Medication reconciliation activities among pharmacists in Europe

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ABSTRACT

Objective To investigate pharmacists' involvement in medication reconciliation (MedRec) and the quality of MedRec processes throughout Europe.

Methods A survey with six questions was sent to delegates from the 30 countries participating in the EAHP Academy Seminar Camp focusing on MedRec.

The questionnaire included four questions regarding the status of MedRec on a national level including the prevalence of MedRec, available educations, requirements of the pharmacists and training of new staff.

Results 52 delegates from 29 countries responded (response rate 90%). Only the participants from the UK stated that MedRec is implemented as standard practice in the country. For most countries MedRec is implemented in some hospitals for some patients (13) or as projects (12). In 11 countries a systematic approach was in place for training new staff and 13 countries have courses teaching MedRec. Only five countries had prerequisites for pharmacists performing MedRec.

Conclusions There is great heterogeneity in the implementation rate and standards of practice of MedRec processes including pharmacists in Europe.

INTRODUCTION

The high number of unintended discrepancies, due to errors in medication history-taking at admission, on inpatient charts has been demonstrated in many studies.^{1–4} Accurate medication reconciliation (MedRec) has been shown to reduce both errors and hospital readmissions, thus decreasing both patient harm and expenditure.^{5–6} Pharmacist-led medication management processes (including MedRec), multidisciplinary approaches to MedRec, focused education and information technology solutions are all interventions that have been shown to decrease the error rate.^{4–7–9} The Institute for Healthcare Improvement (IHI) defines medicines reconciliation as

'the process of creating the most accurate list possible of all medications a patient is taking—including drug name, dosage, frequency, and route—and comparing that list against the physician's admission, transfer, and/or discharge orders, with the goal of providing correct medication to the patient at all transition points within the hospital'.¹⁰

The value of undertaking this process, especially at admission, has been promoted by various organisations over the last years, including the National Institute for Health and Care Excellence and the National Patient Safety Agency, the WHO as well as the IHI.^{10–12}

MedRec is also addressed in the European Statements of Hospital Pharmacy (available at <http://ejhp.bmj.com/content/21/5/256.full.pdf+html>). According to statement 2.7, hospital pharmacists should be involved in the development of policies regarding the use of medicines brought into the hospital by patients. In addition, according to statement 4.4, all the medicines used by patients should be entered on the patient's medical record and reconciled by the hospital pharmacist on admission. Hospital pharmacists should assess the appropriateness of all patients' medicines, including herbal and dietary supplements. In line with statement 5.6, hospital pharmacists should ensure that high-risk medicines are identified and implement appropriate procedures in procurement, prescribing, preparing, dispensing, administration and monitoring processes to minimise risk.

MedRec is a topic that has received increased attention in EAHP congresses the last few years. Although there seems to be a general understanding and acceptance about the importance of MedRec no uniformity in methodologies is seen in submitted abstracts. There also seem to be a great variation in the implementation rate and standards of practice of MedRec throughout Europe, something that was explored in this year's academy seminar in Zagreb.

The aim of this study was to investigate pharmacists' involvement in MedRec and also the quality of the MedRec processes in Europe. This study is, to our knowledge, the first attempt of getting an overview of the current situation in Europe with regard to MedRec.

METHODS

A survey with six questions was prepared and sent by email to the delegates from the 30 countries participating in the EAHP Academy Seminar Camp and Workshop 11–13 September 2015 in Zagreb, Croatia focusing on MedRec. Two delegates from each country were invited and received the questionnaire 1 month in advance. The questionnaire included four questions regarding the status of MedRec on a national level including the prevalence of MedRec and of pharmacists' involvement, available educations, requirements of the pharmacists and training of new staff (see online supplementary appendix 1). The questionnaire also included questions on local activities and demographics (not shown). Each question had a box for free text comments.

The responses were collected and tabulated. For the 22 countries with more than one respondent 12 were in agreement. Discrepancies in responses among the other 10 were discussed with the respondents at the meeting and consensus was reached.

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RESULTS

A total of 52 delegates responded (response rate 90%), representing 29 of the 30 countries present at the seminar. The responses to the questions concerning MedRec on a national level are presented in online supplementary appendix 1.

