Implementation of Safe Clinical Practices
Work Package 5

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International Forum on Quality and Safety, Paris
8-11 April 2014
Conflict of interest declaration

I declare having no conflict of interest linked to the work presented.
Work Package 5 – Patient Safety Initiatives Implementation

Content

• Implementation of selected Safe Clinical Practices (SCPs) in Healthcare Organisations (HCOs) in 18 European countries
• Compilation of one tool box per SCP
• Monitoring and assessment of implementation process
Work Package 5 – Patient Safety Initiatives Implementation

Results

- Report on implementation experiences
- Tested tool boxes – to what extent have they been helpful?
## Work Package 5 Schedule

<table>
<thead>
<tr>
<th>Activity</th>
<th>Start and termination</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. Collection and Selection of Safe Clinical Practices (SCPs) for Implementation</td>
<td>July 2012 – January 2013</td>
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<td>II. Collection and Compilation of Implementation Tools</td>
<td>February – June 2013</td>
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<td>III. Recruiting of Healthcare Organisations (HCOs) for Implementation</td>
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# Work Package 5 Schedule

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**Start of implementation in HCOs:** July 1<sup>st</sup> – September 1<sup>st</sup> 2013
Selected SCPs

- WHO Surgical Safety Checklist

**Surgical Safety Checklist**

**Before induction of anaesthesia** (with at least nurse and anaesthetist)
- Has the patient confirmed his/her identity, site, procedure, and consent?
- Yes
- Is the site marked?
- Yes
- Not applicable
- Is the anaesthesia machine and medication check complete?
- Yes
- Is the pulse oximeter on the patient and functioning?
- Yes

**Before skin incision** (with nurse, anaesthetist and surgeon)
- Confirm all team members have introduced themselves by name and role.
- Confirm the patient’s name, procedure, and where the incision will be made.
- Has antibiotic prophylaxis been given within the last 60 minutes?
- Yes
- Not applicable

**Anticipated Critical Events**
- To Surgeon:
  - What are the critical or non-routine steps?
  - How long will the case take?
  - What is the anticipated blood loss?
- To Anaesthetist:
  - Are there any patient-specific concerns?
- To Nursing Team:
  - Has safety (including indicator results) been confirmed?
  - Are there equipment issues or any concerns?
- Is essential imaging displayed?
- Yes
- Not applicable

**Before patient leaves operating room** (with nurse, anaesthetist and surgeon)
- Nurse Verbally Confirms:
  - The name of the procedure
  - Completion of instrument, sponge and needle counts
  - Specimen labelling (read specimen labels aloud, including patient name)
  - Whether there are any equipment problems to be addressed

To Surgeon, Anaesthetist and Nurse:
- What are the key concerns for recovery and management of this patient?

13 countries

Selected SCPs

- WHO Surgical Safety Checklist
- Medication Reconciliation

11 countries

Selected SCPs

- WHO Surgical Safety Checklist
- Medication Reconciliation
- Multimodal intervention to increase hand hygiene compliance

11 countries

Source picture: http://www.who.int/gpsc/5may/5may2014_top.jpg
Selected SCPs

- WHO Surgical Safety Checklist
- Medication Reconciliation
- Multimodal intervention to increase compliance
- Paediatric Early Warning Scores

5 countries
18 participating countries

- Austria
- Bulgaria
- Croatia
- Finland
- France
- Germany
- Greece
- Hungary
- Ireland
- Italy
- Latvia
- Lithuania
- Netherlands
- Norway
- Poland
- Spain
- Slovakia
- United Kingdom

Source picture: http://www.digitale-europakarte.de/europakarte.png
200 participating HCOs*

<table>
<thead>
<tr>
<th>Number of HCOs implementing the SCPs</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>(Date February 2014)</td>
<td></td>
</tr>
<tr>
<td>Medication Reconciliation</td>
<td>95 HCOs</td>
</tr>
<tr>
<td>WHO Surgical Safety Checklist</td>
<td>74 HCOs</td>
</tr>
<tr>
<td>Multimodal intervention to increase hand hygiene</td>
<td>73 HCOs</td>
</tr>
<tr>
<td>Paediatric Early Warning Scores (PEWS)</td>
<td>30 HCOs</td>
</tr>
</tbody>
</table>

* Several HCOs apply more than one SCP
Instruments to support implementation

- Implementation **tool box** for each SCP

publicly available on:

http://www.pasq.eu/Wiki/SCP/WorkPackage5ToolBoxes
Instruments to support implementation

- Content of the tool boxes

Medication Reconciliation

The aim of the Safe Clinical Practice (SCP) is to identify and correct medication errors (unintentional medication discrepancies) across transitions of care.

