My Student Elective

Massachusetts General Hospital

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The Massachusetts General Hospital is a large urban hospital in downtown Boston with 1100 beds serving a largely Irish and Italian population, with 918 physicians, 374 interns and residents, and 320 clinical and research fellows. The list of contributors to *Harrisons' Principles of Internal Medicine* bears witness to the fact that the hospital attracts great names—and it seems to be widely considered the Mecca of American medicine. I certainly saw no small number of patients who had come from as far afield as Texas, California, and Argentina, often in desperation and terminally ill, in the hope of cure. The hospital (figure) sprawls from Cambridge Street down to the Charles River—a delightful exhibition of the acme of American hospital architecture over the past 150 years; from the much prized “historic Bulfinch Building” with its famous ether dome (greatly reminiscent of the old Royal Free Hospital), where anaesthesia was first demonstrated in 1846, to the beautiful new towering Massachusetts Eye and Ear Infirmary (“the eyeball”) with its top floor cafeteria, from where the view of Boston is better than that from the downtown Prudential building.

“Just come along to the ICU (intensive care unit) at 0900 on the first morning” I was told. The problem was, in this medical metropolis, which one: the SICU? (surgical), PICU? (paediatrics), RICU? (respiratory), MICU? (medical: $\times 2$: one private, one general), or maybe one of the two CCUs (coronary care)? or even the WACU? (I never found out what that stood for).

Massachusetts General Hospital.

Culture shock

I spent a busy month on the medical intensive care unit, made busier by my newcomer's transatlantic culture shock. Bernard Shaw was correct in his observation of England and the United States as being “two nations separated by a common language.” American medical jargonese must surely be the best in the world—no word is used if it can be abbreviated into capitals (and then used as a verb)—while the drugs used are never given their generic names but always trade names and sometimes diminutives of them.

The notes and orders written by the interns sometimes appeared like original exercises in mathematical logic—pages of capital letters and numbers. When they did write whole words they often had forgotten how to spell them.

A foreigner's guide-book must include:

KUB: kidneys, ureter, bladder (plain abdo x-ray)
CVA: costovertebral angle
d/c: discontinue as in “let's d/c the NG” (nasogastric tube)
TURP (as in turpentine): transurethral resection of prostate

CABG (pronounced cabbage): coronary artery bypass graft
shocky: (to become) septic/gram -ve shock—for instance, “he became shocky after a turp”

foley: catheter
to ideralise: beta-block + propranolol
to rectalise: perform a rectal examination
to turf, as in “let's turf him to the neurons”: “What about referring him to the neurologists?”

the visit: the visiting consultant

IV: drip

IV-tech: phlebotomist

to de-line: take down drip

to crump: deterioration on the part of the patient despite masterly ministrations by the staff, as in “he crumped” (similarly, to “de-tune”)

ampi: ampicillin

ami: amikacin

vitamin V: valium, of course.

0700 Ward rounds

The time-table was lively; mornings started at 0700 with the first round of the day. (The surgical interns started their rounds at 0430.) Slowly we would trail around the “step-down”

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ward—each patient was examined briefly by a student or intern, who would then report back to the scribe of the team and, all of us leaning on the trolley in the corridor, the patient, his drugs, and results from the laboratory would be reviewed. I found the practice of conducting the ward rounds in corridors strange but uniform: I supposed that a long discussion of Mr O'Donoghue's potassium concentration might confuse Mr O (they certainly confused me) but little was debated in front of patients routinely. This seemed slightly unfair, since the patients could see us in the corridor and knew we were talking about them. They often, however, expected a modicum of bafflement since it is universally accepted in the United States among the lay public (and sometimes among the medics?) that a doc is a better doc if he talks a lot of intelligent-sounding science at you. Anyway we sometimes had much competition for the patient's attention with breakfast TV. . . .

