

Comparison of postal and non- postal post- vasectomy semen sample submission strategies on compliance and failures: an 11- year analysis of the audit database of the Association of Surgeons in Primary Care of the UK

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ABSTRACT

Background: Vasectomy occlusive success is defined by the recommendation of ‘clearance’ to stop other contraception, and is elicited by post- vasectomy semen analysis (PVSA). We evaluated how the choice of either a postal or non- postal PVSA submission strategy was associated with compliance to PVSA and effectiveness of vasectomy.

Methods: We studied vasectomies performed in the UK from 2008 to 2019, reported in annual audits by Association of Surgeons in Primary Care members. We calculated the difference between the two strategies for compliance with PVSA, and early and late vasectomy failure. We determined compliance by adding the numbers of men with early failure and those given clearance. We performed stratified analyses by the number of test guidance for clearance (one- test/two- test) and the study period (2008/2013/2014–2019).

Results: Among 58 900 vasectomised men, 32 708 (56%) and 26 192 (44%) were advised submission by postal and non- postal strategies, respectively. Compliance with postal (79.5%) was significantly greater than with non- postal strategy (59.1%), the difference being 20.4% (95% CI 19.7% to 21.2%). In compliant patients, overall early failure detection was lower with postal (0.73%) than with non- postal (0.94%) strategy (–0.22%, 95% CI –0.41% to –0.04%), but this difference was neither clinically nor statistically significant with one- test guidance in 2014–2019. There was no difference in late failure rates.

Conclusions: Postal strategy significantly increased compliance to PVSA with similar failure detection rates. This resulted in more individuals receiving clearance or early failure because of the greater percentage of postal samples submitted. Postal strategy warrants inclusion in any future guidelines as a reliable and convenient option. Key messages

- ▶ Postal semen sample submission strategy after vasectomy results in better compliance and similar early failure and late failure rates compared with fresh sample non- postal strategy.
- ▶ When compliance is accounted for, postal strategy allows recommending cessation of other contraceptive methods (clearance) in one in five more men than a non- postal strategy.
- ▶ Postal semen sample submission strategy for post- vasectomy semen analysis warrants inclusion in future guidelines as a reliable and convenient option.

INTRODUCTION Vasectomy is a compelling choice for couples requiring non- reversible contraception as it is safer, quicker, associated with less morbidity and more effective than female sterilisation.¹ Contraceptive efficacy, however, is not immediate