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Reinventing clinical commissioning groups

They should leave commissioning to NHS England and focus on improving primary care

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The new organisational architecture of the NHS in England makes little sense to most of the people who have to make it work. Even the usually po-faced King's Fund has mocked the Byzantine complexity produced by Lansley's health reforms with its "alternative guide" to the new structure of the NHS, replete with a Heath Robinson-esque cartoon of the system.[1]

Having set out to liberate and simplify the NHS,[2] the government has ended up with more organisations and more complex interorganisational associations, while, paradoxically, no one seems to be in charge at a local level. It has also increased centralisation through powerful new national entities like NHS England, Public Health England, and Health Education England. Yet after the traumas of the past three years,[3] there is little or no appetite for further organisational change, so policy makers and NHS leaders must find ways to work within these new structures, or to reinvent them to serve new purposes.

Perhaps the most obvious example is the 211 clinical commissioning groups (CCGs), which sit at the heart of the new structures. These groups are run by boards dominated by the local GPs who make up their membership and are responsible for commissioning most—although far from all—secondary care services in their areas. The research evidence[4 5] and early experience[6] give little reason to believe that these groups will be any more effective than their predecessors as commissioners.[7] Serving populations of between 66 500 and 870 000 people (mean 255 000), they are mostly far too small to have the economies of scale and scope that effective purchasing demands.[8]

Perhaps that is why, in a remarkable sleight of hand, NHS England first took control of all commissioning for specialist services and primary care. It then sought to shape the commissioning of CCGs through the network of 19 commissioning support units, which it manages. Furthermore, it has used its powers to authorise (and deauthorise) CCGs to secure further leverage over these groups. The result is a bit of a mess, with little clarity at present about who is responsible for commissioning, and much potential for conflict between CCGs, NHS England's local area teams, and commissioning support units. But it seems likely that NHS England and its agents will drive commissioning, and CCGs will have at most a marginal influence.

KING'S FUND/CREATIVE CONNECTIONS
Sailing to Byzantium

But CCGs exist, so what can they be used for? Two recent reports from the King's Fund and the Nuffield Trust suggest the answer could be to tackle both the enduring and the new problems of providing primary care.[9 10] Both reports note the longstanding variations in the quality of primary care and how difficult it has been to tackle poor quality in the existing model. But they also argue that we are demanding ever more of primary care providers, and that small, independent, autonomous practices are ill suited to deliver 24/7 community care, chronic disease management, urgent care outside hospitals, social care, care for the frail elderly, end of life care, and the like.

Using international examples, they suggest that both problems require new forms of primary care organisation—such as federations, networks, or super partnerships—for which CCGs could be the foundation. They point out that these groups already have a formal remit for improvement in primary care, although they do not commission it. They suggest that NHS England could delegate responsibilities for commissioning primary care to CCGs, although this would mean that they would be responsible for tackling performance problems among their members. More radically, they suggest that NHS England should develop a new primary care contract, which could be held at CCG level, and would provide a contractual framework for collective responsibility and accountability among groups of GPs within CCGs. In short, CCGs could become the collectivising mechanism for general practice, turning a mosaic of small independent practices into mutually owned and managed federations capable of providing a more comprehensive set of primary care services.

Without real primary care reform, the growing financial crisis in the acute sector and more broadly in the NHS in England—with ever rising emergency care attendances and admissions only the most immediate and pressing symptoms—cannot be resolved. We cannot move care out of hospitals and into the community unless primary and community health services are better integrated and more able to support people in their own homes. We cannot manage chronic disease and multimorbidity effectively without higher quality and more accessible primary and community care. CCGs have an opportunity to take the lead in primary care reform, even though they were not originally established for that purpose.

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Practice: Healthier ageing (*BMJ* 2012;344:e1214)

Healthy behaviours yield major benefits in ageing

Poor diet, smoking, and physical inactivity predict disability in previously non-disabled people

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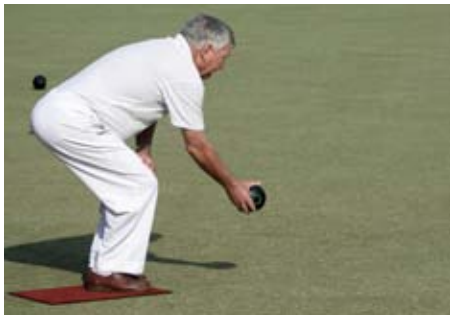
With the remarkable increases in life expectancy in recent decades in many countries, the determinants of quality of life and disability at older ages have attracted increasing attention. Artaud and colleagues in this issue of the *BMJ* provide an important advance in their study of 3982 men and women free of disability at baseline, with mean age of 74 years, and followed for an average of seven years for death and disability.[1] During the follow-up, a little over two thirds of the participants remained free of disability, showing that in a substantial proportion of healthy older individuals, disability is far from inevitable by the eighth decade of life. Artaud et al identified several factors that predicted disability, including poor diet (consuming less than one serving of fruits or vegetables a day), smoking, and physical inactivity. Increased body mass index was not considered as a main exposure, but rather as a mediator, and also predicted disability.

