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medicine:
preparing for
the worst,
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VIEWS & REVIEWS

Priority patients in a pandemonium

PERSONAL VIEW **Robert Wheeler**

Should swine flu mutate into a more sinister disease than its present form, very large numbers of sick patients will present at the reception of your practice or your hospital demanding treatment. Some of them may be your colleagues or their families. Will you give them priority?

While the available facilities exceed the demand, all patients will doubtless be dealt with in an orderly manner. But when the numbers exceed the facilities, triage will be implemented, selecting those who will benefit from treatment in favour of those in whom treatment may ultimately be futile. This is a well understood process, dating back through centuries of warfare, and is considered a measured response to a lack of resources. But warfare tends to generate a wide spectrum of injury severity. This makes differentiation between those who can wait for treatment, those who cannot, and those for whom treatment will make little difference relatively straightforward, at least in theory. However, an overwhelming number of initially healthy citizens presenting with flu may, for the most part, have similar severity scores, and triage will not be able to differentiate the patients into recognisable prognostic groups. So when triage fails—because the number of patients in the uniformly sick and treatable group will far outweigh the available resources—how will the patients who are to receive treatment be selected?

On the battlefield, faced with innumerable immobilised casualties of conflict, the solitary soldier may have the chance to carry only one of them to safety, as he retreats under fire. As he searches among the bodies to find someone alive, if he encounters two severely injured—one a comrade from his platoon, the other an unknown civilian—whom is he more likely to put over his shoulder? It seems almost inevitable, and right, that he will pick up his comrade. The soldier is in no position to make a selection on any other basis than

the strength of his personal relationship, combined with his unwillingness to let someone he knows die needlessly. In the clinical setting, what will you do? You are surrounded by pandemonium, overwhelmed by too many patients; with such similar clinical signs and previous histories that triage is unhelpful; yet all require very urgent admission. There is only one bed. You recognise none of them, until your ward sister, or your receptionist, points out that her young son is among them and asks you to take him in preference to the rest of the crowd. You could be forgiven for selecting him, for no other reason than that you know his mother.

Similar dilemmas will present themselves in the next few months if the swine flu virus mutates to a more virulent form. Many of us will stand as gatekeepers, controlling the flow of patients into hospital facilities. And it is inevitable that, among the queue of patients whom we do not recognise and cannot triage, there will be our colleagues and their families. They may be asking for preferential treatment. It is equally foreseeable that most of us will allow this preference. After all, we already do. Under less pressing circumstances, do we not all ensure that our colleagues and their families are processed through our own little section of the medical machine with as much haste as is decently possible, and often in preference to an otherwise anonymous member of the public?

And if you don't take your colleague's son, and he dies, how will this affect your subsequent relationships within your clinical service? Whether he would have survived the infection despite treatment is irrelevant. What matters, from his mother's perspective, is that you chose not to treat him.

Do you imagine for one moment that you would ever be able to work together again? In many cases, this will not be possible. The cumulative effect on the health service of clinical teams being

When triage fails, how will the patients who are to receive treatment be selected?

destroyed in this way would be devastating. In such moments of crisis, we consult those who manage us, and they look to the government. Nowhere in the plethora of Department of Health information is this problem addressed, and in fairness that is understandable. Neither government nor hospital trusts could reassure clinical staff that it is in some way legitimate to look after their colleagues or their colleagues' families preferentially. Such behaviour would be discriminatory and arguably an abuse of power by a public servant. Nevertheless, it seems highly likely to happen.

