

# Summary of: Preaching to the converted – optimising adverse drug reaction reporting by dentists

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## FULL PAPER DETAILS

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**Objective** To assess the level of knowledge and reporting of adverse drug reactions (ADRs) of dentists at different stages of their careers and conduct a training need analysis. **Design** Structured questionnaires were distributed to final year dental students (DSs), foundation year one students (DF1s) and general dental practitioners (GDPs). **Setting** Opportunity samples of DSs from Kings College London, DF1s from the postgraduate deaneries of Kent, Surrey and Sussex, and Oxford and GDPs in Hampshire and the Isle of Wight. The study was conducted from November 2012 to February 2013. **Main outcome measures** Relative knowledge and awareness of ADRs and ADR reporting, and performance in an assessment of these aspects. **Results** Thirty-one DSs, 35 DF1s and 98 GDPs took part in the study. Awareness of the Yellow Card Scheme varied between groups (30.8%, 48.6% and 88.8% respectively). Reported use of the scheme was uniformly low (2.6%, 5.7% and 5.1% respectively). There were no differences in knowledge about ADRs and ADR reporting between the three groups of dentists as indicated by median scores achieved in the questionnaire test (54%, 73% and 62% for DSs, DF1s and GDPs respectively;  $p = 0.638$ ). All of the DSs, 91.4% of DF1s and 91.8% of GDPs said that they would welcome further training. Key topics included training on ADRs to medicines commonly used in their dental practice and deciding what ADRs needed to be reported. The most popular format for delivery of this training was formal lectures for DF1s and GDPs, but workshops for DSs. Postgraduate deaneries were the most popular provider choice for DF1s and GDPs. **Conclusions** Dentists at different stages of their careers showed variable awareness and knowledge of the UK Yellow Card Scheme and what to report. Training should be tailored to fit the needs of the different groups. A questionnaire survey incorporating a summative knowledge assessment demonstrated variable levels of knowledge about adverse drug reactions and what to report. Large majorities of all groups (>90%) expressed a desire for training in these areas and in the case of graduate and practising dentists, indicated that this should be organised by the postgraduate deaneries.

## EDITOR'S SUMMARY

The Yellow Card Scheme is the main adverse drug reaction (ADR) reporting scheme in the UK.<sup>1</sup> It was introduced in 1964 after the thalidomide tragedy highlighted the urgent need for routine monitoring of medicines. The Yellow Card Scheme receives about 25,000 reports of possible side effects each year. The authors of this paper report that 42 of the 25,000 or so reports during the 2011/12 period were from dentists – 0.3%. This doesn't look so good for dentists. However, it's a case of 'lies, damned lies and statistics' to an extent because this figure doesn't tell the whole story at all.

As reported previously in this Journal, the authors have investigated how dentists deal with adverse drug reaction reporting.<sup>2</sup> That study showed that GDPs are certainly aware of the importance of reporting ADRs but the problem is that

very few are aware of the correct procedures to do so. Basically, dentists have not benefitted from much training on how to report ADRs. Indeed, in that paper, it was recommended that dentists wanted more education and training on the reporting procedures as over 70% had had no training in the Yellow Card Scheme run by the Medicines and Healthcare Products Regulatory Agency (MHRA).

So often research papers end with a requirement for 'further research'. Well in this case, here it is. This is the follow-up research because this looks at what should be on an ADR training programme and how best to deliver such information to the different target groups in dentistry – namely final year dental students, DF1s and GDPs. It is a good example of how the results of a research study have provided evidence of a problem which can hopefully be addressed using the

results of this study on how best to train dentists on ADRs. I look forward to seeing the 'further research' in a few years which should hopefully demonstrate an increase in awareness of the Yellow Card Scheme amongst dentists – assuming the outcomes of this study are heeded by postgraduate deaneries.

The full paper can be accessed from the *BDJ* website ([www.bdj.co.uk](http://www.bdj.co.uk)), under 'Research' in the table of contents for Volume 217 issue 2.

Ruth Doherty  
Managing Editor

1. MHRA. *The Yellow Card Scheme*. Online information available at <http://www.mhra.gov.uk/Safetyinformation/Howwemonitorthesafetyofproducts/Medicines/TheYellowCardScheme/index.htm> (accessed July 2014).
2. Yip J, Radford D R, Brown D. How do UK dentists deal with adverse drug reaction reporting? *Br Dent J* 2013; 214: E21.

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**IN BRIEF**

- Explores the perceptions and attitudes of dental students and practising dentists towards identifying and reporting suspected adverse drug reactions via the yellow card scheme.
- Provides an impression of the level of pharmacovigilance knowledge and a training needs analysis.

**COMMENTARY**

This study has assessed the awareness and attitudes towards the yellow card reporting system for adverse drug reactions by dentists at various stages in their career. The results highlight that the majority of dentists, who are regular prescribers of drugs in addition to managing patients on multiple medications, are not confident about what adverse reactions to report or whether they should report them at all.

The study also emphasises a lack of training in the area of adverse drug reporting, which is a serious omission in the responsibilities of the profession.

This lack of knowledge and action with regard to adverse drug reactions links with known poor prescribing habits among some dentists and so these results reinforce the need to initiate continuing education for prescribing and pharmacovigilance. The paper also

usefully demonstrates that such continuing education should form part of the continuing professional development provided by the dental deaneries.

Inclusion of educational material on adverse drug reporting into continuing educational programmes would improve reporting of adverse drug reactions by the profession, which in turn would inevitably inform appropriate drug prescribing, enhance patient safety and reduce drug related morbidity. Dental deaneries should take note to include such modules in future topic planning for continuing education.

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**AUTHOR QUESTIONS AND ANSWERS****1. Why did you undertake this research?**

We believe that adverse drug reaction (ADR) reporting is a professional obligation for all healthcare professionals. The MHRA yellow card reporting scheme is the main conduit for such reporting and has in the past played an effective role in pharmacovigilance; however, it is known that the scheme is prone to under-reporting.

A previous paper in this journal, resulting from collaboration between the Portsmouth School of Pharmacy and the Dental Academy, indicated that while dental practitioners were generally aware of the yellow card scheme, they rarely used it. Part of the problem appeared to be lack of training in this area.

We targeted groups of undergraduates, dental foundation trainees and practising dentists to find out what education was lacking and how this might be addressed.

**2. What would you like to do next in this area to follow on from this work?**

Our research has given us a steer on content and format for the development of a structured postgraduate training package for dentists.

We would like to develop this and test its effect on ADR knowledge and ultimately, dentist engagement with pharmacovigilance.

We are also currently studying the potential for extending collaboration between the pharmacy and dental professions to benefit the care of patients. **One aspect under investigation is the possibility of joint training sessions on topics such as ADR reporting.**