comment

"Ideally, we'd have enough staff to stop being pulled in different directions" **DAVID OLIVER**
"Just an hour is a reminder of our reliance on receptionists' expertise" **HELEN SALISBURY**
PLUS Fear for Ukraine's healthworkers; we must not forget mental health

THE BOTTOM LINE Partha Kar

Clinical leadership needs a dose of realism

Review after review has concluded that one key weakness of the NHS is that it lacks strong leadership, especially clinical leadership. The NHS may have some good speakers and good motivators, but leaders able to deliver outcomes that matter to patients are thin on the ground.

Consider the basic question of what draws people to leadership roles. In general, rightly or wrongly, a few factors draw NHS consultants towards these roles: money, power and glory, and altruism.

Despite some exceptions, money isn't much of a driver, mainly because the rewards are pretty average. However, power and glory are a huge draw, and the NHS is awash with many such people. This doesn't diminish what they can offer: their passion is worth emulating, and there are examples of great care driven by these individuals. For them, glory—either for them or for their department—has been a major driver. I started my leadership journey because I wanted to make Portsmouth one of the best centres in the country. Time teaches you that a career position also leads to influence, thereby widening the scope of what one can change or affect.

Which brings us to altruism. For some people it will always play a significant part in attracting them to NHS leadership roles. The problem with altruism as motivation is that it's not necessarily sustainable. The NHS is astounding in its ability to ask those who do a bit more to do a bit more, one more time, and again one more time, for the patients. But every one of us has a limit—and an outside life. At some point the rubber band snaps, and you lose not just the power of that altruism but perhaps also those leaders from the workforce.

But the NHS needs clinical leaders, and it's running out of willing volunteers. Can leadership bodies find a way to tackle these challenges and deliver the leadership the health service needs? Or might a new group of leaders come up through the ranks, armed with the knowledge of what both success and failure look like?

At the moment, leaders spend too much time describing a shiny new world. That optimism needs balance. It needs realism. It needs stories of leaders failing, of how the first hurdle was the toughest, of how adversity is a part of NHS life, and of how a lack of resources impedes progress. Otherwise, in the face of the challenges of the real world, disenchantment quickly sets in, and you lose the people who have been inspired to take on leadership roles.

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The NHS is astounding in its ability to ask those who do a bit more to do a bit more

OPINION Elly Nott

Why I fear for the healthcare workers in conflict hit Ukraine

Syria's experience suggests targeting health services is a war tactic

For anyone who has paid attention to the Syrian conflict over the past 11 years, there was a grim predictability about the news that Russian cluster munitions had killed civilians, injured healthcare workers, and damaged a hospital and an ambulance on the first day of the Russian invasion of Ukraine.

Human Rights Watch has documented the use of cluster munitions—weapons that scatter large numbers of explosives over a wide area—by Russian and Syrian forces in Idlib. They have described how the "nature and scale of the airstrikes and ground attacks on civilians committed by the Syrian-Russian alliance during the Idlib offensive in 2019 to 2020 may amount to crimes against humanity."

Now, Russia appears to be pursuing military tactics honed in Syria in its assault on Ukraine, including indiscriminate bombing and besiegement of civilian areas, use of paramilitary forces, and disinformation campaigns. The assault on health has been one of the most striking features of the Syrian conflict. One of the most authoritative investigations was the *Lancet*-American University of Beirut Commission on Syria, which used the term "weaponisation" to describe the strategy of killing, incarcerating, or torturing hundreds of healthcare workers, and attacking scores of healthcare facilities.

A UN report in 2015 noted Syrian government forces instrumentalising basic needs, including access to medical care, "as part of a military strategy to…punish those perceived to be affiliated with armed groups."

Bombed hospitals

In this assault on health, the Syrian regime has been assisted by the Russian government. Despite international humanitarian law protecting medical personnel and facilities in conflict, many investigations have found that the Russian air force has repeatedly bombed hospitals. Physicians for Human Rights estimate that more than 923 healthcare workers have been killed directly during the conflict, more than 90% of them killed by the Syrian government and its allies—including Russia.

In 2020, Russia abandoned any pretext of respect for the Geneva Convention when it quit the UN deconfliction arrangement, which sought to protect hospitals and the distribution of humanitarian aid.

Humanitarian agencies must be granted access to those in need of aid

In response to the onslaught, hospitals in Syria moved underground and sought to keep their locations secret. Yet, despite the attempts to silence healthcare workers, they have been among the most outspoken and authoritative voices in Syria's war, articulating human rights norms and pricking the conscience of the world. Amani Ballour's hospital in Eastern Ghouta was shown in the film *The Cave,* and Waad El-Kateab's meticulous chronicling of the Syrian revolution and siege of eastern Aleppo was depicted in *For Sama*.

In Ukraine, healthcare workers are also moving their vital work underground. Maternity wards and paediatric units have been forced into underground bomb shelters, including children being treated for leukaemia at the biggest hospital in the capital, Kyiv. Oxygen, insulin, and cancer treatments are in short supply.

In Syria, the regime has successfully manipulated the flow of humanitarian aid. The need to create grassroots health systems sustained by cross border activity was not a result of opposition controlled areas being

OPINION Adrian James

Why has mental health been forgotten in the government's recovery plans?

Over the past few weeks, we've seen the publication of several major government strategies setting out plans for our recovery from covid-19. However, the lack of comparative action on mental health is increasingly worrying. In some respects, we seem to be moving backwards.

When the Long Term Plan was launched in 2019, its commitment to mental health was encouraging and marked an enormous step towards parity of esteem between mental and physical health. It promised a considerable increase in funding, pledging it would receive a growing share of the NHS budget, in real terms worth at least a further £2.3bn a year by 2023-24. Yet, in the face of an unprecedented increase in demand, including an over 80% increase in referrals for children and young people compared with 2019, plans for long term recovery have included almost no mention of mental health. As the Health

Mental health's share of the NHS budget has fallen from 11.1% to 9.9%

and Social Care Select Committee raised at the end of last year, there is still no clarity on whether any of the funding announced for the NHS last autumn will go to mental health, despite around £7.5bn of "recovery funding" being unallocated.

