

Death of the teaching autopsy

Autopsy findings are important to all clinicians, including general practitioners

EDITOR—O'Grady identifies several reasons why autopsy rates have been falling worldwide, in particular why students in New Zealand are now banned from attending autopsies, with resultant loss of undergraduate teaching opportunities.¹ However, attending and watching an autopsy are not the only educationally relevant facets of autopsies: their findings are important to all clinicians, including general practitioners.

Whitty et al found that autopsy findings (excluding coroners' reports) were poorly communicated to general practitioners in four districts in the north east Thames region. They received reports from only 39 of the 89 (47%) autopsies performed on their patients.²

In our study of 578 deaths in a general practice (97.8% of all practice deaths) over 15 years the value of a death register in contributing to clinical governance was severely curtailed by lack of cause of death information.³ Overall, 143 (24.7%) deaths were reported to the coroner, a percentage comparable with the average for all deaths in the United Kingdom. However, in only four (2.8%) of these deaths was the practice routinely sent a coroner's report on the results of the autopsy. After contacting relevant coroners specifically to request cause of death and autopsy information, no report was provided on 65 (61.3%) occasions (table), an experience similar to that reported from Manchester.⁴ Given the pivotal position of general practice in the NHS, these findings point to significant disconnection of autopsy services from clinical services.

O'Grady laments the development of a vicious circle, whereby lack of student contact with autopsies means clinicians will no longer be advocates of autopsies.¹ As Underwood says in his commentary, 90% of all autopsies in the United Kingdom are

Frequency with which coroners' reports were received in an inner London general practice between August 1985 and July 2000³

Coroner's report	Frequency (%)
Received unsolicited	4 (2.8)
Requested and received	41 (28.7)
Requested, not received	65 (45.5)
Not requested not received	27 (18.9)
Verbal information only	6 (4.2)
Total	143 (100)

now performed by coroners, so it is not surprising that clinicians should feel unable to advocate autopsies. Failure to feed back autopsy findings to general practitioners is a lost educational opportunity on an enormous scale that could fairly easily be corrected.

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- O'Grady G. Death of the teaching autopsy [with commentary by J Underwood]. *BMJ* 2003;327:802-4. (4 October.)
- Whitty P, Parker C, Pietro-Ramos F, Al Kharusi S. Communication of results of necropsies in north east Thames region. *BMJ* 1991;303:1244-6.
- Beaumont B, Hurwitz B. Is it possible and is it worth keeping track of deaths within general practice? Results of a 15 year observational study. *Qual Saf Health Care* 2003;12:337-42.
- Webb R, Esmail A. An analysis of practice-level mortality data to inform a health needs assessment. *Br J Gen Pract* 2002;52:296-9.

Hospital and coroners' postmortem examinations are different, not least in payment

EDITOR—Like Underwood, I, too, lament the demise of the postmortem examination.¹ He points out that 90% of postmortem examinations in British hospitals are now coroners' cases. However, neither he nor O'Grady mentions that a significant financial incentive exists for many pathologists to perform a coroner's postmortem examination rather than a hospital examination.¹

As a naive senior house officer I recall pleading with a consultant pathologist to perform a hospital postmortem examination on one of my patients, mainly for teaching purposes. He was insistent I referred the case to the coroner, even though I was clear as to the cause of death and there were no suspicious circumstances.

I discovered only later that consultant pathologists at that hospital (but not my current institution) received a substantial payment for each coroner's postmortem examination that they performed. When a pathologist performs such an examination the report and findings belong to the coroner and the teaching of

doctors and medical students becomes an incidental issue.

I have little time for the witch hunt that followed the retention of organs from coroners' postmortem examinations in the United Kingdom, but perhaps it did focus minds on the difference between a hospital and a coroner's examination. Isn't it about time that personal financial gain was taken out of the equation?

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- O'Grady G. Death of the teaching autopsy [with commentary by J Underwood]. *BMJ* 2003;327:802-4. (4 October.)

