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of National Health Service (NHS) staff during the epidemic. The NHS staff testing policy was only to test symptomatic staff, precisely to reduce absenteeism by encouraging staff with negative results back to work, thus intentionally reducing their time in self-isolation. The Secretary of State for Health and Social Care, Matt Hancock, himself stated that “we want to get [NHS staff absences] down, and the way to do that is to get the amount of testing up”.<sup>2</sup> This testing approach was then also applied to other groups of public sector workers.<sup>3</sup>

The UK Government's approach of using SARS-CoV-2 testing as a strategy to reduce absenteeism rather than to increase the detection of otherwise asymptomatic spreaders was surely symptomatic of flawed analysis and misunderstanding of the utility of the SARS-CoV-2 pharyngeal swab RT-PCR test. WHO expressly advises against using this test as a rule-out in the event of negative results.<sup>4</sup> Sensitivity of the test might be as low as 83%,<sup>5</sup> and in our practice many colleagues believe it to be lower still. Overzealous redirection of self-isolating staff back to work before they had completed sufficient self-isolation to exclude infectivity was therefore likely to increase spread of the virus to other staff and to patients or care-receivers in a substantial number of cases, especially given the high prevalence and likelihood of SARS-CoV-2 infection among exposed health-care workers during the epidemic. Surely the only defensible policy would have been national opportunistic and frequent testing of NHS and social care sector staff regardless of symptomology, and the test should be used exclusively as a rule-in and not a rule-out test as per existing WHO guidance.<sup>4</sup>

I declare no competing interests.

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### Authors' reply

We thank Bernard Freudenthal for his response to our previous Correspondence.<sup>1</sup> We agree that use of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) testing among health-care workers (HCWs) solely to reduce absenteeism is inappropriate. Freudenthal correctly outlines the risks, posed by false-negative results, of advising potentially infectious HCWs to return to work. Moreover, staffing levels are currently far less problematic within UK health-care settings than during the peak of the pandemic.

HCW testing should aim to identify infectious cases and reduce nosocomial transmission of SARS-CoV-2: testing only self-reported symptomatic cases risks missing many infectious cases. For instance, HCWs might unwittingly attend work with mild or non-specific symptoms. Furthermore, although the relationship between RT-PCR cycle threshold (Ct) values and infectivity requires further elucidation, evidence suggests that Ct values among asymptomatic and symptomatic cases are similar.<sup>2</sup> Crucially, viable virus has been isolated up to 6 days before symptom onset.<sup>3</sup>

Robust epidemiological studies help detail asymptomatic spread. Results have been heterogeneous; assumptions vary between studies which might be subject to recall bias, definitions of symptoms are inconsistent, and some studies do not account for the critical pre-symptomatic phase of infection. Nonetheless, most such studies find evidence of asymptomatic SARS-CoV-2 transmission.<sup>4</sup>

False-positive results can also limit HCW screening utility. They can be biological, with dead virus detected in non-infectious cases, and technical, where a test is positive in the absence of viral RNA. Regular screening risks identification of biological false positives; however, more research is required to understand the biology of persistent viral RNA shedding. Technical false positives might be reduced to manageable levels by testing in duplicate.<sup>5</sup>

We believe a symptom-agnostic testing approach for SARS-CoV-2 among HCWs is an effective measure of reducing viral transmission. This approach is advocated on a population level<sup>6</sup> and might be particularly beneficial among HCWs given reports of hospitals acting as hotbeds of COVID-19.

Arguments against mass testing approaches previously have suggested a lack of resources might make this ineffective. However, UK daily testing capacity has increased tenfold since the publication of our Correspondence,<sup>1</sup> while rapid point-of-care antigen tests facilitate early intervention to limit transmission.<sup>6</sup>

Screening for SARS-CoV-2 in asymptomatic HCWs could be a vital weapon in the fight against COVID-19 now and over the winter months. This will help the National Health Service to maintain the capacity to treat other diseases in the face of a second wave. We must act to prevent further virus spread, economic disruption, and unnecessary death.



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## Accelerated surgery for hip fractures—the HIP ATTACK results discussed

The HIP ATTACK investigators<sup>1</sup> found that accelerated surgery (median 6 h) did not lower the risk of mortality or a composite of major complications

compared with standard care (median 24 h) but reduced the risk of delirium, urinary tract infection, pain, and length of hospital stay. We have two concerns.

First, substantial changes in practice would be required to implement the recommendation. We have previously suggested that costs incurred by waiting might provide a financial incentive to mitigate delays for surgery.<sup>2</sup> However, hip fracture numbers are increasing, and in Ontario, Canada (where 898 patients or 30% of participants in this trial were enrolled) less than 5% of patients with hip fracture have surgery within 6 h, and less than 1% have surgery overnight.<sup>3</sup> That those who presented outside regular working hours (16 082 [58%] of 27 701 participants) had to be excluded from a highly funded trial might also be evidence that surgery within 6 h for most patients might not be achievable.

Scheduling must also be balanced with the needs of patients waiting for other operations, which might be delayed if hip fractures are singularly prioritised.

Another unexpected consequence might be the increasing provision of surgery overnight. Whereas surgery on evenings and weekends appears to be safe, quality of overnight hip fracture surgery has not been assessed.<sup>4</sup>

Second, the investigators acknowledge “results primarily inform the effects for patients who went to surgery a median of 6 h versus 24 h,”<sup>1</sup> but conclusions are not framed within the existing literature to help inform clinical decision making and policy. Population-based studies attempting to triangulate a time-threshold for surgery found no risk difference between 6 h and 24 h because mortality and complications only began to increase 24 h after hip fracture.<sup>5,6</sup> Did the HIP ATTACK investigators consider delays much longer than 24 h in the standard care-high troponin subgroup as an explanation of the interaction between

troponin measurement and the effect of accelerated surgery? The median time-to-surgery for hip fracture is 28 h in Ontario, Canada, compared to 24 h in the trial: did the investigators consider a Hawthorne effect that improved standard of care for trial participants as an explanation for the null findings?

We caution against dismissing observational studies as confounded when it is impractical (and possibly unethical) to allocate patients to increasing thresholds of delayed surgery in a trial. Perhaps those who care for hip fracture patients might “weigh the potential reduction in delirium and length of hospital stay against organising an accelerated [within 6 h] surgery pathway”<sup>1</sup> in addition to the potential reduction in mortality and major medical complications against organising a (within 24 h) surgery pathway.

We declare no competing interests.

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We would like to make several points regarding the HIP ATTACK trial results.<sup>1</sup>

The study shows the need to base health policy and structural organisation of medical care on randomised controlled trials. Retrospective, observational data are