Did cost inhibit the uptake of more potent statins?

Stephen R. Chapman[1*], Ray W. Fitzpatrick[1,2], Mohammed I. Aladul[1]

[1]School of pharmacy, Keele University, Stoke-on-Trent, UK

[2]Royal Wolverhampton Hospitals NHS Trust, Wolverhampton, UK

*Correspondence to: S. R. Chapman, School of pharmacy, Keele University, Keele, Staffordshire ST5 5BG, UK

E-mail: s.r.chapman@keele.ac.uk

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Purpose

The use of statins has increased substantially over the last two decades in the UK. Of the two market leading statins, simvastatin and atorvastatin, atorvastatin is the more potent at reducing LDL. Our hypothesis, is that in a financially constrained health system such as the NHS, the cost of statins will influence their use. The prescribing pattern of the market leading statins were examined before and after patent expiry, to elucidate whether the reduced acquisition costs had an impact on the prescribing the more potent agent in England.

Methods

Primary care prescribing data was drawn from the health and social care information centre (HSCIC) database from 1998 to 2014. Secondary care prescribing data has only been available to the NHS since 2011 from the Define Software. The volume comparator was the defined daily dose (DDDs) as defined by the World health organization (WHO). Prescribing trends were analysed for the market leading statins in both primary and secondary care.

Results

Expenditure on statins in England rose by 333% between 1998 and 2003 when only branded statins were available. Expenditure decreased by 80% over the next decade when generic statins became available. Since 2003, following the patent expiry of branded simvastatin (Zocor)®, generic simvastatin dominated the market achieving 76% of the statin market share by 2011. Following the patent expiry of branded atorvastatin in 2012, the volume of prescribing of generic atorvastatin started to increase again and by 2014 has increased to 36%. Before 2003, when only branded statins were available, the use of more potent atorvastatin was increasing in all strengths. By 2003, the market share was 50:50 between simvastatin and atorvastatin. With the availability of less expensive generic simvastatin, the use of simvastatin 40mg increased over the more expensive branded atorvastatin. This pattern starts to reverse with the availability of generic atorvastatin which was similarly priced to generic simvastatin.

As with primary care, with the availability of generic atorvastatin in 2012 in secondary care, the use of this more potent agent rose from 40% in 2011 to 61% in 2014, at the expense of generic simvastatin.

Conclusions

The initial rise in expenditure in primary care has been driven by branded simvastatin and atorvastatin. However, with the availability of less expensive generic statins, overall expenditure in England has decreased. When only branded statins were available prior to 2003, potency appears to be influencing prescribing. The availability of less expensive generic simvastatin shifted the market in favour to this less potent agent. However, with the availability of equally priced generic atorvastatin, potency again appears to be influencing prescribing in both primary and secondary care. Therefore, when there is a significant price difference, acquisition cost appears to be influencing the prescribing of statins, but, when costs are similar potency is a key factor in prescribing statins.