Advances in technology have not reduced the value of the autopsy

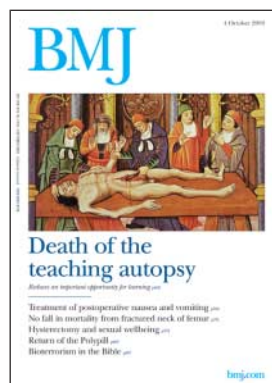
EDITOR—One of the proposed reasons for the death of the autopsy described by O'Grady is an increased confidence in new diagnostic tools, particularly modern imaging techniques.^{1,2} Surprisingly, the rate of misdiagnoses detected at autopsy (about 40%) did not improve from 1960-70, before the advent of computed tomography, ultrasound, nuclear scanning, etc, to 1980, after these technologies became widely used.³

In 2003, of 53 autopsy series identified, 42 reported major errors (clinically missed diagnoses involving a primary cause of death) and 37 reported class I errors (those most likely to have affected patient outcome).⁴ The median error rate was 23.5% (range 4.1%–49.8%) for major errors and 9.0% (0–20.7%) for class I errors.

Advances in imaging and diagnostic technology have not reduced the value of the autopsy. Autopsies could serve as indicators of overall performance of care systems over time or in comparison with other systems.⁵ Autopsies also have an important role in monitoring quality among populations with an increasing proportion of geriatric and obese patients with comorbidities.

Missed diagnoses detected at autopsy also have important implications for

research. Medical records contain substantial inaccuracies on the principal diagnoses causing or contributing to death. These inaccuracies have important policy implications, as major funding and policy



decisions are based in part on vital statistics and other estimates of disease burden.

Autopsy means to see for oneself. It would be as foolish to think we have reached the limits of human knowledge as it is to think we will some day know everything. There is always, and will ever be, scope for improvement, to learn from knowing when our certainties are simply wrong.

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- O'Grady G. Death of the teaching autopsy [with commentary by J Underwood]. *BMJ* 2003;327:802-4. (4 October.)
- Burton EC, Troxclair DA, Newman WP III. Autopsy diagnoses of malignant neoplasms. How often are clinical diagnoses incorrect? *JAMA* 1998;280:1245-8.
- Goldman L, Sayson R, Robbins S, Cohn LH, Bettmann M, Weisberg M. The value of the autopsy in three medical eras. *N Engl J Med* 1983;308:1000-5.
- Shojania KG, Burton EC, McDonald KM, Goldman L. Changes in rates of autopsy-detected diagnostic errors over time. A systematic review. *JAMA* 2003;289:2849-56.
- Lynn J, Cobbs E, Orenstein J. Autopsy rates and diagnosis. *JAMA* 1999;281:2181.

In Hong Kong teaching autopsies have been championed in public mortuaries

EDITOR—O'Grady's comments on the teaching autopsy resonate for many of us.¹ We in Hong Kong have also experienced the gradual general decrease in the number of hospital autopsies such that this major teaching hospital sees only 20-30 cases a year. This coupled with the switch to a problem based learning medical curriculum in 1997 brought autopsy teaching to the verge of extinction.

We have, however, preserved autopsy teaching for medical students with the help of colleagues in the public mortuaries, where over 4000 coroners' autopsies are performed each year. During the second year rotations, medical students in groups of 8-10 observe a detailed autopsy of a case or in some instances snapshots of many cases. They are required to write about their expectations of such a session and to reflect on their experience afterwards.

We have also redesigned our teaching clinicopathological conferences. Students



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are allocated a case and are provided with the case notes, radiographs, and biopsy and autopsy reports, etc, for their presentation to the class. Teachers have only a watching brief. A total of nine such sessions are held in the third year of the curriculum.

Unfortunately, the curriculum cannot accommodate more autopsy teaching sessions. Further autopsy teaching is available to students only as special study modules.

This means of resuscitating the teaching autopsy is possible because, as in the United Kingdom, there is no explicit interpretation of our coroners' ordinance that prohibits the attendance of autopsies for the teaching of medical students, police officers, etc.

