ANONYMOUS REPORTING OF DRUG-RELATED ERRORS: APPLICATION OF A MODIFIED SECONDARY CARE MODEL IN A COMMUNITY PHARMACY SETTING

By C. Alice Oborne, MSc, MRPharmS, Vanessa Burgess, MSc, MRPharmS, Gillian. F. Cavell, MSc, MRPharmS, Sonia Colwill, BPharm, MRPharmS, and Roma Williams, BPharm, MRPharmS

In this article the authors describe a project to assess the feasibility of extending a medication error reporting system operating in secondary care to local community pharmacists

Medication errors have been defined as preventable prescribing, dispensing or administration errors and have the potential to cause significant harm.[1,2] The role of pharmacists in identifying prescribing and administration errors is well recognised within secondary care but to date community pharmacists' contributions have not been formally assessed.

A system of anonymised error reporting, SureMed, has operated in King's College Hospital since 1993.[3] Anonymity, no-blame and impartiality are key features of the scheme, which focuses on the process leading to the error rather than the outcome of the error or the individual(s) involved in the error. Reporting was anonymous from the outset to reinforce the no-blame ethos, to enhance reporting rates and to distinguish SureMed from clinical incident reporting, which was not necessarily no-blame. Errors or near misses are documented by hospital pharmacists or telephoned directly to a specified telephone line in the pharmacy medicines information department, by any health care professional. Reported errors are reviewed regularly and alerts or newsletters issued to medical, nursing and pharmacy staff to highlight problem drugs or practices. Where appropriate, changes are made to the drug use process to reduce the risk of error recurrence. A drug error reporting scheme exists across the local community trust for all disciplines and has identified errors and near misses with drug use in the community.

The 2000 NHS National Plan placed great emphasis on clinical governance, including risk management.[4] Clinical governance and risk management are poorly developed in primary care and more work is needed to include community pharmacy fully in local clinical governance strategies.[5,6] The Commission for Health Improvement (CHI) recently initiated a series of clinical governance reviews for primary care trusts, including clinical risk management arrangements, service changes resulting from these arrangements, and shared learning from clinical errors.

This work aimed to assess the feasibility of extending a medication error reporting system operating in secondary care to local community pharmacists. The objectives included:

- Investigating the acceptability of an error reporting system for community pharmacists
- Providing a central point for the reporting of actual or potential medication errors for both primary and secondary health care
- Disseminating anonymous, no-blame information about medication errors locally

Project team, local links A team comprising a research pharmacist, a prescribing adviser to the local primary care group (PCG), a senior hospital pharmacist, a health authority senior pharmaceutical adviser and the secretary of the local pharmaceutical committee, was convened to co-ordinate the project.

The local community trust was also informed of the project and agreed to relay any community pharmacy-related medication errors reported to its scheme.

The PCG includes four pharmacies which are part of large multiples, two pharmacies from chains of five or more, 11 small chains (fewer than five pharmacies) and 13 independent pharmacies. A community pharmacist development group (CPDG) exists in the PCG. All community pharmacists in South Southwark are invited to the bi-monthly meetings. Attendance varies between eight and 15 community pharmacists, the majority of whom are independent contractors.

Ms Oborne is a pharmacist for evidence-based practice, King's College Hospital, Mrs Burgess is prescribing adviser, South Southwark Primary Care Group, Mrs Cavell is associate director of pharmacy, clinical services, King's College Hospital, Ms Colwill is pharmaceutical adviser, Lambeth Southwark and Lewisham Health Authority and Mrs Williams is secretary, Lambeth, Southwark and Lewisham Local Pharmaceutical Committee.
Correspondence to C. Alice Oborne, Pharmacy Department, King's College Hospital, Denmark Hill, London SE5 9RS

Concepts of clinical governance were introduced to local community pharmacists at two educational events organised by the health authority and by the PCG.

A small honorarium was offered to community pharmacists for their participation in this project.

Assessment of community pharmacists' opinions of anonymous error reporting A questionnaire was developed and piloted to assess community pharmacists' opinions around medication errors, factors affecting error rates and the possibility of collaborative error reporting.[7] The questionnaire was distributed to all 30 community pharmacies in the local PCG. A follow-up telephone reminder was made to all pharmacies four weeks later.

All respondents believed prescribing errors and dispensing errors were important or very important, and 95 per cent believed administration errors were important or very important.[7]

Respondents believed they would report errors in prescribing (100 per cent), dispensing (95 per cent), administration (84 per cent) and near misses (84 per cent). The preferred methods of reporting were by post (52 per cent) and by telephone (26 per cent). Fax was the second preference for 37 per cent of respondents. Respondents indicated factors motivating them to take part in an error scheme were simplicity of use, blame-free, free access (no cost to report errors or to receive feedback) and payment for reporting.

