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LETTERS

PALLIATIVE CARE BEYOND CANCER

Good death for all remains distant goal



Ellershaw and colleagues again defend their Liverpool care pathway.¹ The pathway has obvious appeal, but it has proved controversial, and reports of misuse remain disturbingly frequent.²

Despite decades of research in the care of patients with cancer, the accurate prediction of dying—the last 48 hours of life—remains difficult.³ Accuracy is obviously important to patients and their next of kin. Surprisingly, Ellershaw and colleagues imply that the lack of data supporting accurate prediction of dying in the 70% of deaths not due to malignancy is of no significance. They also imply that evidence of the pathway's widespread use obviates the need for evidence that its use is safe and appropriately timed.

They briefly mention three areas of practice with the pathway that have been identified in national audits as being in need of improvement. However, to describe communication as merely needing improvement is akin to describing bankruptcy as a minor cash flow problem. Both audits show that most patients on the Liverpool care pathway do not know that they are dying, and only around half know their diagnosis.^{4, 5} The results for meeting spiritual and religious needs are even worse. These failures are not simply medically anachronistic: they are dishonest and inhumane.

Indifference to the need for accurate diagnosis of dying and to the most basic needs of patients and next of kin goes deeper than a simple lack of education and suggests fundamental flaws in the approach adopted by the Liverpool care pathway project. Achieving a good death for all remains a distant goal.

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Competing interests: None declared.

- 1 Ellershaw J, Dewar S, Murphy D, Achieving a good death for all. *BMJ* 2010;341:c4861. (16 September.)
- 2 Le Fanu J. Clinging to a Pathway can lead care off track. *Telegraph* 2010 Sep 20. www.telegraph.co.uk/health/healthadvice/jamesiefanu/8008866/James-LeFanu-Clinging-to-a-Pathway-can-lead-care-off-track.html.
- 3 Riley J. A strategy for end of life care in the UK. *BMJ* 2008;337:185-6.
- 4 National Care of the Dying Audit—Hospitals (NCDAH). Generic report 2006-2007. www.mcpil.org.uk.
- 5 National Care of the Dying Audit—Hospitals (NCDAH). Round 2, generic report 2008-2009. www.mcpil.org.uk.

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Authors' reply

The expectation of society is that the training of doctors and nurses incorporates the care of patients in the last hours and days of life and the support of their carers. In reality this is sadly lacking. Many curriculums for medical, nursing, and allied healthcare professionals do not contain care of the dying as a core element of pre-registration or post-registration training.

The Liverpool care pathway, like any tool or technology, is only as good as the teams who use it, and it requires an education and training programme both in its implementation and maintenance in the clinical environment. It is not the answer to the challenge for care of the dying in our society but a step in the right direction: it will take more than one tool to change the culture of dying in our health economy. The *Route to Success for End of Life Care* by the National End of Life Care Programme addresses a broad range of issues.¹

Clearkin clearly articulates the gaps in the knowledge and skills of the workforce as shown by the national audit results.² We support his vision that a good death for all should be the norm and not the exception in our society, but training in the care of the dying will need to be increased or made mandatory if this goal is to be achieved.

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Competing interests: None declared.

- 1 NHS National End of Life Care Programme. The route to success in end of life care—achieving quality in acute hospitals. 2010. www.endoflifecareforadults.nhs.uk/assets/downloads/RTS_Acute_Final_20100830.pdf.
- 2 Clearkin RJ. Good death for all remains distant goal. *BMJ* 2010;341:c5815.

Cite this as: *BMJ* 2010;341:c5817

Irish Hospice Friendly Hospitals programme

Ellershaw and colleagues champion the importance of structured approaches to improving end of life care as part of the core business of hospitals.¹

An audit of end of life care in 999 patients across 43 Irish hospitals, conducted as part of the Hospice Friendly Hospitals programme,² found that doctors were significantly more satisfied than nurses or relatives with the quality of care. Influences on care at the end of life were cause of death, route of admission, team meetings, staff discussion with patients and relatives, support for families, staff preparedness for the death of a patient, and hospital governance. Doctor assessment of symptom management was nearly 5% higher in hospitals with written end of life care objectives. Eighteen ways to improve hospital care at the end of life were identified.

