations between doctor and patient show just how much medicine has changed. Although on the previous page, the mediaeval surgery on haemorrhoids is a little distressing! In a wider sense, it is fascinating to see how our work has progressed over the years particularly since the Renaissance. It is also fascinating to see just how atmospheric so many of the paintings are – for example, that of Theodore Billroth operating by Sligenn. Here, we have a Master at work with seven scrubbed attendants and at least forty observers. Given the increasing numbers of medical students expected in our own medical school in Belfast, could this be the way of the future?

I would commend this beautiful book to all with an interest in medical and surgical art: it is a fascinating read.

NEIL McCLURE

Natural Standard Herb & Supplement Handbook – The Clinical Bottom Line

Line: Ethan M Basch, Catherine E Ulbricht. Mosby. December 2004, 1008pp. £26.99. ISBN 0-323-02993-0



Those of us who has been in clinical practice for many years will have undoubtedly encountered the patient who despite our best intentions is never cured or relieved of their symptoms by conventional medicines. Then one day they come into your consulting room and announce that they have been to an alternative practitioner, who has prescribed homeopathic medicine and this has miraculously cured them.

Due to several experiences like this, I looked into the possibility of prescribing homeopathic medicine and I consulted the available textbooks. None really attempted to look at the various homeopathic medicines on a scientific basis. One was expected to believe that they all worked because the author stated that they did.

However, at that time I wish I had had a book like this, which does attempt to try and bring a scientific basis to homeopathy and makes judgements on the basis of proper scientific trials. The qualifications of the chief editors are beyond dispute; one having received his medical degree from Harvard Medical School and the other a senior attending pharmacist at the Massachusetts General Hospital. Likewise, the qualifications of the senior editorial board and contributors to this book again are excellent. Some are qualified doctors, some are pharmacists and some have engaged in research into homeopathic medicines.

The format of the book makes it excellent as a reference to look up those medicines that your patient has been taking. The various potions are arranged in alphabetical order. Each condition is listed for which the substance could be used and given one of the grades below to show how effective the substance is in treating the condition.

- A. There is strong scientific evidence that the medicine is of benefit.
- B. There is good scientific evidence that the medicine is of benefit
- C. There is unclear or conflicting scientific evidence that the medicine is of benefit
- D. There is fair negative scientific evidence that the medicine has no benefit
- E. There is strong negative evidence that the medicine has no benefit

Fish oil is one of the substances evaluated. It is rated grade A for treatment of high blood pressure and for prevention of cardiovascular disease, a fact few cardiologists would dispute. It is given a C for treatment of depression and dysmenorrhea and D for diabetes.

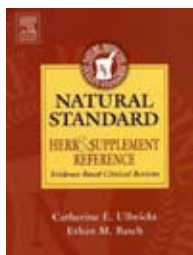
Tea tree oil, which is used, for treatment of children's skin infections is given a C grade for treatment of several specific skin infections and a D grade for mouth plaque.

Melatonin is given grades A and B for several sleep disorders including jet lag. I know from my practice that it is beneficial for children with learning difficulties who have sleep problems. It is graded C for several other disorders from seizures to thrombocytopaenia.

I would recommend this book as a useful addition to the reference library for any clinician in order to keep up with what the patients (or their parents) are telling us.

CHARLES SHEPHERD

Natural standard herb and supplement reference: evidence based clinical reviews. Catherine E Ulbricht, Ethan M Basch. Mosby. January 2005, 1040pp. £75.99. ISBN 0-323-02994-9.



This is a very well referenced source providing detailed evidence-based systematic reviews for almost 100 herbs and supplements. It is particularly valuable for those clinicians who are using or who wish to use herbal medicine in their everyday practice and for doctors and patients who wish to know more about the efficacy and tolerability of herbal medicines. The volume confirms that although a few complementary treatments have been assessed in well-designed clinical trials, high quality information relating to effectiveness, dosage, mechanism of action and safety is limited or controversial for most therapies tested. As a result for almost all the products listed it is not possible to guarantee strength, purity or safety of products even though some have been shown to have clinical benefit.

