reviews

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Prevention of Micronutrient Deficiencies: Tools for Policy Makers and Public Health Workers

National Academy Press, £26.95, pp 210
ISBN 0 309 06029 X

Rating: ★★★

This is a little gem of a book which, in spite of its small size, contains a vast amount of information. It is a compilation of recommendations and background papers by the Committee on Micronutrient Deficiencies, Food, and Nutrition; the International Health Boards of the US National Institute of Medicine, and other experts, who met in December 1996.

There is considerable interest in, and confusion about, micronutrient malnutrition, much of which is subclinical. Even when data on prevalence exist, the appropriate interventions in target populations are subject to much debate. While a wealth of information is available on iron and vitamin A individually, few reviews have tackled the issue of combined strategies for prevention and treatment. This book therefore represents a welcome advance, with a conceptual framework for policy makers and public health professionals to see what solutions are appropriate for populations with differing risks. I could quibble with the arrangement of the book's sections, with the summary recommendations preceding the background chapters. There is thus some understandable duplication and repetition. However, the background papers on iron and vitamin A by Viteri and Underwood contain a wealth of information and are very well presented.

Given the exponential increase in available information on micronutrient malnutrition in recent years, and the strong recommendations of integrated interventions with multiple micronutrients, it is somewhat surprising to see almost no mention of zinc as a major target micronutrient. There is little mention of the possibility of iron fortification of drinking water and only skimpy reference to the risks of iron and zinc interaction after supplementation. Similarly, given the legitimate concern in some quarters of an increased risk of infections with iron supplementation and adverse outcome in pneumonia after blanket vitamin A supplementation, it would have been useful to devote greater space to these issues.

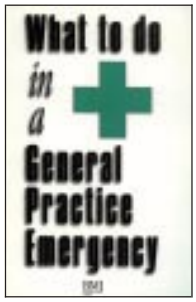
The controversy about possible adverse effects of vitamin A supplementation programmes in early infancy—risk of toxicity and interference with vaccine uptake—has also been largely ignored. Furthermore, I would have preferred greater discussion of the relative merits or risks of two particularly contentious areas in micronutrient supplementation—the merits of weekly versus daily iron supplementation and the efficacy of food based strategies versus preformed vitamin A supplementation.

These minor flaws apart, this is an extremely readable and timely book. It is an excellent repository of information, and the summary tables and case studies alone are worth the price. I hope that future editions, incorporating the second phase of this laudable project by the National Institute of Medicine, will provide similar information on zinc as well as actual case studies of multiple micronutrient supplementation.

Zulfiqar Ahmed Bhutta, *professor of paediatrics and child health, Aga Khan University, Karachi, Pakistan*

What to do in a general practice emergency

Iain Higginson, Melanie Darwent, Rosaleen Gregg, Ed Peile



BMJ Books, £12.95, pp 112
ISBN 0 7279 1183 X

Rating: ★★

Emergencies can be scary. In order to respond effectively a doctor needs the right drugs and equipment, the right skills, and up to date knowledge. All this for a problem that she or he may have never, or only rarely, met before. Any book that provides clear and practical advice on what to carry in the car and what to do when you arrive at the scene must be useful. To be really useful, though, it should address all the common emergency situations and other occasions when prompt action can make a difference, and give guidance that is relevant to a wide range of settings.

This book falls short on both counts. Thus, it seems odd to discuss adult medical emergencies without mentioning incipient spinal cord compression or Wernicke's encephalopathy, paediatric emergencies but not poisoning or child sexual abuse, oculogyric crisis but not the neuroleptic malignant syndrome, and orbital cellulitis but not cavernous sinus thrombosis.

But perhaps these just reflect my nightmares. Of more substance is the failure to provide advice that will help doctors practising in a variety of contexts. I can understand why a book published in Britain does not discuss snake and spider bites, although these are certainly relevant here in Australia, but why does the chapter on psychiatric emergencies describe only the 1983 Mental Health Act? Scotland has separate legislation. The advice that "steroids may be used by the hospital team" for severe croup makes sense if the hospital is just round the corner, but otherwise they should be given before transfer. Indeed, prompt use of steroids may avert the need for admission. The triage process is described in the chapter on what to do at a road traffic accident, but the importance of counting the victims, and making sure they are all located, is not mentioned. The advice on taking *x* ray pictures after trauma is too sketchy to be helpful, and the authors might usefully have included current evidence based guidelines for imaging after skull and ankle injury. The first part of the statement that "*x* rays are normal and so unnecessary" for pulled elbow in a toddler is true, but the second part is a non sequitur.

