

comment

Works in progress are released to global fanfare, having been presented only in abstract form

NO HOLDS BARRED Margaret McCartney

Getting abstracts in perspective

There's a conference on! Who could have guessed? On 1 June we had the front page headline, "Cancer blood test hailed as 'holy grail.'" On 2 June we had, "NHS cancer patients 'failing to be correctly monitored.'" On 3 June, joy of joys: "GPs handing out too many antibiotics harms cancer survival chances." Here's a choice quote: "People see their GP and the GP thinks, 'Oh my goodness it's a cancer patient, they need antibiotics.'"

Let us regroup. This is a meeting of the American Society of Clinical Oncology, where research is transmitted to the world through press briefings, abstracts, and talks. Completed, peer reviewed research is shared ahead of publication under embargo, to allow journalists time to check facts and produce accurate coverage. Yet works in progress are released to global fanfare, having been presented only in abstract form, without peer review—making it hard to check researchers' workings and uncertainties.

Let's take the cancer blood test "holy grail" article, a story of several abstracts. A blood test, performed prospectively in people with cancer and people in a control group, can find a DNA marker with a high degree of sensitivity in patients with cancer but has varying, and not very high, specificity (56% upwards). This was not a study testing any intervention to see whether deaths could be delayed, and many of the researchers are employed by, and own shares in, the company making the test. So, one newspaper's suggestion of the test being available on the NHS "within five years" seems rather optimistic.

Then there's the story of NHS cancer patients "failing to be correctly monitored." How long



should people who have been treated for different types of cancer be followed up by an oncologist? It's a great question, but we have only an abstract summarising research on a North American database. This seems to have found wide variation in how long people are followed up for in the US—in a very different healthcare system from the NHS—and that some cancers

are more likely to recur than others. It is clearly not a study showing that changing current practice will decrease the risk of death. But Joyce Robins, of the UK advocacy group Patient Concern, is quoted as saying that it is "terrifying that cancer patients are being abandoned like this."

Lastly, we have the story of how "GPs handing out too many antibiotics harms cancer survival chances." This is based on a retrospective data analysis that showed an association between patients with metastatic disease being treated with antibiotics and the earlier progression of disease and death. The abstract does not mention who gave the antibiotics or why: perhaps there are other reasons why patients who receive more antibiotics do less well.

All of this research is interesting and has the potential to improve healthcare. A proposal from the Academy of Medical Sciences, to "traffic light" press releases to classify them in terms of peer review and how relevant the research is to people, may help; but my question is whether it is useful for the public or professionals to publicise or use press releases of conferences for conference abstracts at all.

Margaret McCartney is a general practitioner, Glasgow
margaret@margaretmccartney.com Twitter: @mgmtmccartney

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Impossible errors

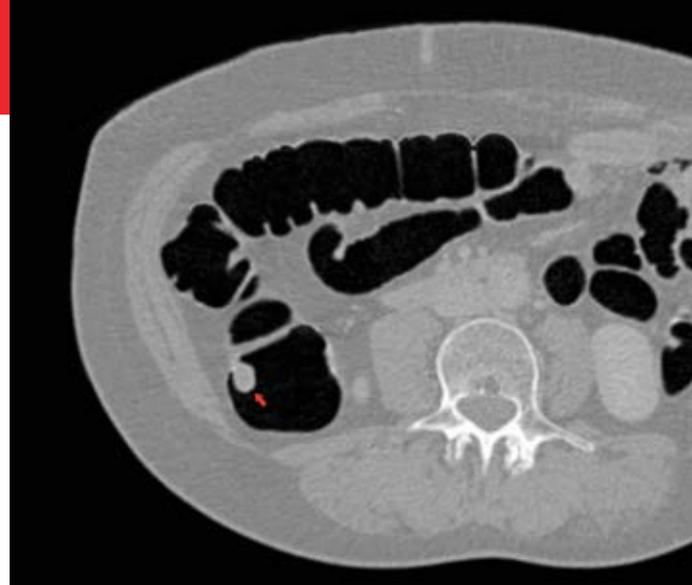
Hindsight bias is a real and very powerful phenomenon, and not just in radiology

There is a discipline in academic law concerned with “impossible crimes.” These are “crimes which are not crimes.” One classic example involves an international traveller found to be in possession of a bag of white powder which he believes to be cocaine, but which on testing turns out to be a bland substitute, say chalk dust. Importing chalk dust is not a crime so on the face of it no crime has been committed. It’s an impossible crime.

I would like to adopt a similar formulation to describe events which sometimes happen in radiology and could be designated “impossible errors,” that is to say errors which are not errors. Consider Ms X who undergoes a computed tomography (CT) examination because of bowel symptoms. The scan reveals a tumour in her colon. While reporting this examination, the radiologist notes

that she had a CT scan performed a couple of years earlier for suspected kidney stones. The technique used on that occasion was focused on the identification of any stones and was far from ideal for looking at the colon. Nevertheless, the radiologist, knowing precisely where a tumour has since been identified, is able to see something at the same location on the earlier study which looks like a polyp. No reader could have called this a polyp at the time, but its presence is indisputable.

This is not a new concept. The Mayo Lung Project in the 1970s was a study of screening male smokers for lung cancer using four monthly chest x rays and pooled sputum samples. Retrospective analysis found that 90% of 50 peripheral cancers identified during the study were visible on at least one of the chest x rays obtained earlier in the study. Had the previous films been misinterpreted? Not necessarily. Some



Experience suggests that patients are largely unaware of the limitations of diagnostic tests

of these—perhaps a majority—would have been “impossible errors.” Only with hindsight, knowing the location of the subsequently diagnosed cancer, could the earlier image be interpreted as abnormal.