More than 100 health professionals have contributed to the volume, mostly physicians and pharmacists but also nurses, microbiologists, educationalists, herbalists and other alternative practitioners and over 40 contributors make up the Editorial Board. The text is arranged alphabetically starting with *Acidophilus* and finishing with *Yohimbe Bark*. The layout is highly structured and easy to use as a reference source. The main headings are synonyms for the substance, clinical 'bottom line', grades of scientific evidence, summary table, dose and standardization of formulation, adverse effects, interactions and use in pregnancy. The grades of scientific evidence range from A to F with levels below B representing no evidence or evidence against the clinical effectiveness of the product. Grade A implies that there are more than 2 studies of reasonable design supporting the use of the substance and Grade B that there are one or two clinical trials. Overall Grade A evidence is rarely very good and the studies do not compare with the outcome trials undertaken within conventional medicine in terms of design, statistical power and analysis. Based on A and B grades there are a few surprises. I am sure that those physicians managing dementia and heart disease would be surprised that *Ginkgo biloba* and *Ginseng* are useful for enhancing memory and that *Hawthorne* gets an A Grade for the treatment of congestive heart failure. The latter benefit appears to be for Grades 1 and 2 New York Heart Association Classification, which is notoriously difficult to define accurately. Hepatologists might also like to know that *Milk Thistle* improves liver function tests in patients with chronic liver disease and urologists might be interested that *Pygeum Africanum* and *Saw Palmetto* might improve symptoms and reduce the size of the gland in patients with benign prostatic hypertrophy.

Otherwise most of the findings are as expected. *Ephedra* remains a very toxic substance with no clinical benefit and adverse effects and addiction potential similar to amphetamines and cocaine. Several dietary agents appear to lower the serum cholesterol – barley, soya, almonds, yeasts, garlic and fish oils and some evidence exists for feverfew in migraine prophylaxis and for *St. John's Wort* in depression. A number of agents are confirmed as having some analgesic

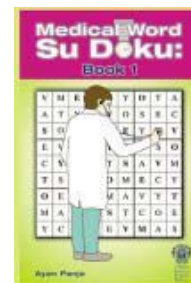
or anti-inflammatory activity – *Boswellia Serrata*, *Devil's Claw*, *Glucosamine*, hypoglycaemic effects – *Bitter Melon*, *Gymnema Sylvestre*, and others appear useful for sleep disturbance – *Valerian Officinalis*, *Melatonin*. *Cranberry juice* and *echinacea* may be useful for urinary and upper respiratory infections.

The two final appendices, A and B, relate to drug interactions and conditions tables. In Appendix A a list of possible pharmacodynamic and pharmacokinetic interactions are listed. Unfortunately, reporting is generally low or goes undetected and the interactions are mostly based on additive effects of similar acting drugs, expert opinion and anecdote rather than clinical studies. The best evidence available relates to *St. John's Wort*, its interactions with antidepressant drugs and its effect as an enzyme inducer/inhibitor. Appendix B deals with the different medical conditions for which herbs and supplements have been used. These are also arranged alphabetically and identify treatments for which Grades A-D evidence is available. This section is likely to be consulted even more than the main alphabetical section as a rapid treatment reference.

In conclusion, this volume represents a most reliable source of up-to-date and balanced information on herbal medicine and the use of supplements. It provides an extremely useful systematic and easy to read resource for all drug prescribers with evidence-based reviews to identify the small amount of wheat from the large quantity of chaff in this area of alternative medicine.

DENIS JOHNSTON

Medical Word Su Doku: Bk. 1: Ayan Panja, The Royal Society Of Medicine Press Ltd, December 2005. 80pp. £4.99. ISBN 1-853-15613-2



I'll be honest here – I don't really know why Sudoku has taken off to the extent it has. You can't walk into a bookshop on the high street (and certainly not the airport) without tripping over stands of the latest compendia of Sudoku and its multifarious variants. The ubiquitous Carol Vorderman has become the Sudoku poster-girl, although quite why that should be escapes me also, unless the intellectual reputation of the TV show "Countdown" is more extensive than I had thought. Whatever the underlying explanation, this puzzle fad certainly seems to have grown into quite a phenomenon.

The first sighting of this puzzle appears to have been in the pages of the magazine *Scientific American* many years ago. The "Number in Place" puzzle, as it was then, was re-used in several subsequent publications, before becoming a serious craze in Japan in the 1980s. It entered the British press in the early 2000s, with the *Daily Mail* and *Times* running it under its exotic Japanese name (which, I am led to believe, is an abbreviation for Japanese for "Number in place").