In this context, it's concerning to see that the overall proportion of the NHS budget going to mental health has fallen for three years running, dropping from 11.10% in 2018-19 to just 9.93% in 2020-21. While welcome efforts are made to ensure clinical commissioning groups' spending continues to grow as a proportion of their overall allocation through the Mental Health Investment Standard (MHIS), the tool isn't strong enough in isolation to ensure mental health isn't left behind as the NHS budget grows.

ARIS MESSINIS/AFP/GETTYIMAGES

geographically hard to reach or having access denied by armed groups, but because access was restricted by the government. This situation led the UN Security Council to pass resolutions first calling on all parties in the conflict to permit free access to humanitarian aid and then authorising aid to be supplied through four border crossings not controlled by the Syrian government.

If Russia is successful in occupying Ukraine, one concern is that it will seek to manipulate humanitarian aid in the same way Assad has in Syria. Healthcare workers must be allowed to move freely and humanitarian agencies granted access to those in need of aid.

Healthcare is a significant force, especially in conflict. Not only because it cares for wounded combatants but because, as Neve Gordon wrote, "it is essential for sustaining the social body…it enables society to continue functioning before, during, and after wartime."

As Putin's forces pursue their objectives in Ukraine, as they have for the past 11 years in Syria, the country has become a very dangerous place to be a healthcare worker.

Elly Nott, co-founder, David Nott Foundation

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A number of suggestions have been made to strengthen the MHIS but far greater action will be needed to ensure mental health gets the resources it needs. That includes amendments to the Health and Care Bill, but also a clear and properly funded recovery strategy.

The £500m invested in 2021-22 seemed to indicate an understanding of the pandemic's impact on mental health, but now risks being a sticking plaster in the face of the demand that will stretch far beyond the end of this financial year. As it stands, the mental health waiting list exceeds 1.5 million people, referral rates are still far above pre-pandemic levels, and estimates about the rising prevalence of mental disorders, particularly among children and young people, give us a sense of the challenge to come. Patients will invariably be the ones paying the price.

Adrian James, president, Royal College of Psychiatrists

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ACUTE PERSPECTIVE David Oliver

Interrupting doctors' work

Interruptions bedevil the work of hospital doctors. We practise much of our medicine standing up or sitting at desks, often in very public areas. Interruptions and distractions can become relentless.

Perhaps they're an inevitable and necessary part of acute care, and we have to learn to live with them. But I do worry about their impact on staff and direct patient care. We should at least try to reduce them.

When asked about the causes of their moral distress or burnout, staff often cite many competing demands, unhelpful work environments, and a lack of support. Research has also linked interruptions to clinical error and impaired patient safety, especially when we're engaged in tasks such as prescribing complex drug regimens.

Such interruptions arise from patients' needs, from their visitors and families, from phones or pagers, and from other healthcare staff. Some are essential for care and communication, where we need to stop what we're doing and help immediately. However, other interruptions could wait. Guidance on *Modern Ward Rounds*, led by the Royal College of Physicians and written with nursing and allied professional colleges, set out some of these ways—although many rely on adequate staffing, which we often lack.

One obvious area for mitigation is the expectations of visitors. Generally, these are family members and are often crucial to the patient's care. But with many visitors present at once it can be hard to do any clinical work without being overheard, overlooked, and often interrupted mid-task. This is different from speaking to a patient's family in the course of a round. Doctors can face demand from families of other patients, or from patients they don't know. Often, families have struggled to get any information or convey their concerns over the phone, so "doorstepping" medical staff is a reaction to this.

Much clearer public information and expectations about when and how to speak to clinical staff would help, and the ability to book timed conversations in quiet rooms off the ward or by phone could be a "win-win" for us, for patients, and for their relatives.

Conversations with clinicians from other teams who have come to see our patients are crucial and welcome. But other interruptions come from "progress chasers" repeatedly exhorting us to discharge patients (which we're already trying to do) or to rush out a DNACPR form for patient transport—which would ideally be organised well in advance.

There's also an issue that with such a high percentage of inpatients having dementia, delirium, or psychological distress, they will understandably call doctors over repeatedly for reassurance and support. Ideally, we'd have more trained care assistants to provide this contact, vigilance, and reassurance.

Even more ideally, however, we'd have enough nurses and assistants, and enough doctors and administration staff, to make everyone less likely to be pulled in different directions. We also need more closed spaces, to allow staff to get on with key work out of the public eye.

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When asked about causes of their burnout, staff often cite many competing demands and a lack of support

PRIMARY COLOUR Helen Salisbury

Valuing our reception teams

Occasionally I cover the practice reception for an hour to make time for staff training. People come to the desk needing appointments, prescriptions, new registrations, or information about a hundred other things while the phone rings incessantly.

By the time I gratefully hand back the reins, I have a long list of queries and tasks for the real receptionists to follow up on. This is always a useful reminder of the complexity of their job and how reliant the whole practice is on their expertise.

Their skills go beyond the technical and logistical: the receptionist is the first person a patient talks to when they walk in; the voice on the end of the line when they phone. They listen with gentle patience when people are muddled, respond in a calming tone when they're scared, and can produce just the right amount of firmness when people ring inappropriately on the emergency line—all cultivated over years of practice. They know what health issues might be urgent, and they handle patients who call the practice every day (or even several times a day) safely and sensitively. It's hugely helpful they know our patients—at least, the ones we see frequently—and that they're the first to notice when someone is unusually breathless on the phone or looks more unwell.

Small practices are getting rarer. The average list size has been growing steadily, from under 6000 patients in 2004 to more than 9000 in 2020. Some surgeries have closed, others have merged, and there seems to be an assumption that bigger is better. There's so much back office work in general practice, concerned with running a business and managing staff, that it's easy to see the attraction of larger units.

Working at scale can generate efficiencies and can bring flexibility, which is particularly useful when you're short of staff, both clinical and non-clinical. If your organisation works across many sites it makes sense to move people around to cover absences, and in future we may look at more shared working across practices in primary care networks.

However, we must be conscious of what we could lose with all of this growth and flexibility: the general practice as a place of safety for the patient, where they see familiar, friendly faces. This is particularly important for people who are anxious or confused, but most people given a choice would prefer to be seen locally by a team they know. The value of continuity in the patient-doctor relationship is well documented, but it may equally apply to the rest of the team, including receptionists.

