of which do not feature among the official major diagnostic criteria—examples in PSP include absent blinking, overactive frontalis, raised eyebrows, levator inhibition, motor perseveration, fast micrographia with minimal finger akinesia, sitting en bloc, and emotional incontinence, most of which are not best assessed by video tape. Even some of the major diagnostic criteria for these disorders (autonomic failure in MSA and falls within the first year in PSP) cannot possibly be assessed by video tape. We agree that independent blinded video analysis would have produced a falsely lower prevalence rate than found by us. However, the purpose of our study was to estimate as best one can, using current diagnostic criteria, the actual prevalence of these disorders. The actual prevalence of PSP and MSA has implications for prognosis and utilisation of health-care resources, and also for further studies which will compare prevalence in different populations. Such studies might yield important clues as to the aetiopathogenesis of these diseases, which remains completely unknown.

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Elective or selective use of abciximab?

Sir—Eric Topol and colleagues present the latest (Dec 11, p 2019)[1] in a sequence of publications from the Evaluation of Platelet IIb/IIIa Inhibitor for Stenting (EPISTENT) trial.[1–3] This trial provides persuasive evidence that periprocedural infusion of the glycoprotein IIb/IIIa inhibitor abciximab improves short and medium-term outcomes in terms of mortality, myocardial infarction, and repeat revascularisation in patients undergoing elective and urgent percutaneous transluminal coronary angioplasty (PTCA) involving stenting. In this latest paper the trialists report outcomes at 1 year, and provide cost-effectiveness analysis, suggesting that routine addition of abciximab to stenting would cost about US$6200 per added life-year. This compares favourably with other therapies such as coronary bypass surgery or thrombolysis for acute myocardial infarction.

To assess the impact of applying the results of EPISTENT to our practice we have reviewed procedural data and early outcomes for patients undergoing PTCA in our facility during 1999. Glenfield Hospital is a tertiary unit that provides interventional cardiology for about 2 million people in the Midlands region of the UK. In 1999, 983 interventional procedures were carried out, and stents were used in 73·4% of cases. Abciximab was given, sometimes electively for high-risk procedures, but usually reactively during the procedure for presence of thrombus or other complications, in 100 (9·8%) patients, of which 85% involved stents. The amount spent on the drug was about £84 000 (average three vials per patient at £280 per vial), from a total cardiac services inpatient drug budget of £355 000. If, on the basis of the EPISTENT results, abxicimab had been given to all patients in whom stents had been placed, the drug cost would have been £606 000, which would have increased our total cardiac drug budget by 138%.

To make a more informed choice on the future use of abxicimab, we analysed the incidence of early major adverse events in our PTCA population compared with EPISTENT. In a prospectively defined audit, our combined major event rate (death, myocardial infarction, or urgent revascularisation within 30 days) for the past year was 49 (5%) and for death and myocardial infarction 27 (2·7%). The equivalent event rates in the stent plus abxicimab group in EPISTENT were 5·3% and 3·0%, respectively. Our PTCA population seems very similar to that recruited in EPISTENT (mean age 61 years *vs* 59 years; men 77% *vs* 75%; diabetics 15% *vs* 20%; unstable angina 22% *vs* 20%; previous myocardial infarction 46% *vs* 51%; previous coronary artery bypass grafting 9% *vs* 9%, respectively). Thus, it seems unlikely that differences in demographic characteristics account for the differences in incidence of adverse events.

Our findings raise the possibility that selective use of abciximab, perhaps confined to patients at high risk of complications and those with procedural complications, might produce the same outcome as elective use in all stented patients. This was not tested in EPISTENT and requires a separate trial. In the meantime, given the major implications for hospital drug budgets of applying the results of EPISTENT, individual units need to review their own outcome data and find out the absolute benefits for them to extend their use of abciximab, because this will determine the cost-effectiveness.

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Sleep disturbances and tryptophan in patients with Alzheimer's disease

Sir—In his Dec 18/25 commentary,[1] Daniel Foley discusses sleep disorders in patients with Alzheimer's disease. Various sleep disorders are apparent in patients who have mental illnesses.[2,3]

The neurotransmitter 5-hydroxytryptamine (serotonin) is one of the main regulators of circadian sleep/wake cycles, and deficiency of serotonin is reported to be associated with a broad pattern of psychiatric/neurological disorders ranging from sleep disorders to depression and certain forms of dementia.

A study we carried out in patients with Alzheimer's disease gives some causes of sleep disorders in these patients.[4] We found that as a result of enhanced degradation, tryptophan concentrations were significantly decreased. And a higher tryptophan degradation rate was closely associated with a low Mini Mental State score. Low serum tryptophan concentrations probably interfere with the availability of serotonin.