Only the participants from the UK (Northern Ireland and England) stated that MedRec is implemented as standard practice in all/most hospitals for all/most patients in the country. For the majority MedRec is implemented in some hospitals for some patients or in a small scale/project stage. Representatives from three countries answered that they were not aware of any MedRec processes in their country (figure 1).

Ten countries responded that for settings where MedRec is currently being performed by pharmacists, they have a systematic approach in place for training new staff (figure 2). In 13 countries, courses teaching MedRec, theoretically and practically, are available by schools of pharmacy or other institutions (figure 3). Only five countries claimed to have prerequisite courses or training programmes for pharmacists performing MedRec (figure 4).

DISCUSSION

Among the 13 countries where MedRec is implemented, in some hospitals for some patients, nine have a systematic approach for training, six had courses and only three had prerequisite courses or training before the pharmacist is allowed to

Figure 1 Is medication reconciliations currently being performed by pharmacists in your country?

Figure 2 For settings where medication reconciliation is currently being performed by pharmacists—do you have a systematic approach in place for training new staff?

Figure 3 Do schools of pharmacy (or other institutions) in your country offer courses where medication reconciliation is taught?

Figure 4 Do you have prerequisite courses or training programs for pharmacists performing MedRec?

practice MedRec independently. Among the 12 countries with only small-scale projects, one had a systematic approach for training, five offered courses on MedRec and two had prerequisite courses or training. Thus, it seems that a systematic approach is more often in place where MedRec is more widely implemented. There was no correlation, however, to the level of implementation and the availability of courses or prerequisite for courses or training.

This is to our knowledge the first approach to describe MedRec activities, training and demands for performance in Europe. Since several organisations state the importance of MedRec and the pharmacists' contribution, this should be the first step for the EU pharmacy community to further evaluate activities, quality and support needed to lift the pharmacist as the leading professional to take responsibility for this important patient safety aspect.

There is apparently a great heterogeneity in the implementation rate of MedRec across Europe. The majority of countries have a few or many 'Centers of excellence' where medicines management and MedRec are on the agenda and parts where it is not. One reason for this stated by one of the respondents is 'Not enough hospital pharmacists in hospitals to do this routinely' (Slovakia).

In some countries or regions MedRec is carried out by other professionals, mainly pharmacy technicians and nurses, but orchestrated by pharmacists: 'Reconciliation at admission is done by especially skilled pharmacy technicians, the pharmacist is responsible for the process and as backup' (NL). And 'Since

my hospital does not have a clinical pharmacist, it is not done on regular basis. Doctors are performing a variation of medication reconciliation during the admission of the patient in the hospital' (Bosnia).

Less than half of the countries stated that they had a structured approach to train new staff in performing MedRec: 'We have sort of an introduction programme, but normally it varies a bit depending on the experience of the new staff' (Sweden). Thirteen countries stated that they had the opportunity to receive education on MedRec in their country: 'Not at universities. The courses are organized by the hospital pharmacy or private companies' (Denmark). The vast majority of countries do not have prerequisite qualification of pharmacists to perform MedRecs: 'There are no legal restrictions or regulations. Thus the head of the pharmacy department has to decide which training is necessary for completing the task' (Germany).

This study has low validity. The questionnaire was developed by the authors, only focusing on the workshop aims, and not tested beforehand. The number of respondents from each country was low, so we might not state achievement of national consensus. The delegates were, however, selected by their national hospital pharmacy organisation and should be the leading pharmacists in the field.

The EAHP Academy seminar gathered European delegates to discuss status, progression and quality of the MedRec process based on presentations, demonstrations and various learning and teaching activities. Hopefully this will support pharmacists to facilitate and also take responsibility in developing pharmaceutical services, such as MedRec, with the focus of increased patient safety.

CONCLUSION

There is great heterogeneity in the practice and quality of the MedRec processes in Europe. This survey, the performed EAHP Academy Seminar Camp and Workshop, networking among the delegates and the adaptation to the EAHP statements are

examples of measures to create a common framework for MedRec within the EU pharmacy community. From this platform, pharmacists, within and between countries, can collaborate to become leading professionals in developing and implementing MedRec processes.

Competing interests None declared.

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