Dietetics being opened in the Royal Infirmary under the direction of Miss Pybus and sponsored by Professor David Murray Lyon. This was again a first for Edinburgh, though it should be mentioned that a course of dietetics had been provided from 1927 at the Glasgow and West of Scotland College of Domestic Science.¹⁰

During the past 50 years treatment for diabetes has developed and methods have been modified. The Edinburgh School has made its useful contribution to this progress, and it seems worth while to salute those pioneers who supplied the initial impetus when insulin was discovered.

I thank Professor Michael Bliss, Toronto, for help and encouragement and the following archive departments for making copies of their records available: the University of Toronto for the MacLeod papers; MRC for correspondence with J C Meakins; Edinburgh University Library for access to

the general register of patients. The manuscript of Professor J C Meakins's memoirs is held in the Osler Library, McGill University, Montreal. Miss J P S Ferguson, librarian to the Royal College of Physicians, Edinburgh, also gave valuable assistance.

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The medical muse

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Br Med J 1990;301:1454-6

It has long been held—probably since Pythagoras—that an aptitude for music goes hand in hand with a mathematical mind. Indeed there are many distinguished mathematicians who excel in music, but my own observations suggest that musical accomplishment is more widespread among doctors than in any other thinking profession. Perhaps Bacon had the right idea.

The ancients did well to conjoin music and medicine, because the office of medicine is but to tune the curious harp of man's body.

That was long before anyone demonstrated any scientific basis for music therapy.

If you require evidence look around you and listen. The country—no, the world—seems to be full of musical doctors. Many people of my generation who listened spellbound to Boyd Neel and the pioneering English chamber orchestra that bore his name were unaware that he was in fact a music loving doctor. His musical descendant, Jeffrey Tate of the English Chamber Orchestra, also started life as a medical man.

Three medical bassoonists

When I was a music student one of my own earliest appearances as a soloist was under the baton of Dr Dolf

Eighteenth century doctors
make music—on close stool
drums, glyster pipe bassoon, and
syringe flageolet

"Mrs Winslow's Soothing Syrup"

Polak of King's College Hospital. On that occasion in the 1950s he also guided Alfred Deller through a Bach cantata. I used to play in an amateur orchestra whose bassoon section was manned by three medical scientists—each one a fellow of the Royal Society—led by the Cambridge pathologist William Rushton.

University orchestras, although diminishing under the onslaught of discothèques and the general stultification of the Walkman battered, cloth eared young, still somehow manage to absorb their usual high proportion of musical doctors. Time and again it has been noticed that children who are subjected to the early discipline of mastering a musical instrument are academically brighter and develop a greater capacity for learning, not least eye and muscle coordination.

I sometimes wonder how all these multitalented doctors find the time. The flautist and conductor (and one time musical arranger for the King's Singers)

"The Pain-Killer Polka"

Robert Sells happens also to be the past president of the British Transplantation Society: the evening before hosting this year's Liverpool meeting of the society he was conducting Tchaikovsky's *Pathétique* in the Philharmonic Hall. When the Royal Liverpool Philharmonic has found itself short of a bassoonist the services are available of the pathologist Dr Robert Connolly, whose other distinctions include important work on the prehistoric Marsh Man. Occasionally he is joined there by his horn playing brother, David, a distinguished spectroscopist.

An American consultant, Dr Gilbert Kaplan, has conducted Mahler's Third Symphony with some of the great orchestras. Admittedly he hired them, but he always acquitted himself with credit. (And if any professional conductors are tempted to question his effort let them change places with him one day in the doctor's office.)

The list is almost endless and even transcends the ancient East and West divide in music. The consultant anaesthetist Dr Aly Sadek, with Dr Wafaa El-Sissi, last year took time off to produce the first recording in Arabic, and with an all Egyptian cast, of Mozart's *Così fan tutte*. (They are translating all Mozart's operas into this very melodious and singable language—though I specially look forward to *Die Entführung* to see how the doctors handle the scene where Belmonte makes alcoholic jokes about the prophet and gets the moslem servant Osmin drunk.)

When you next listen to Alexander Borodin's *Prince Igor* remember that he wrote it as a relaxation from his day job as reader at the St Petersburg Medical-Surgical Academy, where he worked on a 10 year research programme into "the condensation of the aldehydes of valerian, enantol and vinegar." Music is an uncertain profession and the Swedish composer Franz Berwald (1796-1868) was not alone in embarking on several profitable extramusical enterprises, among them a sawmill and an orthopaedic clinic—well, it makes sense, doesn't it?

Lessons from Haydn rather than surgery

Henry Harington (1727-1816), after graduating MB and MD in 1762, successfully followed a dual career as

physician to the Duke of York and "composer and physician" to the Bath Harmonic Society, for which he composed some 70 works, mostly glees. Another noted English glee composer was John Wall Callcott. He was intended for a career in surgery, but when witnessing his first operation he felt so faint and terrified that he gave up all thought of further study. Instead he took lessons with Haydn and won prize after prize from the Catch Club. Needless to say some of his catches harked back to medicine. His grandson was the composer Norman O'Neill, a close friend of Delius who died tragically young, in 1934, from the effects of a comparatively minor traffic accident (near the BBC) after inadequate first aid treatment.

