

artery. During percutaneous coronary intervention, when there was balloon inflation, he had identical head pain with ECG changes but with no chest discomfort. After coronary intervention he was free of the pain on exertion.

About half of patients with a subarachnoid haemorrhage have ECG abnormalities.<sup>2</sup> Failure to recognise that ECG abnormalities are common in patients with subarachnoid haemorrhage can lead to them receiving inappropriate cardiac treatment and delayed investigation for subarachnoid haemorrhage. In the case I describe, the localisation of the pain resulted in initial misdiagnosis of cardiac pain as subarachnoid haemorrhage.

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## Emergency medical readmission: long-term trends and impact on mortality

Editor – We read with interest the study by Glynn *et al* (*Clin Med* April 2011 pp 114–8) describing long-term trends in emergency medical readmissions and the impact on mortality. There is much interest in emergency readmissions at present and a view that many readmissions are preventable.

In 2002–03, we undertook an audit of 28-day emergency readmissions from 14 general medical (including care of the elderly) wards in our 800-bedded acute trust serving a predominantly deprived population. As part of that audit, we solicited patients' views on their emergency readmission. There were 642 emergency readmissions in 4,801 medical discharges (13%) over a seven-month period, of 606 for whom notes were available, 202 (33%) had died by the time we undertook the survey and 15 had moved district. We

wrote to the remaining 389, and 119 (31%) responded.

Interestingly, 85% of patients said that their readmission was for the same problem as the index admission (25% heart, 24% chest, 33% unsure of condition, other conditions all <5%). With hindsight, 40% of patients felt that they were not ready for discharge after their index admission, 45% felt that the readmission might have been prevented with better care or a longer index admission, 40% of patients felt an early follow-up outpatient appointment would have prevented readmission, 28% felt readmission could have been prevented by better post-discharge support from the primary care team and 20% felt social service input after discharge could have prevented readmission.

Listening to our patients may also help prevent emergency readmissions.

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## How do I manage a patient with suspected acute pulmonary embolism?

Editor – I read with great interest Sheares' excellent review article on the management of patients with suspected acute pulmonary embolism (PE) (*Clin Med* April 2011 pp 156–9). I would, however, like to comment on the author's recommendations regarding the treatment of high-risk PE, previously known as massive PE.

Sheares, citing the study of Jerjes-Sanchez *et al*<sup>1</sup> which states that thrombolysis improves survival in patients with high-risk PE. However, the author neglects to report the observations from the International Cooperative Pulmonary Embolism Registry.<sup>2</sup> Although admittedly somewhat counterintuitive, the findings of this landmark study were that thrombolysis

did not reduce mortality or recurrence of PE at 90 days in high-risk PE.

Sheares confines the role of surgical embolectomy in high risk PE to patients who have failed thrombolysis or in whom thrombolysis is contraindicated. However, there is an emerging body of evidence supporting the use of primary embolectomy. Successful surgical embolectomy, using temporary cardiopulmonary bypass, was first reported by Denton Cooley 50 years ago.<sup>3</sup> Thirty years later, Gulba *et al* compared the outcome of 13 patients with massive PE treated with surgical embolectomy and 24 such patients treated with thrombolysis.<sup>4</sup> The surgically treated patients had a lower death rate as well as lower rates of bleeding and recurrence of PE. More recently, Fukuda *et al* have reported an operative mortality of only 5% in patients with massive PE undergoing emergent pulmonary embolectomy.<sup>5</sup>

Accordingly, primary surgical embolectomy should be considered favourably in centres with on-site cardiothoracic surgery. Given that the author's institution is an internationally acclaimed cardiothoracic centre, I would welcome her comments on her experience in this area.

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**Table 1. Percutaneous endoscopic gastrostomy referral strategy<sup>2</sup>**

1. Standardise PEG referral form including concomitant disease
2. Endoscopy nurse triage and dissemination of published evidence
3. Gastroenterological review where necessary
4. Holistic and multidisciplinary approach
5. Advise against PEG feeding in patients with dementia
6. One-week waiting list policy

### In response

Editor – I would like to thank Professor Glazier for highlighting areas in which there is a paucity of randomised controlled trial evidence.

He mentions the observational study from the International Cooperative Pulmonary Embolism (PE) Registry reported by Kucher *et al.* In the subgroup of patients with acute PE and a systemic arterial pressure less than 90 mmHg (high-risk PE), thrombolysis did not appear to reduce mortality. Of note patients were not randomised and the patients who received thrombolysis had a higher rate of right ventricular hypokinesia raising the possibility that the thrombolysed group had more severe disease. Hence it is difficult to comment on the role of thrombolysis from this observational study.

In the absence of adequately powered randomised controlled trials, Wan *et al* performed a meta-analysis of randomised trials comparing thrombolytic therapy with heparin in patients with acute PE. In a subgroup analysis, thrombolysis was associated with a significant reduction in death in the trials that included patients with haemodynamically unstable PE.

In terms of my centre's experience of primary surgical embolectomy, Papworth Hospital is a tertiary specialist cardiothoracic centre without an accident and emergency department. Patients are referred with complex thromboembolic disease (for example right ventricular thrombus) or chronic thromboembolic pulmonary hypertension who proceed to pulmonary endarterectomy. As far as I am aware, there are no randomised controlled trials of primary embolectomy versus thrombolysis in patients with high-risk PE. From the sur-

gical series reported in experienced cardiothoracic centres, surgical embolectomy may be a useful treatment in high-risk PE if immediately available.

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### Improving outcomes following percutaneous endoscopic gastrostomy (PEG) – a seven-day waiting policy is essential

Editor – We would like to congratulate Skitt *et al* for being the first group to demonstrate a reduction in mortality following gastrostomy tube insertion after a multi-faceted quality intervention approach was applied (*Clin Med* April 2011 pp 132–7). There have been three previous studies in this field which have shown improvements in patient selection for PEG insertion and/or a reduction in referral or insertion rate.<sup>1–3</sup>

Our group have previously used a similar strategy, but with one additional intervention. As gastrostomy insertion is not an emergency procedure, a minimum one-week waiting list policy was initiated (Table 1). In 55% of the cases that we deferred or declined gastrostomy insertion, the patient succumbed within seven days

(and for the rest within 30 days).<sup>1</sup> We wonder if the authors had seven day mortality data before and after their strategy for both the patients in whom a PEG was inserted or declined – and if there was any difference in seven day mortality between these two groups?

The National Confidential Enquiry into Patient Outcome and Death (NCEPOD) report highlighted that of those individuals that died within 30 days of PEG insertion, 43% died within the first week.<sup>4</sup> A seven-day waiting list policy has two functions. It serves to provide an opportunity to reflect on the implications of PEG tube insertion prior to undertaking the procedure (for all those involved in the decision making process). Secondly, in some cases patients may succumb during this 'cooling off' period.<sup>2</sup> Based on these observations we would encourage others to implement Skitt's excellent clinical practices but with the further addition of a one-week waiting list policy.

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