The lists of suggested drugs and equipment at the end of the book are useful and relevant, but I will wait for the next edition of *What to Do in A General Practice Emergency* before including it in my emergency bag.

Tim Usherwood, *professor of general practice, University of Sydney at Westmead Hospital, Australia*

Reviews are rated on a 4 star scale (4=excellent)

An Evidence-Based Resource for Pain

Henry McQuay, Andrew Moore

Oxford University Press, £65, pp 272

ISBN 0 19 263048 2

Rating: ★★★

Physicians' preference and the anecdote are dead—long live evidence based medicine. McQuay and Moore, from the University of Oxford's Pain Relief Unit, present the evidence to date of the effectiveness of various analgesic interventions in pain control by systematic review of all existing trials that have pain or adverse events as outcomes.

One of the most striking aspects of this book is what it does not contain. In particular, it highlights the paucity of trials investigating cancer pain. Pain is one of the most common and certainly the most feared symptom in malignant disease, and yet only 3% of all pain trials identified studied chronic cancer. The number of randomised controlled trials investigating acute and non-malignant pain published each year has increased dramatically since the mid-1970s.

Only high quality randomised controlled trials have been considered. The authors make no apology for this, believing it to be the only reliable way to estimate the true effect of an intervention. They have shown repeatedly throughout the book how small or lower quality studies are more likely to give positive results, often in direct contradiction to larger, more definitive studies. The results are presented as the number of patients needed to treat for one patient to achieve at least 50% pain relief along with, when possible, the number needed to treat for one patient to be harmed (suffer an adverse event). This concept is relevant to the individual patient and easy for clinicians to conceptualise.

The first part of the book presents a brief overview of the methodology behind systemic review, how the relevant trials were found, and how their quality was reviewed. Only eight of 80 existing systematic reviews of analgesic interventions satisfied McQuay and Moore's standards of quality.

Part two deals with acute (primarily postoperative) pain and reviews the evidence supporting the use of such common analgesic interventions as paracetamol, dextropropoxyphene, non-steroidal anti-inflammatory drugs, and transcutaneous electrical nerve stimulation. The summary chapter gives a "league table" of oral analgesics. The fact that non-steroidal anti-inflammatory drugs score so well (with respect to numbers needed to treat) while codeine and dihydrocodeine score so poorly will no doubt lead to some raised eyebrows and possibly lead to some change in clinical practice.

The section on chronic pain is disappointingly brief, reflecting the fact that there is remarkably little good evidence about the relative efficacy of drugs and their adverse effects after chronic dosing. The concluding chapter does not score analgesics as in part two but, instead, lists groups of drugs and interventions for which there is good evidence of effectiveness, for which this evidence if lacking, and for which there is good evidence of ineffectiveness. Several of the findings summarised here may make us question some aspects of the World Health Organisation's analgesic guidelines for chronic pain, which we have slavishly adhered to for so long.

One word of caution: readers should not presume that this excellent text gives all the answers. It is not a "cook book" for how to treat pain. Perhaps it should have been stressed more forcefully that evidence based medicine must always build on and reinforce clinical skills and clinical judgment and experience and that even this book will not provide a magic solution for every patient.

Janet Hardy, *head, Department of Palliative Medicine, Royal Marsden NHS Trust, London*

ART

Mirror image

Jonathan Miller exhibition

National Gallery, London. Until 13 December

In one of Jorge Luis Borges' enigmatic stories, the Heresiarchs of Uqbar declared mirrors and copulation to be abominable because they increase the numbers of men. Dr Jonathan Miller's exhibition at the National Gallery shows that, at least as far as mirrors are concerned, artists take a different view. Since the 15th century, painters have included reflections in mirrors, water, and other shiny surfaces in their work. Apart from providing a way to represent textures and shapes with greater verisimilitude, reflections let them escape some of the restrictions of a two dimensional canvas. A scene outside the frame can be transported into the picture by a reflected image in a window. Or a cunningly placed mirror can literally reveal another side of the subject. Mirrors have metaphorical meanings too. Vanity of course, but also self knowledge. Socrates advised his disciples to look frequently into mirrors either to make sure that their behaviour was worthy of their beauty or, if they were ugly, to cover their imperfection by improving their minds.