And now, in 2006, the place is coming down with it.

Perhaps it is superfluous to describe the principles of Sudoku, but for the benefit of the uninitiated (non-anaesthetists, in

the main), a short explanation is probably in order. Sudoku is a logic puzzle centred around a square grid of 9 cells by 9, which is subdivided into 9 blocks of 3 cells by 3. Each cell contains one of the digits 1-9 (but any letter or symbol can be used, as there is no arithmetical relationship between the numbers). The fundamental rule is this: each row, each column, and each 3x3 block must contain only one instance of each digit (or letter or symbol). Each individual puzzle is seeded with some digits already in place, and your role, as the Sudokeur (I made that up) is to put all the other digits back in place, and complete the grid. That's all there is to it – a puzzle of pure unadulterated logic.

The best strategy is usually to start with the digit/letter/symbol which is most frequent in the grid, and systematically work out where its remaining instances should be placed. At one level, it seems very straightforward (as indeed it is), but in the more advanced puzzles, the logical analysis required can be quite intensive. Apparently the first World Sudoku Championships are to be held later in 2006, which suggests to me that there are some people who have far far too much time on their hands.

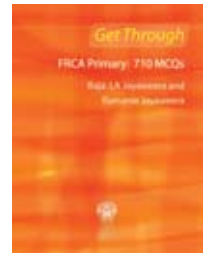
So how would one go about constructing a Sudoku puzzle to appeal to medics? In "Medical Word Sudoku", Ayan Panja has woven a classic anagram puzzle into a Sudoku, the tag being that each anagram is a medical word. Of course, for a Sudoku to work, each word must have exactly nine letters, and each of the nine letters must occur only once. An extra clue is that the word itself will occur somewhere (forwards, backwards, up, down) within the Sudoku grid, so once you've solved a few of the cells, and solved the anagram, you can figure out where to place the word, and this will provide extra clues to help you complete the full thing.

I have to say, I was initially rather sceptical. Weaving medical words into such a puzzle struck me as potentially a bit elitist; if nothing else, unless granny was a doctor, she wasn't going to be as much help with solving one of these as she would be with cryptic crosswords. But, despite these preliminary misgivings, Medical Word Sudoku is surprisingly enjoyable and engaging, if you have a moment or two to spare. The puzzles are arranged in four categories, based on difficulty: "Medical Student", "Junior Doctor", "Consultant/GP" and "Professor". I'm sure there is more than a hint of irony behind these classifications, but suffice it to say that the Medical Student ones are pretty easy, and the Professor ones can be fiendishly tricky – especially if you have difficulty solving the anagrams.

Ayan Panja has done a good job in crafting some slippery Sudoku problems, which will keep both aficionados and novices amused. There are some psychologists who recommend Sudoku as a mental exercise to keep the grey cells in trim; maybe we should be recommending this book to our juniors, with the firm instruction that they must progress to "Professor" level before they can complete their specialist training. On the other hand, maybe life is too short for all this, but if you're into puzzles, I think you'll find that this book hits the spot pretty well – and not a Carol Vorderman in sight.

SHANE McKEE

Get Through FRCA Primary – 710 MCQ's: Raja LA Jayaweera, Ramanie Jayaweera. The Royal Society of Medicine Press Ltd, London, UK. October 2005. 347pp. £19.95. ISBN 1-85315-666-3



There are a number of books on Multiple Choice Questions (with answers) for candidates taking the FRCA examination. These include books published by the Royal College of Anaesthetists itself for both the Primary and the Final FRCA examinations.

This book follows the usual pattern of questions followed by answers in a separate section. The book itself is divided into two sections. There is an initial section of 260 questions followed by section 2 which has 5 practice papers of 90 questions each. Although the initial section contains only 260 questions, the questions in the practice papers add further volume to the overall bank of questions.

The 260 questions in the first section are divided into 10 questions on anatomy, 128 on physiology, 66 on pharmacology, 44 on physics and 12 on other subjects. The physiology section is split into different sub-sections dealing with the cardiovascular, the respiratory, the liver, the central nervous systems and a sub-section on general physiology. I could not find any questions on renal physiology. The pharmacology part is relatively small with a total of 66 questions all grouped together in a somewhat uneven pattern.

