Eisenhower said that “what is important is seldom urgent and what is urgent is seldom important.” Breaching a waiting list target—urgent! Celebrity admission to hospital—urgent! But major future events that will almost certainly cause death and disruption, from the climate emergency to pandemic disease? Not urgent. Yet now we have a crisis that’s both urgent and important.

Many countries’ health systems are about to face unprecedented demand, in systems that are already under pressure—like a cardiac arrest in a body that already carries the scars of chronic, untreated disease. We may soon face a situation where demand for intensive care exceeds capacity. For patients who are elderly and frail it must be very hard to listen to news reports ending with, “Don’t worry: this illness mainly affects the frail and the elderly.”

But it’s not only those with a famous virus who face urgent, important problems. An illness can’t live in isolation: it arrives, gets found, and gets fixed in the sea of healthcare surrounding it. A nasty broken leg outside a well functioning trauma centre—no problem. A twisted ankle on Ben Nevis in a night storm—big problem.

Being a doctor in the intensive care unit feels different now. No longer are we the wallpaper that quietly saves lives. We’re now the furniture in the rooms of government and the kitchens of the public. Can we ever be fully prepared? No. Are we nervous? Yes. Yet there have been cracks of light through this crumble into crisis. The hospital has a buzz of innovation and energy. Difficult problems that have slept on in-trays for years are getting solved.

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Telemedicine is suddenly here, inefficient reams of paper care plans have been slimmed down, and drive-through clinics pop up in convenient positions.
PERSONAL VIEW Abraar Karan

Young, healthy people should be avoiding A&E

During the covid-19 pandemic, emergency departments should be left for our society’s sickest to seek care

As public health experts and doctors, it’s been worrying to see the rapid spread of covid-19 and the relatively high hospitalisation rates—especially of those being admitted to intensive care units. In these early phases of the epidemic, the case fatality rate is turning out to be much higher than seasonal flu. As we begin to see bigger outbreaks in major cities, we are going to need a smart, systems level response, particularly while we don’t have a vaccine, cure, or rapid diagnostic tests available.

One critical action will be for young, healthy patients with mild symptoms of fever, cough, and shortness of breath, who may have covid-19, to avoid going to the emergency department. From early studies in China, we know that around 80% of cases are mild and most healthy young adults and children only have mild symptoms. This group of patients will often not need hospital care and will get better on their own at home. If they come to the emergency department, they will end up spreading the virus to those who are at serious risk, notably older people and those with other medical conditions such as diabetes or heart disease. These vulnerable groups have significantly higher rates of hospital admissions and death from covid-19.

Unnecessary ambulance use

Young, healthy patients should instead call their primary care doctor or nurse to discuss symptoms and will likely be recommended to self-isolate. In some parts of the world people with suspected covid-19 are being tested in their homes as part of efforts to stop unnecessary ambulance use and hospital visits. Current estimates suggest this period of self-isolation should be for around 14 days from the onset of symptoms. This simple action could help prevent community spread but, most importantly, prevent outbreaks in hospitals where our society’s sickest will be seeking care for both covid-19 and other conditions.

Aside from preventing transmission, self-isolating will help to ensure healthcare professionals are able to focus their limited resources on those who need them most. From the Chinese data, we are seeing a significant proportion of those who are sick requiring hospital care (15-20% from early estimates), and many of those requiring critical care units (5-26% based on recent studies from JAMA and the New England Journal of Medicine). Healthcare systems, even in wealthy countries, don’t have the capacity to handle this level of hospital admissions. The hope is that these rates will turn out to be much lower, especially because early on in an epidemic, reporting mechanisms tend to catch more severe cases and undercount mild or asymptomatic ones. We need, however, to prepare for the worst.

Healthcare systems will need to employ large scale channels of communication, likely mobile based, by which they can easily contact people and carry out remote screening. This will allow healthcare professionals quickly to decide who needs

BMJ OPINION Louise E. Smith, Lucy Yardley, Susan Michie, James Rubin

Should we wave goodbye to the handshake?

With the rise in cases of coronavirus, identifying strategies for delaying an epidemic has become ever more important. One item under scrutiny is the handshake.

While shaking hands may contribute to the spread of viruses and bacteria, there is a dearth of research quantifying the risk. Nonetheless, this has become a topic of media interest, and countries, including China, France, Australia, Germany, and the UAE, have recommended against hand shaking or other traditional forms of greeting such as kissing on the cheek.

Alternative greetings that reduce the time and surface area of contact have been proposed, with some—such as the open-hand wave, placing the right hand over one’s heart, or head bowing—remove the need for physical contact altogether. Although some of these gestures should be used with sensitivity,

Fist bumps and high fives may have the potential to reduce transmission

they have the potential to reduce person-to-person transmission of infectious illnesses. Even alternatives that reduce, but do not remove, physical contact such as fist bumps and high five may have the potential to reduce transmission.

