# EAHP Academy Seminar 2016

An ACPE application based activity

## "Medicines Review – Needing and Sharing the Hospital Pharmacist's Excellence for Better Clinical Outcomes"

## Academy Seminars on Medicines Reconciliation, Medication Review and Medicines Optimisation

### About Medication Review

Whereas Medicines Reconciliation is defined by the US Joint Commission as "the process of comparing the medications a patient is taking (and should be taking) with newly ordered medications" and thus focuses on Patient Admission and Discharge, Medication Review is designed to ensure continuing pharmaceutical and pharmacotherapeutical care along the hospital stay length. It intends to optimise therapy by a structured critical evaluation of a patient's medication list using available clinical and pharmaceutical information as well as laboratory results.

As clinics and leading MDs are responsible for their patients, a hospital pharmacist's role is an inter- and multidisciplinary one within a team of medical and health professions. Medication Review is valuable in identifying medication-related problems. As skilled medical professionals are permanently on short, task-shifting may be a suitable approach to make the hospital pharmacist's expertise available in clinical Medication Review. Lots of interfaces to other disciplines are needed to effectively and successfully review medications. Pharmacy contribution to multidisciplinary task forces is likely to have added values, according to studies, which focus mainly on patient admission. This should be expanded to become a continuing reconciliation and support until the patient's discharge, thus from Medicines Reconciliation to Medicines Optimisation and Medication Review.

Medicines Reconciliation was the topic of EAHP Academy Seminar 2015 as the first part of

the comprehensive reconciliation, review, and optimisation cluster. There is no agreement on how far Medicines Reconciliation will go at admission without entering the ranges of Medication Review and medicines counselling at discharge (Medicines Optimisation).

## The educational need

Medication Review has been an emerging topic in EAHP Congresses for a couple of years. Although there is no objection to the importance, no systematic commonalities in the methodologies could be seen in submitted abstracts and Congress contributions. This lacking part of quality management and pharmaceutical support is one of the declared targets to explore in this Academy Seminar. The topic is too important to let grow a multitude of un-harmonised methods and develop an auto-dynamic Medication Review practice in European hospitals.

Evidence is needed to demonstrate that pharmacists are best positioned to conduct Medicines Reconciliations and Medication Reviews. The reality of staffing situation must be evaluated, if hospital pharmacy should warrant an added value of its performance and capabilities. Performances by technicians and nurses while being supervised by a pharmacist must be assessed. There must be clarity in the shared responsibility for SOPs, training and the more complex medication reviews. Attention must be paid to obtain all needed information of the patient history to assess appropriateness, accuracy and objectives of the pharmacotherapy he or she gets. In line with the European mind, practicalities should be harmonised all over Europe: How to set up the service? How to staff? When to do Medication Review?

## Links to the European Statements of Hospital pharmacy

Medication Review is at the interface of procurement, clinical pharmacy and patient safety. As such, it is addressed in the European Statements of Hospital Pharmacy.

According to statement 1.1, the hospital pharmacist contributes to optimise patient outcomes through working collaboratively within multidisciplinary teams. Statements 1.4 and 1.5 stipulate that the hospital pharmacist has overall responsibility for the safe, effective and optimal use of medicines, and is supervisor in all steps of all medicine use processes.

In statement 2.2 this supervision is elevated to a leadership in developing, monitoring, reviewing and improving medicine use processes. 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 the clinical setting, statements 4.1 through 4.6 address the task of prospectively influencing collaborative, multidisciplinary therapeutic decision-making. Hospital pharmacists should play a full part in decision making including advising, implementing and monitoring medication changes in full partnership with patients, carers and other health care professionals. Review should take place prior to the supply and administration of medicines by having access to the patients' health record. Clinical interventions should be documented in the patients' health record and analysed to inform quality improvement interventions. Assessment of the appropriateness of all patients' medicines, including herbal and dietary supplements is also found among the duties of hospital pharmacy, as well as to supervise transfer of information about medicines whenever patients move between and within healthcare settings, to offer information about clinical management options, and especially medicines, in terms they can

understand.

In terms of patient safety and quality assurance, a wide area of tasks comprises supervision of the "seven rights", detection of errors and identification of priorities for improvement, reporting of adverse drug reactions and medication errors to regional or national pharmacovigilance programmes or patient safety programmes, disseminating evidence-based approaches to error reduction including computerised decision support, identification of high-risk medicines, elimination of transcription steps between the original prescription and the medicines administration record, assurance of accurate recording of all allergy and other relevant medicine-related information in the patient's health record, access to the information needed for safe medicines use, according to statements 5.1 through 5.2 and 5.4 trough 5.9.