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- O'Grady G. Death of the teaching autopsy [with commentary by J Underwood]. *BMJ* 2003;327:802-4. (4 October.)

Autopsy is a success story in Cuba

EDITOR—Advances in sophisticated antemortem diagnostic methods may have reduced the value of autopsy.¹ The percentage of deaths without clinical-pathological concordance has not decreased despite modern diagnostic technologies.² Indeed, in certain cases these new methods have misled the diagnosis, partly because of doctors' excessive confidence in them.

Ours is the main provincial hospital for adult patients with clinical and surgical disorders. All services, including autopsy, are free of charge, as in the rest of Cuba. The hospital has 520 beds and more than 15 000 admissions and about 1100 deaths yearly. Since its opening 24 years ago, autopsy has been performed on more than 80% of cases.

Consent to autopsy is always voluntary and obtained from relatives or a proxy after a detailed explanation of all benefits of the postmortem examination by the clinician(s) in charge of the patient. Families can ask questions about the procedure and are told when the final report will become available.³

Learning from autopsy is one of the most successful activities of the pathology department. Three anatomic-clinical sessions for specialists, residents, interns, and students from third year upwards occur weekly. Here the cases of more than half of all patients who have died are discussed soon after their death with the first results of the postmortem examination. A clinical-pathological conference is performed monthly with demonstrations of cases for all medical staff.

When the final autopsy reports are available, all clinical charts are reviewed and discussed again at the monthly meeting of the hospital's committee of mortality analysis, another useful teaching session. The causes of death recorded in certificates can be rewritten to improve the quality of the country's vital statistics when errors in clinical diagnosis have occurred.

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- O'Grady G. Death of the teaching autopsy [with commentary by J Underwood]. *BMJ* 2003;327:802-4. (4 October.)
- Goldman L, Sayson R, Robbins S, Cohn L, Bettmann M, Weisberg M. The value of the autopsy in three medical eras. *N Engl J Med* 1983;308:1000-5.
- McDermott MB. Obtaining consent for autopsy *BMJ* 2003;327:804-6. (4 October.)

Histopathologists should not obtain consent for autopsy

EDITOR—McDermott accepts that he is in conflict with his professional bodies when he champions the idea of consultant histopathologists being responsible for obtaining consent for autopsy.¹

He describes a series of pre-autopsy meetings. These "often difficult negotiations" with families covered a high proportion of the 83 autopsies he performed in the 32 months under study. They usually included input from a member of clinical medical staff, a consultant pathologist, a social worker, nursing staff, with or without a chaplain. A disproportionate 46% of meetings or autopsy related work occurred during a weekend or public holiday. He states that this work had to take precedence over other work—presumably diagnostic work for living children—and presumably also over his family life.

His enthusiasm is laudable, but he is living in a completely different world from the rest of us. Eighty three autopsies in 32 months is equivalent to 31 a year. In my department we each do about 140 a year in addition to an individual diagnostic workload of adult cytology and biopsy and resection specimens that is several multiples of a paediatric pathologist's annual quota. A cost per case analysis of his autopsy practice, including the costs of ancillary staff, would be informative.

Many pathologists did not, and many trainees will not, enter the specialty with a desire or ability to embark on negotiations with grieving relatives and social workers. Clinicians, who already have a relationship with the family and can explain the clinical benefits to be derived from the results of an autopsy should request the examination if they believe that it will be of benefit to the family or future siblings. Of course pathologists must support clinicians with training and explanation of what the procedure will entail.

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- McDermott MB. Obtaining consent for autopsy. *BMJ* 2003;327:804-6. (4 October.)

Summary of responses

Respondents to the education and debate articles on the death of the teaching autopsy and on obtaining consent for autopsy unanimously agreed that this is a sorry state of affairs.^{1,2} Most other countries seem also to be faring no better than New Zealand.