Woman before a mirror by Christopher Wilhelm Eckersberg from the Hirshsprung Collection, Copenhagen. One of the paintings being displayed at Jonathan Miller's exhibition on reflection.

The exhibition also tells us something about visual perception. It is the viewer's brain rather than the artist's brush that brings the sheen and shine to the painterly representation of reflections. The vivid impression of the glossy surface of a lake in Burne-Jones' *Study for the Mirror of Venus* vanishes as soon as the picture is inverted. The figures turn into their reflections, and the reflections into the real figures. The meaning of reflections has to be learnt: babies don't recognise themselves in a mirror until they are 18 months to 2 years old. Chimpanzees catching a reflected glance of themselves for the first time react with aggression. Only with familiarity do they behave as if they understand that the reflection is themselves.

You may think that the adult eye and brain are rarely fooled by reflections. But consider American psychologist Ramachandran's experiment, in which he placed a mirror in a parasaggital plane in front of a patient with an amputated upper limb. The mirror was positioned so that the patient was able to see both his intact hand and its reflection. The reflection corresponded anatomically to the amputated limb and, as it were, optically recreated a non-existing hand. When the patient moved his hand, intense feelings of movement were evoked in the phantom limb.

Christopher Martyn, *BMJ*

Evidence based cardiology. The review of this book (7 November p 1326) suggested that it might become a monument to evidence based medicine. It may not just yet; BMJ Books, the publishers, say an accompanying update website (www.evidbasedcardiology.com) is to be launched in April 1999.—*Reviews editor.*

Science, sense, and substance

Body Story, Channel 4, Thursdays 9 00 pm

It's a pity that Channel 4's medical series *Body Story* has appeared so soon after *The Human Body*, the BBC's venture into similar territory. The irresistible temptation to make comparisons leaves Channel 4's offering outgunned—visually, technologically, and financially. While Auntie could afford to hire Ennobled of Hammersmith and cart him to all sorts of exotic locations—from the top of an Egyptian pyramid to the bottom of a swimming pool—the producers of *Body Story* had to make do with actors playing such parts as football-loving construction workers and motorcycle couriers who are would-be pop singers.

It might have been better if Wall to Wall Television, the production company which made *Body Story*, had chosen a different title. Using the word "body" again invites those unfair comparisons and casts a shadow over what might otherwise have been seen as a modest but rather good series. Each of the six programmes sets the biology that it is describing in the context of a simple dramatised story: a motorcycle messenger catching flu through sharing a lift with a man who sneezes; a woman who becomes pregnant and gives birth; the foreman on a building site who is under stress all day, eats hamburgers at lunch time, and then plays himself into a coronary care unit through an impromptu and ill advised game of football.

These scenarios form a skeleton on which to hang the biological meat. And they do succeed in putting over some good insights into the way our bodies work. Pregnancy, for example, is explained in terms of a fetal takeover, with the mother to be as a victim of the scheming alien, which first exerts endocrine control over her physiology and then systematically exploits her body for its own interests. The misery of the flu-ridden motorcyclist is portrayed as the unavoidable consequence of a militant immune system that cannot avoid causing collateral damage. Predictably, but still quite fetchingly, certain phases of the struggle resemble the kind of computer games in which you might score 10 for potting a virus but lose points for accidentally destroying your own cells. The graphics here owe little to reality, with stylised images of antibodies, T cells, B cells, and, most engagingly, lumbering macrophages with an oddly obscene way of engulfing their prey. But they make the points.

The programme on heart attack begins with a slow and overlong prelude to the main event. But after the attack has happened, the pace quickens. The programme (like all the others in this series) uses the simple device of switching between parallel plot lines: in this case what's happening to the patient as he's whisked into accident and emergency and, down at the level of cells and molecules, what's happening to the coronary arterial clot responsible for his predicament. There's a build up of tension: will the clot busting drug do its job in time? It does, but, just as you feel you can relax, the heart goes into ventricular fibrillation. Here we go again ....