As a result, the hospital pharmacy contribution to Medication Review consists of:

- policy and procedure development;
- implementation and performance improvement;
- training and competency assurance;
- information systems development;
- advocacy.

In addition to the European Statements of Hospital Pharmacy, the need is also arising from hospital pharmacy practice, since the topic "Medication Review" has been proposed in the Cyber Café Needs Assessment Survey at the EAHP Congress 2014 in Barcelona and from the EAHP Scientific Committee's experience when evaluating submitted abstracts.

## Assessment of Learning Success

To evaluate the learning success as requested by ACPE and as defined by teaching goals and learning objectives, a Survey Monkey® driven online questionnaire will be developed. This form can be completed online subsequent to the Academy Camp. The link will be communicated to the delegates and feedback from faculty will be sent to participants. A participation certificate will be delivered by link after anonymous submission of the completed questionnaire.

## Contents and Learning Objectives of the lectures

The Academy Seminar and Workshops show a main track from a general overview to national clinical implications. The main focus is put and centred on the patient and on processes.

To clarify terms and obtain a commonality of understanding, some definitions might be outlined as far as they are needed to exclude misunderstandings. However, a broad discussion and philosophy on the terms is excluded.

Kind reminder: The second slide of each presentation will give the disclosure of conflicts of interest. The last slides of presentation should give a summary.
To evaluate the learning success as requested by ACPE and as defined by teaching goals and learning objectives, a Survey Monkey® driven online questionnaire will be developed. This form can be completed online right after the Academy Camp. The link will be communicated to the delegates. A participation certificate will be delivered by online delivery after that the assessment questionnaire has been completed for each one of the Seminar blocks and submitted anonymously.

**"From medicines reconciliation to medication review"**

***Dr Fatma Karapinar [1], OLVG, Amsterdam, The Netherlands***

**Abstract**
Challenges of medication review comprise:

- Definitions - medicines reconciliation versus medicines review
- Medication errors and their impact: drug related readmissions
- Patient empowerment and needs
    - What does a patient want to know regarding his medicines? How can we involve patients in performing the verification step themselves?
    - When to perform interventions?
    - What is important to patients (rather than to pharmacists/physicians)?
    - Collaboration needs with primary care at hospital admission and post-discharge
    - The role of IT. We lack manpower to perform medication review for every (high-risk) patient. How can we use IT smarter?

For continuity of pharmaceutical care, medicines reconciliation is needed at hospital admission and discharge. To optimise pharmacotherapy medication review is needed. Does all prescribed medication still have an indication? Does the medication reflect the patient's needs? Also there are multiple problems post-discharge. A recent study showed that patients have DRPs within 72 hours post-discharge, despite medication reconciliation at hospital discharge. So hospital pharmacists need to think broader than the walls of their hospitals in order to prevent drug-related readmissions.

**Learning objectives**
At the end of this session, participants will be able:

- to recognise the differences between medicines reconciliation and medicines review;
- to understand the effect of these processes on drug related readmissions;
- to think of the patient first before the processes are performed;
- to have an idea of the role of IT.

**Link to Hospital Pharmacy Statements**
The following chapters of the Hospital Pharmacy Statements are applied within this topic:

- 1.1, 1.4, 1.5
- 2.2, 2.7
- 4.1, 4.2, 4.3, 4.4, 4.5, 4.6
- 5.1, 5.2, 5.4, 5.5, 5.6, 5.7, 5.8, 5.9

**"From Medication Review to an Integrated Medication Management"**

***Dr Bart van den Bemt[2], Radboud University Medical Centre, Sint Maartenskliniek, Nijmegen and Maastricht University Medical Centre, Maastricht, The Netherlands***

**Abstract**
As Drug Related Problems arise, they might need expanding single cases to an integrated interdisciplinary pharmacotherapy. Responsibilities should be shared among the professionals acting on the supply chain. Therapy can, and has to, be managed in a holistic way, considering the personalised approach for pharmacotherapies. To obtain the clinical outcome aimed at initially, further aspects such as adherence have to be included in such a holistic approach.

**Learning objectives**
At the end of this session, participants will be able:

- to translate the Medication Therapy Management Pyramid into his/her own practice.

