Implementation of Medication Reconciliation in Estonia, Latvia and Finland in Co-Operation with Sweden and United Kingdom

Project outline

Aim of the study

Aim of the study is to get an overview of the present situation of medication reconciliation in hospitals in Estonia, Latvia and Finland and start to implement medication reconciliation led by pharmacists in the hospital.

Project contact persons

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Project partners

Estonia: East Tallinn Central Hospital (Tallinn), Tartu University Hospital (Tartu), Pärnu Hospital (Pärnu)

Latvia: University Children's Hospital (Riga), Pauls Stradins Clinical University Hospital (Riga)

Finland: Päijät-Häme Central Hospital (Lahti)

Project consultants

Sweden: Ulrika Gillespie, Clinical Pharmacist (Uppsala University Hospital)

United Kingdom: Jane Smith, NBT Medication Safety Officer, Principal Pharmacist (North Bristol NHS Trust)

Medicines reconciliation

Medication 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”. It is designed to ensure that a patient’s medication history is identified and addressed in the hospitalization process. When organisations do not consistently and reliably reconcile patient medications across the continuum of care, medication errors and adverse drug events occur. About 20% of all adverse drug events have been attributed to poor communication at the transition and interfaces of care.

Medicines reconciliation has been an emerging topic in EAHP Congresses for a couple of years. Although there is no objection to the importance, no uniformity could be seen in the methodologies used in submitted abstracts. This lacking part of quality management and pharmaceutical support was one of the declared targets to explore in 2015 EAHP Academy seminar.

Lots of interfaces to other disciplines are needed to effectively and successfully reconcile 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 as a continuing reconciliation and support until the patient's discharge, thus from Medicines Reconciliation to Medicines Optimisation and Medicines Review.

Reconciliation is at the interface of procurement, clinical pharmacy and patient safety. It is also addressed in the European Statements of Hospital Pharmacy. 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.

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 minimize risk.

Work Package 1

Aim of WP 1 is to get an overview of the present situation of medication reconciliation in hospitals in Estonia, Latvia and Finland.

A short interview based survey led by the pharmacist is carried out in each hospital. The questionnaire is enclosed to the project outline appendixes. The focus is to find out:

- who is responsible for taking patient medication history in the hospital (physician or nurse)
- which sources are used to find out patient’s list of previous medication (patient, patient’s relatives, general physician, electronical data etc.) on admission to hospital
- if there is a need and will to start medication reconciliation as a pharmacist led service in the hospital

Wards included in the interview survey: 10 different wards with surgical, internal medicine or nursing specialty.

Persons included in the interview survey at 1 ward: 2 doctors and head nurse at the ward.

Work Package 2

Aim of WP 2 is to learn from other pharmacists' experience already carrying out medication reconciliation as a service.

Visits to Bristol Hospital Pharmacy (Jane Smith) and to Uppsala University Pharmacy (Ulrika Gillespie) are carried out to get a hands-on experience on how to carry out medication reconciliation in hospitals.

Work Package 3

Aim of WP 3 is to implement the new service of medication reconciliation in hospitals led by pharmacist as a pilot study.

The main problems (non-adherence, medications missing from previous medication list) are documented but patients are coded, personal information is not included in the study. The code of the patient consists of 4 numbers, 2 numbers depicting the hospital and 2 numbers depicting number of patient in that hospital.

An example of interview form filled:

LIMM Medication Interview Questionnaire (appendix 2)

An example of questions used in the service-

1) Medication reconciliation. How to ask questions for a medication history. (http://www.advancingin.com/Content/Programs/CaseStudy/MedicationReconciliation_370/assets/pdf/med%20rec%20questions%20fig%203.pdf)

Wards included in the study: The selection is made from the wards where the questionnaire survey was carried out

Patients included in the study: 20 different patients are included

Wards included in the interview survey: The same 10 wards where the questionnaire survey was carried out.

Work Package 4

Aim of WP 4 is to analyze the effect of the implementation of the new service pilot.

The statistics of problems related to medication history in hospital records that were discovered by medication reconciliation interviews are presented and discussed with the medical staff taking part of the survey in WP1. An interview survey is repeated in the same wards to assess how the will of medical staff has changed with the pilot of medication reconciliation interview led by the pharmacist.

