bootstrapping have been shown to produce consistently the best results in terms of the number of times, in repeated sampling, the true population parameter is contained within the interval.^{14 16}

Recommendations

Uncertainty in economic evaluation is often handled inconsistently and unsatisfactorily. Recently published guidelines should improve this situation, but we emphasise the following:

- Ensure that the potential implications of uncertainty for the results are considered in all analyses;
- When reporting cost and cost effectiveness information, make more use of descriptive statistics. Interval estimates should accompany each point estimate presented;
- Sensitivity analyses should be comprehensive in their inclusion of all variables;
- Cost and cost effectiveness data are often skewed. Significance tests may be more powerful on a transformed scale, but confidence interval should be reported on the original scale. Even when data are skewed, economic analyses should be based on means of distributions;
- Where patient level data on both cost and effect are available, the parametric approach based on Fieller's theorem or the non-parametric approach of bootstrapping should be used to estimate a confidence interval for the cost effectiveness ratio;
- When comparing results between studies, ensure that they are representative;
- Using a methodological reference case when presenting results will increase the comparability of results between studies.

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How the defibrillator saved a patient's life

Initially it was quite a struggle just getting the partners to agree that purchasing a defibrillator would benefit the practice. We did not even have to pay as the Friends of the Health Centre kindly raised the money.

The equipment was installed in the nurses' treatment room and gradually gathered dust. "Does the defibrillator work?" and "I bet the batteries aren't charged" were some of the jocular comments from the partners.

We had a couple of attempts at resuscitation, the equipment worked well, but unfortunately the patient did not survive. It was decided to hold a training day on resuscitation for the nurses. The alarms sounded, I rushed to the treatment room only to find that it was a mock emergency.

In the middle of a busy afternoon surgery the same day the alarm went off again and there was an urgent telephone call. When I arrived several partners and nursing staff were in the middle of full cardiopulmonary resuscitation. The patient had been sent down from the doctor's surgery to the treatment room for an electrocardiogram as he had chest pain and had collapsed. The tracing showed ventricular fibrillation. Bring out the defibrillator! Charge to 200 deliver shock! It's just like *ER*! Unfortunately, the patient was unstable; there were further episodes of ventricular fibrillation and further defibrillation. As a former medical registrar it started to flood back. We need lignocaine, but what is the dose? It was like the blind leading the blind.

Four cardioversions later the ambulance arrived. Was he stable enough to transfer to our local hospital? It was decided that I should accompany the patient in the ambulance; this was just as well as he had two further arrests in the ambulance requiring defibrillation. An emergency stop as a bus pulled out in front of us hurled the patient forward into my lap. But he survived, and as he was only 40 with two children he was eternally grateful.

What have we learnt? Clearly, we need more training in resuscitation. We now have a very persuasive argument for the partner who said that we did not need a defibrillator as the ambulance always carries one. Our Friends of the Health Centre are now saving to buy us a better model that can record the cardiac rhythm through the paddles.

Alexander Williams, *general practitioner, Exeter*

We welcome articles up to 600 words on topics such as *A memorable patient, A paper that changed my practice, My most unfortunate mistake*, or any other piece conveying instruction, pathos, or humour. If possible the article should be supplied on a disk. Permission is needed from the patient or a relative if an identifiable patient is referred to. We also welcome contributions for "Endpieces," consisting of quotations of up to 80 words (but most are considerably shorter) from any source, ancient or modern, which have appealed to the reader.