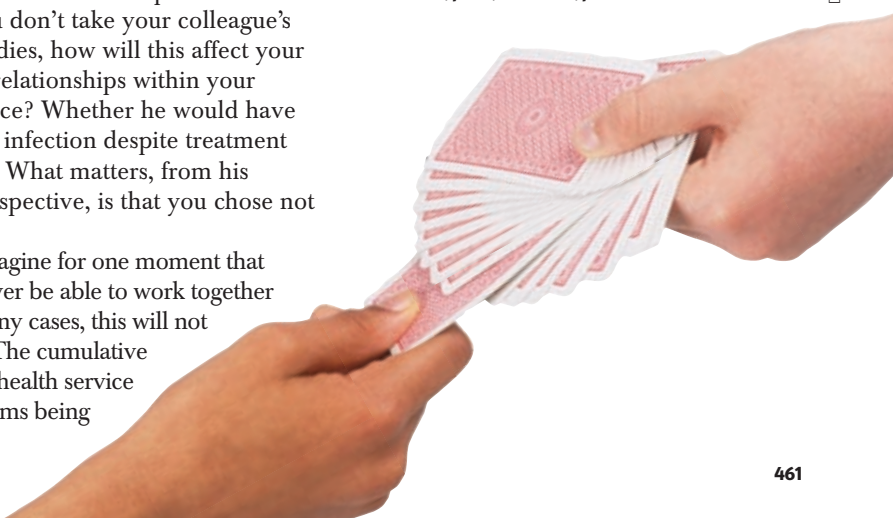
Perhaps the best that we can hope for is that trust managers say nothing and simply instruct their staff to adhere to the principles of triage. There would be no practical possibility of enforcing an explicit non-discriminatory instruction if faced with overwhelming numbers of patients. The alternative, where managers stay silent, allowing doctors to use clinical discretion together with their conscience, would be preferable.

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REVIEW OF THE WEEK

Rekindled passion: fire and fallout

Is it possible for disaster medicine to prepare for the worst? Archive training material suggests not, finds **Colin Martin**

Fire & Rescue Museum

By Jussi Kivi

Finnish Pavilion, 53rd International Art Exhibition, Venice, until 22 November

Rating: ★★☆☆

Most people collect something or other. A pile of copies of this journal qualifies as a collection. Other collections are more idiosyncratic. As a child and adolescent the Finnish artist Jussi Kivi was fascinated by the work of firefighters at a fire station near his family's Helsinki home. He kept his toy fire engines, model fire stations, and firefighting comics, books, and games, and as an adult he supplemented them with new acquisitions. Eventually his hobby yielded enough material to stock a private museum at his studio through the 1990s until 2004, when he decided that enough was enough and put everything into long term storage.

But the artist's interest in firefighters as rescuers was rekindled last year when he discovered and appropriated a cache of cold war era civil defence training materials in a disused nuclear shelter at Sillamäe in eastern Estonia. Kivi was struck by how Soviet propaganda portrayed Eastern bloc preparedness, depicting

unnaturally calm citizens trapped in underground shelters after a nuclear attack, patiently waiting their turn to be rescued by efficient emergency services. Sadly the reactor explosion at Chernobyl in Ukraine in 1986 demonstrated the implausibility of such an optimistic Soviet scenario for coping with the aftermath of a nuclear disaster.

Now Kivi has incorporated his old and new collections into his work as an artist. His expanded *Fire & Rescue Museum* is exhibited at this year's Venice biennale in the tiny Finnish pavilion, which was designed by Alvar Aalto in 1956. Built of wood and resembling an army barracks, the pavilion has the dispiriting look of a provincial museum that might warrant a visit on a wet afternoon, in the absence of more diverting alternatives. Inside, Kivi has arranged the exhibits in a subjective, highly personal display, eschewing the dispassionate objectivity inherent in didactic museum displays. Although the first impression of *Fire & Rescue Museum* is its quirkiness, it is also subtle. Kivi stimulates visitors to ponder the meaning of the museum and reach their own conclusions rather than impose his own preconceived ideas.

Exhibits include toys and board games,

Firemen and other emergency service workers can face insurmountable odds, such as nuclear disaster, when their training and valour are insufficient

some with red plastic "conflagrations" as movable counters; juvenile drawings of firemen and fires by Kivi; and childhood photographs of him outside his neighbourhood fire station and posing proudly beside a Warren No 1 Pumper on a visit to Ohio in 1971. Also exhibited are scale models he has painstakingly constructed as an adult, using improvised components and kits bought off the shelf. His 2008 photograph "Wounded Angel" shows two tiny plastic figures of firemen carrying an injured compatriot on a stretcher. They appear powerless but purposeful against a blank, white background, doing the job for which they were trained.