It is impossible to “un-see”

Hindsight bias is a real and powerful phenomenon. Once the outcome of any event is known, it assumes a degree of inevitability and it becomes very difficult to imagine an alternative. For us as medical imagers, once a particular reader has identified an abnormality, it becomes difficult to understand how another reader, on a different occasion, might have missed it. It is impossible to “un-see” something once it has been seen. Of

Health tourism, migration, and the NHS

Results from a pilot scheme designed to clamp down on “health tourism” were reported by London’s *Evening Standard* last month. As part of the scheme, which ran in 18 hospitals (11 in Greater London) over two months in autumn 2017, patients were required to show two forms of ID to prove they were eligible for free NHS treatment.

Checks carried out on 8894 patients found only 50 who were not eligible for free NHS treatment.

Overseas visitors are already eligible for free emergency care, and we have reciprocal arrangements with other EU countries for reimbursing healthcare costs, although the Public Accounts Committee did criticise the NHS in



Checks carried out on 8894 patients found only 50 who were not eligible for free NHS treatment

2017 for a “chaotic approach” to chasing reimbursement.

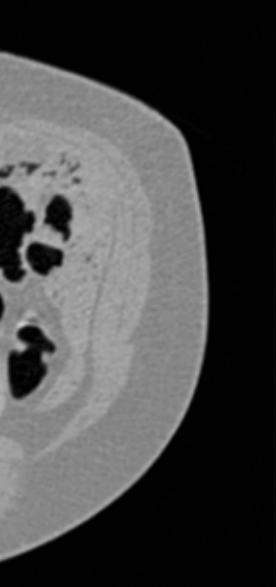
One quoted example in the *Standard*, from Barts Hospital, illustrates the relatively small scale of the problem. Of 2752 renal outpatients only two were ineligible, and they were charged a total of £2500. St George’s Hospital checked 1660 maternity unit patients and found only 18 ineligible, with a total chargeable amount of £45 000. Equally small proportions of ineligible maternity patients were found at Newham General and Redbridge hospitals.

Sadly, our national conversation is often led by emotive and distorted reporting. How did the *Daily Mail* report St George’s maternity unit

issues? “Crackdown on health tourist women who fly to the UK to give birth ‘on the NHS’ is WORKING despite fury of doctors’ union [the BMA].” The *Daily Telegraph* stated in 2017 that health tourism was costing the NHS £2bn a year and said in 2016 that “NHS hit squads” would collect the cash.

The independent *Full Fact* site estimates that the cost of deliberate health tourism to the NHS is only around £300m a year. Such use—by people ineligible for free treatment who visit the UK to receive it—accounts for around 0.3% of the total NHS budget.

The government set out in 2016 an “ambition” to reclaim £500m a year from health tourism by the 2017-18 financial year, but it predicts that this will be more like £350m. Not



There is a gap between what radiologists know to be our error rate and what patients might believe it to be

course radiological abnormalities (and errors) come in a spectrum from the truly “only visible in retrospect” to the glaringly obvious, but there are reasons why even the latter can be missed on occasions.

Experience suggests that patients and the public are largely unaware of the limitations of diagnostic tests, leading sometimes to shock or anger when errors come to light. There is a gap between what radiologists know to be our error rate and what patients might believe it to be. It is surely in the interests of both doctors and patients to try to close that gap.

It may be time to consider whether all diagnostic tests should come with a health warning. These issues have been explored mainly in the context of

screening tests designed to identify a single condition in which it is possible to make some estimation of the rates of false positives and false negatives.

Strengths and limitations

The situation is more complex when we consider tests such as abdominal CT scanning which have the potential to identify (or miss) a wide range of abnormalities ranging from the immediately life threatening to the completely harmless. Exactly what information would most help a patient to appreciate the strengths and limitations, advantages and disadvantages, of undergoing the test?

In the case of impossible crimes, legal thinking has gradually shifted to place more emphasis on intent. Opinions will differ as to whether the patient’s interests are best served by including or excluding a particular finding—positive or negative—from a radiology report, but the intent is always the same. The job of the radiologist after all is the same as that of any other doctor—to improve the health of the patient, not simply to identify a list of things which might be wrong.

Giles Maskell is a radiologist, Truro
gilesmaskell@nhs.net

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negligible, but it’s hardly going to save the NHS (total budget around £122bn) despite the rhetoric and headlines.

In primary care an agreement was signed in 2017 between the Department of Health, the Home Office, and NHS Digital to hand over information on GPs’ patients, to help identify illegal immigrants. GPs understandably rejected the move, wanting to practise medicine rather than be immigration agents, as the Docs Not Cops movement has made clear. The arrangements were subsequently scrapped.

Most immigrants are in their 20s or 30s, either working or paying to study, thus contributing to services such as the NHS. Rising healthcare costs are driven principally by people in mid or late life with long term medical conditions.

Around one in five of the NHS’s clinical workforce trained overseas. Until recently, we’ve happily recruited EU and non-EU staff at scale to supplement our homegrown workforce, especially in shortage specialties and deprived or remote regions. Home Office visa restrictions currently exclude many from coming here to fill pressing workforce gaps, and Brexit has made EU trained staff less keen on working here.

The Brexit “leave” vote was driven largely by voters’ concerns about immigration, and the politicians and newspapers are playing to the gallery. But immigrants give far more to the NHS than they take from it.