The value of the procedure is not well publicised or communicated, even within the medical profession. Recommendations to remedy this include educating the population at large and generally raising awareness of and thus interest in teaching autopsy. Jacob George, cardiology research fellow in Dundee, suggests that "With the gradual decline in hospital postmortems, medical schools should seriously look into the coroner's postmortem as an effective teaching tool."

Medical professionals are called on to set a good example by donating their bodies to research. "If my body is not suitable for dissection by medical students I would like it to be used in the autopsy room," writes Owen Wade, a retired professor from Stratford on Avon. Journalists should write about the subject in a more positive light than is currently the case. Such exemplary behaviour might result in a greater willingness among the public to give consent to the procedure.

The importance of sound anatomical knowledge for high tech modern imaging techniques is emphasised. The dead have everything still to teach us. As Dinesh N Ratnapala, a resident medical officer in Queensland, writes, "not learning from autopsies is akin to a trainee mechanic never seeing the inside of car engines."

Michael Bamber, a general practitioner in Grantham, points out that "The events of Bristol and Alder Hey, as well as cost, have pressured coroners' pathologists not to perform histological and microbiological examinations, which further contributes to the downgrading of the quality of the autopsy."

A heavy workload is cited by two histopathologists as a serious hindrance to obtaining consent for autopsies. According to Christopher Womack from Peterborough, "There are currently 200 vacancies for histopathologists in England and Wales ... An additional complication is that coroners' cases fall outside the existing and proposed new NHS consultant contracts."

So, with the exception of Cuba, the overall picture is worrying: for medical students and junior doctors, who do not learn essential skills, and for future patients, whose doctors may not be au fait with the inner workings of their bodies.

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Competing interests: None declared.

1 Electronic responses. Death of the teaching autopsy. *bmj.com* 2003;327:802-4 (accessed 8 Jan 2004).

2 Electronic responses. Obtaining consent for autopsy. *bmj.com* 2003 (accessed 8 Jan 2004).

Timing of drug treatment is crucial

EDITOR—Taylor in his letter asked if time of administration of ramipril in the HOPE

study confounds the interpretation.¹ Those prescribing and those designing protocols for clinical trials should be asking at what time of day any drug is best taken. Patients with progressive kidney failure may be "responders" and stabilise kidney function with medication; but others are "non-responders" progressing to dialysis or death.

Shaw, Davies, and I said in 1963 that deterioration might be a consequence of little or no fall in sleeping blood pressure.² I now often prescribe ramipril, and other drugs, as nocturnal or divided (night and morning) doses for patients who continue to progress. Most patients who presented with progressive kidney failure to my practice are now stabilised or improving.³ I have urged clinicians and clinical trialists to be more thoughtful about the time of administration of drugs in relation to biological rhythms, including the circadian cycle.⁴

Investigators and clinicians in all specialties should give more consideration to the relevance of chronobiology to therapeutics. Bosch et al should answer Taylor's question: "What time was ramipril taken by patients in the HOPE study?"⁵

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1 Taylor R. Conundrum of the HOPE study. *BMJ* 2003;327:681-2. (20 September.)

2 Shaw DB, Knapp M, Davies DH. Changes in the blood pressure of hypertensives during sleep. *Lancet* 1963;i:797-8.

3 Knapp MS. An audit of pre-dialysis renal failure in a non-metropolitan clinic. *Nephrology* 2003;8(suppl):A90.

4 Knapp MS. Chronotherapeutics; a new clinical science. *BMJ* 1978;i:137.

5 Bosch J, Yusuf S, Pogue J, Sleight P, Lonn E, Rangoonwala B, et al. Use of ramipril in preventing stroke: double blind randomised trial. *BMJ* 2002;324:699.

Timing of simvastatin treatment

Results are not what really matters

EDITOR—Wallace et al have conducted what initially looks like a neat piece of general practice based research into a small but common day to day issue about whether to take simvastatin in the morning or evening, but I do not believe that it amounts to notable evidence to change practice.¹

Cholesterol concentration was measured 12 hours closer to the dose in the night dosing group, which may explain the result. Having the drug in higher concentrations during the day when most eating is done may have an important interaction effect on clinical outcomes.

