

# Education and debate

## Paying for statins

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Should UK general practitioners be able to offer private prescriptions for statins to patients below 3% risk of heart disease?

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Coronary heart disease is a major cause of illness in Britain, with around 100 000 deaths from 300 000 heart attacks annually.<sup>1 2</sup> Raised cholesterol concentration is an important risk factor for coronary heart disease.<sup>3</sup> Treatment with 3-hydroxy-3-methylglutaryl coenzyme reductase inhibitors (statins) significantly reduces cholesterol concentrations, decreasing the risk of heart attack by at least 33%<sup>4</sup> and as much as 61% in the long term.<sup>5</sup> Statins are relatively safe,<sup>6</sup> and their benefit is additive to other preventive measures, such as aspirin.<sup>7</sup> However, many people who could benefit from them are not currently receiving them, largely for economic reasons. This article explains the rationale for increasing prescribing of statins and suggests one way in which this could be afforded.

### Cost of treatment

Current evidence shows that statins reduce the risk of developing coronary heart disease in people with a greater than 0.6% a year chance of developing the disease.<sup>8</sup> However, the national service framework that establishes standards for the prevention of coronary heart disease recommends treatment only for people with a risk of over 3% a year.<sup>1</sup> The cost effectiveness of statins (based on a benefit of 33%) has been estimated at £4500 (\$8250, €6460) per life year gained for a year's treatment of people at a 3% annual risk of coronary heart disease and £6100 a year for people at a 1.5% annual risk; the net discounted cost per life year saved to the NHS is £7500 and £11 800 respectively.<sup>9</sup> The marginal cost to the NHS of expanding treatment from those at 3% risk to those at 1.5% risk would be £12 500 per life year saved.<sup>9</sup> This is well within the threshold of £30 000 per life year gained that the National Institute for Clinical Excellence seems to use.<sup>10</sup>

But this is not necessarily the good news that it sounds. Cost effectiveness analysis does not take account of total budgetary impact; prescribing statins for those whose annual risk is over 3% would lead to treating 8.2% of the adult British population, whereas treatment for those whose risk is greater than 0.6% would lead to treatment of over 40% of the adult population.<sup>11</sup> The annual cost of statins to the NHS, based on a daily dose of 40 mg of simvastatin, is £337 for each patient.<sup>12</sup> Forty per cent of the adult British population is around 18 million.<sup>13</sup> Thus, if all eligible



Polarised light micrograph of cholesterol crystals

adults were treated, the total drug cost would be over £6bn—about 10% of the total NHS budget.

Simvastatin has now lost its patent, and its price is likely to fall. However, if we take the recent example of fluoxetine, generic competition reduced the price only to £66 a year.<sup>12</sup> Even at this price, treating all eligible patients would still cost over £1bn.

### Ethical problem

All of this raises ethical issues for general practitioners. They can treat all patients with raised blood pressure and give advice about smoking, exercise, and diet, but they can prescribe statins only to those with a risk of greater than 3% a year despite knowing that many more would benefit.<sup>1</sup> Clearly, if all general practitioners prescribed statins based on effectiveness, or even cost effectiveness, they could bankrupt the NHS.

The problem is compounded by the ban on general practitioners giving private prescription to their NHS patients. Private prescriptions break the core NHS principle to “provide a universal service for all based on clinical need, not ability to pay.”<sup>14</sup> However, although private prescription would increase inequality in access to health care, is this necessarily unethical? We suggest not. Rather, we believe it is both economi-

### Estimated cost of private treatment with statins using NHS infrastructure

	Cost/year (£)*
Cholesterol test	12.91
Nurse (salary, overheads, capital overheads, training)	14.75
Drug (40 mg generic simvastatin)†	66
Total	93.66

\*Inflated at 3%/year from 2000 prices.

†Generic price based on example of fluoxetine.

cally and ethically justifiable to allow general practitioners to prescribe statins privately, not only because of the benefit to the person taking statins but because of the broader positive effects that will accrue to the rest of society.

The key issue is that patients who are currently ineligible for statins are invariably not informed of this form of rationing and as such are not able to choose other, private, means of obtaining treatment. However, many patients, if told that they could benefit from statins might be willing to pay for a private prescription. This will depend on the individual's valuation of (the benefit derived from) statins relative to other potential subjects of expenditure and income.<sup>15</sup>

We have estimated that the cost of private treatment with monitoring by a NHS practice nurse working within a protocol, is £93.66 a year (table).<sup>16</sup> This is far less than median household expenditure on, for example, alcohol (£320), clothes (£380), and motoring (£920).<sup>13</sup> Statins may therefore be quite affordable to people on average earnings.

### Ethics of private prescriptions

Under our proposed scenario, people with a cholesterol concentration corresponding to a risk of coronary heart disease of between 0.6% and 3% a year would be offered private treatment and monitoring by their own primary care team. This would ensure a patient specific holistic approach to managing risk. In addition to the benefits to the individual, the total incidence of coronary heart disease would fall because more people would be treated with statins. This would, at the very least, make no one worse off, but it may save NHS expenditure on treating coronary heart disease, releasing money to spend elsewhere. In this case, it would be possible for the NHS, through primary care trusts, to target such savings to poorer areas—for example, for primary prevention of coronary heart disease. Allowing those who can afford private prescriptions for statins to have them could therefore also benefit those who cannot afford them.