Firefighters—from the New York Fire Department at the World Trade Center in September 2001 to Country Fire Authority firefighters in Victoria, Australia, in February this year—are perceived as valiant heroes. But they and other emergency service workers can face insurmountable odds, such as nuclear disaster, when their training and valour are insufficient. The unrealistically optimistic civil defence training posters about nuclear attack come across as dated period pieces from an age of anxiety. But Kivi implies that, although these Soviet ephemera might seem quaint and irrelevant, the threat of nuclear disaster remains, as long as rogue nations develop unregulated weapons.

For those who study museums and their function, *Fire & Rescue Museum* represents a conundrum. "As a natural element fire represents the museum's—and archive's—most serious threat," says Sven Spieker, a catalogue contributor. "In that sense, a museum devoted to firefighting is a museum devoted to culture as pure preservation and defence." Also curious is why, given his evident enthusiasm for firefighting, Kivi became an artist rather than a fireman. "At a fire station I saw a poster with difficult types of knots and thought that I would never learn to tie all those," he says. But his museum atones for any inadequacy with ropes and celebrates all rescue workers.

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Warren No 1 Pumper, 1971



Training board from the Sillamäe bunker

Doctors and the dictator

In his review of Rengger and Longchamp's *Historical Essay on the Paraguayan Revolution and the Dictatorship of Doctor Francia*, Thomas Carlyle, who from the safety of Chelsea was much in favour of the dictator, wrote: "The Messrs Rengger and Longchamp were, and we hope still are, two Swiss surgeons; who in the year 1819 resolved on carrying their talents into South America, into Paraguay, with views towards 'natural history,' among other things."

The heavy sarcasm disguises an inaccuracy. The Swiss surgeons said in their book (actually written by Rengger alone) that they were primarily interested in natural history and hoped to keep themselves by practising medicine. They were not interested in other things; Carlyle's insinuation that they were was nothing but a smear and a sneer.

Having entered Paraguay, Rengger and Longchamp could not leave it. The dictator, Francia, closed the borders; no one was allowed to enter or to leave the country. Rengger and Longchamp became physicians to the dictator (whose doctorate was in theology) and his troops.

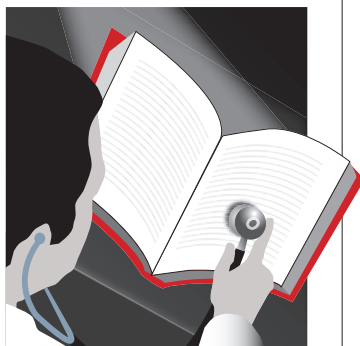
Spies were everywhere; Francia had the trees of Asunción cut down in case they should conceal assassins and unrolled the cigars his sister made for him in case she had inserted something dangerous (other than tobacco, of course). Passers-by could be shot for looking too long in the direction of the dictator's residence, for he had given instructions that his guards should shoot on sight. If they missed, they were to shoot again. If they missed a second time, they were in turn to be shot.

Once, Francia asked Rengger to perform a postmortem examination to see whether Paraguayans had an anatomical peculiarity in their necks that prevented them from looking him in the eye.

Having detained them for six years,

BETWEEN
THE LINES

Theodore Dalrymple



Once, Francia asked Rengger to perform a postmortem examination to see whether Paraguayans had an anatomical peculiarity... that prevented them from looking him in the eye

Francia finally let the two doctors leave Paraguay. He was not pleased when they published their book relating his atrocities. With all the fury of a dictator calumniated, he published a refutation in a newspaper in Buenos Aires: "Rengger occupied himself in the poisoning of such American patients as he could lay hold of. . . During the two months in which Rengger attended the barracks of the regiment of men of colour, he despatched more than 20 of them, and was on this account sent about his busi-

ness; when at once the mortality ceased. Adieu, pill-doctor!—Adieu, purger!—Adieu, poisoner!"