This means that recruiting and retaining the right people should be a priority. It's time to re-evaluate this role, which is underappreciated and arguably underpaid for the complex skills it requires.

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We risk losing the general practice as a place of safety for the patient

LATEST PODCAST

No pill for homelessness

Is medical education teaching future doctors enough about the social determinants of health? This episode of Sharp Scratch discusses the question through the lens of homelessness.

Maz Sadler, a fourth year medical student who was homeless as a teenager, describes common misconceptions of homelessness:

"With homelessness, there's this societal stigma that they are people who just will not help themselves, who won't do what it takes to get out of that situation. But when you are homeless, your priorities completely shift. It took me a good five years to be able to move away from seeing each day as an individual unit that had no relationship to the rest of time because when you're homeless all you see is the day in front of you. You just see, 'Where am I going to get food today?' 'Am I going to be able to have a shower today?' If you're female, 'Am I going to be able to get tampons?' It's very much a survival mindset."

Andrew Moscrop, a GP at a practice that works with people who are homeless, describes how doctors might factor in someone's situation into their management plan:

"If they're homeless on the street, there's all sorts of ways in which that might impact how I choose to treat them. I don't give them 56 tablets of whatever medication it is because they've got nowhere to put it. At the same time, those sorts of ways in which we accommodate someone's social circumstances into our management plan—while really helpful for the individual—I think to some extent it is slightly accepting of the status quo and are we OK with that? If I'm not, then I don't think it's enough for me just to practise in a way that recognises it, but also to advocate for some kind of change."

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Edited by Kelly Brendel, deputy digital content editor, *The BMJ*

ANALYSIS

Adherence in drug contracts tied to outcomes: put patients first

Theodore Bartholomew and colleagues

examine how linking payments to effectiveness may affect patient trust and autonomy

KEY MESSAGES

- Outcomes based contracts seek to align payments for drugs with their real world outcomes and are gaining traction worldwide, including in the UK
- The contracts raise novel issues for patients as medication adherence may affect the revenues of manufacturers and costs to the health system
- Adherence is a complex issue, and monitoring technologies may exacerbate tensions created by the contracts between patients and financial outcomes
- Patient centredness and transparency must be prioritised in the development of contracts and any use of adherence monitoring technologies

Healthcare payers, including NHS England,[1] are making increasing use of outcomes based contracts for new drugs.[1 2] Under these contracts payment for drugs is tied to real world effectiveness instead of a fixed price per unit.[3] A typical agreement might entail a manufacturer either wholly or partially refunding drug costs if the agreed outcome threshold (cure, reduction in mortality, biochemical outcome) is not met. Although these contracts can facilitate access to new drugs when cost effectiveness is unclear, they present challenges with measuring outcomes and have potential for political and commercial conflict of interests.[3-5]

Patients' adherence to drugs attains new importance in outcomes based contracts. Manufacturers may argue that suboptimal adherence is responsible for a poor outcome rather than ineffectiveness whereas payers may argue the opposite. Medication non-adherence is widespread with rates of up to 50% reported in hypertension, diabetes, asthma and cancer, and the reasons for it are complex and poorly understood.[6-8] One way to help assess whether outcomes reflect effectiveness is to include a requirement for adherence monitoring in outcomes based contracts. This has clear measurement advantages for both manufacturer and payer, but whether it is in the interests of patients is unclear. We consider how outcomes based contracts and adherence monitoring might affect patients within a nationalised health system such as the NHS.

Use of outcomes based contracts

The confidential manner in which drug contracts are negotiated[9] has obscured the emergence of outcomes based contracts globally. The first publicly disclosed contracts were in the US in the mid-1990s.[2] In one example, Merck refunded up to six months of prescription costs (to both patient and payer) if simvastatin plus diet did not lower cholesterol to target levels.[5] In England, North Staffordshire Health Authority agreed a similar contract with Parke-Davis (Pfizer) in 2000.[10]

The first national outcomes based contract in the UK was for four multiple sclerosis drugs. Patients were monitored using a clinical disability score and the price was adjusted to achieve a cost per quality adjusted life year (QALY) of £36 000 or less, effectively leveraging the contracts to close data gaps.[11] More recently, NHS England has implemented a "pay per cure" contract for drugs to treat hepatitis C in which the manufacturer is paid only if the patient has a sustained viral response (table).[13] NHS England has stated that a "series" of outcomes based contracts have been agreed in recent years, although few have been publicly disclosed.[1] Greater Manchester Health and Social Care Partnership has also said it intends to introduce them for cancer drugs when the NHS and manufacturers struggle to agree a price.[14] Use of outcomes based contracts across Europe and the US is expected to increase as the contracts have potential benefits for both payers and drug companies.[2 15]

Table 1 | Examples of outcomes based contracts in the UK

Condition	Manufacturer(s)	Drug(s)	Year	Outcome agreement
Hypercholesterolaemia	Parke-Davis (Pfizer)	Atorvastatin	2000	Manufacturer agreed to rebate North Staffordshire Health Authority if threshold percentages of defined patient cohorts did not achieve target cholesterol levels[10]
Multiple sclerosis	Biogen, Bayer, EMD Serono	Interferon beta	2003	Price adjustments made at intervals to achieve an agreed cost per QALY of £36 000 or less[11]
	Teva	Glatiramer acetate		
Multiple myeloma	Johnson&Johnson	Bortezomib	2006	Manufacturer reimburses NHS for the first four cycles if there is no response to treatment (defined as 50% decrease in serum M protein)[5]
Psoriasis	Novartis	Secukinumab	2017	Participating NHS trusts are provided with an (undisclosed) rebate if Psoriasis Area Severity Index score is not reduced by >90% after 16 weeks of treatment[12]
Multiple sclerosis	Merck	Cladribine	2017	Undisclosed[1]
Hepatitis C	Gilead	Ledipasvir-sofosbuvir (Harvoni) Sofosbuvir-velpatasvir (Epclusa)	2018	NHS only pays for medication if a patient is cured (sustained virological response at ≥12 weeks after treatment completion)[13]
	Merck, Sharpe and Dohme	Elbasvir-grazoprevir (Zepatier)		
	AbbVie	Glecaprevir-pibrentasvir (Maviret) Ombitasvir-paritaprevir-ritonavir (Viekirax) Dasabuvir (Exviera)		

Payers such as NHS England are primarily interested in using outcomes based contracts to more tightly control a drug's costs relative to its outcomes, and to provide access to expensive drugs when there is uncertainty about effectiveness and affordability.[9 14] In theory, the contracts allow additional outcomes data to be gathered so that the drug can be priced according to its real world value.[14]

For manufacturers, one attraction of these contracts is that they can help show their product's effectiveness over competitors.[9] There are concerns, however, about being held accountable for outcomes given manufacturers lack of control over how a medication is prescribed or taken.[9] In one publicly disclosed US contract, a payer was given additional discounts if administrative data showed that diabetes patients had been adherent, although specific stipulations were not disclosed.[3] As contracts are usually confidential, it is difficult to determine how often adherence is tied to payment, but this is unlikely to be the only example.