The Hospice Friendly Hospitals programme is an all systems initiative to change hospital cultures relating to dying, death, and bereavement. It has built up a network of champions for change; produced materials for advocacy, public education, and professional training; and published a set of quality standards for end of life care in Irish hospitals.³ Its innovative measures include improving the mortuary environment, enhancing dignity when returning a dead relative's belongings, using symbols to denote a death on the ward, and raising staff confidence in recognising the dying process. Such work deserves recognition beyond Irish shores.

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Competing interests: DC and FG are undertaking a study of Hospice Friendly Hospitals commissioned by the Irish Hospice Foundation.

- 1 Ellershaw J, Dewar S, Murphy D, Achieving a good death for all. *BMJ* 2010;341:c4861. (16 September.)
- 2 Hospice Friendly Hospitals. National audit of end-of-life care in hospitals. May 2010. www.hospicefriendlyhospitals.net/national-audit-of-end-of-life-care-in-hospitals?layout=item.
- 3 Hospice Friendly Hospitals. Message from Mary McAleese. National audit of end-of-life care in hospitals. May 2010. www.hospicefriendlyhospitals.net/quality-standards-for-end-of-life-care-in-hospitals?layout=item.

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Death plans reduce death taboo

If older people had their own personal death plans, I believe that they would be far less afraid of facing their demise.¹ Writing a death plan may also result in greater family discussion about the impending death, therefore reducing the taboo element of death that still prevents people confronting the issue in any meaningful way.

I started the website My Last Song to support visitors in addressing their end of life issues as positively as possible. To enable people to write a death plan, I created a template that allows them to state how much they wish to be told about their condition; the degree of medical intervention they want; who they want to be with them; what music they would like to hear; what they want to smell; what items they would like in the room; where they would like to die; how they want to be touched; and the issues to be cleared up so that they can be free from worries at the end.

Sceptics might say that it is rather unrealistic, or could impair doctors' ability to treat a dying patient. It also presupposes the ability to know accurately when an ailing patient is going to die. But if people believe that their end of life experience is going to be as comfortable as possible and that they are less likely to die an impersonal and lonely death, they are more likely to discuss it with their family and medical staff. And isn't that a good thing?

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Competing interests: PSH runs mylastsong.com, a member of Dying Matters Coalition.

1 Delamothe T, Knapton M, Richardson E. We're all going to die. Deal with it. *BMJ* 2010;341:c5028. (16 September.)

Cite this as: *BMJ* 2010;341:c5800

Spirituality is a weasel word

Grant and colleagues correctly assert that the emotional, psychological, existential, and sometimes religious needs of dying (and indeed all) patients are often neglected.¹ They have no doubt that more "spirituality" is needed—the word, or its adjective, appears 47 times in their article. By this they seem to mean listening to patients, hearing their concerns and fears, helping them review their life history, and talking openly about the consolations and terrors of life's finitude.

Nothing could be more important. But do you have to invoke spirituality to make the point? Psychology and psychiatry's retreat from acute medical care and general practice into the bunker of mental health has left a vacuum. In rushes the weasel word spirituality, meaning everything and nothing, including the oxymoronic "secular spirituality." Let spirituality remain

where it belongs—in the hearts of those to whom it is precious, and in the churches and mosques. What is needed is a re-humanising and re-psychologising of medicine, untainted by covert proselytising.

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Competing interests: None declared.

1 Grant L, Murray SA, Sheikh A. Spiritual dimensions of dying in pluralist societies. *BMJ* 2010;341:c4859. (16 September.)