David Oliver is a consultant in geriatrics and acute general medicine, Berkshire
davidoliver372@googlemail.com

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BMJ OPINION Nathan Cantley

We need to reframe the post-foundation destinations debate

Every year we hear the same conversation about whether or not foundation year 2 doctors (FY2s) will enter core and specialty training. This almost always seems to be a dichotomous conversation, with the rhetoric biased towards core and specialty training as the “default” or “most desirable” option.

But why this insistence that FY2s should, as much as possible, take a linear route from foundation programme to core or specialty training? Is it because of the need to have enough doctors of a certain grade to fill rotas? Is it the fear of one day not having enough consultants or GPs to maintain the health service? Or is it just a fear of doing things differently?

I decided not to enter core and specialty training because I didn’t want to feel locked in to a training programme for two years. Nor did I want to commit to living in a part of the country that I may not enjoy. I wanted to gain a different type of clinical and academic experience than those training programmes could offer. If only the narrative around FY2 destinations could acknowledge this.

Instead of constantly trying to fit people into the core and specialty training box, we should identify ways to offer and recognise other boxes for trainees within the NHS. Rather than scrabbling about to find ways to encourage people into specialty programmes to ensure that rotas are filled, we could plan rotas to include doctors who are not in training posts. And instead of talking about “fewer FY2s entering training posts,” frame the conversation around the wealth of experience people can gain from completing non-training programmes, clinical fellowships, and working abroad.

During my foundation programme I was lucky to have supervisors who encouraged me to abstain from further training until I felt ready. Yet this encouragement is in direct conflict with what the wider health system and popular public opinion tells me to do.

I encourage leaders in healthcare to listen to what my peers and I are saying by not entering a training programme. You can help to alleviate the guilt we sometimes feel for wider medical workforce problems—often it’s implied that we contribute to those problems. Rather than trying to pull us back into the current status quo, recognise that what we do instead is still helping us grow as junior doctors.

Nathan Cantley is an academic foundation year 2 doctor working within NHS Highland. He is due to take up a clinical fellow post within NHS Lothian in August



Why this insistence that FY2s should take a linear route from foundation programme to core or specialty training?

Dietary patterns and the prevention of chronic disease

Matthias B Schulze and colleagues discuss what we know about the associations between food consumption and cancer, coronary heart disease, stroke, and type 2 diabetes

Can specific foods provide health benefits? Will adopting a specific food pattern prevent major chronic diseases such as type 2 diabetes, cardiovascular disease, or cancer? Are exclusion diets—vegetarian or vegan diets or avoidance of foods containing gluten, lactose, or fructose—the key to good health? The wide range of popular diet plans and concepts seems to continuously expand.¹ But to what extent are their purported benefits supported by scientific evidence?

We summarise current understanding of foods or dietary

To what extent are diet plans' purported benefits supported by scientific evidence?

patterns and risk of major chronic diseases and discuss methodological approaches and specific challenges of conducting research on food intake patterns and health.

Evaluation of food patterns in nutrition studies

Given the relative stability of caloric intake by individual people, changes in dietary habits are generally characterised by substitution effects, where high consumption of some foods is associated with lower intake of other foods. This makes inferences about individual foods particularly challenging. For this reason, researchers also study food patterns, which account for inter-relations of food choices, represent the cumulative exposure to different diet components, and may have stronger effects on health than any single component.⁴

Food patterns can be defined as the quantities, proportions, variety, or combination of different foods and drinks in diets, and the frequency with which they are habitually consumed.⁵ Given that food intake is a multi-dimensional exposure, there are obviously numerous different combinations of foods to potentially investigate. How these combinations are defined in nutrition research largely depends on the research question and study design. In intervention studies food intake is directly manipulated, but in observational studies exposure to food patterns is derived from self reported intake.

Benefits and risks related to food intake and food patterns

Individual foods and health outcomes
Table 1 shows foods and beverages consistently associated in the literature with risk of cancer, type 2 diabetes, coronary heart disease, or



stroke. Higher consumption of whole grains is related to lower risk for most endpoints,¹¹⁻¹⁴ whereas processed meat and unprocessed red meat consumption is associated with an increased risk.¹¹⁻¹⁴ Evidence for other foods is less consistent and might be disease specific—for example, fruits and vegetables are associated with lower risk of cancer,¹⁴ coronary heart disease, and stroke,^{12,13} but not type 2 diabetes.¹² The role of dairy foods remains unclear, with fermented dairy products being more convincingly related to lower cardiometabolic disease risk than others^{11,12} and total dairy consumption seems relevant to colorectal cancer.¹⁴ Sugar sweetened drinks are associated with increased risk of type 2 diabetes,^{11,12} coronary heart disease,^{12,13} and stroke,¹³ and coffee consumption is associated with lower risk of type 2 diabetes,^{11,12} cardiovascular disease,^{12,18} and several cancers,^{14,18} with beneficial effects being most prominent at consumption of 3-5 cups a day.¹⁸

Healthy food patterns and health outcomes

In prospective cohort studies the Mediterranean diet has been associated with lower risk for cancer, type 2 diabetes, and cardiovascular disease.^{19,20} Similar findings were reported for the PREDIMED study, a randomised controlled trial of the Mediterranean diet supplemented with extra virgin olive oil or nuts (see bmj.com).^{21,22} The primary endpoint

Box 1 | Limitations of observational nutrition studies on foods and dietary patterns and suggestions for further research

Semiquantitative dietary data

Use new assessment methods; eg, multiple sources to estimate usual intake

Evaluate relative v quantitative scores for dietary patterns and implications of differences in absolute intake levels