Adherence monitoring

Adherence has previously been defined as "the extent to which patients take medications as prescribed."[16] Newer conceptualisations of adherence, however, recognise its complexity by appreciating the need to consider both multilevel (regimen, patient, provider, health system) and multidimensional (initiation, implementation, and persistence) factors.[7-17] There is no single ideal measure of adherence, and no universally accepted threshold for defining adherence.[16 18] However, it is important to capture subjective measures (those that evaluate a patient's beliefs and explanations) alongside objective measures (those that capture a record of medication use) in any assessment.[18]

Health systems routinely record many metrics (eg, blood pressure, obesity),[19] yet adherence is not recorded and may only be informally checked by clinicians. Recently, multiple technologies have emerged that monitor adherence remotely (box).[20] Evidence on the acceptability of adherence monitoring technologies and their ability to improve patient outcomes is typically poor.[21-25] The effectiveness of different methods to improve adherence varies and depends on disease area studied and the resources allocated.[21-25] Although their utility and cost effectiveness remain unclear, these technologies are of particular relevance to outcomes based contracts.[26 27] Remote monitoring may provide greater accuracy than, for example, pharmacy dispensing reports, which the NHS currently uses to monitor treatment completion in patients with hepatitis C.[28]

Implications for patients

Patients have a clear interest in their health. Whether a patient wishes or is able to be adherent depends on numerous complex factors, many of which are grounded in the relationships they have built with their medical teams and the communication between those teams.[7 17] Patients, however, often cite forgetfulness as a factor, and find adherence more challenging the more frequently a medication has to be taken.[7 26] Typically, adherence is high for patients with acute conditions but drops steeply for chronic conditions after six months of treatment.[26] Consequently, if patients choose to use adherence monitoring as part of a shared decision making process, it may support them to act autonomously.[29] Conversely, monitoring (particularly objective monitoring alone, which simplistically measures adherence as a number without understanding the barriers a patient may face to being adherent) may increase responsibility on patients in ways that offer no or marginal additional benefit and undermine, rather than support, their interests.

Remote adherence monitoring technologies

Text messages/electronic diary
- Provider prompts patient by text message or electronic diary
- Patient reports adherence by text message or electronic diary

Signalling bottle
- Pill bottle flashes light when pill should be taken
- Pill bottle automatically sends a message to a computer/smartphone each time the cap is removed
- Computer or smartphone records whether or when pill bottle was opened

Video check (with healthcare professional)
- Professional observes patient taking pill using video platform
- Professional records whether or when pill was taken

Video check (automated)
- App with facial and pill recognition capability analyses patient through smartphone camera
- App records whether or when pill was taken

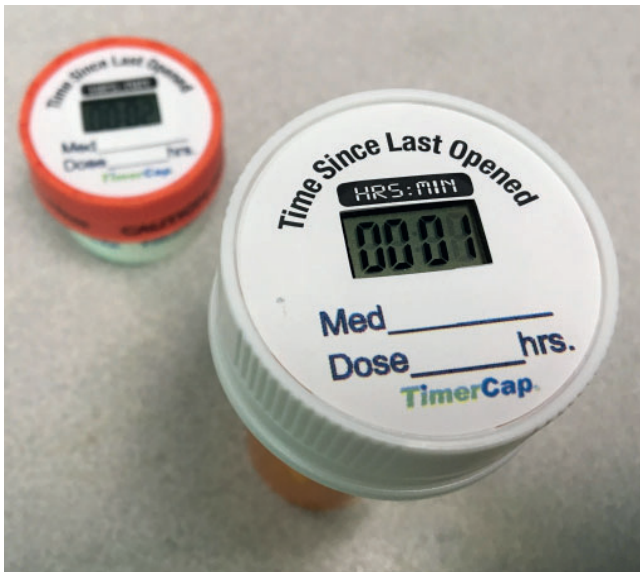
Signalling pill
- Sensor is embedded within a pill
- Smartphone app reminds patient when pill should be taken
- When pill reaches stomach, signal is sent to a receiver which relays information to a smartphone recording when pill was taken

Expectations to use adherence monitoring could undermine voluntariness or even become coercive

Patients have many reasons for not taking their medications.[7 17] Side effects, for example, are a major predictor of non-adherence because they reduce quality of life.[26] Adherence may also depend on the drug's perceived benefit. While adherence monitoring may help improve clinicians' understanding of side effects,[30] patients may feel uncomfortable if monitoring causes them to be labelled in an unqualified manner as "non-adherent."

Concerns also exist about whether adherence monitoring may unduly restrict patient liberty and autonomy.[29 31] Expectations to use adherence monitoring could undermine voluntariness or even become coercive if, for example, a patient is concerned that non-use will harm the relationship with their physician. Another concern stems from tying financial rewards or penalties to adherence. The NHS does not presently allow financial penalties, but incentives have been trialled, for example, in smoking cessation and weight loss programmes.[32 33] Providing financial incentives to patients could compromise consent, particularly for patients from marginalised groups for which incentives could have disproportionate leverage.[34]

Others may have concerns that their confidential information might be sold to third parties and potentially linked back to them.[30] Further testing in clinical practice is required to understand fully the acceptability of adherence monitoring, but patients have already raised concerns about how it may affect face-to-face contact time, confidentiality, and difficulties using the technologies.[35 36]



Measurement of physiological or biochemical marker

- Measurement of physiological markers (eg, heart rate or blood pressure)
- Measurement of biochemical markers (eg, blood glucose monitoring)

Societal perspective can influence personal responsibility

An important consideration from the societal perspective is the patient's moral (and in some cases, legal[37]) obligations to consider how non-adherence may affect the health of others. Public health risk, for example, is the justification for using directly observed therapy in some patients with tuberculosis.[37] The international response to the covid-19 pandemic shows that public health can motivate obligations that go far beyond the individual.[38] In principle, the case for using adherence monitoring on public interest grounds strengthens as risk of harm to others increases. Yet, it also increases healthcare professionals' obligations to communicate with patients about the reasons why adherence may be important, which is difficult to do properly with limited consultation time.