Our data suggest that sleep disorders in Alzheimer's disease may be associated with immune activation-induced tryptophan catabolism. Indeed, immune activation associated with enhanced tryptophan degradation and decreased serum tryptophan concentrations has been found in patients with HIV-1 who have sleep disturbances.[5] The biochemical background of patients with Alzheimer's disease should be carefully studied, and it could provide an

important starting point for a proper treatment of the sleep disorder.

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Sickness and sex of child

Sir—Johan Askling and colleagues (Dec 11, p 2053)[1] claim that, "Despite efforts to find reliable physical signs or symptoms during pregnancy to indicate the sex of the offspring, none have been found". Now there is a way (apart from the ultrasound scan). They showed that 55·7% of babies whose mothers were admitted for hyperemesis gravidarum in the first trimester were female. What about failure to progress in labour? There is a correlation between mode of delivery and sex of the baby. It can be calculated from a study of 52 282 deliveries in Jerusalem[2] that normal vaginal deliveries resulted in 50·7% males, caesarean sections in 52·2%, vacuum extractions in 57·1% and forceps deliveries in 58·1%. A 42-month retrospective study of deliveries in the two large government hospitals in Bulawayo, Zimbabwe, showed that in failed trials of scar (TOS) 2048 (57·8%) of the babies were male, 1344 (60·6%) in vacuum extractions, and 57 (66·6%) of symphysiotomies. We also found that not only the sex of the baby influences the mode of delivery but also the sex of the previous baby. If a TOS fails 57·8% of the previous pregnancies were found to be of female babies.

Boys have somewhat larger heads.[3] If, as is our experience a caesarean section is mostly done for the mechanical reasons and not for legal, financial, or psychological ones, the sex of the baby makes a significant difference.

Our colleagues in Sweden can say with confidence to a woman who has hyperemesis gravidarum that she has a 55·7% chance of delivering a girl. We can say with as much confidence that a woman facing vacuum extraction has a 60·6% chance of having a boy. If the vacuum extraction fails and we proceed to a symphysiotomy (or caesarean section) the odds of a boy are even higher.

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Sir—After an extensive nationwide Swedish survey, Johan Askling and colleagues[1] conclude that women presenting with hyperemesis gravidarum are more likely to give birth to girls than to boys and highlighted that Hippocrates had associated a female fetus with the pale face of a pregnant woman.

Throughout history prediction of the sex of an unborn child must have been a great challenge for empirics, physicians, and midwives. In *Corpus Hippocraticum* (5th–4th century BC) a woman pregnant with a female fetus would have an unhealthy pale appearance, freckled face, enlarged left breast, and turned downward nipples. Also, some advice was provided on how to choose the sex during coitus.[2] Even Aristotle (4th century BC), a physician and an embryologist himself, could not resist the temptation to describe a woman pregnant with a female fetus as paler, suffering more, subject to swellings of the legs and eruptions of the body, and more prone to longings and to rapid changes of mood.[3] Aristotle was a keen observer and long before the development of statistics and confidence intervals, noted that this was a rule subject to exceptions. Interestingly, neither the authors of *Corpus Hippocraticum* nor Aristotle mentioned hyperemesis gravidarum.

Seemingly, more signs of the sex of an unborn child were added during the forthcoming centuries. Towards the twilight of the Greco-Roman World, Soranus of Ephesus (2nd century AD) found it worthwhile to summarise all this previous long experience under a short chapter titled "What are the signs, according to the ancients, whether the fetus is male or female?"[4] Soranus decried the Hippocratic signs as based on obviously false assumptions and added that other people had said that the movements of the female fetus would be slower and more sluggish and the gravida would move with less ease and have a stronger inclination to vomiting. He concluded that although these forecasts were plausible, the opposite might well happen.

Throughout antiquity boys were strongly preferred and families would much appreciate the correct prediction that a boy was expected. Probably the biased association of bad health during pregnancy with a female embryo made the most enlightened physicians reject these omens. However, regarding this particular issue, the unknown physician who, between the 4th century BC and the 2nd century AD, first related hyperemesis gravidarum to the female embryo, was obviously correct.

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The QUORUM statement

Sir—The QUORUM statement (Nov 27, p 1896)[1] should prove useful to people writing and intepreting reports of systematic reviews. The promised update should include a recommendation that authors of a systematic review clearly indicate whether any other versions of the review have been published and the status of these versions, to show which is the most up-to-date. Reviewers have struggled for some time with difficulties caused by multiple publication of randomised trials without appropriate cross referencing.[2] They should ensure that the same traps are not set for users of reviews. For example, all Cochrane reviews contain a section giving details of other published versions of the review, and the QUORUM statement and journals should urge all reviewers to do likewise.[3]

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