The study highlights several key challenges to research into determinants of disability and healthy ageing. One of these is the recognition that avoidance of disability is more than simply the avoidance of life threatening illness. For example, deafness may not in itself be life threatening, but it can contribute substantially to social isolation and disability, as shown by Artaud et al. Studies of healthy ageing should include measures of physical functioning, mental health, chronic pain, and cognitive function as well as measures of absence of disease. A related issue in studies of this kind is how to consider premature death in the analyses. Artaud et al appropriately consider interval deaths as severe disability. However, an alternative approach would be to analyse disability conditioning on survival. This approach would provide a greater focus on factors affecting disability itself.

Reverse causation—the impact of disease or disability on the healthy behaviours—must always be considered in studies of this type. This can be especially important when the outcome (such as mobility, which includes walking half a mile and climbing stairs) is so closely linked to the exposure (physical activity). Artaud et al are well aware of this possibility and have considered a variety of sensitivity analyses to mitigate this issue. For example, they repeated their analyses after excluding disability that was identified soon after baseline, which might have affected the behaviours. A related approach would be to have repeated assessments of the behaviours over time, similar to the authors' repeated assessment of outcomes over time.



Remember reverse causation

Such assessments could be used to further explore potential reverse causation, but would also permit a closer assessment of the time frame for these various factors by allowing various lag times between exposure and outcome. For example, does physical activity in mid-life affect risk of disability in old age, or is only recent activity important? The findings from Sabia et al of 5100 British civil servants from the Whitehall II Study (mean age 51 years, follow-up from 1991 to 2009) provide evidence that these low risk lifestyle factors, individually and in combination, are also associated with reduced disability as well as good cognitive and physical function, and good mental health in mid-life.[2] Further answers to such questions are critical to inform the design of rational clinical trials to test specific interventions.

Large sample sizes and prolonged follow-up are needed for high quality research in this area. Artaud et al have followed a large cohort for 12 years,[1] but much larger cohorts, followed for decades from mid-life to old age and death, can provide more detailed information. With a smaller cohort and shorter follow-up, which would limit the number of outcomes available, one must combine exposure categories into fairly crude distinctions to have adequate statistical power. Results from such analyses can be of great importance, but they will result in some measure of misclassification and probably lead to underestimates of the effect. Bigger and longer studies can permit analyses of a wider range of exposures and outcomes.

Some of the specific health behaviours merit comment. One or more fruit or vegetable a day represents a very low bar for a healthy diet, but remarkably about two thirds of the cohort failed to meet this criterion. A more comprehensive assessment of diet,[3] in combination with more categories of exposure, may well have shown larger effects of healthy diet. However, such analyses would require a larger sample size.

The generally null findings for alcohol were surprising. By contrast, Sun et al[4] and Sabia et al[2] found a strong, direct, positive association of moderate alcohol consumption with greater healthy ageing. The explanation for these divergent findings is unclear, but substantial evidence supports a benefit for moderate alcohol consumption for a variety of health outcomes that affect disability in older adults.[5 6]

The study of Artaud et al should stimulate further research in this important area. Their findings further demonstrate that simple lifestyle factors can dramatically reduce disability in older ages. Where feasible, the impact of changes in these factors should be tested in randomised trials. However, effects of long term changes may not be amenable to such tests. Pending such studies, it is prudent to adopt and recommend these healthy behaviours to reduce disability in old age.

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- Research: Opioid overdose rates and implementation of overdose education and nasal naloxone distribution in Massachusetts (*BMJ* 2013;346:f174)
- Practice: Opioids for chronic non-cancer pain (*BMJ* 2013;346:f2937)
- Practice: Prescribing strong opioids for pain in adult palliative care: summary of NICE guidance (*BMJ* 2012;344:e2806)

Opioids in the UK: what's the problem?