Cite this as: *BMJ* 2010;341:c5801

MEDIA AND SUICIDE

Papageno v Werther effect

Sensationalist media reports, as in Hong Kong's print media,¹ can trigger further suicides—the Werther effect.² However, we recently found that the effects of suicide related news stories was broad and sometimes protective, depending on the contents of the story.³ In particular, reports about people adopting constructive coping strategies in adverse circumstances were associated with decreasing suicide rates subsequently.³

Newspaper items accounting for this effect form a distinct non-sensationalist class of suicide reporting. They follow the recommendations of the World Health Organization in reporting suicide—for example, avoiding terms such as suicide epidemic.³ Our findings suggest that media reports on individual mastery of suicidal crises are highly relevant in preventing suicide.

This protective effect has been termed the Papageno effect in honour of the character in

Mozart's opera *the Magic Flute*. When Papageno fears that he has lost his love, Papagena, he prepares to kill himself. But three boys save him at the last minute by reminding him of other alternatives to dying.⁵

More research is needed to understand the Papageno effect. However, from a public health perspective, even small protective effects could have a noticeable positive impact on internationally ongoing collaborations between health and media professionals.

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1 Parry J. Can media depictions of suicide influence copycat acts? *BMJ* 2010;341:c5067. (29 September.)

2 Phillips DP. The influence of suggestion on suicide: Substantive and theoretical implications of the Werther effect. *Am Soc Rev* 1974;39:240-53.

3 Niederkrotenthaler T, Voracek M, Herberth A, Till B, Strauss M, Etzersdorfer E, et al. The role of media reports in completed and prevented suicide—Werther versus Papageno effects. *Br J Psychiatry* 2010;197:234-43.

4 World Health Organization (WHO). Preventing suicide. A resource for media professionals. WHO, 2008. www.who.int/mental_health/prevention/suicide/resource_media.pdf.

5 Schikaneder E. *The magic flute: libretto*. Metropolitan Opera Guild, 1990.

Cite this as: *BMJ* 2010;341:c5841

VIEWS ON LIPID LOWERING

JUPITER seems to be bypassed

Krumholz and Hayward's analysis of lipid lowering therapy refreshingly emphasised the need to focus on hard clinical end points and not biomarkers.¹ However, despite mentioning some recent landmark trials, they did not give an opinion on the recent controversy surrounding JUPITER, the large, double blind, placebo controlled trial of rosuvastatin treatment.²

This trial enrolled 17 802 patients without evidence of heart disease but with high C reactive protein concentrations. Those with low to normal low density lipoprotein (LDL) cholesterol receiving rosuvastatin had a lower rate of major cardiovascular events. Compared with patients taking a placebo, those given rosuvastatin had reduced LDL and C reactive protein concentrations, as well as a reduction of 0.2% to 0.6% in their absolute risk of heart attack, stroke, and death at one year.

A recent re-analysis of this industry sponsored trial indicated that the results were flawed and



GETTY

do not support the primary prevention benefits that made the headlines.³ This independent re-evaluation reported that total cardiovascular mortality was identical for rosuvastatin and placebo. The reduction in all cause mortality was so small that the number needed to treat is 1 in 400.

A recent meta-analysis of 11 large randomised primary prevention trials with 65 229 patients and 244 000 person years of follow-up showed a non-significant reduction in relative risk of 9% in patients treated with statins.⁴ Ironically, another large meta-analysis of 13 randomised statin trials showed that statin treatment was associated with a 9% increased risk of developing type II diabetes.⁵

The emphasis on pharmaceuticals as “pills for all ills” is indeed misguided, but without commenting on the JUPITER trial, Krumholz and Hayward’s lipid update is incomplete.

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Competing interests: None declared.