The real question to answer from the patient's point of view is the net benefit to wellbeing from different dosing regimens. This includes convenience factors and impact on compliance with other drug treatment, etc. This study does not take this into account. Simvastatin is usually one of several drugs patients are asked to take.

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1 Wallace A, Chinn D, Rubin G. Taking simvastatin in the morning compared with in the evening: randomised controlled trial. *BMJ* 2003;327:788. (4 October.)

Results are not strong enough to change practice

EDITOR—For a general practitioner the article by Wallace et al on timing of simvastatin was clearly relevant to everyday practice, but I do not think that it really answers the question.¹ The samples were taken when patients were fasting (as before) but, by changing to dose timing, any diurnal variation in the fasting lipid profile could account for the differences.

Any similar diurnal variation may occur with morning dosing but, because of the proper practice, lipid samples are not taken 12 hours later in the non-fasting situation.

The implication could be therefore not to change the timing of drug treatment but switch to atorvastatin. This, however, would be true only if there is long term advantage. I am not aware of any, and this study does not answer that question.

As acknowledged in the second paragraph, compliance benefits from morning dosing along with other drugs, and I would not, on the basis of this article, change my patients' dosing around.

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Trial is not reported according to CONSORT guidelines

EDITOR—The paper by Wallace et al on the timing of administering simvastatin is interesting but flawed because of assessing cholesterol concentrations at one time point and the relation of this time point to time of drug dosing and diurnal variations in cholesterol concentration.^{1,2} This difficulty is compounded by the fact that, contrary to the *BMJ's* own advice to contributors, this trial is not reported according to CONSORT guidelines.³ Could these details not have been reported electronically?

These issues aside, the paper has important implications for primary care. From April this year the salaries of general practitioners in the United Kingdom will depend in part on their recording of patients' cholesterol concentrations.⁴ Attaining a total cholesterol concentration of ≤ 5 mmol/l in up to 60% of patients with coronary heart disease, diabetes, and stroke accounts for 27 quality points.

In the population described 77% of evening dosed patients would achieve this target compared with 61% of patients taking their dose in the morning—assuming morning testing and a mean baseline cholesterol concentration of 4.4 mmol/l. In many populations, the mean cholesterol concentration of the groups for whom quality points are available may be higher. Small variations in

serum cholesterol for a practice population could therefore have a substantial impact on income. The validity of such a measure as an index of quality seems questionable.

On the basis of these data, prudent practitioners may ask their patients to take their statin at night and base their annual cholesterol check on a morning blood sample. This may or may not lead to improvements in cardiovascular health. However it should lead to improvements in practice finances.

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Competing interests: NF has received funding for research from several manufacturers of cholesterol lowering drugs.

1 Wallace A, Chinn D, Rubin G. Taking simvastatin in the morning compared with in the evening: randomised controlled trial. *BMJ* 2003;327:788. (4 October.)

2 Electronic responses. Taking simvastatin in the morning compared with in the evening. *bmj.com* 2003. <http://bmj.bmjournals.com/cgi/letters/327/7418/788> (accessed 21 Oct 2003).

3 Advice to contributors. *bmj.com* 2003. http://bmj.bmjournals.com/advice/special_methods.shtml#consort (accessed 21 Oct 2003).

4 British Medical Association. *New GMS contract. Investing in general practice*. London: BMA, 2003.

What about the shift workers?

EDITOR—Wallace et al do not mention the normal sleeping patterns of the subjects in their study on the timing of simvastatin treatment.¹ The relation between ingestion of simvastatin and periods of rest is surely more important than the time of day that the drug is taken. For most patients this would be at night.

Patients who are shift workers or night workers who usually sleep during daylight hours should therefore be advised to take simvastatin when they retire to sleep—rather than at night—when dietary intake is likely to be at its lowest.

