

How to communicate patient electronic adherence data to physicians? ? Development of a one-page reporting form through experts? consensus

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Background

The integration of patients' self-measured data into physicians' electronic health record (EHR) systems is promising to improve patient care and interprofessional cooperation. Electronic monitoring, the current gold standard to measure medication adherence, gives precise medication intake patterns over time.

Purpose To develop a compact adherence reporting form (one-page). It should combine suitable metrics and graphical representations to facilitate physicians' interpretation of (non-)adherence to polypharmacy. Additionally, integration in to physicians' EHR should be technically easy to perform.

Method Pharmacists with expertise in adherence monitoring were invited to debate and agree on items needed to calculate and illustrate electronic adherence data. During a second group discussion, physicians were invited to select the items they would need for an adherence report. New items were included in the discussion. Preference was indicated by raising a green or red card. Voting was repeated until consensus was obtained. Intake data from stroke patients were recorded with a small electronic device (Time4Med?) and used to create a first draft of the reporting form. The final version integrated physicians' feedbacks.

Findings During four hours on September 16, 2019, seven pharmacists agreed on four metrics to express non-optimal adherence patterns (taking adherence, timing adherence, correct dosing days and drug holidays) and three graphical representations. On January 17, 2020, five physicians participated in a one-hour panel discussion. They approved the four metrics as able to describe (non-)adherence and rated the dot chart as the most useful illustration for judging individual adherence patterns. Further, they required a medication list, which should contain the current and complete medication of the patient. First one-page adherence reporting forms were created with the electronic monitoring data from two exemplary stroke patients (aged 68 and 75 years, 3 medicines each, twice daily regimen, 4 weeks monitoring period). The physicians appreciated the clarity of the report and suggested small improvements to the illustration.

Conclusion To our knowledge, we developed the first compact adherence reporting form based on recommendations of adherence experts and considering preferences of physicians. A study is running among patients with chronic heart failure to test the electronic transmission of the report from pharmacy software into physicians' EHR.