- 1 Krumholz HM, Hayward RA. Shifting views on lipid lowering therapy. *BMJ* 2010;341:c3531. (28 July.)
- 2 Ridker PM, Danielson E, Fonseca FAH, Genest J, Gotto AM Jr, Kastelein JP, et al, for the JUPITER Study Group. Rosuvastatin to prevent vascular events in men and women with elevated C-reactive protein. *N Engl J Med* 2008;359:2195-207.
- 3 de Lorgeril M, Salen P, Abramson J, Dodin S, Hamazaki T, Kostucki W, et al. Cholesterol lowering, cardiovascular diseases, and the rosuvastatin-JUPITER controversy. A critical reappraisal *Arch Intern Med* 2010;170:1032-6.
- 4 Ray KK, Rao S, Seshasai K, Ergou S, Sever P, Jukema JW, et al. Statins and all-cause mortality in high-risk primary prevention: a meta-analysis of 11 randomized controlled trials involving 65 229 participants. *Arch Intern Med* 2010;170:1024-31.
- 5 Sattar N, Preiss D, Murray HM, Welsh P, Buckley BM, de Craen AJM, et al. Statins and risk of incident diabetes: a collaborative meta-analysis of randomised statin trials. *Lancet* 2010;375:735-42.

Cite this as: *BMJ* 2010;341:c5835

Author’s reply

The estimated relative risk reduction (RRR) for total mortality of 9% for primary prevention is quite similar to the 11-12% found for secondary prevention.¹⁻³ It is just as accurate to summarise the literature as finding no evidence that statins’ RRR for primary prevention differs much from that for secondary prevention but that their absolute risk reduction varies tremendously on the basis of the patient’s overall cardiovascular risk.³

In terms of the ongoing controversy about JUPITER and C reactive protein,¹ the issues are the same as those we laid out for lipids. Statins’ mechanism(s) of action is an important scientific question,⁴ but the three relevant clinical questions for any biomarker are the same—does it help determine the risk of cardiovascular events in the absence of treatment ($Risk_{NoRx}$), the relative risk reduction of treatment (RRR_{Rx}), and the risk of treatment harm ($Harm_{Rx}$)?

$$\text{Net benefit} = (\text{Risk}_{NoRx} * RRR_{Rx}) - (\text{Harm}_{Rx})$$

Strong evidence suggests that C reactive protein

can add to assessing cardiovascular risk at the margins. However, we know of no good evidence that it modifies RRR_{Rx} . Rather than pressing for treatment of raised C reactive protein, we need to analyse whether statins RRR_{Rx} varies with baseline C reactive protein using available techniques and data.^{4 5}

Until then, the best evidence currently available suggests that tailoring statin treatment to patients’ overall cardiovascular risk is likely to be the most effective and efficient strategy³; that C reactive protein and lipid values should generally be used only to help estimate overall cardiovascular risk; and that other lipid therapies (including combination therapy) should show a significant impact on mortality or morbidity before being widely used clinically.

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Competing interests: None declared.

- 1 Murray SW. JUPITER seems to be bypassed. *BMJ* 2010;341:c5835.
- 2 Ray KK, Rao S, Seshasai K, Ergou S, Sever P, Jukema JW, et al. Statins and all-cause mortality in high-risk primary prevention: a meta-analysis of 11 randomized controlled trials involving 65 229 participants. *Arch Intern Med* 2010;170:1024-31.
- 3 Hayward RA, Krumholz HM, Zulman DM, Timbie JW, Vijan S. Optimizing statin treatment for primary prevention of coronary artery disease. *Ann Intern Med* 2010;152:69-77.
- 4 Hayward RA, Hofer TP, Vijan S. Narrative review: lack of evidence for recommended low-density lipoprotein treatment targets: a solvable problem. *Ann Intern Med* 2006;145:520-30.
- 5 Kent DM, Rothwell PM, Ioannidis JP, Altman DG, Hayward RA. Assessing and reporting heterogeneity in treatment effects in clinical trials: a proposal. *Trials* 2010;11:85.