Transitions in care such as admission to and discharge from the hospital put patients at risk for errors due to poor communication and inadvertent information loss. Up to 67% of patients admitted to the hospital have unintended medication discrepancies, and these discrepancies remain common at discharge (Kwan et al. 2013). Almost one-third of medication discrepancies occurring at hospital admission or discharge have the potential to cause patient harm (i.e., potential adverse drug events) (Mueller et al. 2012). Adverse drug events associated with medication discrepancies can prolong hospital stays and, in the post-discharge period, may lead to emergency department visits, hospital readmissions, and use of other healthcare resources (Mueller et al. 2012).

For more information have a look at the following links:

- Innovator of the SCP and country of origin
- Short description of the SCP and information on implementation
- Stepwise approach to implementation
- Information on needed resources
- Summary of evidence for effectiveness
- References
- Specific tools

PDF version of the information on the SCP WHO Medication Reconciliation.
Instruments to support implementation

- Content of the tool boxes

**Medication Reconciliation**

The aim of this Safe Clinical Practice (SCP) is to identify and correct medication errors (unintentional medication discrepancies) across transitions of care.

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**SCP: Medication Reconciliation**

**Short description of the SCP and information on implementation**

Medication Reconciliation is the process of identifying the most accurate list of all medications a patient is taking and using this list to provide correct medications for patients within the healthcare system (Kwan et al. 2013).

The majority of the available literature on Medication Reconciliation focuses on hospital-based transitions in care (Kwan et al. 2013). For this reason, the below information is most applicable to hospital care. However, Medication Reconciliation can also be implemented in facilities in other settings (i.e., primary care, long-term care, and home care; see below for more information).

Healthcare organizations (HCOs) that will implement this SCP within Work Package 5 of the PaSQ Project are expected to introduce the following three-step Medication Reconciliation process (ISMP Canada 2011):

1. Create a complete and accurate Best Possible Medication History (BPMH) of all the patient's prescribed and nonprescribed medications including name, dosage, route, and frequency. More comprehensively than a routine primary medication history, the BPMH involves two steps:
   1. A systematic process of interviewing the patient/family and
   2. Verification of this information with at least one other reliable source of information (for example, patient medication lists, a community pharmacy, a primary care physician, a government medication database, medication vials)

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Instruments to support implementation

- Content of the tool boxes

SCP: Medication Reconciliation
Stepwise approach to implementation

The following outlines the key steps for getting started on the implementation of Medication Reconciliation (modified from the ‘Medication Reconciliation in Acute Care Setting Started Kit’, ISMP Canada 2011). More detailed information can be found within the tools included in this tool box (e.g. Setting Started-Kits of ISMP Canada).

1. Secure senior leadership commitment

Implementing a successful Medication Reconciliation process requires clear commitment and direction from the highest level of the organisation.

2. Form a team

Teamwork is an integral part of the Medication Reconciliation process. Medication Reconciliation is not owned by one discipline. Clinical champions can contribute significantly to successful implementation.

Representation of the coordination team could include:

- Senior Administrative leadership (executive sponsor)
- Clinical leaders representing physicians, nursing and pharmacy staff
- Front line caregivers from key settings of care, and from all shifts
- Representatives from other work units or committees whose responsibilities/mandates include the improvement of patient safety (e.g. Patient Safety Officer, representatives from Quality Improvement/Risk Management, Patient Representatives, Pharmacy and Therapeutics committee)
- Patient and/or family member

Medication Reconciliation

The aim of this Safe Clinical Practice (SCP) is to identify and correct medication errors (unintentional medication discrepancies) across transitions of care.

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For more information have a look at the following links:
Instruments to support implementation

- Content of the **tool boxes**

**SCP: Medication Reconciliation Information on needed resources**

The implementation of Medication Reconciliation is resource-intensive. This is especially true if pharmacists are involved in conducting Medication Reconciliation, because this requires substantial investment of resources beyond usual care. Nevertheless, a systematic review of economic analyses of patient safety strategies came to the conclusion that pharmacist-led Medication Reconciliation is one of five economically attractive strategies for improving patient safety (Etchells et al 2012). In one model-based study, which was included in the systematic review, the authors estimated the cost for implementing pharmacist-led Medication Reconciliation at £ 1897 (ca. € 2200 as of March 14th 2013) per 1000 prescription orders (Kamon et al 2009).

Medication Reconciliation can be integrated into applications as Computerized Physician Order Entry (CPOE) and Electronic Medical Records (EMR), although it can also be conducted paper-based if such systems have not been introduced in the facility.

Thorough training of staff, e.g. on creating the BPMH, is of utmost necessity.

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[PDF version](#) of the information on the SCP WHO Medication Reconciliation
Instruments to support implementation

- Content of the tool boxes

SCP: Medication Reconciliation
Summary of evidence for effectiveness

The effect of hospital-based Medication Reconciliation on medication errors and prevent adverse drug events has been investigated in many studies and summarized in systematic reviews (Mueller et al. 2012, Kwan et al. 2013). Both reviews come to the conclusion that Medication Reconciliation is a potentially promising intervention.