The barriers to adopting these alternative greetings include the lack of conclusive evidence, concern about appearing rude, and the cultural connotations of some suggested replacements. Yet we know attitudes towards the handshake can change during major disease outbreaks. During the 2009 H1N1 pandemic, 24% of people surveyed in New York State interpreted “avoiding sick people” as avoiding physical contact including shaking hands, hugging, kissing, and touching. In
to be evaluated in person and who should remain at home.

One obstacle is that many people don’t have access to primary care doctors. To overcome this, systems need to have call lines so everyone can reach a physician, nurse, or other health professional to begin screening. Home testing will be an important step if initial screenings are suspicious for covid-19.

We need many things right now—rapid diagnostics, vaccines, antivirals with proved benefit—but these could take months to materialise. We must now rely on what we do have, which is our ability to communicate effectively at scale, to minimise the spread of disease by self-isolating appropriately, and the ability to free up valuable medical resources which can then be focused on those who will need them most. Let’s make sure we do this right.

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ACUTE PERSPECTIVE David Oliver

Why force GP streaming on A&E?

The government recently announced plans to expand GP streaming in emergency departments (EDs), after claims that it reduced pressure. GP streaming was rolled out in 2017 when Simon Stevens, NHS chief executive, announced a plan to include it at all NHS hospitals with EDs, to free up capacity and cut overcrowding. Some £100m was set aside to upgrade facilities, and the initiative was incorporated into the NHS 10 year plan. But what is GP streaming, and does it work?

Stevens picked out Luton and Dunstable Hospital Trust, after its ED showed dramatically improved performance on waiting times despite considerable local demand. GP streaming had been a key part of this local improvement drive. The model was described by NHS Improvement as opening from 8 am to 11 pm, seven days a week. Triage nurses in the main ED used a criteria checklist to direct patients to GPs co-located on the main hospital site.

The focus was on lower acuity walking patients without chest pain, including those revisiting within 24 hours with the same condition. The triage nurse could stream patients to ED minors, majors, the resuscitation bay, or the GP centre, while GPs could refer directly to admitting specialties and 40-60% of walking patients were streamed to GPs. This, with some local variation, is the template for national adoption of GP streaming.

Local context is crucial, so what worked in Luton may not work everywhere. Case mix will vary, as will the strength of existing primary care, so it’s worth looking at empirical evidence on these services being rolled out more widely.

A 2015 systematic review of primary care services co-located in EDs found no overall improvements in process outcomes (such as admission/discharge rates or waiting times) or cost effectiveness. Some were associated with increased demand and admission. In 2018 NICE reviewed emergency medical care in over 16s and found no clear evidence for such models. A 2019 review found inconsistent terminology around primary care services in EDs, as different models were put under the same umbrella.

Another concern is that putting GPs into urgent care settings risks depriving local primary care services. Doctors and nurses in emergency and acute medical units are skilled expert generalists, used to de-escalating and discharging patients and accepting managed risk; it’s a big assumption that GPs would do this any better.

Finally, the biggest problems facing major EDs are more to do with sicker patients requiring beds that aren’t there. This is due to low overall bed numbers and problems with flow, often caused by lack of capacity in community health services. Emergency doctors have been saying this for some time. Yet NHS leadership focuses on preventing the less sick patients from attending hospitals, forcing models such as GP streaming on them instead of locally appropriate solutions. Let’s listen to the people who do the job, understand it, and can tailor solutions to local circumstances.

Putting GPs into urgent care settings risks depriving local primary care services.

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

Cite this as: BMJ 2020;368:m992
What will be the covid-19 lessons?

Events are moving so quickly that whatever I write today (15 March) is likely to be out of date by the time it’s printed. Last week most GPs realised that waiting for instructions was inappropriate, so we’ve radically rearranged and reprioritised our work. Perhaps the first lesson I’ve learnt is that it’s OK to be brave about making disruptive decisions. Although I may get it wrong, doing nothing is likely to be riskier.

Looking ahead, old fashioned GPs like me may undergo a rapid conversion to remote consulting. Maybe we’ll discover that more is possible than we imagined. We’ll inevitably have to make important clinical decisions with less information than usual: we’ll need to assess disease severity and work out treatment options without being able to examine our patient or measure pulse, blood pressure, respiratory rate, or oxygen saturation.

Stepping back from previous busyness may help us prioritise in the future: are there things we stopped doing, with no obvious adverse consequences? Admittedly, it may be difficult to tell, in the confusion ahead.

We’ll discover the robustness, or otherwise, of drug supply chains, with possible disruption to the manufacture and transport of medicines. Like most healthcare sectors, our pharmacies are likely to be understaffed and overworked in the coming weeks.

Away from our surgeries, our world may become more starkly divided into people with too much. While some are kicking their heels, self-isolating at home, the rest will be working all hours to fill the gaps and look after the growing number of ill patients. Significant numbers of people will be confined to base with their families—which may result in a baby boom next Christmas—but we can also expect a spike in domestic violence as tensions rise. Both contraceptive counselling and sensitive explorations of possible domestic abuse are likely to be affected by the loss of normal GP appointments and a switch to remote consulting.