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Competing interests: JPB works in the same clinical practice as one of the authors of the paper (GR) but was not involved at any stage of the paper.

1 Wallace A, Chinn D, Rubin G. Taking simvastatin in the morning compared with in the evening: randomised controlled trial. *BMJ* 2003;327:788. (4 October.)

Authors' reply

EDITOR—Young, Ewald, and Calvert et al raise an important design issue about the interval between giving simvastatin (evening or morning) and collecting blood samples (morning) for assessing cholesterol concentrations. Simvastatin not only lowers plasma cholesterol concentrations but markedly reduces their diurnal variation.¹ Hence, bias

arising from differences in the interval between drug administration and blood collection should be less important.

Evidence to support this comes from a randomised crossover study, also conducted in 2002 and published after completion of our trial.² Patients were randomised to receive drugs in the morning or evening, then crossed over to the alternative regime. Blood was taken in the morning after a 12 hour fast and again in the evening after a four hour fast. Evening compared with morning dosing was associated with significantly reduced total and low density lipoprotein cholesterol concentrations, using morning samples, and this outcome was not different when the analysis was undertaken using data pooled from both blood samples.

Calvert et al also question the reporting of our trial according to the CONSORT guidelines. We acknowledge these guidelines but were constrained by the limitations of a short report. Editorial guidance on this issue would be welcomed for the future.

Bell raises the issue of shift workers and potential for bias. None of our patients were working shifts but 24 hour variation in cholesterol synthesis is strongly related to meal times,³ so, as Bell suggests, shift workers receiving simvastatin should take it on retiring to bed.

We welcome the attention drawn by Calvert et al to the importance of our findings for attaining quality points for coronary heart disease care under the new general practitioners' contract, highlighting the material benefit that evidence based practice can deliver.

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1 Papu AS, Illingworth DR. The effects of lovastatin and simvastatin on the diurnal periodicity of plasma mevalonate concentrations in patients with heterozygous familial hypercholesterolemia. *Atherosclerosis* 2002;165:137-44.

2 Lund TM, Torsvik H, Falch D, Christophersen B, Skårådal R, Gullestad L. Effect of morning versus evening intake of Simvastatin on the serum cholesterol level in patients with coronary artery disease. *Am J Cardiol* 2002;90:784-6.

3 Cella LK, van Cauter E, Schoeller DA. Effect of meal timing on diurnal rhythm of human cholesterol synthesis. *Am J Physiol* 1995;269:E878-883.

No matter the time of day, does UK policy reflect the evidence?

EDITOR—Wallace et al highlight important issues on managing so called hyperlipidaemia.¹ The timing of the statin dose is irrelevant, with current policy and practice not designed to deliver the clinical outcomes seen in recent drug trials.² They studied sub-optimal doses, which is common; data from the West Midlands show that 36% of patients are prescribed simvastatin 10 mg or pravastatin 10 mg (table).

The national service framework for coronary heart disease set a target that statin treatment should aim to lower cholesterol

Proportions of pravastatin and simvastatin prescribed by general practitioners in West Midlands between July 2002 and June 2003

Strength (mg)	Pravastatin	Simvastatin
	(6 697 175 items)	(33 656 378 items)
10	28	38
20	35	37
40	37	24
80	—	1

The Prescription Pricing Authority gave permission to analyse and show these data.

below 5.0 mmol/l or to reduce total serum cholesterol by 20-25%, whichever would result in the lowest concentration.³ The quality and outcome framework of the new general practitioners' contract⁴ will reward according to the proportion of patients with vascular disease, or diabetes, with total cholesterol concentrations below 5 mmol/l.

The heart protection study shows that many people derive benefit irrespective of their starting cholesterol concentration.⁵ Thus the policy is not now evidence based; people may be inadequately treated if their "starting" cholesterol is less than 5 mmol/l. Also some may be aggressively treated, with drugs such as rosuvastatin or ezetimibe, where there are no clinical outcome data, to achieve cholesterol concentrations below 5 mmol/l. This clearly suits the drug industry.