Cite this as: *BMJ* 2010;341:c5837

FROM TRIAL TO PRACTICE

Let’s collaborate

Glaziou and colleagues outline important aspects related to the planning, publication, and systematic review of complex interventions, concluding with a catalogue of measures to improve the usefulness of research reports.¹

Surprisingly, the article lacks methodological rigour. Which methods were used to search for relevant articles? What were the criteria for inclusion of articles? What is the basis for the authors’ conclusions? Numerous relevant publications were not included, some of them published in the *BMJ*.²⁻⁴

Is systematic literature searching no longer the prerequisite for a profound scientific discussion? The search term “complex intervention*” retrieves more than 100 reviews in PubMed, with more than a fifth of them relevant. The issue of “complex interventions” and the challenges related to their development and evaluation has been controversially discussed since the early 1990s.

Glaziou and colleagues also propose that a stable “intervention bank” should be established. To my knowledge, Warsi et al were

the first to propose the creation of an “electronic clearinghouse for the descriptions of self management educational programs” to “facilitate testing of interventions by investigators other than the developers of individual programs.”⁵

Since 2008 our group has actively been trying to establish a scientific network and database for complex interventions (patient self management programs being an example), and we would welcome collaboration with ever more partners.

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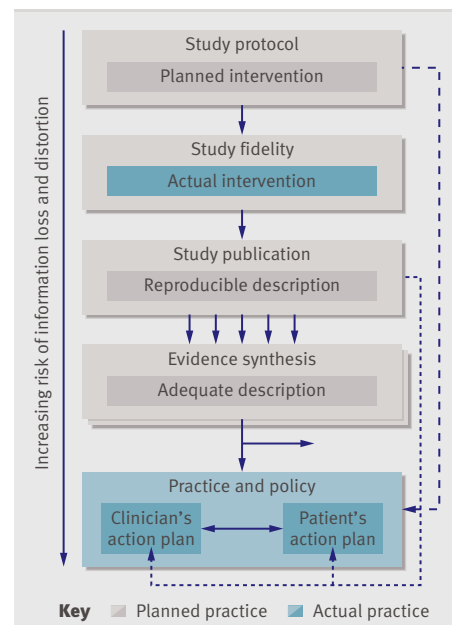
Competing interests: None declared.

- 1 Glasziou P, Chalmers I, Altman DG, Bastian H, Boutron I, Brice A, et al. Taking healthcare interventions from trial to practice. *BMJ* 2010;341:c3852. (13 August.)
- 2 Lenz M. Rapid response. Search for co-operation. *bmj.com* 2010. www.bmj.com/content/341/bmj.c3852.full/reply#bmj_el_242413.
- 3 Campbell NC, Murray E, Darbyshire J, Emery J, Farmer A, Griffiths F, et al. Designing and evaluating complex interventions to improve health care. *BMJ* 2007;334:455-9.
- 4 Lenz M, Steckelberg A, Richter B, Mühlhauser I. Meta-analysis does not allow appraisal of complex interventions in diabetes and hypertension self-management: a methodological review. *Diabetologia* 2007;50:1375-83.
- 5 Warsi A, Wang PS, LaValley MP, Avorn J, Solomon DH. Self-management education programs in chronic disease: a systematic review and methodological critique of the literature. *Arch Intern Med* 2004;164:1641-9.

Cite this as: *BMJ* 2010;341:c5823

Authors’ reply

We are delighted that Lenz and his colleagues are planning a database of complex interventions.¹ However, the problem of taking treatments from idea to practice addressed by our paper² is not confined to complex interventions: a recent review of chemotherapy found missing details in 89% of recent oncology trial publications.³ Hence we aimed to develop a conceptual model of the problem for all types of



This stage model of taking treatment idea to practice. This figure was missing from the print version of article (see correction, p 887)

interventions. The overall model was a synthesis of the many different perspectives of the problem from various clinical and non-clinical disciplines (figure). Its five stages were developed and refined over the two day meeting and by subsequent peer review (which suggested splitting stage 1).

