

morbidity from pelvic inflammatory disease. Contrary to some claims,² however, the frequent finding of severe inflammatory change in cervical smears bears no relation to the presence of such infections.

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Readmission rates

SIR,—There are several errors in the letter by Drs Martin Sandler and Peter Mayer¹ commenting on our papers.^{2,4} It suggested that planned readmissions were included in the numerator of a readmission rate. They were not included. It also suggested that day cases were included in the numerator. Day case admissions are invariably planned and would therefore also be excluded.

The letter suggested that deaths were accidentally excluded from the denominator. In fact, deaths were purposely excluded. A person who has died is no longer at risk of being readmitted and therefore cannot be included in the numerator. Standard epidemiological practice suggests that he or she should also be excluded from the denominator.

The letter suggested that the case notes of a substantial proportion of readmitted patients selected for individual audit were unavailable. In fact, case notes were available for 74 of the 93 patients readmitted (79%): a respectable "response rate." We agree, however, that some element of selection bias might be in play, although we think it unwise to speculate whether patients whose case notes were unavailable would be more likely to fall into the category of avoidable or unavoidable readmissions.

We entirely disagree that a useful outcome indicator will always be subject to perverse incentives. Readmission rate (however measured) if used as an indicator of outcome is particularly subject to perverse incentives because a readmission rate is a particularly bad and uninterpretable proxy for outcome. It is hard to see how a valid outcome indicator—a true measurement of improvement in health status—could cause perverse incentives.

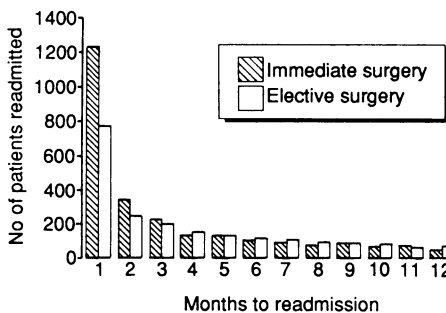
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*Dr Clarke's name was incorrectly given in the letter by Drs Sandler and Mayer. We apologise for this error.—ED, *BMJ*.

SIR,—Because of the uncertainty about the extent to which successive admissions to hospital are related, we as well as Dr Aileen Clarke and colleagues¹⁻³ have studied time intervals between admissions. We analysed linked data relating to 1554700 admissions for patients who were both resident and treated in the Oxford record linkage study area between 1975 and 1984.⁴ We excluded



Readmission to hospital after general surgery

index events that ended in death and counted interhospital transfers as a continuation of each index event. The figure shows the pattern of emergency readmissions found after patients' discharge after general surgery. The pattern for general medicine was similar. We found a substantial peak in emergency admissions in the first month after discharge. The close temporal proximity between index discharges and the emergency admissions which follow suggests that there is generally an association between the events within this time interval.

Dr Clarke and colleagues discussed the use of readmission rates as outcome indicators and suggested that this should be avoided. Although we agree with much of their reasoning, the conclusion depends to some extent on how indicators are used. Early work on performance indicators in the National Health Service acknowledged that indicators alone should not be used to draw firm conclusions on whether the provision of care was good or bad; that such judgments would be reached only after further detailed study of local circumstances; and that the primary purpose of indicators was therefore to focus attention on where local study might be worth while.⁵ Used in this way, emergency readmission rates may have merit as indicators. It is, however, a common feature of health service information systems that few resources are available alongside them to pursue local investigation of statistical findings that may be important but need further exploration. Thus one may be left with findings that are tantalising but uninterpretable. In these circumstances, we too have reservations about the use of readmission rates as outcome indicators but believe that the study of emergency readmissions within the framework of local medical audit and investigation may well be worth while.

Other potential uses of information about readmissions should not be overlooked. For example, at the level of clinical use, knowledge about the statistical probability of readmission for patients in particular clinical categories can provide information about this aspect of prognosis. In the context of contracts for care, data about readmissions—and their timing in relation to index admissions—may be important in determining responsibilities for the costs of care.

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SIR,—In view of the recent articles by Dr Aileen Clarke and colleagues¹⁻³ we would like to suggest an

improved "screening tool" for an indicator of the outcome of hospital care: the readmission mortality, which overcomes many of the drawbacks mentioned by Dr Clarke and colleagues. It bypasses the problem of excessive readmissions, which results from a lower threshold for readmission (for example, clinicians' decisions, excess of vacant hospital beds, etc). It may prevent clinicians from artificially postponing readmission of those who require hospital care because late readmissions, as opposed to straightforward readmissions, may be reflected in an increase in the mortality. The readmission mortality should have a face validity as good as the hospital death rate and the readmission rate: all are extracts of data held on the hospital computer.

In 1989 we followed up 797 discharged patients, not including patients with malignancy. All of them had been admitted to hospital as emergency cases, and 83% were over the age of 65. On our wards selected patients are referred to a continuing multidisciplinary medical care facility.⁴ Most of these patients have acute and complex conditions which deteriorated before their admission. All of them are homebound and most of them have chronic medical conditions.

The readmission rate of the discharged patients was 14% within 14 days and 20% within 28 days, and it levelled off after 28 days, similar to that reported by Drs Chambers and Clarke.² The mortality in patients readmitted within one week was 33% and within two weeks 30%. The rate was significantly higher in those who were readmitted within the first two weeks than in those readmitted later ($p < 0.01$). These early readmission mortalities may be strongly correlated to adverse outcomes after the first admission. These findings are in concordance with those of Dr Clarke, that early readmission, as opposed to readmission in 21-27 days, was found to be more avoidable.³ Finally, such a measurement may prevent some clinicians from discharging patients home prematurely and contradict the current trend of shortening the length of stay.

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Learning from disaster

SIR,—Dr Michael Phelan's personal view¹ illustrates some important discrepancies in attitudes to death across the artificial divide between physical medicine and psychological medicine. Passive euthanasia² for the chronically physically ill is an acceptable subject for debate in medical circles. Yet euthanasia for chronic psychiatric disorders does not appear in the index of standard books on psychiatric ethics³ or suicide,⁴ the nearest concepts being balance sheet suicide⁵ and rational suicide.⁶

The only exception to psychiatrists' evasion of passive euthanasia is in patients with senile dementia, who may be deprived of active treatment for physical complications such as chest infections. Yet these people do not necessarily have a reduced life expectancy: the only justification is that their illness is organic rather than functional—a highly dubious dichotomy,⁶ which was decreed almost a century ago.⁷

The suffering of dementia is probably slight compared with that of a small minority of young, chronically mentally disordered persons whose