We should rethink national policy; people with significant risk should receive statin at a dose used in recent trials² (simvastatin 40 mg daily, or pravastatin 40 mg daily). These trials did not chase their target. Giving the dose in the evening might help but a proper dose should be used. The general practitioner's quality payment could then be for the proportion of appropriate people receiving these evidence based doses.

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1 Wallace A, Chinn D, Rubin G. Taking simvastatin in the morning compared with in the evening: randomised controlled trial. *BMJ* 2003;327:788. (4 October.)

2 Durrington P. Dyslipidaemia. *Lancet* 2003;362:717-31.

3 Boyle R. DoH explains thinking behind national service framework for coronary heart disease. *BMJ* 2000;321:1083.

4 British Medical Association. *New GMS contract. Investing in general practice*. London: BMA, 2003.

5 Heart Protection Study Collaborative Group. MRC/BHF heart protection study of cholesterol lowering with simvastatin in 20 536 high-risk individuals: a randomised placebo-controlled trial. *Lancet* 2002;360:7-22.

Resuscitation in pregnancy article omitted several points

EDITOR—Morris and Stacey in their clinical review of resuscitation in pregnancy should have mentioned several points.¹ As the primary indication for caesarean section is saving the mother, saving the baby being secondary if it is at a viable gestation, no time should be wasted in auscultation for fetal heart rate before the caesarean. A

neonatologist should be available to resuscitate the infant immediately after birth.

To achieve delivery by five minutes from cardiac arrest the caesarean should be initiated three to four minutes into the arrest. The most senior obstetrician available should ideally be performing the procedure as familiarity with safe rapid delivery techniques is essential. A classic uterine incision may be quicker at extreme prematurity than the usual transverse incision into the lower uterine segment.

Women with chronic maternal illness such as hypertensive disease or fetal illness such as severe growth restriction before the cardiac arrest are less likely to have a neurologically intact and surviving infant than women with healthy pregnancies. The five minute limit to achieve fetal delivery seems to have been arbitrarily chosen and is based on the theoretical advantages in resuscitating the mother, as well as extrapolation of data on infant survival. Katz et al showed that infants delivered within five minutes tended to survive and be neurologically normal, whereas those delivered beyond 10 minutes either died or survived with neurological compromise.²

Because cardiac arrest is usually unexpected and equipment not always accessible, it may be good practice to prepare a local guideline and "sterile delivery pack." This could be distributed to the hospital's accident and emergency and obstetric departments, along with frequent clinical training drills. Unfortunately the recent guideline on caesarean section from the National Institute for Clinical Excellence and the Royal College of Obstetricians and Gynaecologists does not discuss this important life saving indication for caesarean section.³

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1 Morris S, Stacey M. Resuscitation in pregnancy. *BMJ* 2003;327:1277-9. (29 November.)

2 Katz VL, Dotters DJ, Droegemueller W. Perimortem cesarean delivery. *Obstet Gynecol* 1986;68:571-6.

3 National Institute for Clinical Excellence, Royal College of Obstetricians and Gynaecologists. Caesarean section guideline. London: National Collaborating Centre for Women's and Children's Health, 2003. www.nice.org.uk/article.asp?a=94037 (accessed 14 Dec 2003).

Parents key to reducing overweight in children

Marketing targets children

EDITOR—According to your news item, Dame Yve Buckland of the Health Development Agency had dismissed the role of food marketing in affecting food choices of children and their families.¹ We were concerned by her quote "child focused food advertising is a real challenge, but parents can fight back—it's them paying at the checkout, not their children."

Research published by Mintel in December showed that children have increasing

independent spending power from school age onwards, and that enormous marketing effort is put into attracting young consumers into impulse purchase of high calorie fatty snacks and sugary drinks.² Such products are available everywhere—in school vending machines and tuckshops, in canteens, and in shops that exploit the pocket money market.