Preferred methods of receiving feedback were by post (63 per cent), at a meeting (28 per cent) or via an internet site (13 per cent). When asked to whom data should be disseminated, 58 per cent of respondents said data should be disseminated nationally and 37 per cent favoured local dissemination only. Respondents supported reporting of anonymised data to participating community pharmacists (100 per cent), all community

pharmacists (95 per cent), health authority pharmacists (95 per cent), PCG advisers (89 per cent), GPs (84 per cent) and hospital pharmacists (84 per cent) but were less in favour of feedback to care homes (37 per cent).

Audit, education, feedback, group discussion and implementation of peers' suggestions were believed to be important factors to change practice. Highlighting specific problems to individuals, flagging common problems on computer systems and forming a lobby group to change similar drug names were also suggested.

Important factors to make a medication error reporting scheme succeed were group discussion, multidisciplinary collaboration and a local co-ordinator to visit prescribers and dispensers.

When respondents estimated the number of errors they saw annually, the median (range) was 52 (2 to >1,000) prescribing errors; 15 (1 to 260) dispensing errors; 24 (1 to 360) near misses and 6 (1 to 36) administration errors per year.

Modification of secondary care error reporting scheme for community use Bearing in mind preferences expressed in the questionnaire, minor changes were made to the secondary care scheme for community use. It was piloted in five pharmacies. The form collected information on the source of the error, type of error, the drugs involved, how the error was caused, discovered and how it could be avoided in the future. The reporter was also asked to rate the importance of the error as "information only", "significant" or "dangerous". A dedicated e-mail address was set up, allowing electronic reporting. Other methods of reporting errors already available were via the dedicated telephone line in the hospital pharmacy medicines information department, by post, by fax or in person at development group meetings.

Advertising and invitation to report Laminated posters and flyers advertising the project aims and methods of reporting errors were sent to all community pharmacists in the PCG, along with error reporting forms. The project was then launched at the CPDG meeting. The anonymous and no-blame ethos of the project was emphasised and clinical governance and risk management aspects highlighted. Pharmacists were invited to report actual medication errors or near misses, including those occurring during prescribing, administration and dispensing, by any of the five methods available. Pharmacists not present at the development group meeting were visited by members of the project team to outline the scheme.

Review of reported errors At the outset it was intended that a multidisciplinary team including community pharmacists and GPs would review data every three months, but organising meeting times for the multidisciplinary team was difficult. Local community pharmacists agreed that the development group itself would be a good forum to discuss error data and to suggest suitable alerts for dissemination. The error reporting form was amended to ask reporters to indicate their agreement (or otherwise) with anonymous error review at the development group, to avoid any sensitivity regarding the wider discussion of an error. Community pharmacists reviewed anonymised reports, identified any patterns and causes of errors and proposed strategies to reduce recurrence. Members of the project team also attended meetings.

Alerts and newsletters sent to local pharmacists

Topics of alerts

- Wrong drug; drugs with similar names — Istin and ISMN
- Wrong drug; similar appearance — corporate packaging
- Dose form error — nifedipine
- Wrong presentation — tinzaparin
- Prescribing error — methotrexate
- Wrong formulation — Premique cycle
- Duplicate dose error — multiple patient packs
- Wrong drug — Tenoretic
- Wrong drug — rifampicin containing preparations
- Wrong drug error — hydroxyzine
- Wrong dose — alendronate once weekly
- Wrong drug error; drugs with similar names — Protium and Pariet

Topics of newsletters

- Anonymous, confidential, no-blame error reporting, launch date
- Reinforce aims of scheme, call for error and near miss reports
- Update of reports to date and promotion of scheme

Feedback via alerts, newsletters and the CPDG Alerts were initially sent to local community pharmacists every two weeks to maintain awareness of the scheme. The first alert and newsletter were sent immediately before the launch at the CPDG meeting, to heighten awareness of the project and demonstrate the anonymous, no-blame, non-punitive approach to feedback.

As in the secondary care scheme, alerts highlighted recurring errors or serious errors presenting significant risk and included specific recommendations of modifications to systems of practice to minimise recurrence. Newsletters gave more general advice or information. For example, the first two newsletters emphasised the importance of medication error reporting and summarised the results of the questionnaire. Early alerts were based on errors collected in secondary care over eight years also relevant to primary care, because error reports from community pharmacists were not available initially. New error reports originating within the secondary care scheme but with relevance to community pharmacy were also considered by the project team when developing alerts, newsletters and topics to highlight at the development group.

In total 12 alerts and three newsletters were sent over nine months (see Panel).

