Feasibility of utilization and patient satisfaction with a nationwide standardized electronic medication plan

Background

The loss of information about hospital patients’ medication during admission and discharge implies a challenge for patients and healthcare providers. Taking the patients’ drug history by a face-to-face interview is routinely done in the hospital but more reliable sources such as standardized medication plans are necessary to improve medication and patient safety.

Since October 2016, every patient in Germany taking 3 or more chronic medications is entitled to the nationwide standardized medication plan which is to be compiled by their general practitioner.

The medication plan provides information on the active ingredient (1), brand name of the medicinal product (2), dosage (3), dose frequency (4), medical indication (6) and how to apply the medication correctly (5).

Materials and methods

During hospital stay
- Study enrollment of patients in 5 hospitals in Rhineland-Palatinate, Germany
- Hospital pharmacist compiles medication plan in the web-based program especially set up for the project
- Medication reconciliation

At discharge
- Patient counselling concerning the drug therapy and medication plan
- Delivering the printed medication plan to the patient

After discharge
- For 6 months: routine update of the e-medication plans by local pharmacists and/or general practitioners & delivering printed version to the patients
- Interview concerning feasibility and satisfaction with the e-medication plan (written questionnaire):
  - Patients: 2 weeks and 6 months after discharge
  - Local pharmacists, physicians: 6 months after discharge

Results

An interim analysis included interviews with 387 patients, 128 pharmacists and 55 general practitioners. The patient interviews two weeks after hospital discharge indicate that the broad majority of patients was satisfied with content and comprehensibility of the medication plan and has gained new information on indication or proper administration of their medicines.

<table>
<thead>
<tr>
<th></th>
<th>Disagree</th>
<th>Strongly disagree</th>
<th>Agree</th>
<th>Strongly agree</th>
<th>No answer</th>
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<tr>
<td>New information received about indication</td>
<td>20</td>
<td>16</td>
<td>38</td>
<td>27</td>
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<td>New information received about correct use</td>
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<td>15</td>
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<td>62</td>
<td>62</td>
<td>0</td>
</tr>
<tr>
<td>Structure of the plan is advantageous</td>
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<td>12</td>
<td>64</td>
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<tr>
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<td>2</td>
<td>78</td>
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</table>

Pharmacists and physicians are mostly satisfied with this new tool to facilitate communication between pharmacists, doctors and patients.

Purpose

The innovative, nationwide standardized electronic (e-) medication plan was evaluated in a pilot project regarding feasibility and usefulness for 600 patients in Rhineland-Palatinate, Germany. The primary physicians’ and local pharmacists’ utilization of the e-medication plan during the first 6 months after discharge and patients’ and healthcare providers’ satisfaction should be evaluated.

Conclusions

The utilization of the standardized e-medication plan is feasible in the inpatient and outpatient setting. Patients acknowledged the useful design and content of the medication plan and have a better understanding of their medication. Healthcare providers acknowledged the availability of comprehensive information about the patients’ medication.