**Link to Hospital Pharmacy Statements**
The following chapters of the Hospital Pharmacy Statements are applied within this topic:

- 1.1, 1.4, 1.5
- 2.2, 2.7
- 4.1, 4.2, 4.3, 4.4, 4.5, 4.6
- 5.1, 5.2, 5.4, 5.5, 5.6, 5.7, 5.8, 5.9

## "Clinical Implementation of Medication Review - Screening to supervise effectiveness and appropriateness"

***Dr Aude Desnoyer[3], Geneva University Hospitals, Pharmacy department, Geneva, Switzerland***

**Abstract**
Prescribing must be based on patient data arising from an individual metabolic capacity to fulfil its therapeutic objective. Any difference between patient's needs and therapy prescribed induces worse clinical, financial, and quality of life outcomes.

Medication review is a structured examination of a patient's medicines with the objective of improving and optimising the impact of medicines, minimising the number of drug related problems and reducing waste. It involves a multiple steps process including for each drug:

- checking that the medication prescribed is appropriate;
- checking that the medication is effective;
- considering drug dose, drug interactions, contraindications or adverse drug reactions;
- considering untreated conditions.

In practice, hospital pharmacists have the clinical skills and therapeutic knowledge to perform all aspects of medication review. However, different tools should be known and used to support and standardise the medication review process, in order to supervise effectiveness, appropriateness, and cost-efficiency of medicines. The focus is put on over-, under-, and mis-prescriptions, interactions and identification of undesirable effects.

**Learning objectives**

At the end of this session, participants will be able:

- to recognise the need of tools to optimise the medication review process;
- to name these tools;
- to implement the use of these tools into his/her own practice;
- to provide first line support to users in his/her hospital.

**Link to Hospital Pharmacy Statements**

The following chapters of the Hospital Pharmacy Statements are applied within this topic:

- 1.1, 1.4, 1.5
- 2.2, 2.7
- 4.1, 4.2, 4.3, 4.4, 4.5, 4.6
- 5.1, 5.2, 5.4, 5.5, 5.6, 5.7, 5.8, 5.9

## "UK hospital pharmacy experience – issues to consider linked with medicines review on the ward"

***Mrs Jane Smith [4], North Bristol NHS Trust, Bristol, UK***

### Abstract

Patients do not always use their medicines the way their health professionals think. This may result in omissions of doses and errors by both patients and their carers, and it is important to consider in both Medicines Reconciliation on Admission, Medicines Review and Medicines Reconciliation on Discharge.

Establishing correct medications details may involve discussion with the patient and/or carers and the use of records from primary care. In some countries, for patient safety this process also includes a review of the Patients Own Drugs (PODs) and there are also financial benefits and reduced wastage linked with this process.

Omitted or delayed doses can also occur in hospital and impact on patient status and also need to be considered during a Medicines review. In the case of Insulin, administration errors by nursing staff can occur and this is in situations where patients can be more experienced with giving their own insulin without errors. English NHS Trusts are also trying to move to empowering patients and enabling self-administration of own drugs such as insulins.

Reducing harm and incidences is an important objective of Medication Review. Harm may also arise from anticoagulants and as these are high-risk drugs, work to reduce unavoidable errors and raised INRs is important.

This session will also discuss further the role of the Medication Safety Officer (MSO) in England for improving incident reporting and accuracy. MSOs also link with NHS Improvement (formerly NHS England and initially the National Patient Safety Agency), which has the largest error database in the world.

**Learning objectives**

At the end of this session, participants will be able:

- to transfer principles of the use of patients' own drugs;
- to understand how to measure and highlight the issue of missed doses;
- to understand how to measure and reduce harm from anticoagulants;
- to understand the role of the Medication Safety Officer (in England) and what principles can be transferred for local use in improving reporting of and reducing harm from incidences.

### Link to Hospital Pharmacy Statements

The following chapters of the Hospital Pharmacy Statements are applied within this topic:

- 1.1, 1.4, 1.5
- 2.2, 2.7
- 4.1, 4.2, 4.3, 4.4, 4.5, 4.6
- 5.1, 5.2, 5.4, 5.5, 5.6, 5.7, 5.8, 5.9

## "The impact of medication reviews on process measures and patient outcomes"

***Dr Ulrika Gillespie, Uppsala University Hospital, Uppsala, Sweden***

**Abstract**

Mismanaged use of multiple medications is one of the greatest risks in the elderly and puts major pressure on current healthcare systems. Identifying effective interventions to optimise treatment benefit and minimise harm is an international public health priority. Medication review, a structured and critical examination of an individual patient's medications, aims to accomplish exactly these goals. Although the value of such reviews is generally accepted among clinicians, there is a lack of robust evidence demonstrating (cost-) effectiveness, which remains a barrier to more widespread implementation. The demand for evidence of effectiveness for medication reviews on hard endpoints, such as hospitalisation and mortality, imposes a great challenge. Those outcomes are very multi-factorial while a medication review only targets one aspect of health care. Because of this, effectiveness of medication reviews is often measured using process measures or surrogate end-point.