The systematic review by Mueller et al. 2012 included 26 controlled studies and revealed that Medication Reconciliation consistently reduced medication discrepancies, potential adverse drug events (i.e., clinically significant discrepancies) and adverse drug events. The impact on cost discharge health care utilization (i.e., readmissions) was inconsistently shown. Key aspects of a successful intervention included pharmacy staff involvement and focusing on a high-risk patient population. The study quality was judged to be poor in fifteen of the 26 studies (Mueller et al. 2012).

The systematic review by Kwan et al. 2013 included eighteen studies evaluating 20 interventions. Inclusion criteria were more restrictive than in the previously described review, only studies evaluating clinically significant unintended discrepancies or emergency department visits and readmission within 30 days of discharge were considered. The authors come to the conclusion that hospital-based Medication Reconciliation at care transitions frequently identifies unintended discrepancies, however, few of these discrepancies seem to have a clinical significance. Furthermore, Medication Reconciliation alone probably does not reduce postdischarge hospital utilization within 30 days but may do so when bundled with other interventions that improve discharge coordination. Like the previously described review, this review also found that pharmacists play a major role in successful interventions; however, contrary to the other review, focusing on high-risk patients did not seem to consistently improve the effect of Medication Reconciliation (Kwan et al. 2013).

A systematic review on the effectiveness of Medication Reconciliation in the...
Instruments to support implementation

- Content of the tool boxes

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**SCP: Medication Reconciliation**

References


**PaSQ**

European Union Network for Patient Safety and Quality of Care

**äq**

L. Mehrmann, M.Sc.
BMJ Forum
Paris 2014

Fundied by the Health Programme of the European Union
# Instruments to support implementation

## Content of the tool boxes

The following specific tools were submitted during the questioning of the PaSQ MS:

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<thead>
<tr>
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<th>Type of tool</th>
</tr>
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<tbody>
<tr>
<td>ACADEMIA</td>
<td>Tool for evaluation and feedback. Tool for reminding staff in the workplace</td>
</tr>
<tr>
<td>Medications at Transitions and Clinical Handoffs (MATCH) Toolkit for Medication Reconciliation</td>
<td>Tool for promotion of a safety culture</td>
</tr>
<tr>
<td>Poster to prompt patients to bring their list of medications with them to Wexford General Hospital and outpatient clinics</td>
<td>Tool for promotion of a safety culture. Tool for information of patients and relatives</td>
</tr>
<tr>
<td>START (screening tool to alert doctors to the right treatment)</td>
<td>Tool for reminding staff in the workplace</td>
</tr>
<tr>
<td>STOPP (Screening Tool of Older Persons’ Prescriptions)</td>
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**Medication Reconciliation**

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Transitions in care such as admission to and discharge from the hospital put patients at risk for errors due to poor communication and inadvertent information loss. Up to 87% of patients admitted to the hospital have unintended medication discrepancies, and these discrepancies remain common at discharge (Kwan et al., 2013). Almost one-third of medication discrepancies occurring at hospital admission or discharge have the potential to cause patient harm (i.e., potential adverse drug events) (Mueller et al., 2012). Adverse drug events associated with medication discrepancies can prolong hospital stays and, in the postdischarge period, may lead to emergency department visits, hospital readmissions, and use of other health care resources (Mueller et al., 2012).

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*PDF version* of the information on the SCP WHO Medication Reconciliation.
Instruments to support implementation

- **Webinars** are organised for each SCP

Instruments to support implementation

- **Webinars** are organised for each SCP

  publicly available on:

Instruments to support implementation

- **Webinars** are organised for each SCP

  publicly available on:

Instruments to monitor implementation

- **Self-assessment tool** for each SCP
Instruments to monitor implementation

- Self-assessment tool for each SCP
  - The use of the tool is voluntary for the HCOs and for their internal use only
  - Aim: help HCOs in the ongoing implementation process between baseline and endline questionnaire → implementation achievements so far
Instruments to evaluate implementation

- **Baseline questionnaires:** September 2013
- **Endline questionnaires:** September 2014

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### Baseline questionnaire on Medication Reconciliation practice

**Level of Implementation of Medication Reconciliation**

6. On which scale is Medication Reconciliation already being conducted in your HCO?

**Note:**
For HCOs treating inpatients, “being conducted” means that the practice is being done at least at some of the transition points admission, transfer and discharge.

- 1. Medication Reconciliation is not yet being conducted in the HCO.
- 2. Medication Reconciliation is already being conducted in the entire HCO.
- 3. Medication Reconciliation is already being conducted in the following area(s) of the HCO. Please complete the information required by the next question on the following page.

---

### Demographic data

**1. Details of the person completing this questionnaire**
- First name
- Last name
- Address
- City
- Country

**2. Details of your Health Care Organisation (HCO)**
- Name
- Address
- City
- Country

**3. Treatment spectrum of your HCO**
- 1. HCO treating inpatients only
- 2. HCO treating out patients only
- 3. HCO treating inpatients as well as outpatients

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*PaSQA European Union Network for Patient Safety and Quality of Care*
Thank you for your attention.

PaSQ_Germany@azq.de