Measurement error

Develop and use measurement error correction methods

Investigate measurement error influences on dietary pattern composition

Investigate validity and reliability of dietary patterns

Develop new biomarkers of food intake and pattern adherence

Correlation of food intake and substitution

Investigate food substitution by statistical modelling

Investigate influence of energy adjustment in exploratory pattern analysis

Long term variability of intake

Repeat diet assessments

Investigate change in intake and subsequent risk

Varying scoring systems for defined food patterns

Investigate influences of scoring alternatives

Standardise scoring systems

Population specificity of exploratory patterns

Replicate pattern associations in independent study populations with varying dietary habits

Classification and grouping

Evaluate influence of food grouping on pattern structure

Standardise food grouping

Unclear contribution of individual components to pattern association

Systematically evaluate contribution of each component

of cardiovascular events was about 30% lower in the intervention groups than in the control group,²¹ and analyses of secondary endpoints support benefits for peripheral artery disease,²³ atrial fibrillation,²⁴ type 2 diabetes,²² and breast cancer.²⁵ The Mediterranean diet generally refers to a diet encouraging high intake of fruits, nuts and seeds, vegetables, fish, legumes, and cereals and limiting the intake of meat and dairy products. Moderate intake of alcohol and olive oil as a major fat source have also been considered key components.²⁶

Several other defined food patterns have been evaluated in terms of chronic disease risk. Indices measuring adherence to the Healthy Eating Index,²⁷ Alternative Healthy Eating Index,²⁸ and the Dietary Approaches to Stop Hypertension trial (DASH)^{29,30} have been associated with lower risk of cardiovascular events, cancer, and type 2 diabetes (see bmj.com).^{19,31} Table 2 shows the composition of these diets in comparison to the Mediterranean diet. Heterogeneity regarding the actual composition of these food scores exists between studies.¹⁹ Although these diets may be recommendable, only the Mediterranean diet has been shown both in observational studies and a randomised trial to lower disease risk.

Notably, none of the diet plans captures fully the known benefits or detrimental effects of single foods; for example, the Mediterranean diet has traditionally not focused on whole grains or red meat.³² Low fat dairy consumption is encouraged

in the DASH diet, but discouraged in the Mediterranean diet, although the evidence for limiting dairy is sparse.²⁹ The Mediterranean diet emphasises olive oil, whereas the DASH diet discourages intake of fats and the Alternative Healthy Eating Index refers to high polyunsaturated fatty acid intakes. Still, these data corroborate findings that increased adherence to dietary patterns that emphasise fruits, vegetables, whole grains, nuts, legumes, vegetable oils, and fish and minimise red meat, processed meat, and added sugars are associated with decreased risk of cardiovascular events, cancer, and type 2 diabetes.⁵

Lack of long term studies for many popular diets

The evidence base for other popular diets is less consistent. Vegetarian diets have been linked in prospective cohort studies to lower risk of diabetes,³³ heart disease, and cancer,³⁴ but few studies have evaluated vegan diets.³⁴ The food patterns of vegetarian and vegan diets are highly heterogeneous, making intra-study comparisons difficult. Exclusion of foods from animal sources may not necessarily result in high intakes of healthy plant based foods. The UK EPIC-Oxford study includes a large proportion of vegetarian and vegan participants, who have higher intakes of fruits, vegetables, legumes and vegetable oils than the UK population, but their intake is substantially lower than, for

KEY MESSAGES

- Food based prevention of chronic disease risk should prioritise fruits, vegetables, whole grains, and fish and lower consumption of red and processed meats and sugar sweetened drinks
- Higher consumption of nuts, legumes, vegetable oils, fermented dairy products, and coffee are further likely to confer benefit
- Evidence comes from prospective observational and intervention studies, each study design having different strengths and limitations. Both types of studies should contribute to the evidence base
- New analytical approaches are needed for nutrition research; eg, to account for measurement error, standardisation of exposure definitions, replication efforts, and the use of repeated dietary assessments

Table 1 | Associations between intake of foods and chronic disease risk based on published meta-analyses and reviews

Food	Cancer	Type 2 diabetes	Coronary heart disease	Stroke
Whole grains	↓ ¹⁴	↓ ^{11,12}	↓ ^{12,13}	
Vegetables	↓ ¹⁴		↓ ^{12,13}	↓ ^{12,13}
Fruits	↓ ¹⁴		↓ ^{12,13}	↓ ^{12,13}
(Fermented) dairy products	↓ ¹⁴	↓ ^{11,12}		↓ ¹²
Red meat	↑ ¹⁴	↑ ^{11,12}	↑ ¹³	↑ ^{12,13}
Processed meat	↑ ¹⁴	↑ ^{11,12}	↑ ^{12,13}	↑ ^{12,13}
Fish			↓ ^{12,13}	↓ ^{12,13}
Olive oil		↓ ¹⁵		↓ ¹⁶
Eggs		↑ ¹²		
Nuts		↓ ¹²	↓ ^{12,13}	
Cocoa/chocolate			↓ ¹⁷	↓ ¹⁷
Coffee	↓ ^{14,18}	↓ ^{11,18}	↓ ^{12,18}	↓ ^{12,18}
Tea		↓ ¹²	↓ ¹²	↓ ¹²
Sugar sweetened beverages		↑ ^{11,12}	↑ ^{12,13}	↑ ¹³

None of the diet plans captures fully the known benefits or detrimental effects of single foods

One challenge is the difficulty of identifying a control when evaluating foods or patterns

example, the Spanish population.³⁵ A plant based diet could potentially be unhealthy if it consists primarily of refined carbohydrates and processed foods.³⁶

We didn't find any systematic reviews on the long term health effects of other common diets, such as the paleolithic, Atkins, zone, Ornish, South Beach, or a gluten-free diets. Some recent evidence comes from individual prospective cohorts. A diet low in gluten among those without coeliac disease was associated with higher risk of coronary heart disease.³⁷

A paleolithic diet was inversely associated with mortality, although the link was weaker than for the Mediterranean diet.³⁸ The paleolithic diet shares several components of other healthy patterns (including high intake of fruits, vegetables, fish, and oils and low intake of foods with added sugar), but other aspects largely contradict evidence for single foods, specifically whole grains, legumes, and dairy.