Error reports during the first nine months A total of 56 reports have been received from community pharmacists to date. This includes 10 near misses (18 per cent) and 46 actual errors (82 per cent). The majority of reports were received by post (40, 71 per cent), seven (13 per cent) by fax and nine (16 per cent) during personal contact at the bimonthly meetings. No pattern of offending drugs has yet been established since the same medication error has not been reported more than once. When the types of errors are considered, the wrong drug was prescribed or dispensed 19 times (34 per cent) and 15 (27 per cent) were wrong dose/strength errors. A further five (9 per cent) were classified as wrong patient errors, ie, the incorrect patient's name was on the prescription, or another patient's drugs had been prescribed for the patient.

Discussion Anonymous reporting of medication errors or near misses appears to have been well accepted by participating community pharmacists. Results indicate that they support the concept of a medication error reporting scheme provided that it is anonymous, easy to use, free and feedback is provided. Respondents were in support of group discussions and multidisciplinary collaboration to prevent error recurrence.

Regular alerts and newsletters appear to have been important for feedback, to give constant reminders about the risk of drug errors and to suggest possible changes in practice to minimise recurrence. Participation in the development group and personal visits from the project team also appear crucial to promoting the scheme and ensuring ownership by community pharmacists. The questionnaire reflects opinions of a fairly small number of community pharmacists and it is not clear whether community pharmacists' opinions nationally differ from those reported here. This may warrant further work. Although pharmacists indicated in the questionnaire they saw a median of 97 prescribing, dispensing, or administration errors or near misses annually, reports averaged fewer than two per community pharmacy over the nine-month period. Reasons for this were not assessed but it may reflect residual concerns about confidentiality, litigation, incentives or simply a lack of time. This is in line with voluntary reporting schemes elsewhere.[8]

Some community pharmacists are recording their participation in this scheme in their continuing professional development portfolios.

Since the pilot project commenced, a Department of Health report "Building a safer NHS for patients" recommended that a new integrated approach to learning from medical error, adverse events and near misses be introduced.[9] The report suggests that definitions of adverse events and near misses for logging and reporting purposes, formal-

ising a minimum data set and standardised reporting format should be established, to promote a culture of reporting and patient safety within NHS organisations. The report quotes the SureMed error reporting scheme at King's College Hospital.

Local drug error reporting schemes such as the one reported here may help trusts achieve CHI objectives of risk management, learning from clinical error and sharing of this learning, and establishment of a blame-free culture.[10] Since a local scheme allows rapid feedback of data on all levels of errors, this model may complement the mandatory centralised reporting of serious errors proposed in "Building a safer NHS for patients".

This anonymous drug error reporting model appears generalisable, permitting extension to other primary care organisations and to other health care professionals. It has been agreed in principle that the project will roll out across local primary care organisations and may extend to include reporting by all health professionals. The future integration of the scheme into the PCT clinical governance function will be a key driver to encouraging multidisciplinary involvement. Multidisciplinary review of error reports could be expected to be facilitated if reporting was extended to all health carers.

ACKNOWLEDGEMENTS We are grateful to the Guild of Healthcare Pharmacists, the National Pharmaceutical Association and Merck Sharp and Dohme for their support via the MSD Joint Award.

We wish to acknowledge the contribution of Tony Carson, community pharmacist development manager, Lewisham, Southwark and Lambeth Health Authority and of Jenny Orford, pharmacy medicines information manager, King's College Hospital.

Finally, we are grateful to community pharmacists in South Southwark for their participation in this project.

REFERENCES

1. Cousins DH. Do you report medication errors? Hosp Pharm Pract 1993;3:376–78.
2. Reducing error, improving safety. BMJ 2000;320:725–814.
3. Cavell GF. Scheme for anonymous reporting of medication errors. Pharm J 1993;251:796.
4. Department of Health. NHS National Plan. London: The Department; 2000.
5. Department of Health. Pharmacy in the Future — Implementing the NHS Plan. A programme for pharmacy in the National Health Service. London: The Department; 2000.
6. Rosen R. Improving quality in the changing world of primary care. BMJ 2000;321:551–4.
7. Cavell GF, Burgess V, Oborne CA, Williams R, Colwill S. Attitudes of community pharmacists towards medication error reporting. Int J Pharm Pract 2001;9(Suppl):R64.
8. Allen EL, Barker KN. Fundamentals of medication error research. Am J Hosp Pharm 1990;47:555–71.
9. Department of Health. Building a safer NHS for patients. London: The Department; 2001.
10. Commission for Health Improvement. An overview of clinical governance reviews. Available at www.chi.nhs.uk/eng/cgv/overview.shml (accessed 17/01/02).