Cartoon characters, sports personalities, and pop stars help to make such foods especially attractive to a younger audience. Many marketing schemes use text messaging on mobile phones to gain children's loyalty. Increasingly, marketing is channelled through schools, where parents are not around to unpick the marketing messages. These initiatives are not aimed at the parents, they are aimed at children who make their own purchases, or who nag their parents to buy products.

Parents are key to improving children's diets and health—and we could all work to empower them to make healthier choices. But if their attempts to introduce children to healthy diets are undermined by persuasive marketing for fatty, sugary, and salty foods, parents will remain isolated and swimming against a cultural environment that fosters obesity and other serious health problems.

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Competing interests: None declared.

1 Kmietowicz Z. Parents key to reducing overweight in children. *BMJ* 2003;327:832. (11 October.)

2 Mintel International. *After-school snacking—UK*. London: Mintel, 2003.

Political pressure is needed

EDITOR—From a programme that is currently running in Bolton we have evidence of the importance of including parents in lifestyle interventions designed to tackle childhood obesity. We have found that parents do not just need to support their children's efforts. Rather it is their taking an equal part in the programme that best supports the family changes that Dame Yve Buckland advocates.¹

A further challenge is to ensure that the lifestyle changes the programme supports are sustained in the long term. Although our programme supports families in accessing and using local leisure provision, we have found a lack of understanding of the needs of such a group by many leisure service personnel, or few suitable facilities to meet their needs.

Although parents should be partners in tackling this growing problem, professionals across a wide range of agencies need to find better ways of ensuring that such groups are not merely expected to fit into services that do not meet their needs and that we increase the political pressure to redress the fact that we have largely handed leisure and food provision over to commercial enterprise.

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Competing interests: None declared.

1 Kmietowicz Z. Parents key to reducing overweight in children. *BMJ* 2003;327:832. (11 October.)

Health Development Agency responds

EDITOR—The Health Development Agency is pleased that the findings of our obesity and overweight management evidence briefing have stimulated debate around these issues.¹ In reply to the responses received we would like to highlight the following.

The importance of parents in the treatment of childhood obesity is only one aspect of the findings from our evidence briefing on obesity and overweight management.² It also reports that multifaceted school based interventions are effective in the prevention of childhood obesity, particularly in girls. This includes providing a supportive environment for healthy behaviours.

Those who read our full report of findings will see that the systematic reviews included did not specifically consider food advertising as no systematic reviews were found in this area at the time. One of the recommendations from our evidence briefing was that upstream interventions, such as policy development, are urgently required. We therefore welcome the findings of the recently published report from the Food Standards Agency on the influence of food advertising to children and look forward to participating in the debate that will follow.³

In considering a supportive environment, the advertising and promotion of foods to children in the broadest sense is an important issue and one which the Health Development Agency recognises and acknowledges. The national healthy school standard, which is managed by the agency, takes a "whole school" approach, which ensures that the learning from the classroom is reflected in the school environment and in the food provided. Within this we acknowledge the importance that healthy eating messages are not undermined by commercial interests and encourage the participation of parents as well as pupils and staff including catering staff, in developing whole school food policies.

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Competing interests: None declared.

1 Kmietowicz Z. Parents key to reducing overweight in children. *BMJ* 2003;327:832. (11 October.)

2 Health Development Agency. *The management of obesity and overweight. An analysis of reviews of diet, physical activity and behavioural approaches. Evidence briefing*. London: HDA, 2003. http://194.83.94.67/niche_docs/EB_DATABASE_CONTENT/HTML_database_content/EBBD-Obesity.html (accessed 8 Jan 2004).

3 Hastings G, Stead M, McDermott L, Forsyth A, Mackintosh AM, Rayner M, et al. *Does food promotion influence children? A systematic review of the evidence*. Glasgow: University of Strathclyde, 2003. <http://www.food.gov.uk/healthierating/promotion/issues/aboutreview/> (accessed 9 Jan 2004).

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