Another medicomusical member of the Catch Club was Dr Francis Hutcheson, born in Dublin in 1721 (MD, Glasgow 1750) and twice president of the Royal College of Physicians. He managed to combine four careers: physician, violinist, professor of chemistry at Trinity College, Dublin, and resident composer for the Catch Club, which awarded him several prizes. He signed some of his earlier catches with a pen name, Francis Ireland. For example:

Mother: Oh Doctor, Oh Doctor, I'm terrify'd out of my wits!
Poor Nancy my Daughter is fall'n into Fits.
But you come, Dear Doctor, just in the Nick, etc, etc,
Doctor: The first Step in cases like this to be sure,
Is breathing a Vein: I'll engage for a cure
If you'll let me but give her a Prick . . .

In other words, the second oldest medical joke after the glyster.

Even the hymn writer John Wesley found time to produce a manual called *Primitive Physic*, with various popular treatments for heartburn and other complaints, using liquorice and electricity. By 1830 the book had gone through 36 editions. More surprising still, the name of the patron saint of malingerers himself appears in the annals of music: there exist several sonatas by a Baron von Münchhausen. Though it may have been a confidence trick, of course.

That most common disease, hypochondria, also figures in music: *La Hypochondrie* is the—alas un-

"Medicine Jack"

explained—title of a *concertante* by J S Bach's contemporary Jan Dismas Zelenka. It has recently been recorded on a Teldec compact disc.

With so much dual talent it is hardly surprising to learn that at the 1932 meeting of the Canadian Medical Association a Dr Forde McLoughlin conducted his own work, *Influenza, A Tone Poem*. Could any Canadian reader tell us more about this occasion or procure a copy? As recently as 1948 Dr Herman M Parris produced, with the Doctors' Orchestral Society of New York, a 10 movement orchestral suite, *The Hospital*, with movements entitled *Anaesthesia* (presto), *A Nurse* (allegro amabile), and a *Pre-operation Prayer*. Does the event figure in the society's annals?

Blow by blow description

But there is nothing new. The French viol virtuoso and composer Marin Marais celebrated an "operation for the stone" with his *Lithotomy Sonata* for viola da gamba and harpsichord, which gives a blow by blow musical description of the operation together with a running commentary:

The Patient mounts the Operating Table
He takes fright, and tries to get down again.
His limbs are restrained with silken Cords.
The Incision.
The Blood Flows.
The Cords are untied and the Patient is put to Bed to recover.
Dance of Relief and Rejoicing.

The dance of relief and rejoicing was presumably performed by surgeon and staff, not the patient. Samuel Pepys would have loved it, for in 1658 (when Marais was a child) he suffered an operation for the removal of a kidney stone and thereafter celebrated its successful outcome with an annual "stone feast."

Victorian doctors and their patients, pharmacists, and patent medicine manufacturers often figured in ballads and music hall songs, which from the mid-nineteenth century, thanks to cheap colour lithography, resulted in a great abundance of delightfully illustrated sheet music. Although sex was still taboo suggestiveness was permitted, and songs about doctors, ailments, cures, remedies, and popular health

"The Quack's Song"

crazes were always popular. They were sometimes issued as barely disguised "commercials"—for example, *Phrenology—a New Song Dedicated to the Heads of the Universities, Public Schools and Private Families, Ipecacuanha, Morrison's Pills*, or *Mrs Winslow's Soothing Syrup*, which the young Edward Elgar immortalised in one of his works—a veritable procession of musicomedical social history. Some songs even managed to offer primitive health education with the help of music, like *The Hygeia Waltz* and *The Death of King Dirt—a Domestic Revolution*, being a parody on the popular ballad, *The Death of Nelson*.

"Human guinea pigs"—a history

M H Pappworth

In 1962 I was approached by the editor of *Twentieth Century* (a now defunct literary magazine) to contribute to a special number entitled "Doctors in the Sixties." My article, called "Human Guinea Pigs: A Warning" appeared in the autumn of 1962, describing 14 experiments in lay language; no names were named and journal references were not given. This was an early event in the debate in Britain about human experimentation. The debate excited much interest in both the lay and medical press and led eventually to the establishment of local medical research ethics committees.

The reasons why I chose to write on this subject were several: firstly, several of my postgraduate students, especially whenever I mentioned recent supposed medical advances, told me about unethical experiments that they had personally observed in British hospitals in which they were either junior staff or attending courses. Some told me of their dilemma whether or not to take an active role, or even a passive one, in persuading a patient to volunteer, knowing that non-cooperation might jeopardise their careers. For many

years as a background to my tutorials for the MRCP I had spent hours in the Royal Society of Medicine library scanning journals in which experiments in humans were described that seemed to be unethical and sometimes illegal.

A further concern was that promotion in teaching hospitals depended primarily not on clinical or teaching ability but on published work. As Beecher wrote, "Every young man knows that he will never be promoted unless he has proved himself as an investigator." So whenever I read an account of an unethical experiment I wrote a letter to the journal protesting, often as not to have it rejected. Medical research had become sacrosanct, based on the dubious dogma that its continuation must be the prime concern of teaching hospitals.

Press reactions

Most of the popular press reported the article with banner headlines and there were many letters from lay people and doctors either condemning or congratulat-

The pictures in the article are from Fritz Spiegl's collection. They form part of a "Spieglers" entertainment—*The Medical Muse: Songs, Verse, and Prose for Doctors and Their Patients*.

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Br Med J 1990;301:1456-60