In many cases, doses are too high and treatment is too long

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The extensive misuse of prescription drugs in the United States has brought into sharp focus the role of opioids for persistent pain. The US has seen a marked and progressive rise in the prescription of opioid analgesics over the past two decades. This has been paralleled by an increase in deaths from these drugs—now a leading cause of accidental death in the US.[1] Prescription data from the United Kingdom show comparable trends in the use of opioids for non-cancer pain.[2 3] However, prescribing statistics don't tell the whole story, and we need to look at UK statistics on addiction and opioid related mortality to understand exactly what the problems are.

The UK has fewer sources of data on opioid misuse than the US, but there are places to look for indications of a problem. Drug related deaths are reported by the Office for National Statistics (ONS), and its most recent data (2011) show an overall downward trend in deaths from analgesics. A notable exception is a steady rise in deaths from tramadol (154 in 2010-11). There has also been a rise in deaths from methadone (486), but over 97% of prescriptions for methadone in England are for treatment of opioid dependency rather than pain.[2 4]

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Not always the solution to persistent pain

Information on addiction to prescription drugs comes from the National Drug Treatment Monitoring System (NDTMS). The numbers of patients presenting for support in relation to addiction to prescribed opioids remained stable for five years until 2009-10. However, data for the past two years suggest a recent increase (around 8%) in the number of patients seeking help for analgesic dependency, with or without additional use of illicit drugs (https://www.ndtms.net/WhatWeAre.aspx). Although patients who are primarily dependent on prescription opioids form a small proportion of those in drug treatment, the prevalence of addiction to analgesics is almost certainly higher than these figures indicate, because many people do not seek medical help, particularly from drug services.

So do we have a problem with prescription opioids in the UK? The answer is yes and no, depending on how we frame the question.

First the "no"—we are probably not in the grip of an epidemic of prescription opioid misuse and mortality. However, this needs to be qualified with a "maybe not" or "not yet" because our current data sources may not be capturing everything we need to make a firm pronouncement. Any conclusions should be interpreted in the light of what we don't know and are valid only at the time of writing. The ONS and NDTMS data emphasise the need for vigilance.

Alternatively, if we ask whether there is a problem with how opioids are being prescribed in the UK, the answer is definitely "yes." The trends in prescribing have been paralleled by a burgeoning of the literature on opioids for persistent pain, with the balance weighing heavily towards a cautionary if not alarmist message in relation to opioid treatment. The contrary (pro-opioid) argument, usually framed in the language of pain advocacy, is unarguable in sentiment, given the distressing and disabling nature of persistent pain. Sadly, however, opioids are neither an easy nor necessarily effective solution to the problem. Opioids are prescribed more often and for longer periods than would be predicted by their known efficacy in the management of persistent pain.[5-7] The data also suggest that opioids are often prescribed in doses above which we know that harms outweigh benefits.[8]

We must be careful to retain a balance despite worrying population statistics. What we do know about opioids and other drugs used to treat long term pain was elegantly summarised in a recent *BMJ* article.[9] In short, most drugs don't help most patients, but given the definite and potentially persistent benefits experienced by a minority of patients, we have to give a few things a try. This means that if opioids might help, they should not be withheld, but, importantly, if they don't work in reasonable doses they should be stopped. It seems straightforward that patients should not be exposed to opioid related harms that are not balanced by a beneficial analgesic effect. However, it is hard to tell patients whose pain is intolerable that they are better off not taking drugs that don't help, particularly if there is no therapeutic alternative.

We mustn't ignore what is happening in the US, and we have much to learn from its prescription opioid disaster

So how do we make balanced prescribing decisions? Guidelines on the prescription of opioids have been produced and updated in many countries including the UK, but little is known about their penetration and uptake. Despite the message of restraint, opioid prescribing continues to increase.[10-12] In the end it comes down to good medicine. Prescribing decisions should be underpinned by comprehensive assessment and formulation of the patient's problem, shaped by their comorbidity and current circumstances. Treatment should reflect current evidence on benefits and harms and how these relate to dose. Prescribers should be aware of the broader public health concerns about opioids, although these must be interpreted in the context of what we know about opioid related harms in the UK.

We mustn't ignore what is happening in the US, and we have much to learn from its prescription opioid disaster. Policy makers here understand the problems of the misuse of prescription opioids and its associated mortality, and in collaboration with clinicians and service users they are responsive to warning signals.[13 14] As prescribers, we must keep in touch with the current debate, so that we can balance the competing imperatives of ensuring a pragmatic and compassionate approach to supporting patients with pain and avoiding the risk of creating problems for individuals and society.