Rengger and Longchamp's book was the only one about Francia until, 12 years later, the Robertson brothers published *Francia's Reign of Terror*. They were captive in Paraguay for four years; in their book they mention an English doctor, Dr Parlett: "Very clever in his profession, but unfortunately of very dissipated habits." He soon distinguished himself after his arrival in the country from the Spanish doctors, known as "matasanos" (killers of the healthy), and produced many marvellous cures, including extracting from a girl's eye a jigger that was blinding her.

Francia's refusal to let Dr Parlett leave drove him to drink more than he would have anyway. He died in Paraguay, "one of many men of abilities whom I have known in South America who, released from the moral restraint to which they have been accustomed at home, and without sufficient energy of character to resist temptation, have sunk to their graves unheeded and unlamented, instead of being followed to them by good men sorrowing over departed worth and talent."

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MEDICAL CLASSICS

The Diary of a Teenage Health Freak

By Aidan Macfarlane and Ann McPherson; illustrated by John Astrop Published 1987

Picking spots, smoking pot, period pains, and penis angst: *The Diary of a Teenage Health Freak* was essential reading for a generation of adolescents when it was first published in 1987. Paying clever homage to that other seminal diarist of the 1980s, *Adrian Mole*, this is a titillating peek at a year in the life of Peter Payne, a typical 14 year old boy. But this diary was written by a consultant paediatrician and a general practitioner, their work the result of asking real teenagers about their worries.

Among the humour is accurate but cringe-free health advice on topics such as puberty, sex, and recreational drugs, designed to trash the misinformation picked up in the playground or behind the bike shed. Perhaps for the first time, frank discourse about growing up had been written lightheartedly to appeal to children as young as 12. And appeal it did: *Health Freak* topped the WH Smith bestsellers' list for five weeks, was translated into 27 languages, and, with the same authors' *I'm a Health Freak Too*, sold more than a million copies in the United Kingdom.

Expert advice is hidden in the schoolboy's narrative and is presented in more obvious extracts. These include, for example, a magazine article on depression; a letter from an agony aunt about body image; and Peter's school test on sex education, with his teacher's corrections and scrawl: "You'd better learn this or there will be a lot of unwanted Paynes in the world!"

Peter's consideration of the wellbeing of his sisters, 12 year old Susie and 17 year old Sally, ensures that the teenage female's perspective isn't ignored. In the chapter "Has Susie started yet?" he shares the bits of her diary that he's covertly read. And the relayed conversation that he overhears between Sally and their mother, in the chapter "Sally's sex life goes wrong," invites discussion about contraception and unwanted pregnancy.



In the 1980s and 1990s *Health Freak* was a bible not only for teenagers but also for "parents who know some of it but are too embarrassed to answer, and teachers who know most of it but don't have time to explain." From oral hygiene and wearing glasses, through dieting and drinking, to flashers and sexual abuse, this book covers most of the health questions a British teenager might ask. The index is essential, because it ensures that worried teens

can easily dip in or return to a section, when they need specific advice.

Unfortunately *Health Freak* is no longer in print. The diary's success led to several spinoff books, a television series, and a website (www.teenagehealthfreak.org), which is still live and which has received 180 000 queries to its forum, many answered by the authors. Two decades on teenagers have new difficulties to contend with—knife crime and e-bullying, for example. Today's teenagers may be less naive than their predecessors, but their need for accessible and accurate advice on wellbeing is surely at least as great.

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The American crisis

FROM THE
FRONTLINE
Des Spence



I wandered through the museum at Scapa Flow in Orkney, meeting the gaze of servicemen and women in fading black and white photos, a generation who gave their lives defending the values of democracy and fighting totalitarianism. We have never forgotten the generosity of the United States, which helped our nation in its darkest hours. Since then, we two nations have become married together—through sickness and health. Through right and wrong, we continue to battle together to defend commonly held values of democracy and freedom.