Within a nationalised health system such as the NHS, there is a societal expectation that the public should use collective resources responsibly, such as by keeping their appointments.[39 40] In England, these responsibilities are set out in the NHS Constitution, which states: "Please follow the course of treatment which you have agreed, and talk to your clinician if you find this difficult."[39] Yet, this appeal also extends the other way, leading citizens to hold expectations about their treatment and how, for example, their data should not be used for profit. Societal expectation could extend to medication non-adherence, given its opportunity cost (health gains forgone) is estimated to be more than £500 m annually in the UK.[41] This, however, must be considered carefully alongside the wide ranging and legitimate reasons that patients may have for not taking their medications.[7 17]

Patients, society, and health providers have a right to greater involvement in how these contracts develop and are negotiated

Risks to patient-provider relationship and health system

Critically, adherence monitoring seems likely to affect one of the fundamental tenets of healthcare: the patient-provider relationship. The interactions between professionals and patients are already highly variable, and trust can be eroded if medications do not have desired consequences, if professionals fail to communicate effectively, and if the patients have concerns about being taken advantage of.[42]

Combining outcomes based contracts with adherence monitoring is likely to have unpredictable consequences. Physicians, for example, may exert implicit or explicit pressure on patients to use adherence monitoring to gain insights into how they take their medications. Behaviours may also be influenced by the amount of public information available for each contract, including knowledge of the potential financial implications of non-adherence. Both NICE and the Association of the British Pharmaceutical Industry (ABPI) acknowledge that all relevant information about drugs being appraised should be put in the public domain.[43] However, clinical and economic data of importance to patients, clinicians, and researchers are often redacted.[44] Contractual stipulations relating to adherence monitoring and the effect of non-adherence on reimbursement are of direct relevance to patients, the public, and health system and should therefore be in the public domain.

Patient centred approach

Use of outcomes based contracts is likely to continue to increase, driven by the commercial interests of manufacturers and the economic interests of payers to limit the budgetary impact of high cost drugs. Patients, society, and health providers—particularly in a nationalised system using collective resources such as the NHS—have a right to greater involvement in how these contracts develop and are negotiated. This process should begin with the creation of a new transparency agreement between ABPI and NICE that is co-developed with patients. Additionally, we echo calls for the regulation of data transparency in drug appraisals.[44]

The importance of using both subjective and objective adherence monitoring must be recognised, as well as a more nuanced appreciation of the multilevel and multidimensional nature of non-adherence. The effect on patients who are reluctant to use adherence monitoring must also be considered.

The effects on behaviour and patient-provider relationships are likely to vary considerably according to disease characteristics, patient population, and the transparency with which contracts have been negotiated. Patient and public expectations will also be different across nationalised, privatised, and insurance based health systems, and will vary according to cultural and societal contexts.

Wider debate and more qualitative research needs to be undertaken with patients, healthcare professionals, and policy makers on outcomes based contracts and adherence monitoring to understand acceptability and feasibility. Both adherence monitoring technologies and the contracts they are meant to support will fail if they are not created in partnership with patients and with patient centredness as the overarching goal.

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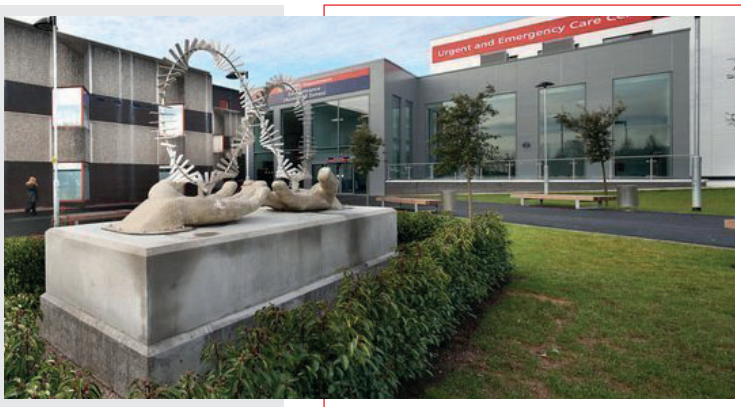
LETTERS Selected from rapid responses on bmj.com

LETTER OF THE WEEK

Subsuming general practice into hospitals is a red herring



Limb's article on the government's plan for hospitals to employ more GPs conflates two separate issues (News Analysis, 12 February). One is whether a preferred model of GP contractual status—employed or self-employed—might influence recruitment; the other is the development of a system of health (and social) care that safely reduces hospital occupied bed days.

To suggest that GPs employed by hospitals "protect" the acute sector is simplistic but might be politically appealing, as it would bring general practice, like the rest of the NHS, under direct control of the secretary of state. Employed status might be an attractive option for salaried doctors who have little interest in the management of a business, and failing practices can be taken over by a community or acute trust.

Business support (human resources, finance, strategic development, and so on) for clinical services is hugely variable across practices and has been largely neglected in many cases. The development of primary care networks could, if properly supported, provide the economies of scale necessary to provide professional business management to practising clinicians to do what they are trained to do, whether as self-employed or salaried doctors.

Admission avoidance is a completely different matter and is best achieved by strengthening out-of-hospital care by the functional integration of primary and community services working alongside social care and public health.

Subsuming general practice into the acute side of the NHS merely perpetuates and accentuates the imbalance between hospital and non-hospital funding and is a red herring no matter how politically attractive.

John R Hughes, GP, Havant

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PLANS TO MAKE GPs HOSPITAL EMPLOYEES

Moving care away from hospitals

As a senior GP who has been a partner for over 25 years, my knee jerk response to Sajid Javid's plans to "nationalise general practice" was dismay and grave concern for the future of a role that I have found so rewarding.