**Learning objectives**

At the end of this session, participants will be able:

- to summarise the current evidence base for effects of medication reviews on process measures and patient outcomes;
- to list factors associated with a positive or negative outcome from a medication review.

### Link to Hospital Pharmacy Statements

The following chapters of the Hospital Pharmacy Statements are applied within this topic:

- 1.1, 1.2, 1.3, 1.4, 1.5
- 2.2
- 4.1, 4.2, 4.3, 4.4, 4.5, 4.6, 4.8
- 5.1, 5.2, 5.4, 5.5, 5.6, 5.7, 5.8, 5.9
- 6.4

## "Medication Review in the LIMM (Lund Integrated Medicines Management) Model"

***Prof Dr Tommy Eriksson [5],Malmö University, Malmö, Sweden***

**Abstract**
The Lund Integrated Medicines Management (LIMM) - model with pharmacists as the driver has been developed, researched and implemented over 15 years. Now the model has been fully implemented in the eight hospitals of the County of Skåne (south of Sweden). The Med Rec and Review process is the base for the team activities in which both the pharmacist and the physician have different but complementary roles. Clinical, economic and humanistic outcomes will be presented based on patient focus and safety, quality, systematic activities, educational aspects and payment for performance.

**Learning objectives**
At the end of this session, participants will be able:

- to overlook successes and pitfalls of integrated medicines management;
- to understand the importance of systematic training sessions to improve patient care;
- to describe the demonstrated model;
- to implement MUST-dos in the Medication Review process;
- to use patient safety and -quality aspects to plan for the best Medication Review process;
- to implement a model in their own environment;
- to communicate with educational and professional bodies in order to implement a national systematic training module.

**Link to Hospital Pharmacy Statements**
The following chapters of the Hospital Pharmacy Statements are applied within this topic:

- 1.1, 1.4, 1.5
- 2.2, 2.7
- 4.1, 4.2, 4.3, 4.4, 4.5, 4.6
- 5.1, 5.2, 5.4, 5.5, 5.6, 5.7, 5.8, 5.9

# Contents and Learning Objectives of the workshops

## Interactive Parts

**Abstract**
A first interactive block will consist of a demonstration and of role-plays of the structured interview technique as well as of a discussion and evaluation of the demo interviewing. In order to train typical communication scenarios between pharmacist and patient, role plays of the structured patient interview will give the delegates a representative impression of best practice and of using standardised procedures to train pharmacists in medication review.
In the second interactive block, in order to evaluate added values for therapist (and their interest in the clinical outcome), for taxpayers (and their interest in the financial outcome), and for patients (and their interest in extended QALYs), an interactive podium discussion on further elements and the interfaces at patient admission and discharge is held. It will collect statements and commitments from workshop coaches and from delegates to identify,

strengths, weaknesses, opportunities and threats (pitfalls) in the supervision of pharmacotherapy along the entire hospital stay.
In the third interactive block, delegates will be animated to use, apply and discuss tools and approaches presented in the keyword presentations. Experiences of the delegates and regional or national approaches have to be brought together to expand the Process of Integrated Medicines Management from Medicines Reconciliation on Admission, via Medicines Review on the entire hospital stay, up to Medicines Reconciliation (Optimisation) on Discharge.

**Learning objectives**
At the end of this session, participants will be able:

- to occupy relevant Medication Review functions in a multi-disciplinary team;
- to identify critical elements of patient interviews;
- to introduce the OSCE model for training pharmacists in their own setting;
- to select suitable contributions based on hospital pharmacists' excellence to better clinical, financial, and quality-of-life outcomes;
- to animate the implementation of standardised Medication Review procedures in the hospital of the own employer and in further hospitals of the home country.

**Link to Hospital Pharmacy Statements**
The following chapters of the Hospital Pharmacy Statements are applied within this topic:

- 1.1, 1.4, 1.5
- 2.2, 2.7
- 4.1, 4.2, 4.3, 4.4, 4.5, 4.6
- 5.1, 5.2, 5.4, 5.5, 5.6, 5.7, 5.8, 5.9

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**Links**
[1] http://www.eahp.eu/content/dr-fatma-karapinar-0 [2] http://www.eahp.eu/content/dr-bart-van-den-bemt
[3] http://www.eahp.eu/content/dr-aude-desnoyer [4] http://www.eahp.eu/content/mrs-jane-smith-0
[5] http://www.eahp.eu/content/prof-dr-tommy-eriksson-0