Controversies and research gaps in observational studies

Evidence for the benefits of fruits, vegetables, whole grains, fish, nuts, legumes, vegetable oils, dairy, coffee, and tea—and for a lower intake of red and processed meats and sugar sweetened drinks—comes largely from observational studies, which have multiple limitations (box 1).

Potential and limitations of randomised trials

Randomised controlled trials are less prone to confounding bias and have the ability to control exposure



Table 2 | Key components of the Mediterranean, DASH (Dietary Approaches to Stop Hypertension), and Alternative Healthy Eating dietary pattern scores

Food	Mediterranean diet ^{26,32}	DASH ^{29,30}	Alternative Healthy Eating Index ²⁸
Cereals*	Encouraged	Encouraged (whole grain)	Encouraged (whole grain)
Vegetables	Encouraged	Encouraged	Encouraged
Fruits	Encouraged	Encouraged	Encouraged
Nuts, legumes	Encouraged	Encouraged	Encouraged
Fish	Encouraged	Encouraged	Encouraged
Meat†	Discouraged	Fatty meat discouraged	Red and processed meat discouraged
Dairy products	Discouraged	Encouraged (low fat)	-
Fats	Olive oil	Discouraged	Fat sources high in long chain omega3 and total polyunsaturated fatty acids, low in trans fatty acids
Sweets/sweetened beverages	Discouraged	Discouraged	Discouraged
Alcohol	In moderation	-	In moderation
Sodium	-	Restricted	Restricted

*Related to total cereals or whole grain cereals, depending on score. †Related to total meats or red and processed meats, depending on score. ‡Considered in some scores

differences between groups, allowing for quantification of dose-response relations. But randomised controlled trials testing dietary interventions are considerably more challenging than standard drug trials (box 2).⁶³

One challenge is the difficulty of identifying a control when evaluating foods or patterns.⁶⁴ If control participants do not receive a placebo or a comparative intervention, there is strong potential for expectation bias. Although active controls can be designed, such trials are difficult to blind.

Studies depending on dietary advice may not result in sufficiently large differences in consumption between intervention and control groups due to suboptimal compliance—this critique has been raised for large randomised dietary trials, such as the PREDIMED study.^{66,67} For large trials changing people's habitual patterns demands an unparalleled workload. In addition, the high costs of running long term intervention studies makes it unlikely that associations for multiple foods, food substitutions, and food patterns can be tested for hard outcome endpoints. Still, randomised controlled trials can support or refute observations using surrogate markers of disease. The DASH trial, for example, was a controlled feeding trial with a dietary pattern rich in fruits, vegetables, and low fat dairy products, which reduced blood pressure.²⁹ This could be extrapolated to a reduction in

cardiovascular event risk, although no randomised trial has been conducted to evaluate if the DASH diet affects incidence of cardiovascular disease. Surrogate markers such as blood pressure can be important mediating factors between food intake, food pattern, and disease risk.

Shorter term randomised trials are not only a tool to support (or refute) the biological causality of observations but can also be used to determine potential effect sizes. But the triangulation of evidence from different sources⁶³ might be difficult owing to the different timing and duration of exposures in long term cohort studies versus short term randomised controlled trials of intermediate endpoints, as well as the choice of diet sensitive surrogate markers.⁶⁸ Still, this approach is useful for the popular diet concepts for which evidence on their long term relevance for chronic disease prevention is currently lacking.

Matthias B Schulze, professor, German Institute of Human Nutrition Potsdam-Rehbruecke, Germany mschulze@dife.de

Miguel A Martínez-González, professor and department chair, University of Navarra-IdiSNA, Spain

Teresa T Fung, professor, Harvard T H Chan School of Public Health, Boston, USA

Alice H Lichtenstein, Gershoff professor, director and senior scientist

Nita G Forouhi, professor and programme leader, Medical Research Council Epidemiology Unit, University of Cambridge

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Box 2 | Limitations of randomised controlled trials on food intake and health

- Recruiting participants for long term changes to diets is difficult, and dropout rates are high
- Dietary advice and actual dietary consumption differ
- Identifying appropriate control diets is challenging, and treatment intensity between intervention and control arms may be imbalanced
- Blinding dietary interventions is frequently unfeasible
- Adherence problems limit the difference in exposure between intervention arms
- Long term interventions to investigate effects on chronic disease risk are costly

GP CONSULTATION CAP

High consultation loads are not safe for anyone

Having a general idea of a safe consultation load does not affect professional competence (Should GPs' daily number of consultations be capped?, 12 May). Think of it like a speed limit. Consulting has safe limits too, but doctors get used to thinking that they can cope with everything.

Data on burnout and from the increasing numbers of GPs accessing health lines show that this is not the case.