Limb's thoughtful article has made me reflect on the opportunities that vertical integration of primary and secondary care might offer GPs in training (News Analysis, 12 February). Many of the colleagues I support during their learning are interested in portfolio careers, developing special interests and skills over what will be a longer working life than I intend.

We need to move care away from hospitals into the community, which will be helped by improved near patient diagnostics and the use of digital health to empower patients. Co-produced, properly funded, vertical integration, with care being delivered by a single clinical community, could have great benefits for clinicians and patients.

Simon V Rudland, GP and honorary senior lecturer, Woodbridge

Cite this as: *BMJ* 2022;376:o611

We need engaged GPs

Sajid Javid's suggestion that GPs should be employed by hospitals has caused anger (David Oliver, 5 February). We assume that partnership drives us to run our practices and the wider system, whereas salaried practice is often sold as "no management commitment," with minimal involvement in wider development.

We need to create an environment in which salaried GPs are trusted and supported to run practices and develop services, without the financial risk that frightens younger GPs. The government might gain more support if suggestions of salaried systems came with the acknowledgment that engaged GPs can deliver services in an efficient and patient centred way. Just as they have for decades.

We need more GPs, but if they are not engaged, we will still have our usefulness questioned by government, managers, and patients. How we encourage engagement in an evolving landscape of work patterns, personal expectations, and financial constraints is where the conversation should be.

Sandy Rough, GP, Aberdeen

Cite this as: *BMJ* 2022;376:o642

DIKTATS AND HOSPITAL BEDS

The NHS is being bullied

We are being bullied through diktats issued by NHS England and NHS Improvement and delivered by management (David Oliver, 12 February). My employer's Dignity at Work Policy includes the concept of being deliberately set up to fail at a task as bullying.

We are trying to do our job without being provided with the tools of our trade—beds and staff. We are tasked with "discharging more patients" while being told that we are "failing to meet hospital discharge targets." But how should we discharge vulnerable patients with ongoing care needs? They need a place of safety, and no one can tell us where that place is.

To evolve and survive, a system must adapt to new demands and change. Repeating the same behaviour and expecting the outcome to be different is the antithesis of evolution.

It takes courage to stand up and challenge outdated ineffectual yet established practice.

Emily L Russell, consultant acute medicine (less than full time training), Norwich

Cite this as: *BMJ* 2022;376:o645

HEALTH OF ASYLUM SEEKERS

Community alternatives to immigration detention

Besana and colleagues describe the likely consequences of the Nationality and Borders Bill for asylum seekers (Opinion, 20 January; Letters, 12 February). The bill would also expand indefinite immigration detention and permit the use of offshore detention.

A government funded pilot found qualitatively better health outcomes from a community alternative to detention for women refused asylum, without any non-compliance with immigration procedure. In the early stages of the covid-19 pandemic, several hundred migrants were released from UK detention centres and almost no new detentions took place. No adverse consequences regarding immigration control were reported, demonstrating the feasibility of detaining fewer people. Community alternatives in Bulgaria, Cyprus, and Poland have proved highly cost effective.

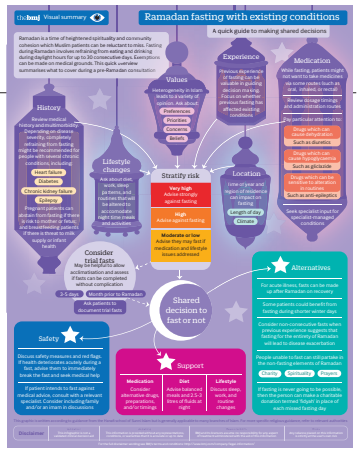
If community based models are sufficient for migration management, then the only purpose of indefinite immigration detention would be to contribute to the UK's "hostile environment." Medical bodies should campaign for the expansion of humane community alternatives.

Lauren Z Waterman, specialty trainee year 6 psychiatry, London; Mishka Pillay, trustee and lived experience campaigner, Freedom from Torture; Piyal Sen, medical director and consultant forensic psychiatrist, Chadwick Lodge and Eaglestone View; Grace Crowley, core trainee year 1 psychiatry, London; Andrew Forrester, professor of forensic psychiatry, Cardiff; Cornelius Katona, medical and research director, Helen Bamber Foundation

Cite this as: *BMJ* 2022;376:o458

ADVISING PATIENTS ABOUT FASTING DURING RAMADAN

Empowering Islamic leaders to have health conversations



Mahmood and colleagues write about advising patients with existing conditions about fasting during Ramadan (Practice Pointer, 12 February). I like the shared decision making that they articulate. But are we, as doctors, the right people to tell others what parts of their faith they should and should not practise?

Faith leaders have been pivotal in supporting people make the decision of whether to get the covid-19 vaccine. Imams were ambassadors for the vaccine, and mosques hosted pop-up centres. Those initiatives saw an exponential increase in vaccination for certain ethnic groups.

Doctors might not be the most trusted voice in every matter about health. Take it from a doctor whose Muslim father, with several of the high risk comorbidities mentioned in the article, would rather die in Ramadan than not fast.

If we want Muslims to practise a safe Ramadan, we should empower Imams and Islamic leaders to have these conversations.

Jahangir Alom, clinical lead, Staff Vaccination Programme, NHS England and NHS Improvement

Cite this as: *BMJ* 2022;376:o624

OMICRON SUB-LINEAGE BA.2

Genome surveillance of SARS-CoV-2 variants

Whole genome sequencing has been crucial in studying the evolution and genetic diversity of SARS-CoV-2 during the pandemic. The alpha variant was found to result in an undetectable S gene on PCR (S gene target failure (SGTF))—a feature of considerable diagnostic value. SGTF has been suggested to be a proxy for the omicron variant too.

Now the omicron lineage is thought to be split into two sub-lineages. One of these (BA.2) does not carry the del69-70 mutation in the spike region, and recently sequenced cases have not been flagged by SGTF. The UK Health Security Agency has expressed concerns over this new "stealth" sub-lineage (This Week, 5 February), which also seems to be more transmissible.