Although increasing inequality, this is ethically justifiable under the difference principle.<sup>17</sup> This is a form of inequality whereby all members of society gain, which has been argued to be ethically just by John Rawls and others.<sup>17</sup> Although relative inequality in access would increase, absolute levels of health care would increase, which would benefit all individuals in society irrespective of their ability to pay. The pursuit of equity under the current situation simply ensures that everyone is equally worse off than they could be under our proposed scenario.

### Summary points

Statins are cost effective in reducing coronary heart disease

Prescribing under the NHS to all patients who would benefit from them is not affordable

Current medical practice denies effective treatment to 32% of the adult population

Private prescriptions by general practitioners would be ethical as they would benefit all members of society

### Conclusions

The debate concerning access to statins is a parable for the future of the NHS. Under current guidelines many people are being denied not only effective treatment but also the choice of obtaining that treatment though their own expense within the NHS (in itself paradoxical given the current emphasis of government on promoting patient choice).<sup>18</sup> The government has proposed making statins available over the counter, but there is considerable resistance to this because treatment would be unmonitored. The current option of treatment through a private consultant would be prohibitively expensive for many. We suggest that unless patients who are excluded from effective treatment (because of rationing) are offered the option of obtaining this treatment privately, it is this inequity that will threaten the future of the NHS.

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## Patient commentary: paying to choose

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Everyone likes the idea of choice. The world would be a boring place without it. When that choice extends to extending your chances of living a long and happy life rather than dying or being debilitated by coronary heart disease, it becomes even more appealing. If I ever had high cholesterol concentrations I would desperately attempt to alter my lifestyle, probably fail miserably, and end up back at the general practitioner with my cheque book in hand begging for the wonder drug that would keep my cholesterol concentration under control.

Intellectually, I feel guilty about inequality and inability to pay. I think it is a fundamental "right" that everyone should get drugs that save lives or avoid unnecessary suffering. However, as Raithatha and Smith point out, there is a limit on who gets support, and NHS finances don't stretch as far as they should. So should everyone suffer as a result? I think not.

Just in case my guilt does not disappear, the authors come out with soothing statistics about the costs of private treatment compared with household expenditure on alcohol, clothes, and motoring showing statins could be affordable. Then there is the argument that, if people go private, the total incidence of coronary heart disease would fall so that NHS

money would be released for the general good. I think my guilt has disappeared—almost.

I am perhaps more worried about the practical implications of encouraging overworked and stressed general practitioners to write out private prescriptions. Patients react to illness in different ways. Some want to question, to weigh up the alternatives, to perhaps seek a second opinion. Others just want their general practitioners to tell them what to do.

This could put general practitioners in an awkward position. They might have to make an instant judgment on whether a patient could afford a private prescription; they might find themselves prescribing a drug that they have not had time to research thoroughly; they might be under pressure within their own budgets, and it would be so easy to push the private option. They might also be under pressure from the "unbeatable" sales pitch from the drugs company. Under these circumstances could patients really get an accurate picture of the risks or benefits? I wonder.

To give a choice to the 32% of the adult population currently denied effective treatment for high cholesterol concentrations certainly sounds desirable, but would they get an informed choice? Probably not. Competing interests: None declared.

### Ward rounds ain't what they used to be

My first experience of ward rounds was as a first year clinical student in 1950. The professorial parade occurred on two afternoons a week, and, with the professor's known wartime naval career, there was a background of naval terminology, such as the ward being unofficially known as the quarterdeck. The professor's retinue of assistants, lecturers, house surgeons, and many others was so large that, by the time he had reached the second bed in the clockwise circuit of the Nightingale ward, the last of us were still coming in through the ward doors. After that the ward doors were closed and guarded by a porter to deter any unauthorised person who might inadvertently enter and disturb the churchlike tranquillity that prevailed during the event. Every so often, word would come down the line about what was happening or being said among the great ones up at the front. There was an atmosphere of important decision making.

Once in a while, a request would arrive at the back for the medical student who had been allocated a particular patient to come up to the front in order to participate in the muttered case conference at the bedside that was taking place beyond earshot for the rest of us. On arrival up at the front, the medical student was awarded the title, for some archaic reason, of "Mr Dresser." The patients lay to attention in freshly made beds, and starched nurses stood about, eager to assist those patients who might be examined. As the professor moved on, a junior acolyte would be deputed to whisper to the patient what the professor had said.

But there were occasional lighter moments. The professor was a kindly man of dignified stature, and on one day there happened to be a scruffy young boy who had just been admitted with abdominal pain. Wishing to demonstrate his charm and paternalistic skills, the smiling professor gently poked him in the stomach and said, "And how are we today, young man?"

To which the boy responded in a surprisingly loud voice, "Buzz off, fatty."

In the shocked silence that followed, there were many semi-controlled smirks, and the professor actually blushed as he left his first assistant to deal with the problem. It obviously ruined his day, and I felt I had witnessed a latter day version of David and Goliath. Also, it was an early valuable lesson that actors have always understood: never try to score points off children.

In my latter days of clinical practice, my early morning rounds were a great contrast—always noisy and chaotic, with patients coming and going on rattling trolleys and wheelchairs, telephones ringing, frantic searching for the results of investigations or patients' notes, and the instruction of new junior doctors in their duties. Actually, I thought these rounds worked well for good patient care, but I often wondered whether the pendulum of formality had swung too far the other way.

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