UEMO (the European Union of General Practitioners) surveyed countries that considered general practice workload to be reasonable and sustainable. Common factors included lower lists, shorter working days, and longer consultation times, but the strongest correlation was seeing fewer than 25 patients a day.

We at UEMO are not saying GPs should never see more than 25 patients in one working day.

We are saying that if GPs consistently and regularly see a high volume of patients in one day, it is not safe for doctors or patients.

Mary McCarthy, GP, Shrewsbury
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Learning from the Canadian experience

Both sides of the Head to Head debate on capping GPs' daily number of consultations (12 May) focus on urgent situations. Consultation caps are widely implemented in primary healthcare in Canada. Many walk-in clinics are available for patients who are unable to see their GPs urgently, but GPs may lose their bonus payment if their patients frequently visit such clinics.

Canadian-style consultation caps are a good idea for the NHS if

LETTER OF THE WEEK

Moral imperative to evaluate the effects of QOF

The Quality and Outcomes Framework (QOF) was introduced without proper evaluation of its effects. It has been abolished in Scotland and may be slimmed down in England without proper evaluation of its effects (This Week, 12 May). This cycle of ignorance is unfortunately typical in health policy. It is frankly immoral to conduct policy in this way. Because data collection is integral to QOF it lends itself to evaluation.

If QOF incentives are to be withdrawn for some indicators they should be withdrawn in general practices in some geographical areas and not in others—a cluster randomised controlled trial design. Data should continue to be collected on all indicators in general practices continuing under QOF and in general practices moving to a new system. This would allow the effects of QOF withdrawal to be evaluated. At the end of this process we would have better information on which to make a decision.

I suspect that this will not happen. Policy makers pretend to know that a policy works. Then they pretend to know it does not work. But the truth is that we don't know.

Tom Marshall, professor of public health and primary care, Birmingham

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three conditions are met.

The NHS must have more walk-in services to accommodate patients who need urgent appointments but are unable to see their registered GPs.

GPs should be encouraged to work extra shifts in walk-in clinics and be paid reasonable rates. This may reduce the work shortage crisis during weekends and evenings, and the workload of hospital emergency departments.

GPs can remove from their list patients who choose to frequently visit walk-in clinics instead of their registered practice.

Eugene Y H Yeung, medical doctor, Lancaster

Roxanna S D Mohammed, medical doctor, Ottawa

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Sexism on the cover?

The strapline of the cover of the 12 May issue was "Time to cap the number of patients a GP sees each day?"

I think we should all take a leaf out of Andy Murray's book and call



out casual sexism when we see it.

Is the picture on the front cover really representative of a GP waiting room?

Why do all of the women have short skirts?

Do other readers have a problem with this image? Or is it just me?

Oliver E Gosling, consultant cardiologist, Taunton

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DISEASE SEVERITY

Classifying severity of disease is essential

I agree with McHugh that apparently mild symptoms can have a devastating effect on the quality of life (What Your Patient Is Thinking, 12 May). Dealing with this is critical in any doctor-patient relationship.

But I am uncomfortable that disease severity should not be classified and treatments be discussed without referring to a scale.

Legally, not discussing severity compromises informed consent.

Medically, daily clinical practice in all specialties entails objective categorisation of diseases and pre-diseases into groups such as mild and severe. For example, risk needs to be categorised in discussing anticoagulation for atrial fibrillation and adjuvant chemotherapy for breast cancer.

Comparing a patient with the general population is not only inevitable but also essential as it can act positively too. Patients with low risk, grade 1 prostate cancer are reassured that their life expectancy is likely to match that of their peers, thus avoiding unnecessary overtreatment of their cancer.

Santhanam Sundar, consultant oncologist, Nottingham

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PRIVATE GP SERVICES

We are not parasites but take some of NHS burden

McCartney rightly warns about online private GP services advertising "Get antibiotics online" and the difficulty in doing a proper clinical examination remotely (No Holds Barred, 12 May). However, the NHS has so much to do that it would be impossible to improve services so that private GPs are no longer needed. We take some of the burden off the NHS, so to describe us as "parasites" is a bit strong. We look after chronic illnesses and complex health issues.

I cannot enable queue jumping into the NHS since I am not allowed to refer to NHS consultants. I would be surprised if other private services were able to do this. Similarly, we rarely prescribe drugs of potential misuse. I would support any NHS GP who declined to continue their long term prescription on the basis of a private consultation, and I would not ask him or her to do so.

Laurence S Gerlis, private GP, London
Cite this as: BMJ 2018;361:k2557

OBITUARIES

Geoffrey Francis Norris

Geoffrey Francis Norris (b 1934; q 1959; MBE, MA, FRCGP), died owing to the lasting effects of successfully treated non-Hodgkin's lymphoma on 20 February 2018



In 1963 Geoffrey Francis Norris ("Geoff") and four other doctors established the Handsworth Avenue Health Centre in Highams Park, East London. He was also police surgeon, trainer to 25 registrars, member of an accident and major incidents unit, clinical assistant in several disciplines at various hospitals, part time senior lecturer in general practice at the Royal Free Hospital School of Medicine, and GP tutor at Whipps Cross Hospital. In 1997, he received an MBE for services to medicine. After leaving Handsworth Avenue Health Centre in 1997, Geoff continued as a part time GP at several East London practices. His last surgery was on 29 January 2014, marking 51 years in general practice. He leaves his wife, Margaret; two children; five grandchildren; and one great grandson.