On the positive side, there are already signs of “good neighbour” groups setting up all over the country, where people reach out to help others stuck at home by shopping, collecting prescriptions, and offering company by phone. We may rediscover the importance of the physical communities we live in—offering help, accepting help, interacting more. While we observe social distancing, we may paradoxically become closer as a society.

I admit that I’m scared. I’ll try not to let that show in front of patients and colleagues, but I won’t be taking this “on the chin.” I’ll do everything I possibly can to limit infections and keep the people around me safe. We all need to keep our eyes open for colleagues who are struggling, and each of us is likely to need support in the months ahead. We’ll also need laughs, virtual hugs, and coffee.

Helen Salisbury

Cite this as: BMJ 2020;368:m1087

I admit that I’m scared, but I’ll try not to let that show
A 90 year old woman near the end of her life is hoisted from a hospital bed, semi-conscious, for staff to take a photo of the pressure sore on her bottom. Two hours later, her husband arrives on the ward to find that she has died.

How did we end up here? When looking through healthcare records, why is it more normal to see photos of pressure ulcers on backsides than photos of faces?

This patient had been taken to the hospital that morning because staff felt it was unsustainable for her to stay at home. She’d become weaker over the past few weeks, and developed incontinence. Her husband, also 90, found this hard to manage. She knew that she was dying, and we knew that she preferred to stay at home. But somehow the system didn’t seem able to support that. Her needs weren’t particularly specialist or complex, but somehow admission to hospital seemed like the least worst option from the perspective of the nurse visiting her.

Crosshead
In their 90 years, this couple hadn’t used the health service very much. When they did need it, we fell short. Despite everyone involved caring deeply—from the nurse who arranged to take her to hospital, the paramedics who wanted to set up a drip, the ward nurse who took the photo, the regulator who wants care to be, above all, safe and to protect people from avoidable harm—and despite everyone doing their best—we let this couple down.

Looking at their story, and stories of others in different circumstances, we saw that there are predictable patterns that explain our tendency to (more often than we’d like) miss what matters. We can tend to focus on facts rather than stories; services and organisations rather than community; interventions rather than support; reacting to a crisis rather than planning ahead. This all makes it harder to support people well, particularly in the last months of life.

Healthcare costs—particularly hospital costs—rise dramatically in the last weeks of life. With stories like this, it’s easy to see why this may happen. Care that focuses on tasks—rather than what matters—costs more overall, and tends towards outcomes that no one wants.

We can do better than this
We can create a world in which it’s normal to ask each other and talk to each other about what really matters to us. We can give each other the time, knowledge, confidence, freedom, and support to respond in bespoke ways to the people and circumstances we find. And we can make it normal to find out and do what matters most to a patient rather than just what’s expected.

Creating that world may not always be easy and will take some courage. It will mean stopping some of the things we do now, some of the things that we have become accustomed to doing and that may make us feel safe. For the patient we described above, this would mean the chance to stay at home on the last day of her life, and for her husband to be with her when she died—even though the circumstances were not as we had anticipated. It would mean being able to rest in comfort rather than being hoisted to have a photo of her pressure sore—recognising that her dignity and comfort were more important than following the “standard protocol.”

It will therefore mean not only challenging the ways we care for the people, families, and communities we support but also the way that we care for each other within our institutions.

Saskie Dorman, consultant in palliative medicine, Forest Holme Hospice, Poole Hospital NHS Foundation Trust
Twitter @saskie_dorman

Andy Brogan, founding partner, Easier Inc.
Twitter @AndyTBrogan @Easier_Inc
COMMERCIAL INFLUENCE IN HEALTH

How to improve researchers’ conflict of interest declarations

Enforced, structured reporting and processes to assess relevance are required to make conflict of interest disclosures fit for purpose, argue Quinn Grundy, Adam Dunn, and Lisa Bero.

Transparency of financial interests is expected in medical research, but our ability to assess bias is limited because disclosures are incomplete, inconsistent, and difficult to access at scale. True transparency involves more than just making conflict of interest disclosures available; they also need to be accessible, accurate, complete, and clear about relevance.

There have been several calls for the reporting of conflict of interests to be standardised since the Institute of Medicine first recommended it 10 years ago. The International Committee of Medical Journal Editors (ICMJE) and the Committee on Publication Ethics (COPE) recommend that journal editors require published statements declaring authors’ conflicts of interest. Despite the apparent policy consensus, disclosure practices are plagued by recurring problems with non-disclosure and inconsistent reporting. The result is that the policy conversation is fixated on the shortcomings of the disclosure system rather than on how to deal with relationships that threaten research integrity. The ICMJE is consulting on updating its declaration form to improve transparency, completeness, and consistency of disclosures. We also need to enforce accessible, accurate reporting and develop processes to assess relevance so that we can move the debate forward, from being about greater transparency to being about greater independence from commercial influence.

The trouble with existing declarations

In our study of the prevalence of conflict of interest disclosures in a random sample of 1002 biomedical articles, authors disclosed a conflict of interest in 23% of articles and said they had no conflict in 64%; 14% of articles did not include a disclosure statement. Although the included journals stated that they follow ICMJE recommendations, we found it hard to arrive at these figures because disclosure statements were often inaccessible, inconsistent, or missing key information necessary to judge relevance.

