INTRODUCTION

Shingles is caused by the reactivation of latent varicella zoster virus infection with incidence increasing with age. A vaccination programme was introduced in England in September 2013, targeting 70-79 year olds, with the goal of reducing postherpetic neuralgia (PHN) a painful and distressing condition. A vaccine was offered to adults aged 70 (routine cohort) and 78-79 years (catch-up).

The study assessed the impact of this vaccination programme on GP consultations and hospital admissions.

METHODS

We used the Royal College of General Practitioners (RCGP) Research and Surveillance Centre (RSC) sentinel network for the primary care, representing over 1% English population that is geographically representative of the general population.

Data for the period October 2005 to September 2018 were obtained for patients aged 60 to 89 years. Denominator data was obtained for patients registered each month and stratified by age at September 2013, year/month, gender and GP practice.

RCGP RSC data were used to estimate vaccine coverage, eligibility and incidence of shingles and postherpetic neuralgia incidence change from the period before to after vaccine introduction in each targeted birth cohort. To account for changes that may have occurred in the absence of vaccination we used the incidence trend in those birth cohorts not yet targeted at each time point. This interrupted time-series modelling was done using Poisson regression with factors to identify the vaccine targeted cohorts as well as age effects and a time trend.

RESULTS

We also observed 47% and 38% reduction in PHN incidence across routine and catch-up cohorts.

This would be equivalent to reduction in PHN episodes of 0.6-0.7/1000 person years - a large public health impact.

CONCLUSIONS

This study provides continued evidence of a population impact of the herpes zoster vaccination programme on herpes zoster and PHN amongst older adults in England.

The reduction translates to approximately 38,000 fewer zoster presentations and 8,100 fewer PHN episodes amongst the 4.5 million individuals, eligible for vaccination between 2013-2018.

This is in the context of an increasing incidence of zoster over time, reflecting changes in population demographics and similar to trends observed in other countries.

ACKNOWLEDGEMENTS

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REFERENCES

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