Although the questions conform to the usual FRCA examination style there is some imbalance in the content. I found very few questions on opioids which is a big area in the examination and some of the questions related to drugs such as nalbuphine and propoxyphene are probably not relevant now. There are also fewer questions on the pharmacology on the basic aspects of drug action such as pharmacokinetics, receptor classification and drug-receptor interactions. There are also not many questions on newer local anaesthetics.

I would regard this as an average book which has questions which many of which do not examine the knowledge in depth. It will however be useful for candidates for practice so that they can perfect their timing etc. It should also be remembered that the candidates still need a good textbook knowledge to be able to do the MCQs. The content and the depth of the questions might reflect the relative lack of experience of the authors in the examination process and the technique, but overall, the book is good value for £19.95.

RAJINDER K MIRAKHUR

First Steps In Vesico-Vaginal Fistula Repair: Brian Hancock, The Royal Society of Medicine Press Ltd, London, UK. August 2005. 63pp. £19.95. ISBN 1-85315-611-6



Vesico-vaginal fistula is a rare occurrence in the UK and is usually associated with malignant disease or trauma (including surgical trauma). However in Africa it is

relatively more common and indicative of the poor standards of obstetric care that prevail in many parts of the continent.

This slim and easy to read volume deals with the aetiology of obstetric causes of Vesico-vaginal fistula (VVF) and the variety of fistulae encountered.

The main purpose of the book is to demonstrate to potential fistula surgeons that this is an important problem, which can and should be addressed by more surgeons than at present. By careful patient selections, a surgeon can build up experience based on simple cases which yield good results before embarking on more challenging operations. There are step by step descriptions of procedures illustrated with excellent photographs and adequate text devoted to postoperative care and complications. Whilst this book is aimed at surgeons who are considering performing fistula surgery it is of interest to all gynaecologist's and urologist's who may never encounter this type of problem. It is particularly easy to read and should be considered essential reading for anyone who is considering working on the African continent.

If there is any criticism it is the lack of information about the personal disaster that VVF represents to the individual. Not only have they lost their baby they are left in pain, discomfort and misery compounded by abandonment from their partner, family and society.

Millions of women are consigned to this fate in Africa and their only hope is to meet a caring surgeon such as Mr Hancock who can restore normal function for the vast majority of patients.

JOHN H PRICE

Teleneurology: Richard Wootton, Victor Patterson (Eds). Royal Society Of Medicine Press, London. April 2005. 208pp. £24.95. ISBN 1-85315-671-X.

My first introduction to telemedicine was rather off-putting for reasons not directly related to the process itself so unfortunately I became a bit of a "telesceptic" for a while until I had further exposure. Happily, subsequent experiences have been much more positive culminating in this book which has been a pleasure to read.

The editors have assembled a series of excellent reviews of aspects of teleneurology – that is the delivery of neurological care at a distance. All of these are clearly written, and include a review of relevant literature, description of how the authors' personal services are provided plus some analysis of benefits and mention of problems and pitfalls. I would point out that in places the references to the literature are somewhat wanting, for example there are many publications on the use of telemedicine for remote consultation in paediatric cardiology. In addition many of us had not considered telephone advice as a type of telemedicine so that most of us practise it already.

The chapters are divided in three sections: techniques; applications and practical issues. Within these sections teleneurology by telephone, email and videoconferencing



are described in a range of neurological disciplines and specialisms – epilepsy, stroke, rehabilitation, radiology, clinical neurophysiology, paediatric neurology and the developing world. Practical issues are covered in some detail and there are excellent chapters on websites and educational applications. High points for me were the involvement of nurses, application to rehabilitation; "physiotherapy at a distance" and the use of email consultation to assist colleagues in the developing world.

While there is, of necessity, some technical information, this is mercifully kept to a minimum. The review of equipment choice is straightforward. However since the technical competence of any system used for delivery of telemedicine is fundamental to success, the advice to ensure adequate technical advice and backup at all stages is appropriately emphasised. The details of different modes of connection should be reasonably comprehensible to the average clinician (whoever that is) and presumably will be second nature to our increasingly ICT-competent trainees.