Disclosure statements were often inaccessible, inconsistent, or missing key information necessary to judge relevance

Inconsistency

Journals use diverse headings to identify conflict of interest statements (box 1), suggesting that they have not implemented a clear and consistent definition. This makes it challenging to automate extraction of disclosures for analysis, even from well structured web pages. Since March 2017, some publishers have included conflicts of interest in the metadata used by PubMed. This could be a way to improve accessibility by centralising where disclosures are recorded.

Conflict of interest statements are often conflated with statements about the funding of the research presented, making it difficult to assess individual authors’ conflicts of interest and study sponsorship separately. We argue that these disclosures should be reported separately because some evidence suggests that funding source and author conflict of interest are independently associated with risk of bias, though the likelihood of confounding is high.

When conflict of interest disclosures are identified, substantial variability in the language used to make disclosures makes it difficult to interpret the meaning. We identified 130 different ways of stating “no conflicts of interest” across the 637 articles whose authors declared no conflict of interest, ranging from one word (“nil” or “none”) to a 62 word statement. Some of the variants change the meaning of the statement, suggesting

**KEY MESSAGES**

- Disclosures of conflicts of interest in published biomedical articles vary widely in terms of location, format, wording, and content
- Inconsistency creates problems with accessibility, semantics, and assessment of relevance
- To assess research integrity, disclosures must be accessible, complete, accurate, and meaningful
- A central database and standardised reporting are needed to improve transparency

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that conflicts of interest might exist but are not disclosed (table 1).

**Missing information**

Compounding the problems of accessibility and semantics is the problem of relevance and who should judge this. Current reporting practices rely on authors to judge the relevance of any interests to the work under consideration, although journal policies and procedures and editorial discretion may also influence what gets reported. For example, the ICMJE form asks authors to “disclose interactions with any entity that could be considered broadly relevant to the work.”

Journal editors, peer reviewers, and readers should be able to judge the relevance of disclosed interests to the work to evaluate whether a conflict of interest exists. However, the necessary contextual information is typically lacking in statements and forms. The result is that although conflict of interest disclosure is widespread, disclosures are not meaningful.

**Obfuscation**

Authors sometimes seek to define relevance in disclosure statements using adjectives such as “potential,” “relevant,” and “financial” to modify “conflict of interest” or contextualising statements by stating that disclosures pertained to “this work” or “this manuscript.” In some cases, authors disclose seemingly relevant financial ties but make statements that obfuscate whether the disclosed relationship constitutes a conflict of interest.

In other cases, authors provide disclosures that include personal and professional biographical information, funding information that should be in another section of the article, or ambiguous descriptors that may obscure key signals of risk of bias such as financial relationships with industry. For example, one article with 17 authors had a 706 word disclosure statement that was located only in the 63 pages of supplementary ICMJE forms; it included numerous conflicts of interest, as defined by the ICMJE, among disclosures of receipt of public funding and honorariums from not-for-profit organisations; one of the authors disclosed receipt of personal fees from 42 bodies outside of the submitted work, including 23 drug and medical device companies.

Designations such as “unpaid consultancy” may mask the nature of the relationship with industry and fail to make transparent other transfers of value such as paid travel.

**What should happen next?**

To strengthen transparency while minimising burden on authors and editors, the biomedical research community should develop a public, comprehensive, structured, author centric database of financial interests. The Institute of Medicine has proposed a detailed taxonomy.

<table>
<thead>
<tr>
<th>Table 1</th>
<th>Categories of statements indicating no conflict of interest</th>
</tr>
</thead>
<tbody>
<tr>
<td>Category</td>
<td>Examples</td>
</tr>
<tr>
<td>None exist</td>
<td>There are no conflicts of interest; No author has a conflict of interest; No conflicts of interest exist for either of the authors of this manuscript</td>
</tr>
<tr>
<td>None declared</td>
<td>Nothing to disclose; None of the authors has any conflict of interest to disclose; No potential conflicts of interest were disclosed</td>
</tr>
<tr>
<td>No relevant conflicts</td>
<td>The authors have no relevant financial relationships to disclose; The authors have no relevant affiliations or financial involvement with any organisation or entity with a financial interest in or financial conflict with the subject matter or materials discussed in the manuscript</td>
</tr>
<tr>
<td>None in this work</td>
<td>No conflict of interest exists in this paper; We have no conflict of interest related to this work</td>
</tr>
<tr>
<td>No perceived conflicts</td>
<td>The authors declare no relation that could be perceived as conflict of interest; The authors declare that there is no conflict of interest that could be perceived as prejudicing the impartiality of the research reported</td>
</tr>
<tr>
<td>None to our knowledge</td>
<td>To the best of our knowledge no conflict of interest exists</td>
</tr>
</tbody>
</table>

**Box 1 | Headings and keywords that journals use to indicate conflict of interest statements**

- Acknowledgments
- COI
- Commercial relationships
- Competing interests
- Competing conflict of interest
- Conflict of interest
- Declaration of interest
- Disclosures
- Disclosure statement
- Duality of interest
- Financial conflict of interest
- Financial interest
- Potential conflict of interest
- Proprietary or commercial interest
- Receipt of benefits
- Sources of funding