These morning rounds were routinely attended by two pharmacists and, three times a week, a psychiatrist, Ted, who added much to proceedings with witty asides and blunt observations that often gave much needed perspective to the "scenario" of intensive care. At 0930 division of labour occurred among the team (3 residents, 3 'terns, and 2 "studes")—the residents would arrange the consults (referrals), talk to relatives, and finally decide on what investigations to order, and the 'terns and studes would start the "procedures." Thus I learnt to take arterial blood samples, perform pleural taps, paracentesis, and lumbar punctures, and we helped in the placement of arterial and central venous lines. Our teaching was good and we learnt about ICU-related topics, such as the use of respirators, pulmonary artery wedge-pressure monitoring, etc. We were expected to be able to Gram-stain the morning sputums, urines, and cerebrospinal fluids, and to interpret the results sensibly—an exercise I found very informative and satisfying.

At 1030, the "visit" rounds started. During my stay on the intensive care unit, the "visit" turned out to be the "chief" of medicine at Massachusetts General Hospital, Dr Alexander Leaf. To my extraordinary horror I learnt that the students were expected to present new cases to him every morning, and to submit themselves to a mini-viva on the relevant management and presentation etc. I was particularly struck by the amazing aplomb and fluency exhibited by students and 'terns alike in the presentation of cases: minus notes they could reel off pages of "labs", differential diagnoses, and reference papers with seeming ease and elegance. My first tentative effort was punctuated with a background of tittering and culminated with requests to "say it again!"—I realised that my "cute" accent and more formal "English" approach appealed to my audience, and in fact I often had cause to thank my embarrassing accent for covering up gaps in my knowledge since people tended to listen not to what I said but how it was pronounced.

Charmed by computers

I found the general East Coast attitude to the English and English medicine somewhat distressingly limited and reactionary. "Is it true you lot never start work till after 10 am?" "Is it true you never treat people over 65?" "How can you work for a system that doesn't pay you?" Nothing can stop a few misguided impressions whole-heartedly being reinforced by staunchly patriotic and dogmatic individuals who have never seen any other than American hospitals with the high-powered medicine that attends them, let alone understand the concept of a National Health Service, so I often tried to avoid these discussions. The affluence and technology available certainly were impressive. I was particularly enthralled by the computer system, and soon became accustomed, nay addicted, to using the ICU terminal to gain access to lab results. Within half an hour or less of venesection one could obtain any haematological and most chemical results—the "Pan-scan" took longer (Vickers I and II), but the whole system was gratifying in its efficiency. The medical

education programmes proved great fun, offering a range of subjects as varied as cardiopulmonary resuscitation, painful knees, acute asthma, arrhythmias, neonatal examinations, etc. Who could but be charmed by a computer that asks you whether you wish your coffee break now or after another 10 minutes, and on your return, flashes up "welcome back, Eleanor!"

The patients on the whole saw many more "procedures" than their English counterparts. Many of the myocardial infarcts were "cath-ed" routinely, few patients escaped a daily x-ray examination, most had ultrasound of something at some stage, daily Pan-scans, of course, and lots of blood gases—for which there seemed to be a particularly low threshold. Computed tomography scanning was extremely popular—I was told by one resident that it was very accurate in the diagnosis of sinusitis.

The plethora of results obtained daily from each subject had of course to be assessed. I sometimes thought that a normal value signified diagnostic disappointment, since every fresh intern was on the prowl for publication potential—"I smell a syndrome" could be heard near the beds of new patients. Massachusetts General Hospital is famed for its research and medical "firsts"—nowhere is "the literature" far away. From the hospital and its Boston allies emanates the *New England Journal of Medicine*, and the weekly case presentations at the awesome Shriners Burns Institute on Blossom Street are always published—and fun to attend.