CHANNEL FOUR

All the programmes trade heavily on computer animations. Stills from these sequences of nerve, immune, muscle, and other cells in action are used to illustrate the book that accompanies the series. The point about animation is, by definition, movement; transferred to the page, the computer images become impressionistic and lose their impact. As a memory jogger for the films, they serve well enough; as images in their own right, they aren't in the same league. To remind readers of the link between events in whole people and events in their cells, the book also uses black and white stills of the film's dramatised sequences. But these too have the feel of visual wallpaper. The result is a volume that is lavishly but not enticingly illustrated. Never mind; its strengths lie not in its pictures but in its words. Each chapter follows the thread of the corresponding programme, but in more detail. (No comparisons possible with Anthony Smith's book of the BBC series; I haven't read it.) Author David Williams offers us lucid, readable, unpatronising, fact packed accounts of six aspects of human biology. Boxes add extra detail that is relevant but not central to the main thread.

I was uncertain how well *Body Story*'s approach would work in the last programme, on death. But it did. The trick of explaining our demise in biological terms, while not diminishing its profound emotional content, was handled deftly, calmly, and without any cloying traces of sentimentality. The choice of actor Norman Lumsden (better known as L P Hartley, fictional fisherman and devotee of the *Yellow Pages*) to play the dying man was smart, conferring an air of familiarity and reassurance on what for some elderly viewers will be understandably disturbing.

All in all, this series demonstrates that sober accounts of biology and health don't need to cost the earth (or travel to its far ends) to make watchable, accessible, and informative television. What a relief to be reassured that the schedules still have room for something with more science, more sense, and more substance than some of the New Age paranormal claptrap that finds it way past the commissioning editors.

Geoff Watts, *journalist, currently presenting Radio 4's science series Leading Edge.*

WEBSITE OF THE WEEK

http://www.rospa.co.uk/ Children who live to be 1 year old in Britain today will almost certainly survive into adulthood in good health, and if they do not the likeliest cause of acquired disability or death is trauma (p 1410). Most incidents are preventable, so how does the internet fare as a medium for information to support this?

The website of the Royal Society for the Prevention of Accidents does have some practical fact sheets buried within it, though the society's desire to mediate a reduction in trauma through government agency makes it rather longer on strategy documents.

More trauma happens at home than on the road, so for practical information about all aspects of safety of children in the home visit http://www.xmission.com/~gastown/safe/safe2.htm. Here you will find the minutiae of safety—for example, "a surprising number of children have strangled themselves on drapes cords"—on the back of a sales pitch for a book and home safety equipment.

Surfing the net is fairly safe compared with, say, having a chip pan fall on your head, but if you are concerned about child cybersafety, http://www.larrysworld.com/child_safety.html is the place to go. Practical measures include keeping the computer in a public room in the house, where children can be easily and frequently supervised, and encouraging your child to be "street smart" on the internet—for example, by not giving out their name and address on line.

Child safety could be better served on the web than it is now: opportunity knocks for a webmaster who wants to take it on.

Douglas Carnall
BMJ

PERSONAL VIEW

Some NHS care is unacceptable

Editorial by McKenna

Are we prepared to accept inhumane hospitals? Are we prepared to condone staffing levels which we know will inevitably push staff beyond the limits of their stamina and compassion, and will cause patients to suffer?

During the Christmas period of 1997, Simon, the husband of a good friend of mine, died in hospital, 12 days after his admission and nine days after major surgery. During his hospital stay two other patients died in his bay of the ward. One was in the bed next to Simon. In the few hours before his death he was incontinent of faeces six times. The man found this distressing and repeatedly apologised. Although a nurse cleaned him up each time, his body was left on the ward for two hours after his death, during which time Simon was aware of the strong smell of his faeces. It would have been preferable for this man to have died in a single cubicle, but none was available. Witnessing his distress and loss of dignity must have been terrible and worrying for the other inpatients.

> Witnessing poor care either brutalises you or outrages you

The body of the other man was left on the ward for an hour and a half after his death. When his wife came in, no nurse was around, and she threw her arms around Simon for comfort, an experience for which he was unfit, physically or emotionally.

A man with Alzheimer's disease was in a bed opposite Simon. He kept pulling out his catheter and he had blood all over his pyjamas. When my friend told a nurse about this, her reply indicated that it was expected that the other patients would look after him. He was very disturbed at night. Simon and another patient resorted to sleeping in the day room. Another patient was so upset by the man with Alzheimer's that he discharged himself and drove home, 250 miles away, just 24 hours after his operation.

