Essentially we found that GPs tended to be more self-critical, compared with patients, which may give an indication of the direction of the hypothesis you suggest.

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The Sore Throat Test and Treat Service: speed should not substitute science

We enjoyed the article[1] on new technologies in general practice and are excited by their potential; however, it is vitally important that these are appropriately researched. Recently, NHS England and Boots introduced point-of-care throat swab tests into Boots pharmacies[2] and following a small feasibility evaluation[3] (designed and funded by Boots) they now plan to roll this out nationally.

Pharmacy staff identified patients with a sore throat who had a history of fever and/or the absence of cough, and a trained pharmacist examined the tonsils for exudate and palpated for tender cervical lymphadenopathy. Three hundred and sixty-seven patients were recruited; 40% were positive for 3 of 4 of the CENTOR clinical scoring system (these patients were offered a throat swab test).[3] Patients were asked their hypothetical course of action had they not accessed the service, and data were available on 60% of patients. From this, the number of GP consultations prevented and a reduction in antibiotic prescribing were estimated. The authors did not present any statistical data.[3]

A study such as this is at high risk of selection bias and is likely to overestimate any health service benefit. It omits the vital step of a control group in which the new service was not available, to calculate clinical effectiveness, cost-effectiveness, and impact. For example, CENTOR was developed and validated in patients attending A&E[4] and examined by clinicians. People self-presenting to a pharmacy are different from those seen in clinical settings; they are likely to be healthier, so fewer need antibiotics, limiting the potential for antibiotic reduction. Moreover, the skills of clinicians and pharmacists are likely to differ. It is therefore possible that this service may actually increase antibiotic usage.

As an NIHR Diagnostic Evidence Cooperative we are excited that NHS England is seeking innovative ways to improve patient experience and workload. However, we urge NHS England to consider the evidence (NICE does not recommend this test),[5] possible harms (including asymptomatic streptococcal carriage in low-risk populations),[6] and ethics (patients paid for this test and subsequent antibiotic treatment yet this obvious financial conflict of interest remains unaddressed).

For national-level changes, speed should not substitute science.

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Clinical examination as a 'dark art'

Des Spence's article regarding clinical examination,[1] in my opinion, described a poorly considered viewpoint. In fact, in the same edition, a letter was published[2] that reflected my own view that clinical examination is paramount, especially in the isolated setting.

Working in the military environment, resources and investigative tests are limited. Purely on the basis of a history and clinical examination, I have to make a decision regarding whether my patient is fit to remain deployed in an austere environment or must return to the UK. Occasionally, this decision can impact on the ability of the military unit to carry out their tasking, which has impact beyond the individual patient. Without a firm grounding in clinical examination, I would not be

able to adequately perform my job role, both caring for my patients and providing medical advice to the command team and supporting my unit on operations.

Yes, relying purely on clinical examination is dangerous, but so is relying on technology: it can break, can be unavailable, and is expensive! A doctor should have the knowledge and skills to formulate a differential diagnosis based on history and examination alone, and utilise focused investigations where possible to prove the diagnosis and/or direct the management of the case. Patients expect this and respect our abilities as doctors. In this increasing time of stretched resources, the 'dark art' of clinical examination, although not ideally sensitive or specific, at least is quick and cheap, and a key skill that all doctors should seek to perfect.

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Bad medicine: Spence and his spells

Des Spence has no doubt learned his craft the hard way.[1] If his intention is to make the business of diagnosis and treatment easier for his younger Muggles, he could do no better than direct his students to refer to *Primary Care Diagnostics* by Nick Summerton.[2] The answer to his spells is to be found in the library, not the clinical imaging department.

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The value of clinical examination: author response to Dr Pauline Williams

Thank you for your response.[1] Writing is sometimes about trying to engage the reader even if you have serious points to make! In fact I do not suggest that examination has no value, merely that this value is over-stated. Clinical examination has huge potential for false positive and false negative results, so as a diagnostic tool it has only limited value. I suggest that we teach students a cut-back version of examination and impress on them the limitations of clinical examinations. Much of what I was taught should be cast down.

Bimanual examinations miss more than one in three masses, even in hospital patients under general anaesthetic. The error rate is likely much higher in low-risk GP populations.[2] The clinical value of all bimanual examinations in any setting is highly questionable. Speculum examinations clearly do have value but not routinely, as was the practice in the past. For example, there is no indication to do a speculum examination when taking diagnostic swabs, which is still common practice. Also, a normal examination in a symptomatic patient does not exclude malignancy of the cervix or the uterus.

The research you quote is interesting, although it is retrospective observational data.[3] I agree that if patients are referred they should be examined (speculum and inspection), but there is no evidence that short delays by GPs adversely affect outcome. The delays in diagnosis are greatest in the hospital sector. The real issue is that patients need quick access to definitive diagnostics like ultrasound, and that current delays in accessing hospital care are unacceptable.

Clinical examination is an overvalued belief system that the profession is emotionally invested in. We need to challenge and rethink our beliefs.