To understand and quantify the information loss at each of the five stages in the figure, we searched for and used systematic reviews relevant to each of the stages. However, word limits meant about half of the paper was pruned, including many of the methods and references. Ironically, our team included three of the “not included” papers listed as by Lenz in his rapid response (references 2, 5, and 8).⁴ But more work—research and policy change—is needed at each stage and we see our paper as a small, initial step in that direction.

The problem of information loss illustrated in the figure contributes to the billions of dollars annually wasted in research.⁵ Therefore efforts by Lenz and others to address this are to be applauded, and we thank them for their invitation.

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On behalf of Iain Chalmers, Douglas G Altman, Hilda Bastian, Isabelle Boutron, Anne Brice, Gro Jamtvedt, Andrew Farmer, Davina Ghera, Trish Groves, Carl Heneghan, Sophie Hill, Simon Lewin, Susan Michie, Rafael Perera, Valerie Pomeroy, Julie Tison, Sasha Shepperd, and John W Williams.

Competing interests: TG is an editor at the *BMJ* but was not involved in the peer review process. DG is an employee of the World Health Organization and works on trial registration. DGA is an executive member of the EQUATOR network.

- 1 Lenz M. Let's collaborate. *BMJ* 2010;341:c5823.
- 2 Glasziou P, Chalmers I, Altman DG, Bastian H, Boutron I, Brice A, et al. Taking healthcare interventions from trial to practice. *BMJ* 2010;341:c3852. (13 August.)
- 3 Duff JM, Leather H, Walden EO, LaPlant KD, George TJ Jr. Adequacy of published oncology randomized controlled trials to provide therapeutic details needed for clinical application. *J Natl Cancer Inst* 2010;102:702-5.
- 4 Lenz M. Rapid response. Search for co-operation. bmj.com/2010/www.bmj.com/content/341/bmj.c3852.full/reply#bmj_el_242413.
- 5 Chalmers I, Glasziou P. Avoidable waste in the production and reporting of research evidence. *Lancet* 2009;374:86-9.

Cite this as: *BMJ* 2010;341:c5826

SELF MANAGEMENT OF DIABETES

Fallacy in retirement model

The cost effectiveness of the small alterations in risk factors found in the DESMOND study have recently been reported.¹⁻² The authors used the Sheffield type 2 diabetes model to calculate putative gains in life expectancy (mean increase 0.0392 quality adjusted life years, or 14 days).²

This model uses epidemiological data to estimate the impact of changing levels of risk factors on the incidence of microvascular and macrovascular complications.²⁻³ The fallacy of this approach is that it assumes that a patient with a certain level of a risk factor after treatment has the same risk as someone whose level of that risk factor had never been raised. We know that ex-smokers differ in terms of risk from people

who have never smoked, but recent intervention studies in patients with type 2 diabetes have shown much smaller benefits for macrovascular and microvascular outcomes than predicted from epidemiological data.⁴

Cost effectiveness analysis is an important tool in decision making about resource allocation. The less than complete reversibility of risk in patients with diabetes, however, calls into question many of the studies used—for example, by the National Institute for Health and Clinical Excellence—to assess the cost effectiveness of treatments for type 2 diabetes.

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Competing interests: None declared.

- 1 Davies MJ, Heller S, Skinner TC, Campbell MJ, Carey ME, Craddock S, et al. Effectiveness of the diabetes education and self management for ongoing and newly diagnosed (DESMOND) programme for people with newly diagnosed type 2 diabetes: cluster randomised controlled trial. *BMJ* 2008;336:491-5.
- 2 Gillett M, Dallosso HM, Dixon S, Brennan A, Carey ME, Campbell MJ, et al. Delivering the diabetes education and self management for ongoing and newly diagnosed (DESMOND) programme for people with newly diagnosed type 2 diabetes: cost effectiveness analysis. *BMJ* 2010;341:c4093. (20 August.)
- 3 Brennan A, Chick SE, Davies R. A taxonomy of model structures for economic evaluation of health technologies. *Health Econ* 2006;15:1295-310.
- 4 Yudkin JS, Richter B, Gale EAM. Intensified glucose lowering in type 2 diabetes: time for a reappraisal. *Diabetologia* 2010;53:2079-85.