Paul Norris

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James Lechler Duck

General practitioner and GP trainer Castle Douglas Medical Group; sports physician Stewartry Sports Medicine Clinic (b 1952; q Edinburgh 1976; FRCGP), died suddenly on 27 July 2017



James Lechler Duck ("Jim") worked as a general practitioner in Castle Douglas in Dumfries and Galloway. He became a GP trainer in 1988, and a legion of doctors in the area benefited from his knowledge, zeal, and compassion. His faith underpinned all aspects of his day to day life as a GP, and in the latter stages of his career he spent time working with refugees abroad. Jim's passion for sport motivated him to set up the Stewartry Sports Medicine Clinic and to work at the Glasgow Commonwealth Games in 2014. Jim died unexpectedly while out running with his dog. His wife of 39 years, Judi, died in February 2018. Jim and Judi leave three children and three grandchildren.

Katherine Taylor

Cite this as: *BMJ* 2018;361:k2058

Qudratulla Omar Khan

General practitioner Preston (b 1948; q 1974; DObst, DRCOG), died from a myocardial infarction secondary to longstanding diabetes and hypertension on 26 November 2017

Qudratulla Omar Khan was a devout Muslim, whose work brought respect from different faiths and communities. The sixth of eight siblings, he was born in Dar es Salaam, Tanzania. He passed the Cambridge University examinations for overseas students at Azania Secondary School. He qualified in medicine from JJM College in Davangere, affiliated to Mysore University, India. Internships took him to the Isle of Wight and Dewsbury, before he established roots in the north west of England. He attained full GMC registration in 1981. He was dedicated to his family, friends, and professional and social work. He took over a failing general practice and devoted his energy to charitable organisations at home and abroad. He married in 1978 and leaves his wife and three children.

Faheem Shakur, Akbar Khan, Khalid Khan

Cite this as: *BMJ* 2018;361:k2069

David Bell

Consultant in public health medicine Tayside, Argyll and Clyde and Highland Health Boards (b 1942; q Durham 1966; MSc (comm med), MFCM, MFPHM, FRCPE, MBA), died from metastatic poorly differentiated gastric adenocarcinoma on 17 April 2018



After house jobs, David Bell worked in general medicine, endocrinology, renal medicine, and general practice. He was senior registrar in rheumatology at Edinburgh's Northern General Hospital. David was chairman of the Hospital Junior Doctors Committee of the BMA and of the collegiate members' committee of the Royal College of Physicians of Edinburgh. He helped coordinate Lothian board's response to the new threat of HIV infection. Having retired from the NHS at the age of 69, he continued to be active in Argyll and Bute, representing the interests of service users. He leaves his wife, Anne; a son; a stepdaughter; and four grandchildren.

Anne Bell

Cite this as: *BMJ* 2018;361:k2168

Helen Mary Godwin

Head of the Department of Family and Community Practice, Parirenyatwa Hospital, Harare, Zimbabwe (b 1925; q St Bartholomew's 1954; MRCS, LRCP, FCPCPZ), died from complications of pneumonia on 16 March 2018



Helen Mary Godwin was part of the first intake of female medical students to train at St Bartholomew's in 1947. After qualifying, she emigrated to Zimbabwe (then Southern Rhodesia), and soon became the government medical officer for a large swathe of the rural eastern highlands along the Mozambique border. She ran a network of clinics, a leper colony, and a tuberculosis sanitarium, as well as conducting police mandated postmortem examinations and mass vaccination campaigns. Later she worked at the country's biggest hospital, Parirenyatwa, in the capital, Harare, her last position before retirement. She leaves two children and four grandchildren.

Georgina Godwin

Cite this as: *BMJ* 2018;361:k2068

Donald Eccleston

Professor of psychiatry Newcastle upon Tyne (b 1931; q Aberdeen 1957; PhD, DSc, FRCPsych), died suddenly at home on 18 March 2018



Donald Eccleston ("Don") was among the first to elaborate a hypothesis of depression that argued for a role of monoamines in the regulation of mood, and who translated his experimental observations into treatment for patients with refractory depressive disorders. He devised the "Newcastle cocktail," a pharmacological strategy that offered a window of opportunity through which cognitive behaviour therapy and intensive nursing care could be directed to reduce the secondary handicaps of chronic depression. Don set up his own research unit and established what was to become the longest standing inpatient unit for the treatment of resistant depression in the UK. He retired in 1995. He leaves his wife, Mo; three children; and five grandchildren.

Ian McKeith

Cite this as: *BMJ* 2018;361:k2054

Roger Gilbert Bannister

Innovative neurologist and the first athlete to run a mile in under four minutes

Roger Gilbert Bannister (b 1929; q 1954; CH, CBE, MSc Oxf, MA Oxf, MRCS Eng, DM Oxf, FRCP Lond), died from pneumonia on 3 March 2018

Roger Bannister was the first athlete to run a mile in under four minutes, a feat some thought impossible in 1954, when Bannister was a 25 year old medical student. But his subsequent achievements mattered to him more.

He became a consultant at 34, was a groundbreaking neurologist, and in the 1970s led the fight against drugs in sport, developing tests for anabolic steroids as head of the Sports Council. He was knighted in 1975 and made a Companion of Honour in 2017. But he was never spoilt by fame, say those who knew and worked with him.

Autonomic research

Bannister specialised in understanding and treating disorders of the autonomic nervous system, which controls all the body's automatic functions—such as heartbeat, blood pressure, and digestion. Neurologist Dafydd Thomas, professor emeritus of clinical neuroscience at Imperial College London, said, “I think his main contribution came from examining the border zone between neurology, diseases of the nervous system, and problems with the control of circulation.”

Bannister founded the Autonomic Research Society and edited *Autonomic Failure: A Textbook of the Disorders of the Autonomic Nervous System*, the study “bible” for postgraduates.