Achilles heel

The only criticism of all that I witnessed was, in the face of all the wonderful facilities and outstandingly bright staff, the unnecessary suffering that dying patients were sometimes put through, which I was sure would not have happened in England. I watched an 87-year-old hemiplegic, having gone quietly into ventricular fibrillation, be given cardiopulmonary resuscitation, intubated, and spend two weeks paralysed but conscious on a ventilator before she managed to die. Similarly a 78-year-old woman admitted with oesophageal bleeding on end-stage cirrhosis was enthusiastically endoscoped for the umpteenth time and her varices sclerosed; she died three days later having had every accessible and inaccessible blood vessel cannulated or stabbed for the proprietary blood gases and Pan-scans etc. There were also others.

The ethics of all this was confusing—on the one hand "total patient care" was supposedly the name of the game—and yet the decision to stop treating patients had to, on medicolegal grounds, come from the patient's relatives, who, much of the time, were the least qualified medically and emotionally to decide. I sometimes thought that we were in fact treating the relatives.

The Achilles heel of American medicine must be malpractice—it threatens everybody. Patients' notes were treated very much as medicolegal documents, totally reviewed system by system normal or abnormal nightly, providing the on-call intern with much anguish. Consequently, the notes could end up weighing more than the patient. A sad and well-publicised case in the February Boston newspapers was that of a woman who successfully sued her doctor for failing to diagnose and excise a malignant breast lump—she was awarded \$400 000 and became a veritable celebrity.

In general, perhaps because treatment and insurance in the United States can be such a financial outlay for most of the population, I found the average Bostonian very much more informed about his health than his London counterpart. "My diastolic's gone up to 120, Doc, and I've put up my Inderal" was not unusual. Similarly, efforts to keep away from hospitals are Protean: jogging, isometrics, aerobic exercises ("never anaerobics, Doc,") and "eating right"—low cal, high fibre, and vitamins with the lot. The hospital cafeteria provided staff and visitors alike with menus for different calorie requirements and

endless choice—low fat milk was *de rigeur* and even low cal ketchup.

Autognosis sessions

One of the most fascinating interludes during the rushed life on the intensive care unit was the weekly Friday "autognosis sessions." Autognosis, as the psychiatrist Ted explained, was: auto= self and gnosis= knowing (some wit volunteered car maintenance).

The idea was that the whole team should sit down together, analyse and verbalise their feelings towards their patients, and somehow use these feelings to provide information about the patients that could subtly help in their management. To a sceptical Briton such as myself, the opportunity to watch the American obsession with self-analysis in action was a treat. Each member of the team, for example, would be asked to give his or her unveiled and honest opinion of patient Mr X (Ted always hit on the most tiresome ones) and to hear my disinhibited colleagues suggest "dirtball!" "son of a bitch," and other well-understood descriptions was more than slightly entertaining. "If Mrs Y was an animal, what sort of animal would she be?" produced colourful answers. "How would *you* react if Mr Z was your brother?" "Why do you think Mr P wears a toupé?" At first I must admit I cringed with embarrassment lest I be prevailed on to participate more, but the sessions were very funny, and an hour of this proved cathartic to most, and certainly brought much laughter and comradeship to the group.

I was much interested to compare medical education in London with that of my Harvard peers. Their clinical course comprises two years in all. The first contains the compulsory "core clinical clerkships"—medicine, surgery, paediatrics, etc. The second is "electives" when they organise almost whatever they please—many go abroad, do research, or concentrate on their "career specialty." American doctors are a nation of specialists—on entering medical school someone may organise his education around, for example, paediatric nephrology. A surgeon may start his surgical residency having done only two months of plain medicine (core clinical clerkship) in his whole career. People seemed amazed that I should have to do six months of medicine plus six months of surgery for my house jobs. The career of the moment at Massachusetts General Hospital appears to be cardiology—followed a close second by "ID" (infectious disease) which seemed largely to be nosocomial disease. The other student on the intensive care unit rotation, a bright Vietnamese girl (of course, a budding cardiologist)—had not done any psychiatry and need not have done any obstetrics and gynaecology, since neither were necessary to her. "What if one of your patients suddenly tells you he's Napoleon?" I asked, "I'd call a psych" she replied shaking her head. "After all, there's always one around."