Therefore the US should appreciate the real pain and anger that recent attacks on the NHS by US politicians have caused. These comments have been so wantonly ill informed as to be downright stupid. The NHS was founded after the second world war, a horror beyond comprehension. The NHS was forged not of socialism but of patriotic service—put simply, our people deserved better. The NHS is a proud embodiment of the proclamation that all our people are valued and will be treated equally. And it is important to understand that the NHS is little different to many US “health maintenance organisations.” Furthermore, the “death panel,” as one US politician described the UK National Institute for Health and Clinical Excellence, is in fact an independent organisation whose aim is to make health care evidence

based—not to ration health care but to create a just rationale for good medicine. In recent surveys 77% people have rated NHS care as “very good or excellent.” And we do also have private medical care for those patients who wish to squander their money in the misguided pursuit of “choice.”

So it is time for some friendly home truths: the US healthcare system is broken and broke. There a totalitarian state of corrupt corporations reigns, one where redcoat lawyers oppress and the media suppress, doctors are grossly overpaid, costs spiral incomprehensibly, systems are throttled by bureaucracy, and overdiagnosis and overtreatment are the norm. But the most intolerable fact is this: 46 million uninsured Americans (equal to the population of Spain) are denied long term care. This is bad medicine. President Obama must fight to change this dysfunctional system and cross his Delaware, for, as Tom Paine said: “Tyranny, like hell, is not easily conquered; yet we have this consolation with us, that the harder the conflict, the more glorious the triumph.”

In the US freedom and opportunity can be realised only by those well enough or rich enough. Its healthcare system is unpatriotic, and its people deserve better.

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EBM: new storylines needed

OUTSIDE THE BOX
Trisha Greenhalgh



My publisher is breathing down my neck for a fourth edition of *How to Read a Paper*. In 1995 Ruth Holland (who then edited my *BMJ* column) suggested that evidence based medicine was as dull a subject as any invented and that someone ought to sex it up in an accessible paperback. I did my best, and the book sold like hot cakes—though Ruth (who was tragically killed in a train crash in 1996) never lived to see the launch.

Bestseller status notwithstanding, I was gutted not to get a mention in the epic episode of *The Simpsons* several years ago in which the surgeon conducting Homer's emergency coronary artery graft was stopped in his tracks by young Lisa. She was waving the latest edition of the *Springfield Journal of Cardiothoracic Surgery*, which contained a fast track publication of a new evidence based technique for bypassing stenosed vessels. The surgeon, who was not up to date on his evidence based medicine,

gratefully accepted the instructions shouted from the viewing gallery, and Homer was swiftly restored to rude good health.

If a *Simpsons* editor reads this column, he or she might consider a remake of that episode. Surely in these turbulent times there should be a hospital director of finance (or, perhaps, in the United States an actuary from Homer's private health insurance company) demanding evidence of cost effectiveness as well as efficacy? And a rearguard protest from basic scientists against the assumption that epidemiological evidence necessarily trumps any findings from the laboratory? Perhaps there could be a subplot in which an expert in “normal accident theory” is brought in to analyse a critical event caused by ad hoc implementation of complex “evidence based” protocols before the organisational infrastructure was fully in place to support them?

I'm sure that evidence based

challenges to established practice from the patient and family will still score high television ratings, but in the remake let's create a clash between the very reasonable demands for better care and the equally reasonable needs of some other healthcare consumer who is less informed, less articulate, and lacks access to the viewing gallery. Finally, the remake would surely be incomplete without a showdown between the medical devices industry, the regulatory bodies who by bestowing the title “evidence based” on a technology or procedure effectively grant the manufacturer a licence to print money (at least until the next application from their competitors), and the lawyers whose vested interests lie in keeping the warring factions apart.

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