Dissemination of the Project

- Project plan and first results will be presented at the national events of Estonian, Latvian and Finnish hospital pharmacists societies 2017-2019
- Project results will be presented at EAHP annual conference in 2019
- Project results will be published at national and international pharmaceutical journals

Project Timeline

March 2017:	First face-to-face meeting (in Estonia) with project members. The aim is to explain and instruct all project partners about the project outline, about interviewing in WP1, the timeline of the project and possible formal problems that can be evoked (permits in hospitals, ethical boards etc.)
April-May 2017:	First step of the project – interviewing wards using the questionnaire (appendix 1)
August 2017:	Collection and analyse of questionnaire data from project members
September–October 2017:	Visiting UK (Bristol) and Sweden (Uppsala) for medication reconciliation practice
October 2017:	Second face-to-face meeting (in Estonia) with project members' conclusion from the questionnaire and consultations. Members of the project who have visited colleagues in the UK and Sweden will give an overview of what they saw and experienced. Further plans are discussed in order to finalise version for the pilot study description.
November 2017:	Getting approvals from ethics committees and other possible authorities in each country
January-March 2018:	Pilot study data collection
April-May 2018:	Pilot study data analysis
August-September 2018:	Third face-to-face meeting with project members and consulters to summarize and make conclusions about the need and the will of medication reconciliation as a service led by the pharmacist
October 2018:	Abstract of the project results for EAHP Congress
March 2019:	Presentation of the project result in EAHP Congress

Medication reconciliation overview study

1) At admission to hospital, how is data about patient's previous medication received?
    a. Through digital prescription database
    b. Through patient interview
    c. Patients bring medication boxes with them
    d. From a local/national health information system?
    e. Other……

2) In case the list of patient's previous medication comes from the patient, who is collecting the information and registering medication information to patient medical file?
    a. Physician
    b. Nurse
    c. Other…….

3) Is the patient asked about taking any OTC drug/ food additive/ vitamin / herbal products?
    a. Yes
    b. No
    c. Sometimes

4) In case the list of patient's previous medication is withdrawn from digital prescription database is the patient asked about medication adherence to every different medication the patient is supposed to take?
    a. Yes
    b. No
    c. Sometimes

5) Do you use more than one source for (e.g. digital prescription and patient interview; GP data and digital prescription etc.) acquiring patient medication history?
    a. Yes
    b. No
    c. Sometimes

6) How easy is it to receive overview of patient's previous medication on admission to hospital?
    a. Easy
    b. Not easy
    c. Sometimes easy sometimes not

7) Do you find the quality of data you receive about patient's previous medication:
    a. Good
    b. Poor
    c. Sometimes poor, sometimes good

8) Do you think a pharmacist can be helpful in more complex and difficult cases in acquiring and checking patient's previous medication as an interview with the patient and document the findings to the patient file?
    a. Yes
    b. No
    c. Maybe

LIMM Medication Interview Questionnaire

Ward	Bed	Name	Date of birth	Date and signature	Follow up, date, sign

Do you handle your medications yourself? O No O Yes **Apodos?*** O No O Yes, version:

Part 1: Medication reconciliation

Part 2: If handling medications oneself

Medications in hospital prescription order					**Pre-admission medications** Dosing §			Present problem (x) No problem (✓)		
Date started	**Medication name, dosage form, strength**	**Dosing**	**Comments**	Date stopped			**Suggested correct list**	Indi-cation	Adher-ence	**Follow up**

* Apodos®: multi-dose system with machine-packed medicines
§ Indicate which information sources used: patient/kindred (PA), primary care (PC), community care (C), Apodos, pharmacy register (PR). Please document the latest dispensing date in the pharmacy register for each drug.

Part 1: Are you using any other medications? ☐ eyedrops ☐ inhalers ☐ painkillers ☐ heart medications ☐ stomach medications ☐ sleeping pills ☐ antidiabetics ☐ OTC drugs ☐ herbal drugs ☐ drugs as per needed. How often do you take these?

Part 2: Practical handling problems? ☐ Swallowing, crushing/splitting ☐ Opening bottles or blisters ☐ Inhaling

Adverse drug reactions?

☐ Patient consent for using pharmacy register:
Date **Signature**

Other information from the interview	
	Number of discrepancies in medication list:

Riga,
January 23rd, 2017 No.2-4/12

European Association of Hospital Pharmacists

Pharmacists' Society of Latvia is supporting the Project "Implementation of Medication Reconciliation in Estonia, Latvia and Finland in Co-Operation with Sweden and United Kingdom" initiated by Estonian Society of Hospital Pharmacists (ESHP) and is willing to take part in mentioned project.

Sincerely yours,
Kitija Blumfelde

President of Pharmacists Society of Latvia

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