The rapid evolution of variants and sub-lineages, and the unfolding data regarding their genetic profiles, need to be incorporated into our diagnostics tools if we are to succeed in overcoming SARS-CoV-2.

Vishal Rao US, dean; Gururaj Arakeri, professor, Centre for Academic Research, Bengaluru; Ujjwal Rao, cofounder, Rector Healthcare, Pune; Vijay Chandru, chairman, Strand Life Sciences, Bengaluru; Rui Amaral Mendes, adjunct professor and researcher, Cleveland, Ohio

Cite this as: *BMJ* 2022;376:o601

KETAMINE FOR SUICIDAL IDEATION

Lessons from the opiate epidemic

Abbar and colleagues show that ketamine reduces suicidal thoughts, but not suicide attempts, in patients with bipolar depression for several weeks compared with treatment as usual (Research, 5 February). They seem to show that ordinary psychosocial induced (major) depression does not respond to ketamine but bipolar depression does, emphasising their biological differences—one being a mood disorder induced by life events and the other being a mood disorder of genetic provenance.

Ketamine is a "quick fix" without enduring effect on behaviour, with a large potential for abuse and a significant adverse profile, which is heavily supported by the drug industry—are we blinded by the possibility of enormous financial gains and marketing tactics and suffering from gross amnesia of the Purdue settlement of $4.5bn?

Are we grasping at straws? We have a duty of care towards patients, especially when a drug that is open to abuse and addiction is being considered.

Eugene Breen, psychiatrist, associate clinical professor, Dublin

Cite this as: *BMJ* 2022;376:o597

DIAGNOSTIC REASONING

Maximise trainees' clinical experience

Brush and colleagues point out that diagnostic reasoning is under-researched and under-taught (State of the Art Review, 5 February). They provide several messages of salience to primary care at a difficult time for the profession. Perhaps the most important is that "experience is the best teacher."

One of the many pitfalls of simulation and early adoption of portfolio working is that younger colleagues don't get enough direct patient experience to build up a critical "library" of clinical exemplars to form a sure foundation for confident diagnosis.

Understanding the sources of bias in diagnostic decision making is also important. The authors discuss implicit bias and the dangers of stereotyping. Understanding these and other sources of diagnostic error is central to effective and reflective clinical practice.

Making timely, accurate diagnoses and acting on red flags for serious disease while also providing support, empathy, and understanding in a hybrid digital world will not be easy.

Roger H Jones, emeritus professor of general practice, London

Cite this as: *BMJ* 2022;376:o602

OBITUARIES

Bennet Woodman-Smith

Senior registrar in emergency medicine Chelsea and Westminster Hospital, London (b 1980; q University of Swansea, 2012), died from lung cancer on 4 December 2021

Bennet Woodman-Smith was a passionate, caring, and inquisitive doctor. He embarked on specialty training in emergency medicine in 2014 and joined the emergency department at Chelsea and Westminster Hospital in 2016, where he remained as a senior registrar until August 2021. Always keen to further his knowledge, he developed special interests in sports medicine and bedside ultrasound and recently completed a postgraduate diploma with distinction in musculoskeletal ultrasound. A passionate family man, he loved surfing and music and cared deeply for the environment. He had recently decided to move to Somerset with his family and embark on GP training in the Severn Deanery. He leaves his wife, Leah, whom he married in 2015; and their three children.

J Burkert
M Earby

Cite this as: *BMJ* 2022;376:o385

Derek Gibson

Consultant cardiologist and head of echo department Royal Brompton Hospital (b 1935; q Cambridge/London, 1962; FRCP Lond), died from prostate cancer on 6 December 2021

Derek Gibson introduced left ventricular pressure dimension loops in humans and described cycle efficiency in studying cavity incoordination by using digitised ventriculograms. His first paper on cardiac physiology in biventricular pacing was in 1970. He did not miss the potential use of echocardiography in myocardial tissue characterisation, and developed the Brompton encoder. In the late 1980s and '90s he studied the importance of ventricular long axis function and described patterns of long axis disturbances that determined left ventricular filling. He supervised and trained dozens of cardiologists and physiologists, most of whom are now professors. His hobbies included collecting books, old rugs, and furniture; he also played the harpsichord.

Michael Y Henein

Cite this as: *BMJ* 2022;376:o312

Michael Watkin Edwards Morgan

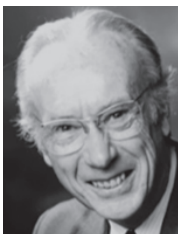
Consultant surgeon West Essex (b 1940; q Cardiff 1965; FRCS Eng), died from covid-19 on 7 October 2021

On appointment to West Essex, Michael Watkin Edwards Morgan ("Mike") quickly established the Epping Breast Unit and pioneered breast screening, conservative surgery for breast cancer, and the use of tamoxifen and neoadjuvant chemotherapy. He introduced breast nurse counsellors to the team, and set up a fund to support patients and fund research. Widely respected as a hardworking, skilled, and compassionate surgeon, he was also mentor to many trainees. He represented the UK on the tumour grading committee of the International Union against Cancer. In retirement he restored a Bentley car, in which he and his second wife, Jane, toured Australia, New Zealand, British Columbia, and Alaska. He leaves Jane; his first wife, Gwen; four daughters; and seven grandsons.

Jane Leese, Ashraf Patel

Cite this as: *BMJ* 2022;376:o395

Richard Maurice Armstrong Moore



GP Shrewsbury (b 1930; q Cambridge/London Hospital, 1953; PhD, FRCGP), died from old age on 7 December 2021

Richard Maurice Armstrong Moore did national service in the Royal Navy. After a medical registrar post in Basildon he became the third partner in the Abbots House Surgery in Shrewsbury. With consultant colleagues he founded the Shrewsbury Medical Institute to further postgraduate education in the area. The founding course organiser of the Shropshire GP vocational training scheme, he trained many GPs. In 1990 he retired and went on to study medical history, starting with his own family. He and his brother were the seventh generation of doctors—that tradition is now in its ninth generation—a fact of which he was very proud. Predeceased by his wife, Anne, he leaves three children (two of them doctors), 12 grandchildren (three of them doctors), and six great grandchildren.