My "generalist" approach, although limiting me in subjects such as "cardiomyopathy and angiodysplasia of the gut," stood me in good stead in casualty one evening when the "G-U tech" (genitourinary technician) had gone off duty and nobody could catheterise a patient.

I was impressed, however, with how knowledgeable every single student and doctor seemed. They are trained to read their cases up in the journals, rather than the books, seem well rounded in every academic subject, and are totally up to date with almost everything published. Many students have their own subscriptions to enormous numbers of journals and keep their vast collections of xeroxed articles finely indexed—I was continuously being handed photocopied articles on almost every interesting case we admitted. I enjoyed the enthusiasm, tenacity, and ambitious atmosphere enormously; I thought the staff were bright, keen, and madly anxious to progress. There seemed to be an overwhelming number of so-called "type a personalities" around—and the only explanation I could offer for this was that American medicine selects, and is selected by a different type of student than in England. "Big" money and a position of enor-

mous social and academic prestige are conferred on successful American doctors—perhaps it therefore attracts "business men" who react to it as they would to private enterprise.

Emergency ward

I have not enough space to describe adequately the second half of my Boston sojourn—the "emergency ward" (to suggest casualty invited helpless mirth without fail). As students, we were given full run of patient "work-up" and consequently were able to see and do plenty. It is a large and busy department—285 patients a day come through the doors—and the speed and extent of diagnosis and treatment available in the ward itself was impressive—the beauty of the computerised system allowing almost instantaneous lab results to be screened certainly speeded things up.

The really dreadful sights one hears about in urban America were all sadly demonstrated—heroin addicts with \$800-a-day habits brought in handcuffed by Starsky-and-Hutch type cops (all the hospital security staff carried guns), other "street drug" overdoses, amphetamine psychosis, "mainliners" with abscesses, and hundreds of down-and-out alcoholics and tramps looking for shelter from the Boston winter. I am still amazed at the number of people we saw who slept outside routinely in temperatures below -10°C . The victims of trauma and violence were largely taken to the Boston City Hospital, but the aggression exhibited in the emergency ward by patients, psychotic and otherwise, made me aware of quite how dangerous American civilian life can be. Apparently at the Johns Hopkins Hospital in Baltimore, one resident and one student are killed a year. I realised how delightfully fearless you can be in England.

Boston diversions

St Patrick's day was a riot; the whole of Boston wore at least one green garment (nearly everyone has Irish blood in their pedigree somewhere . . .). T-shirts emblazoned "Thank God I'm Irish" and "God made the Irish No 1" were rife. People dyed their hair green, green beer was sold (apparently the river is dyed green in Chicago), and in the aftermath of hundreds of punch-ups in the emergency ward someone came in passing emerald green urine.

Another delightful diversion arrived one chaotic afternoon in the form of a girl who came dancing through the entrance dressed as a bumble bee in black tights and leotard, enormous yellow and black wings, antennae, and a wand. She produced a scroll, launched into a tuneful ditty of thanks directed at a very red-faced resident, giggled, and bounced out leaving the whole reception area, including the derelicts and addicts, in a glazed and wondering silence. It transpired that she had been treated and apparently cured the day before by the resident in question (thereafter known as the entomologist); she was, by profession, an opera singer and, temporarily unemployed, had taken to delivering "singing telegrams."

Boston is beautiful, even in the cold, with much to see, appearing curiously semi-European in parts. The surrounding countryside in Massachusetts and New Hampshire is also lovely—the coastline around Rockport, Marblehead, Salem, and, of course, Plymouth, where the "Mayflower" landed in 1620, is very striking—especially in winter.

In all, I was shown much kindness and friendliness during my stay—Americans have a soft spot for the British and often fondly nurture totally misguided and outdated notions of an "upstairs-downstairs" type of imperialist Britain. I found my elective most rewarding, academically and otherwise, and was sad to leave. I am especially grateful to Mr Arthur Li, of the academic surgery unit, Royal Free Hospital, for engineering my trip and so kindly paving the way for me over there.

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