**Box 2 | Sample conflict of interest disclosure statement including relevance**

Conflicts of interest: DD holds a leadership position in an advocacy organisation (National Sexual Health Association) and is a clinical specialist, deriving income from diagnosing and treating sexual health conditions. DD is engaged as a consultant (BioX Company) and receives research funding from companies (GlaxoSmithKline and Merck). The intervention tested in this study is made by BioX, and all of the companies mentioned above make vaccines related to sexual health. DD holds a patent for a diagnostic test for tuberculosis, unrelated to this study. [Link to full disclosure statement]
Drug and device companies. The success of accurate, structured data has enabled manufacturers. Access to these detailed, only to prescribing clinicians and certain achieving transparency, though it applies the Sunshine Act, is a notable model in through the US Physicians Payments Enforcement Act. The success of the Open Payments database argues for other countries to establish their own publicly funded open payment databases. ORCID would be well placed to act as a repository for information on conflict of interests given its international scope and strong uptake among biomedical journals. ORCID is a not-for-profit organisation, funded through member contributions, that provides researchers with a unique, persistent digital identifier and infrastructure to support automated linkages across their professional activities. With leadership from organisations such as ICMJE and COPE, the manuscript submission software used by journals could, for example, include an interface to allow authors to automatically export relevant disclosures from a registry.

**Enforcement**

The variability in how conflicts of interest are reported is probably related to journals having differing requirements for statements rather than a consequence of author intentions. Currently, the onus is on authors to disclose. Journal editors often do not have the information or resources needed to identify or verify authors’ conflicts of interest. The ICMJE recently revised its policy to include purposeful non-disclosure of conflicts of interest as a form of scientific misconduct. However, 14% of articles published in journals claiming to adhere to the ICMJE recommendations still do not routinely include conflict of interest statements. ICMJE has limited ability to enforce its guidance but, at minimum, organisations such as COPE should not permit membership to journals that do not conform to these standards.

**Assessment of relevance**

Though the ICMJE recommends that authors report details on the funding source and the specific role of the sponsor in the design, conduct, and publication of the research, there is no equivalent requirement for authors to provide such structured detail in their declarations of conflicts of interest. For example, when an author discloses personal fees from multiple entities, there is rarely information about the scope or extent of the relationships, how the scientific work relates to a company’s products, or the specific reason for the receipt of payment.

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**Table 2 | Policy recommendations for identification, evaluation, and reporting of conflicts of interest and how they compare with ICMJE recommendations**

<table>
<thead>
<tr>
<th>Recommendations</th>
<th>Current ICMJE recommendation?</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Identification</strong></td>
<td></td>
</tr>
<tr>
<td>Require authors to disclose interactions with any entity with a financial stake that could be considered broadly relevant to the work</td>
<td>Yes</td>
</tr>
<tr>
<td>Include values for all financial relationships.</td>
<td>No</td>
</tr>
<tr>
<td>Provide details on the nature of the relationship, for example: “Consulting for company X regarding drug Y” “Fees for speaking on topic X to audience Y” “Unpaid consultant for company X regarding drug Y; company X reimbursed travel and meals for meetings on Z” “Owner of private practice X, which derives clinical income from intervention Y”</td>
<td>Partial comments permitted</td>
</tr>
<tr>
<td>Develop processes to verify authors’ disclosures using existing registries, databases, and online searches</td>
<td>No</td>
</tr>
<tr>
<td><strong>Evaluation</strong></td>
<td></td>
</tr>
<tr>
<td>Require authors to indicate which interests are relevant to the submitted work and state how the interest may have influenced the design, conduct, or reporting of the work</td>
<td>Partial author judges relevance</td>
</tr>
<tr>
<td>Editors given full details of authors’ interests and required to evaluate whether a relevant conflict of interest exists</td>
<td>No</td>
</tr>
<tr>
<td>Provide peer reviewers with full details of authors’ interests and require peer review of summary statement of relevance</td>
<td>No</td>
</tr>
<tr>
<td><strong>Reporting</strong></td>
<td></td>
</tr>
<tr>
<td>Publish separate statements of study support and author conflict of interest</td>
<td>No</td>
</tr>
<tr>
<td>Provide hyperlinks to a complete summary of the authors’ conflicts of interest in all versions of the published article, which includes a statement of relevance</td>
<td>Partial</td>
</tr>
<tr>
<td>Provide a policy on the journal website regarding the process for assessing conflicts of interest and whether and how they are managed (eg, preventing individuals with certain interests from authoring certain types of articles)</td>
<td>No</td>
</tr>
<tr>
<td>Consider novel ways to quickly and clearly communicate the presence of relevant conflicts of interest such as a traffic light labelling system</td>
<td>No</td>
</tr>
</tbody>
</table>