James Moore

Cite this as: *BMJ* 2022;376:o392

T P Abdul Rasheed

Locum consultant in rehabilitation medicine United Lincolnshire Hospitals NHS Trust (b 1960; q Trivandrum Medical College, Kerala, India, 1988; PGDipRehab RCP, MSc sports and exercise medicine), died from sudden cardiac death on 7 November 2021

T P Abdul Rasheed came to the UK in 1997 and worked in a neuro-rehabilitation unit in Stoke-on-Trent, thereafter in Sheffield and at the National Spinal Injuries Centre at Stoke Mandeville Hospital. In 2000 he moved to Leamington Spa Rehabilitation Centre, where he cared for patients with prolonged disorders of consciousness. In 2016 he joined Lincoln County Hospital as a locum consultant in rehabilitation medicine. In 2019, he was diagnosed with type1 Brugada pattern on a routine electrocardiogram, and died in his sleep in 2021. He leaves his wife, Thahira Rashid, consultant anaesthetist at Lincoln County Hospital, and a daughter.

Thahira Rashid, Sivaraman Nair

Cite this as: *BMJ* 2022;376:o388

Adel Resouly

Consultant ear, nose, and throat surgeon (b 1943; q Bristol 1966; FRCS Ed), died after a long illness on 18 December 2021

After graduating, Adel Resouly held training posts in Bristol, Oxford, Manchester, and Southampton before he was appointed as an ear, nose, and throat surgeon in Portsmouth in 1976. He was much loved and hugely respected by patients, juniors, and colleagues for his skill and dedication. In partial retirement, he held senior roles in two local clinical commissioning groups, where he was consulted about patient safety and effectiveness of medical interventions. As a medical member of the Armed Forces Compensation Scheme between 2006 and 2015, Adel worked tirelessly, assessing the needs of UK veterans. He never slowed down and in full retirement continued to be active in local sailing and cycling communities. Adel leaves Susan, his wife of 49 years; two children; and four grandchildren.

Constantinos Yiangou

Cite this as: *BMJ* 2022;376:o387

Zena Athene Stein

Epidemiologist and public health advocate

Zena Athene Stein (b 1922; q University of the Witwatersrand, Johannesburg, South Africa, 1950), died from the consequences of a hip fracture on 7 November 2021

Zena Athene Stein was born in Durban, South Africa, in 1922 to a homemaker and a mathematics professor. For more than 60 years, Stein's research integrated epidemiology as a scientific discipline with advocacy in public health and political arenas.

Stein and her husband are one of the great couples who moulded the theory and practice of public health

Tackling inequalities and injustices

Stein's first love was history; she won two gold medals for it during her undergraduate years at the University of Cape Town. She noted in an interview in 2002 that she might have enjoyed a career as an historian. But in the long run, for her and for her husband, Mervyn Susser, medicine "was a way to make some impact on the inequalities and injustices of the society we knew."

She and Susser are remembered as one of the great couples who moulded the theory and practice of public health. "Separately, Stein and Susser were strong," said one colleague at Columbia University. "Together they were unstoppable." The two attended medical school together at the University of the Witwatersrand, qualifying in 1950. Then, inspired by community oriented primary care pioneer Sydney Kark, they and another young physician couple ran one of the first community health clinics in the world, the Alexandra Health Centre in Johannesburg. In the by-then-official apartheid system of South Africa, the Alexandra clinic was the only source of medical care for a desperately poor, entirely Black population.

The four young physicians published "Medical Care in a South African Township" in 1955 in the *Lancet*. The article described a year in the life of the clinic, and, said Salim Abdool Karim, infectious disease specialist and professor of epidemiology at Columbia University and the University of KwaZulu-Natal, "captured the ravages of apartheid from a clinical perspective."

Because they were active in anti-apartheid work closely allied with the African National Congress, Susser and Stein's jobs at the Alexandra Clinic were threatened and they were blocked from working at a second clinic. In 1955 they left South Africa for England.

In England, Stein was first a registrar in a mental hospital near London, then a research fellow in the department of social and preventive medicine at the University of Manchester. At the behest of the World Health Organization, Stein and Susser also worked in India to help set up a community health department in Uttar Pradesh.

In 1965, the family moved to New York, where Stein became professor of epidemiology at the Columbia University School of Public Health and director of research on the epidemiology of brain disorders at the New York State Psychiatric Institute.

Famine and child development

In the 1970s, Stein's work dealt with the impact of nutritional deprivation during pregnancy on subsequent physical and mental development. She led a rigorously designed prospective follow-up of children conceived during the Nazi-induced Dutch famine of 1944-45, as she described in *Famine and Human Development: The Dutch Hunger Winter of 1944-1945* (1975). Her work subsequently enabled Dutch and American investigators to show that nutritional deprivation during the first trimester after conception increased the risk of neural tube defects and affected other aspects of adult hormonal, cardiovascular, and psychiatric wellbeing. The database Stein developed and actively shared is still in use today, including by her son, psychiatrist and epidemiologist Ezra Susser.

With the outbreak of HIV/AIDS, Stein advocated for AIDS prevention for women. She initiated public discussion, encouraged experimental development, and undertook field testing of physical and chemical barriers that women could use in sexual encounters to prevent HIV infection. Protecting women from infection had appeared an intractable problem, because no effective and cheap methods were available that were completely under the control of women.

Stein led the effort to solve this problem, presented forcefully in her opening plenary address, "Methods Women Can Use," to the 1996 International AIDS Conference, as described in *AIDS, Sex, and Culture: Global Politics and Survival in Southern Africa* (2009), by her daughter, anthropologist Ida Susser. This approach became an integral part of AIDS prevention efforts in Africa. Stein launched Columbia's AIDS International Training and Research Program for South Africa, which has trained more than 800 fellows, many of them now leaders in infectious disease in South Africa.

In the mid-1990s, after the end of apartheid, Stein and Susser returned to South Africa to help establish the Africa Centre for Health and Population Studies in rural KwaZulu-Natal. By then in their 70s, they made extended visits to KwaZulu-Natal every year for more than a decade to work with patients and staff.

Stein became professor emerita at Columbia in 1993, but continued her work based at the Mailman School of Public Health until well into her 90s. She leaves three children; nine grandchildren; and six great grandchildren.

Joanne Silberner, Seattle
Twitter @jsilberner

Cite this as: *BMJ* 2022;376:o231