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Authors' reply

Yudkin highlights an important problem when evaluating interventions based on simple risk equations.¹ The macrovascular risks within the Sheffield type 2 diabetes model¹ are based on the UK Prospective Diabetes Study (UKPDS) risk engines,²⁻³ in which categorisation of smoking status is dichotomous—current at diagnosis or not. The justification for this is that cardiovascular and cerebrovascular events did not differ significantly between non-smokers and ex-smokers within the cohort. Although risk probably drops sharply after smoking cessation,⁴ we would expect it to be greater than for non-smokers, so the benefits of cessation will be smaller in the short term.

One approach to tackling this problem is to base estimates of individual parameters on intervention studies.⁵ This would directly measure the changes of interest, but results from trial based populations may not be generalisable to whole clinical populations.⁵ We would have preferred to use a fuller specification of the UKPDS risk engine that included the ex-smoker category, and then capture the uncertainty around the association through probabilistic sensitivity analysis. This would not overcome the whole problem—because it remains a categorical variable—but it would reduce its impact substantially. However, this specification is not available.

We recognise that we may have overestimated the benefit of smoking cessation. However, further sensitivity analysis indicates that the low incremental cost effectiveness ratio allows substantial scope for a reduced effect on quality adjusted life years without jeopardising the conclusion that the programme is probably cost effective.

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Competing interests: None declared.

- 1 Yudkin JS. Fallacy in intervention model. *BMJ* 2010;341:c5818.
- 2 Gillett M, Dallosso HM, Dixon S, Brennan A, Carey ME, Campbell MJ, et al. Delivering the diabetes education and self management for ongoing and newly diagnosed (DESMOND) programme for people with newly diagnosed type 2 diabetes: cost effectiveness analysis. *BMJ* 2010;341:c4093. (20 August.)
- 3 Stevens RJ, Kothari V, Adler AI, Stratton IM, Holman RR; on behalf of the United Kingdom Prospective Diabetes Study (UKPDS) Group. The UKPDS risk engine: a model for the risk of coronary heart disease in type II diabetes (UKPDS 56). *Clin Sci* 2001;101:671-9.
- 4 Ockene JK, Kuller LH, Svendsen KH, Meilahn E. The relationship of smoking cessation to coronary heart disease and lung cancer in the Multiple Risk Factor Intervention Trial (MRFIT). *Am J Public Health* 1990;80:954-8.
- 5 Yudkin JS. How can we best prolong life? Benefits of coronary risk factor reduction in non-diabetic and diabetic subjects. *BMJ* 1993;306:1313-8.

Cite this as: *BMJ* 2010;341:c5821

OBsolete CLINICAL SIGNS

Time to update

We thank Muirhead for raising the matter of obsolete and unproved clinical signs.¹ Clinical signs that are rarely, if ever, seen in modern practice need to be removed. Has anyone seen any of the following in the past year?

- Osler's node—a painful red raised lesion seen in the pulp of the fingers (or toes) in bacterial endocarditis
- Quincke's sign—pulsation of the capillary bed in the nail in aortic regurgitation
- Rovsing's sign—palpation in the left iliac fossa producing pain in the right iliac fossa in acute appendicitis
- Brudzinski's sign—involuntary lifting of the legs when a patient's head is lifted off the bed in meningeal irritation.

Many more exist. The discussion will help to inform undergraduate medical teaching for generations to come.

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Competing interests: GD and CR are editors of *Macleod's Clinical Examination*.

- 1 Muirhead W. Stumbling on the shoulders of giants. *BMJ* 2010;341:c5205. (22 September.)

Cite this as: *BMJ* 2010;341:c5809