Bannister won a scholarship to Exeter College, Oxford, and started studying there in 1947. He was 17 and younger than many in his year who had been in the forces and at war. In 1951, he started training at St Mary's Hospital Medical School.

Athletic achievements

Having shown early athletic talent, Bannister pursued athletics alongside clinical work, as he also researched how the brain controls and regulates

breathing. “I was able to coordinate some factors that I knew about because of my running,” he once said. It was the amateur era, but Bannister's approach to training, although confined to lunchtimes and skipping the odd lecture, was quite advanced. He broke the mile record in Oxford on 6 May 1954 at the Iffley Road cinder track, which he had helped to develop as an undergraduate.

Bannister retired from competitive sport after becoming the 1500 m European champion in 1954. He said his sporting fame was a “grave disadvantage for 10 years” because people in academia tended to “look down their noses at sport.”

He chaired the Sports Council from 1971 to 1974 and was president of the International Council for Sport and Physical Education from 1976 to 1983.

National service and career

In 1957, three years after qualifying and two years after marrying Moyra Jacobsson, an artist, Bannister was called up for national service. During his posting to Aden with the Royal Army Medical Corps, he was asked to look into why some apparently healthy soldiers were dying. He found they were dehydrated and, if they developed a febrile illness, became dangerously hyperpyrexial. The army accepted his recommendations—in his first *Lancet* paper—that the troops needed adequate fluids, salt tablets, a period



Tributes have cited Bannister's likeable manner; the way he inspired students; and the wise counsel he gave colleagues

of acclimatisation, and prompt treatment in the field.

Bannister embarked on neurology training at the National in 1959, and in 1963 was appointed consultant neurologist to the National, St Mary's, and the Western Ophthalmic Hospital.

In 1985 he became master of Pembroke College, Oxford, where he was seen as an “extremely effective and unifying” administrator. He was a trustee and later chair of the St Mary's Development Trust from 1994 to 2006.

Many tributes have cited Bannister's likeable manner; the way he supported and inspired students; and the wise counsel he gave colleagues.

In recent years he developed an extrapyramidal condition, diagnosed as Parkinson's disease. But, ever the questioning scientist, he challenged the diagnosis as it “didn't seem like Parkinson's to him,” says Thomas. “Perhaps it was a variant of parkinsonism, which a very athletic neurologist might later develop.”

He leaves his wife, Moyra; two sons; two daughters; 14 grandchildren; and one great granddaughter.

Matt Limb, Croydon
limb@btinternet.com

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Extrême candour from doctors is now fashionable. On social media and in the press and books doctors are willing to expose their vulnerabilities to all and sundry. Some write in the form of diary entries. A French expression comes to mind: *se metre à nu*—literally, to get naked.

Often, what doctors reveal is not the chiselled frame of Apollo or a callipygous Venus but the wart covered body of Mr Burns, the *Simpsons* character. Thus an exasperated doctor rants against a rude patient, another describes with pathos how he cried after a shift, and yet another complains about the unfairness of the rotas and the effect on her personal life. All this readily accessible by members of the public—and there lies my concern with these displays of vulnerability.

It may be acceptable, even desirable, to open up in a private setting to let off steam, build rapport, communicate ideas, and instigate change. Settings might also include medical conferences, newsletters, journals, and books for clinicians. To open up to the general public is, however, a transgression of an important professional boundary, which should be crossed only with great caution.

This is not a new idea. In *Medical Ethics* (1803) Thomas Percival wrote, “A physician should cautiously guard against whatever may injure the general respectability of his profession,” and warned against airing controversial matters to the public, “as they can hardly fail to hurt the general credit of the faculty.”

In *Law and Ethics for Doctors* (1958) Stephen Hadfield, then assistant secretary of the BMA, remarked that “discussion of controversial medical matters is more suitable for the medical press.”

Justify your patients’ trust

In 2013 the GMC issued guidance on doctors’ use of social media. The guidance refers to a passage in the council’s *Good Medical Practice*: “You must make sure that your conduct justifies your patients’ trust in you and the public’s trust in the profession.” The GMC observed that “the standards expected of doctors do not change because they are communicating through social media rather than face to face or through other traditional media.”

Of course, doctors are human and hence flawed, but many people expect them to have a mental toughness and calm demeanour that set them apart

from most other groups. This image doubtless contributes to their high status and patients’ trust.

Lower public’s estimation

The trend for public outpourings of emotion by doctors sits uneasily with this image and may lower doctors in the estimations of the public. A doctor who writes about the dread of seeing a particular patient or crying after being verbally abused by a drunk patient in the emergency department is not showing mental fortitude but vulnerability. This may generate sympathy, even pity, but it hardly instils confidence.

It is like a boxer announcing that he is scared of his opponent, or a barrister telling her client she is petrified before entering court, or a pilot declaring her inability to sleep because of nerves before a long haul flight. Not every emotion need be shared with the world, however intensely felt or interesting it is to others.

The public has an appetite for glimpses of the private lives and thoughts of doctors. They demystify a profession that was once deemed blessed with magical powers: “Look! These doctors can sob, cry, whine, be fed up and embarrassed. They are fragile, just like the rest of us.”

This candour may have advantages, such as making doctors more “human” and gathering public support for certain causes, but those advantages may well be outweighed by the damage inflicted on the profession’s image, which some think has lost the lustre it enjoyed just a few years ago.

Whatever the social temptations for doctors to *se metre à nu*, they should keep their fig leaf in place when in the