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Of the articles published in journals claiming to adhere to the ICMJE recommendations, 14% still do not routinely include conflict of interest statements, which could serve as a standardised digital template for disclosure while providing adequate detail about the nature of the relationship or interest. Table 2 sets out our recommendations to help authors, editors, and peer reviewers identify, evaluate, and report conflicts of interest, drawing from the work of the ICMJE, Institute of Medicine, and the US Open Payments system. The Open Payments database, created through the US Physicians Payments Sunshine Act, is a notable model in achieving transparency, though it applies only to prescribing clinicians and certain manufacturers. Access to these detailed, accurate, structured data has enabled researchers to understand the extent and the impact of physicians’ relationships with drug and device companies. The success of the Open Payments database argues for other countries to establish their own publicly funded open payment databases. ORCID would be well placed to act as a repository for information on conflict of interests given its international scope and strong uptake among biomedical journals. ORCID is a not-for-profit organisation, funded through member contributions, that provides researchers with a unique, persistent digital identifier and infrastructure to support automated linkages across their professional activities. With leadership from organisations such as ICMJE and COPE, the manuscript submission software used by journals could, for example, include an interface to allow authors to automatically export relevant disclosures from a registry.

Quinn Grundy, assistant professor, Bloomberg Faculty of Nursing, University of Toronto
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Cite this as: *BMJ* 2020;368:m422
LETTER OF THE WEEK

Cognitive load and differential attainment

Linton discusses a multi-pronged approach to tackling differential attainment (Editorial, 15 February). Another approach, not considered by Linton or the GMC in its report published last year, is using the framework of cognitive load theory.

Cognitive load theory proposes that, when learning, new information is stored in working memory, which is limited in both capacity and duration, and later transferred to long term memory, the capacity of which is unlimited. If the total cognitive load associated with learning exceeds the capacity of the available working memory, additional information the learner is exposed to is unavailable for long term storage and future retrieval, so attainment might be impaired.

Intrinsic cognitive load is the complexity of the information being learnt; extraneous cognitive load refers to external factors; and germane cognitive load is the effect of patterns obtained from past learning on new information. The theory recommends maximising learning during teaching by reducing extraneous load, optimising germane load, and managing intrinsic load.

Factors that increase extraneous cognitive load include requiring knowledge of a non-native or second language to understand the information and worries about personal issues, such as real or perceived racial bias. In the context of differential attainment, cognitive load theory (especially extraneous cognitive load) might provide a credible framework in which to explore the associations between educational attainment and racial background and to identify potential solutions. Although identifying reliable measurements of extraneous cognitive load is currently a challenge, a move to this approach might tackle some of the problems mentioned by Linton.

William Atiomo, clinical sub-dean, Nottingham

Cite this as: BMJ 2020;368:m965

RACISM IN MEDICAL SCHOOL

Focus on inclusion, not diversity

The BMJ’s investigation describes the racial discrimination that ethnic minority medical students face and the lack of response from medical schools (Investigation, 15 February). We must consider this in light of initiatives to widen participation, which are actively recruiting under-represented students into a system in which they are likely to face discrimination, harassment, and systematic educational disadvantage.

We need to shift from a myopic focus on recruitment and selection to include the student experience, differential attainment, and career progression. This would advance the discourse from “diversity in medicine,” which emphasises numbers of students, to “inclusion in medicine,” focusing on equity of experience and shared power.

Medical schools should also consider implementing broadly sampled assessments to reduce differential attainment; achieving staff diversity and promoting visible role models; critically reviewing how diversity and inclusion are taught; diversifying the curriculum and teaching materials; and supporting co-creation of educational polices, practices, and norms.

Molly V Fyfe, senior teaching fellow; Sonia Kumar, director of undergraduate primary care education; Arti Maini, deputy director of undergraduate primary care education; Jo Horsburgh, lead for medical education research; Bethany Golding, community collaborations lead, London

Cite this as: BMJ 2020;368:m966

TIME TO ACT ON RACISM

Continued commitment to change

The BMJ’s special issue on racism in medicine provides great insight into areas that concern us all (Editor’s Choice, 15 February). The worrying experiences of doctors and medical students emphasise the need for leaders across healthcare to do more to expose and tackle disparities.

I am not blind to the role of the GMC. We continue to look into and tackle differential attainment, and last year we published research into why black and minority ethnic doctors are over-represented in our fitness to practise processes. Recommendations in the Fair to Refer report pointed to the need for system-wide changes with a focus on learning rather than blame. Improving fairness across the profession will improve patient care as well as the lives of medical professionals. The long term change needed demands continued commitment from all those with roles to play, and your special issue is a timely reminder of that.

Clare Marx, chair, General Medical Council

Cite this as: BMJ 2020;368:m960

MATERNAL CARE DISPARITIES

Hostile environment

Focusing on racism in medicine as a cause of ethnic disparities in maternal care (Women’s Health, 15 February) fails to acknowledge the effect on migrants of draconian NHS charging policies.

Poverty, homelessness, domestic violence, and mental ill health contribute to adverse pregnancy outcomes. The “hostile environment,” supposedly intended to deter “illegal” immigration, has created laws preventing undocumented migrants from working or accessing benefits. This has particularly harmed women, pushing many to depend on male partners.