I helped Simon's widow and daughter to write a letter setting out the above events and examples of other problems: lack of continuity of care; staff remarks which were erroneous, misleading, or dismissive; and conflicts between the medical and nursing staff. The aim of the letter was to try to prevent other patients and their relatives experiencing similar problems. We met the consultant in charge of Simon's care, and subsequently the manager of patient consumer affairs and the ward sister. We learnt that the letter had caused the chief executive great consternation, and he had immediately called a meeting to arrange for the problems to be investigated.

It transpired that the nurse staffing levels during the Christmas period were higher than usual. To some extent this was offset by the large number of emergency admissions and the relatively high dependency levels of the inpatients—all the low dependency patients had been sent home. The conclusion was that the staffing levels were adequate and comparable with other times, so that no action was required or would be taken.

The ward sister and the manager of patient consumer affairs agreed that the events we described fell below acceptable standards of human decency, but were likely to be repeated time and time again. (This is borne out by the reports I hear from patients and relatives.) The only thing which could change the situation would be more staff, and this could be achieved only with an increase in funding, which seems unlikely.

I see the problems getting worse. Until recently, the NHS could rely on an endless stream of altruistic young women joining the nursing profession to replace those who were "burnt out" and disillusioned. The training now consists of less service provision and more teaching. Furthermore, recruitment and retention are becoming increasingly difficult.

Some wards provide better care than others. Additional funds—for example, from charities—and voluntary workers can make a difference. I believe, however, that we should not accept hospital environments which threaten the dignity and humanity of patients and staff. Surely we need a system for monitoring standards of care (not just of clinical competence) with in-built accountability. No one can guarantee that a traumatic experience will never be repeated, but we can identify situations which we consider to be unacceptable and take steps to reduce the risk of recurrence to a minimum. This means better staffing levels, or better management, or both.

TOM WEBSTER/IMPACT

Rarely time to talk

Witnessing poor care either brutalises you or outrages you. I am outraged, and want to see acknowledgement of the problem and appropriate action.

Clare Hamon, *general practitioner, Plymouth*

If you would like to submit a personal view please send no more than 900 words to the Editor, BMJ, BMA House, Tavistock Square, London WC1H 9JR or e-mail **editor@bmj.com**

SOUNDINGS

The people vote; the doctor calls

It seems that Americans have had enough of Miss Lewinsky. Instead they voted in the last election for middle of the road candidates and sound government, and against right and left wing extremists and puritans. In local elections they likewise chose moderate candidates. In Minnesota, however, they made an unusual choice in electing the Reform Party candidate, who trounced other candidates for governor on a platform of lower taxes and less spending, but also legal recognition of gay relationships, looser gun laws, and possibly legalising prostitution.

Also of interest were the outcomes of some 235 state or local ballots: Washington state joined California in banning affirmative action programmes based on gender or race. Three states approved medical use of marijuana; two approved gambling on boats or Indian reservations; two rejected bans on late, so called "partial abortion;" and three rejected same sex marriage.

Several states rejected tax raising measures, but two approved building new stadiums. Proanimal or environment measures included restrictions on expanding hog farms, using cyanide in some forms of gold mining, using steel traps to catch fur bearing animals, and exporting out of state horses intended to be slaughtered for human consumption. But Alaska rejected banning wolf snares, and other states voted against imposing various restrictions on hunting and fishing. Two states formally acknowledged women's equality, but New Hampshire retained male pronouns in its constitution, even though its governor is a she.

In Cook County voters approved by a large majority an amendment declaring health care a "basic human right." Initiated by supporters of a single payer system, this proposition is advisory and non-binding, to be considered by the state legislature. Meanwhile we read that the house call is back, as more doctors visit their sick patients, many of whom are elderly (mean age 78) with chronic or even terminal illnesses. But now the black leather bag has given way to high tech equipment in the doctor's car. Less expensive than hospital care and vastly preferable for debilitated patients who cannot get around easily, a house call is certainly nicer and more convenient than waiting for hours in an unfriendly, overcrowded emergency room.

George Dunea, *attending physician, Cook County Hospital, Chicago, USA*