I strongly recommend this book to everyone engaged in the practice of clinical neurology and equally importantly to those with responsibility for the commissioning and management of services for people with neurological disorders.

ELAINE M HICKS

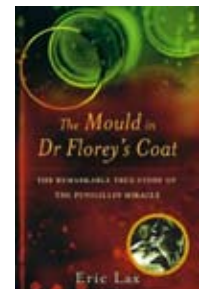
The Mould in Dr Florey's Coat: Eric Lax. Abacus, 2005. 389pp. £9.99. ISBN 0-3491-1768-3.

The sub-title of the book is "The Remarkable True Story of the Penicillin Miracle". The author had the full cooperation of Florey's family and the widow of the third member of the Oxford team, Dr Norman Heatley. It gives a very readable account of the discovery of penicillin by Fleming and its development in Oxford by Florey, Chain and Heatley. Also for the first time, in an easily accessible manner, it records the work done by the biochemist Heatley, for many years the unsung hero of the miracle.

The first chapter has the heading "The Quiet Scot" and records Fleming's discovery of lysozyme the "antibiotic" that occurs widely throughout nature. The bacteria that it does not destroy are, of course, the pathogens. Dr VD Allison was a research student with Fleming when lysozyme was discovered and while working with Fleming, he made lysozyme the subject of his MD thesis. He came to Belfast as a Bacteriologist and ended his career as Director of Laboratory Services for the Northern Ireland Hospitals Authority.

Lax deals briefly with Fleming's war work in a makeshift laboratory near Boulogne where he worked with Thomson, later Sir William, Professor of Medicine, Queen's University, Belfast. However most of the chapter describes the discovery of penicillin and Fleming's attempt to isolate it and how his papers and lectures were completely ignored.

The book is particularly good at describing the very different personalities of the main collaborators: Florey, the bluff, taciturn, irascible Australian who was always "The



Professor” who, frequently was unable to praise a junior to his face but was fulsome in his praise to other people. Lax calls him “The Rough Colonial Genius”. He was the clinical physiologist who had the brain wave to look for a biological drug better than the recently introduced sulphonamides. Chain, “The Temperamental Continental” – a refugee, some of whose family were eventually murdered in the holocaust. He anticipated criticism where none was intended and reacted over sensitively to any disagreement. He thought the laboratory should be run on the same lines as in Germany – a strict hierarchy with everyone doing what the chief wanted without discussion or demur. Before starting any research he explored the literature and found the long-forgotten paper on penicillin by Fleming.

The third member of the triumvirate was Heatley the diffident English gentleman easy to work with and respected and beloved by the technical staff. The contrast with Chain could not be more marked – “... he and Chain were opposites in temperament, in personality, in scientific approach ... Heatley was reticent and shy, Chain was voluble and demonstrative; Heatley was reluctant to seek credit, Chain was quick to claim his due.”

Chain was a very difficult colleague. Sometimes when he and Florey were arguing the very walls of the room seemed to vibrate. Although Heatley worked with Chain he collaborated with Florey.

Heatley, a biochemist was also an expert in the recently introduced technique of micro-assay and developed a technique of measuring the potency of any sample of penicillin in what became internationally known as Oxford units. His first task was to culture sufficient penicillium from which Chain was to extract the active principle – penicillin and determine its formula. However penicillin proved to be highly unstable and Chain was making very little headway in isolating it. That problem was not solved until after Heatley joined the team.

Vast quantities of culture medium were required for the isolation of a minute quantity of the active principle. All sorts of containers were used – bedpans were the best but took up too much room in a steriliser. Heatley devised and had made rectangular “bedpans” that proved eminently suitable. He also invented and built an apparatus from bits and pieces and glassware that he made himself for the continuous extraction of what at first was thought to be pure penicillin. The first isolated powder was yellow and later shown to be only 1 percent pure. When Heatley suggested that the yellow colour was not the active principle he was shouted down by Chain but went on to prove that he was right.

“Without Heatley, No Penicillin” is the heading of one chapter. The phrase was coined by Professor Sir Henry Harris, a successor to Florey as head of the Sir William Dunn School of Pathology where the “miracle” happened.