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Antidepressants and postpartum haemorrhage

All antidepressant drugs are associated with an increased risk of bleeding

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The use of serotonin reuptake inhibitor antidepressants has been associated with an increased risk of abnormal bleeding.[1] During the past decade most studies have focused on bleeding of the upper gastrointestinal tract, but excessive bleeding during surgery and increased risk of menorrhagia and postpartum haemorrhage have also been described in users of antidepressants.[2-5] In the linked paper, Palmsten and colleagues investigated the risk of postpartum haemorrhage in women using antidepressants during pregnancy.[6]

The underlying pharmacological mechanism of this effect is thought to be the inhibition of serotonin uptake into platelets. Platelets do not synthesise serotonin, and serotonin plays an important role in triggering vasoconstriction and platelet aggregation. Serotonin reuptake inhibitors could therefore prolong bleeding times. Some, but not all, studies have shown that concomitant use of non-steroidal anti-inflammatory drugs (NSAIDs) and serotonin reuptake inhibitors increases the risk of gastrointestinal bleeding.[7 8] It has been suggested that serotonin reuptake inhibitors also directly increase gastric acid secretion, resulting in an increased risk of ulcers. Prolonged bleeding time in itself will not lead to clinically relevant bleeding if no lesion is present.

Studies into the association between the use of antidepressants and abnormal bleeding are complicated by at least two factors affecting the clinical presentation of bleeding: the lesion and the bleeding time. Studies into non-gastrointestinal bleeding events are therefore needed, to quantify potential risks and help elucidate the underlying mechanism.

Palmsten and colleagues investigated a cohort of 106 000 women diagnosed as having a mood or anxiety disorder. They found that the risk of postpartum hemorrhage was 2.8% in women who did not use antidepressants and 4.0% in those using serotonin reuptake inhibitors on the delivery date—a 1.47-fold significant increased risk. Surprisingly, an increased risk was seen for non-serotonin reuptake inhibitor antidepressants, contradicting the platelet-serotonin theory. The increased risk was remarkably similar for all types of antidepressants, regardless of their affinity for the serotonin transporter. The results of previous studies in Canada and Sweden on a possible association between the use of antidepressants and postpartum haemorrhage were inconclusive, but these studies had several methodological limitations.[4 5]

One more thing to worry about

The current study was especially well designed in that it was performed in a cohort of women who were diagnosed as having mood or anxiety disorders. In other studies, the psychiatric diagnosis was largely unknown. This made it difficult to assess whether risk was associated with the use of antidepressants or with the underlying disease or its associated risk factors. Furthermore, the current study was large, measured exposure to antidepressants in a more precise manner, adjusted for all measured confounders, and did extensive sensitivity analyses, which showed that the results were robust in various subgroups.

So, what could explain the increased risk seen for all types of antidepressants? About 70% of all cases of postpartum haemorrhage are caused by uterine atony—the failure of the uterus to sufficiently retract and contract so that blood stops flowing after the placenta separates. It is unlikely that decreased platelet aggregation would play an important role in this process. It has even been suggested that serotonin reuptake inhibitors might increase uterine tonicity, by raising plasma serotonin concentrations, which would have a protective effect.[1]

Small absolute increase in risk of postpartum bleeding but could still have a considerable impact on public health

The study's results could be explained by confounding by indication: the women who were prescribed antidepressants might be more exposed to unmeasured risk factors than those who were not prescribed antidepressants. The study had no information on smoking, alcohol use, or obesity. However, these are low risk factors at most, so their inclusion would probably not alter the outcomes greatly. In addition, the fact that risk was greater in women using antidepressants on the date of delivery than those who used them earlier in the pregnancy suggests a true drug effect. This warrants additional research, especially into the unexpected effects of non-serotonin reuptake inhibitor antidepressants.

Postpartum haemorrhage is a serious complication of childbirth and a leading cause of maternal mortality and morbidity.[9] It is not uncommon, with reported incidences of 2.1-8% of all births, and incidence has risen over the past decade.[10] In addition, antidepressants are commonly used during pregnancy for antenatal depression or the long term treatment of mood disorders. Although the absolute increase in risk of postpartum bleeding is small, even a modest increase of a relatively high baseline risk may have a considerable impact on public health. Pregnant women and their healthcare providers should be aware of the possible risk associated with the use of antidepressants shortly before delivery.

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