NICE advocates more intensive maternity care for women “with complex social factors,” yet government policies that deliberately exclude migrant populations create and exacerbate the conditions that NICE wants to tackle. Exorbitant NHS charges for maternity care increase the likelihood that migrant or minority ethnic women will fail to book or attend necessary appointments. These are the effects of not only racial bias but also policies condemned by the BMA and the Academy of Medical Royal Colleges.

Rayah A Feldman, research and policy consultant, Maternity Action; Susan Bewley, emeritus professor of obstetrics and women’s health, London; Rosalind Bragg, director, Maternity Action; Miriam Beeks, general practice partner, London

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OBITUARIES

Clifton Paget Lowther
Consultant geriatrician and honorary lecturer
Edinburgh University (b 1924; q Glasgow 1946; FRCP Ed, FRCP Glas), died from dementia and bronchopneumonia on 21 July 2019

For three decades, Clifton Paget Lowther (“Tony”) and colleagues developed services for elderly patients in Edinburgh’s north. He undertook regular home visits and developed the Royal Victoria Hospital into a specialist facility; he set up day hospital services, worked with an extended multidisciplinary team, contributed to the expansion of psychogeriatrics as a specialty, and was aware of the risks of falls and frailty in elderly people. He worked with the Bield Housing Association to help build supported housing and long stay homes for the growing elderly population. After retiring in 1989, he spent several years working for the benefits agency. Tony’s wife, Jean, died suddenly in 2007. Tony was predeceased by his brother, Glen, also a doctor and Glasgow graduate, by five weeks. He leaves four children and six grandchildren.

Johanna Lowther
Cite this as: BMJ 2020;368:m586

Ronald William Macandrew
General practitioner (b 1928; q Aberdeen 1954), died from old age on 24 October 2019

Ronald William Macandrew (“Ronnie”) was educated at Aberdeen Grammar School and then did two years of national service. He was among a select few who trained as pilots when he flew Lancasters and was proud to be in the footsteps of his father, who had flown with the RFC in the first world war. After graduating he entered general practice and remained in Aberdeen throughout his career, where he was a well respected member of the profession. He retired at the age of 60 and took up flying Cessnas for the following 10 years, in addition to his hobbies of golf and fishing. A very private man, Ronnie was an excellent companion among friends. His son Graham predeceased him, but he leaves his wife, Sheila; his son, Donald (an outstanding golfer); and five grandchildren.

Pierre Founin
Cite this as: BMJ 2020;368:m585

Glen Harrison Lowther
Attending psychiatrist
Misericordia Hospital, Winnipeg, Canada (b 1926; q Glasgow 1949), died from unspecified progressive pulmonary disease on 25 June 2019

Glen Harrison Lowther emigrated from his native Scotland to Manitoba, Canada, in 1952 and joined what is now the Manitoba Developmental Centre, where he cared for patients with developmental disabilities and provided psychiatric services for the local community. After 30 years he took up psychiatric practice at the Misericordia General Hospital. As assistant professor of psychiatry, Glen taught students in medicine and medical rehabilitation, special education and social work at the University of Manitoba. Glen’s private life revolved around his love for his family, travel, and the arts. Glen leaves Marjorie, his wife and partner of 60 years; three children; a daughter from his previous marriage; five grandchildren; and two great grandchildren. His brother, Tony, also a doctor, died in Scotland just five weeks after Glen.

Marj Lowther, Dorothy Groghan, Shannon Dutson
Cite this as: BMJ 2020;368:m587

Robert John Auld Nicol
General practitioner (b 1924; q St Andrews 1947), died from old age on 8 August 2019

Robert John Auld Nicol (“Bob”) trained at St Andrews, where he was awarded the medal for best student. National service in the Royal Army Medical Corps took him to Germany, where he looked after service families and met Wilma, whom he later married. He found a practice in West Wickham, Kent, where he initially worked singlehandedly and gained a list of 3500 patients. He retired at the age of 65. He was involved in local medical committee meetings and teaching students. In 1983 Wilma died from cancer, but some five years later Bob met Erika, with whom he had a second wonderful marriage. Outside medicine his passions were his family, restoring clocks, the arts (especially music), travel, and watching rugby. He leaves Erika, two children, grandchildren, and many great grandchildren.

Peter Nicol
Cite this as: BMJ 2020;368:m584

Zuhair Raouf Al-Bahrani
Professor of surgery (b 1932; q Baghdad University 1955; FRCS), died from a stroke on 8 September 2019

Zuhair Raouf Al-Bahrani became a professor of general surgery in Baghdad in 1977. He was a dedicated clinician and researcher. From 1964 to 2014 he published 50 original articles in selected international medical journals focusing on lymphoma and cancer in Iraq and the Middle East. He kept strong links with the Royal College of Surgeons in London and once donated pathological specimens of the primary intestinal lymphoma to the museum of the college and to the Wellcome Trust Museum in London. He enjoyed medical educational roles and was involved in developing Baghdad’s undergraduate and postgraduate training in surgery. He published an article about the change of pattern of colorectal cancer in Iraq in the British Journal of Surgery in 2003. Zuhair leaves three children and seven grandchildren.