Three very different men, each a genius in his own field, fortuitously came together and isolated penicillin, a task that Fleming had been unable to accomplish. Its wonderful power in killing staphylococci in vitro and in vivo in mice was soon proven. And it was not long before an expanded team demonstrated its life-saving power in humans.

All the pharmaceutical firms in Britain were too fully committed to war work to undertake the commercial production of penicillin. Florey and Heatley went to the United States of America to get that started. Fortunately, using apparatus unavailable in England, a method of deep culture of the penicillium was discovered. Also a different strain of the fungus was isolated that gave a much increased yield of penicillin.

Lords Beaverbrook and Moran ensured that Fleming’s discovery was well publicised, thereby getting funds for St Mary’s Hospital. Fleming was by no means averse to basking in the spotlight but he did occasionally refer to the work done in Oxford. He shared the Nobel Prize with Florey and Chain, was knighted, elected to the Royal Society and received a multitude of other awards. In 1941 Florey was elected to the Royal Society mainly for work before his quest for penicillin commenced. He also received many awards, was knighted and later received a Life Peerage. Chain also was elected to the Royal Society, received many awards and was knighted. Heatley whose work had been essential received no recognition during his working life. However his widow says that he was never embittered by this oversight. He was appointed to the Order of the British Empire in 1978 and 12 years later Oxford University repented of its neglect and awarded him the first Penicillin Fellowship at Lincoln College, named the lab in which he worked for 42 years The Heatley Laboratory and instituted an annual lecture and a lectureship in his honour. Thirty years after the penicillin work was completed Oxford made him its first non-medical Honorary Doctor of Medicine.

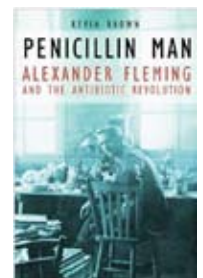
Heatley married Mercy Bing, a medical graduate of Oxford and the daughter of the founder and first Headmaster of Rockport School Holywood, Co. Down which has honoured Heatley by naming their Science Laboratory “The Heatley Laboratory”. Rockport School is celebrating its centenary this year.

There is another connection to Northern Ireland. The War Office sent Florey and Lieutenant Colonel Ian Fraser, RAMC (later Sir Ian) of the Royal Group of Hospitals, Belfast to North Africa to test penicillin in the treatment of war casualties. The taciturn Florey did not enjoy the company of the ebullient Fraser!

The Mould in Dr Florey’s Coat was no accident. The three collaborators and the pathologist Sanders had penicillium spores rubbed into clothing so that, if in the war the laboratory were destroyed or three of them killed, or if the country were invaded, the research could start again elsewhere.

The Penicillin Man: Kevin Brown. Sutton Publishing, London, 2004. 320pp. £20.00. ISBN 0-7509-3152-3.

This book was published in 2004 to commemorate the 75th anniversary of Fleming’s discovery of penicillin. It is subtitled “Alexander Fleming and the Antibiotic Revolution”. Kevin Brown, the Trust Archivist and Alexander Fleming Laboratory Museum Curator at St Mary’s NHS Trust, Paddington, is the author. Naturally Fleming takes centre



stage. Most of the book is given over to Fleming's career before and after the discovery of the bactericidal powers of the penicillium mould. Seven and five pages respectively are required to list all his publications and honours.

The work in Oxford is not neglected but is condensed to occupy about 20 pages. However the author gives a good account of the difficulties Florey and Heatley encountered in the USA when trying to interest pharmaceutical companies in the manufacture of penicillin. He also deals very well with the different attitudes in the UK and the USA to patenting.

The penultimate chapter summarises the development of subsequent antibiotics and how they have become less and less useful. "The hope is that alternative approaches to the fight against infection, such as the development of vaccines and gene therapy, will prove useful".

This book is essentially a book of reference and should be in every Medical Library as should "The Mould in Dr Florey's Coat" which is a "good read" and would be a useful addition to the library of any one interested in Medical History.

ACKNOWLEDGEMENTS

I wish to thank Dr Mercy Heatley for her cooperation and help in producing this review, Professor Richard Clarke for details of the Belfast career of Dr VD Allison and Mrs Margaret Copeland for her constructive criticism and editorial skill.

H W GALLAGHER
(Former President, Ulster Medical Society)