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DO WE SPEND TOO MUCH TIME WITH NELLIE THE ELEPHANT?

Last week I went for my basic life-support update; 3 hours of learning yet again what to do when faced with someone having a cardiac arrest, including the reminder that you can pace external cardiac massage in time with 'Nellie the Elephant', a tune which featured regularly on *Children's Favourites* when I was a child. Like most GPs and practice nurses I do this every year, because there are 4 QOF points attached to having all clinical staff trained in basic life support within the last 18 months. Each year I wonder whether this is worthwhile, or a waste of time and effort. So I decided to try to find out.

There are about 41 000 GPs in Britain,[1] and around 25 000 practice nurses.[2] If they all do this then each year around 200 000 hours are devoted to BLS updates, and it costs about £4 million in QOF payments.[3] Having non-clinical staff trained within the last 3 years is worth another 3 QOF points. It's a lot of time and money. Could this be better spent in other ways?

Of course everyone should learn the principles of BLS, because there is a small chance of someone being present at a cardiac arrest, and people should know what to do. Even if resuscitation is not successful, those present will feel happier if they tried to help reasonably competently. But this applies as much to waiters, shop assistants, and bus conductors as to healthcare staff. Are the particular requirements of training for primary healthcare staff justified?

I've been unable to find out how many people have cardiac arrests in GP surgeries each year, but I've been a GP for 25 years, and it has never happened in a practice I've been working in. Nor has anyone else ever told me that it has happened to them — and it's the sort of dramatic experience people tend to talk about. So it's probably pretty rare.

And of course BLS is not always successful; the American Heart Association suggests that even in cities such as Seattle, Washington, where CPR training is widespread and EMS response and time to defibrillation is short, the survival rate for witnessed VF cardiac arrest is about 30%.[3] And how much more successful are you likely to be if your training was 6 months ago, rather than 6 years? There is evidence that skills deteriorate rapidly after training, but how quickly and when they plateau is less clear. And of course most research has been on nurses and doctors in acute units, where motivation will be higher and exposure to such situations more common. Its not clear whether the time intervals in the QOF are evidence based or arbitary.

NICE uses the QALY system (quality adjusted life years) to determine the cost-effectiveness of treatments.[4] Their average 'cost per QALY' for an intervention to be worth funding is £25 000.[4] If these figures are correct, the QOF payment would have to produce 160 QALYs each year to be worthwhile. If those successfully resuscitated lived on average 20 years after their arrest (a reasonable guess, given that a few youngsters with arthymmias will gain more QALYs, but many of those resuscitated will have infarcts and serious heart disease), then eight successful resuscitations each year in the UK would justify the programme — or 27 arrests in the presence of primary care clinicians, if we are as effective as the population of Seattle and Washington. On these assumptions, the programme would be worthwhile if a GP encountered a cardiac arrest every 1518 years in practice, so perhaps its not surprising that I have never heard of it happening.

So my time with Nellie the Elephant may be well spent. But so that we can all be sure of this, perhaps arrests which occur in practices and their outcome should be reported, like infectious diseases; and how long it was since those taking part have been trained. Then we would be more certain.

Peter D Toon

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