Amer Jafar
Cite this as: BMJ 2020;368:m581

Ian James Jones
GP locum Bath and Bristol area (b 1965; q Leeds 1991), died suddenly on 22 October 2019

Ian James Jones (“Jamie”) was sponsored through medical school by the army. After house jobs in Leeds and York, he spent six years in the Royal Army Medical Corps. He subsequently settled in Bath and worked as a locum general practitioner in the Bristol and Bath area. He developed an interest in emergency medicine and became an instructor in advanced life support. He also spent eight seasons as a crowd doctor for Bristol City Football Club. Jamie lived his life with passion and had a lively interest in the arts. He loved literature and poetry and had a wonderful gift for bringing literature alive. He’d enjoyed acting during his time as a medical student. During his later years he turned to gardening. He leaves his mother, Margaret, and many friends touched by his life.

Dominic Hyland
Cite this as: BMJ 2020;368:m588
OBITUARIES

Ian Calder

Forensic pathologist who investigated unexplained deaths

Ian Maddison Calder, TD, OStJ, (b 1934; q St Andrews 1962; DM Dund, FFOM Lond, DSc Dund, FRCPath(HK), FRCPath, MRCP), died from a cerebral haemorrhage on 6 January 2020

Ian Calder trained in pathology at Addenbrooke’s Hospital in Cambridge and later in forensic medicine at the Westminster, Royal Marsden, and St George’s hospitals in London before being appointed senior lecturer at the London Hospital. He was awarded doctorates in both medicine and science. With his somewhat unorthodox approach of conducting tutorials in the pub, he had a 100% attendance rate and never had a student fail the pathology examination.

In 1964, Calder married Dorothy Hubbard, a nurse at the Norfolk and Norwich Hospital, whom he had met when she was 16 years old. They settled in Cambridge, and he became a fellow of St Edmund’s College Cambridge and the Wellcome Institute of Comparative Neurology.

Army
Calder was refused admission into the Royal Fleet Air Arm because he was colour blind, but was commissioned into the Suffolk and Norfolk Yeomanry in 1954, where this disability proved interesting when selecting the size of explosive charges according to coloured bags. He recalled that on more than one occasion, a farmer was surprised to find a large crater in his field on the edge of Stanford Battle Area in Norfolk. He transferred to the Royal Army Medical Corps (RAMC), commanding several detachments in London and Norfolk.

Safer deep sea diving
In the 1970s, as the world economy was being pushed into recession by astronomical oil prices, huge financial rewards were being offered to deep sea divers willing to risk their lives during the North Sea oil rush. Calder’s meticulous research into the dangers of deep sea diving led to dramatic improvements in the safety of professional divers—at one stage a fatal diving accident occurred every week. This news initially received a hostile response from the commercial diving industry, which was fearful of litigation and potentially expensive changes to working practice. However, Calder’s research, published in peer reviewed journals, was accepted by the international scientific community and eventually led to regulations improving the health and safety of commercial divers, and also changes to international guidelines for times and depths for sports and recreational scuba divers.

Robert Maxwell
When the body of Robert Maxwell, the newspaper tycoon, was found floating in the sea near the Canary Islands in 1991, it was unclear whether he had fallen, been pushed off his yacht, or had committed suicide. Calder was one of three pathologists who were called in to investigate. Although they were unable to agree on the cause, a Spanish inquest ruled that Maxwell had died from a heart attack and had drowned accidentally. Calder believed that Griffiths had entered the bag alive and that hypercapnia (a high level of carbon dioxide in the blood) would be a “reasonable explanation” of the cause of his death.

Honours
Calder chaired and served on many international committees and in organisations. He published more than 100 scientific papers. He leaves his widow, Dorothy; two children; and five grandchildren.

Rebecca Wallersteiner, London, UK
wallersteiner@hotmail.com
Cite this as: BMJ 2020;368:m624

Swimming pool death
On 31 March 2001, 31 year old Stuart Lubbock was found dead in a swimming pool belonging to the entertainer Michael Barrymore—a controversial incident that attracted much publicity. Initially it was thought that Lubbock had drowned, but two postmortem examinations noted that haemorrhaging from internal injuries was consistent with a serious assault, and the pathologists could not be certain of the cause of death. Calder was called in as an expert and concluded that drugs had been involved, corroborated the view of a sexual assault having taken place, and stated that, “Stuart Lubbock’s lungs did not show the classical signs of drowning.” At the 2002 inquest, the coroner ruled that the cause of death was “unascertainable” and recorded an open verdict.

“Body in the bag”
Nine years later the naked body of Gareth Williams, a young mathematician who had been working for MI6, was found locked in an airtight holdall in the bath of his Pimlico flat, sparking various conspiracy theories. Calder and three other pathologists examined the body and were unable to conclude how Griffiths had ended up in the bag. Calder believed that Griffiths had entered the bag alive and that hypercapnia (a high level of carbon dioxide in the blood) would be a “reasonable explanation” of the cause of his death.

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