Ideal Features of eMedRec Solution Checklist

(Adapted with permission from the MARQUIS Manual 2014 p. 77-80)

Ideal Features of eMedRec Solution Checklist	
1. Describe the current IT landscape within your organization:	☐
☐	Use of Computerized Provider Order Entry (CPOE).
☐	Use of an inpatient electronic Medical Record (EMR).
☐	Use of an electronic Medication Administration Record (eMAR).
☐	Use of an eMedRec tool.
☐	Investigate plans to change the current health information systems in the next 1-2 years.
☐	Investigate organizational willingness to invest in any new systems.
2. Ideal features of an eMedRec tool	☐
☐	Displays current medications and eBPMH lists side by side to facilitate comparison.
☐	Allows filters for sorting medications for example, by therapeutic class, most recent date prescribed, ordering physician, discontinued medications, etc.
☐	Displays medication history (current and previous, active and discontinued medications), ideally medications are displayed on a timeline.
☐	Allows modification of medications: continue, discontinue, hold (optional), or change from the same screen. Ideally, the system is integrated with CPOE (if applicable) so that new medications can be prescribed as well.
☐	Clearly identifies automatic formulary substitutions and automatically reverts these to original medications during discharge eMedRec.
☐	For pre-admission accounts, allows eMedRec to occur any time before schedule re-visit (e.g., surgery).
3. Access to electronic source of preadmission medication information	☐
☐	Community pharmacy prescription data.
☐	Medication lists from ambulatory EMRs.
☐	Discharge medication orders from recent hospitalizations at participating hospitals and/or hospitals in the region.
☐	Medication lists from patient personal health records (ideally linked to the ambulatory EMR) and electronic provincial medication record.

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4. Facilitates the comparison of various sources of preadmission medication information	☐
☐	Identifies the source(s) of information for each medication.
☐	Displays dates prescribed/ordered as appropriate for each source.
☐	Highlights differences in doses frequencies, routes, and formulations for each medication.
☐	Allows sorting of medication by name, class, date and source.
5. Ability to show patient adherence to medications	☐
☐	Calculation of medication possession ratio and/or graphs of medication possession time based on pharmacy fill and refill data.
☐	Access to any documented information from EMRs and PHRs regarding medication adherence includes rational , side effects, intolerances etc.
6. Documentation of the electronic Best Possible Medication History (eBPMH)	☐
☐	Ability to create a eBPMH separate from the sources on which it is based
☐	Ability to pull medications from electronic sources into an eBPMH (with or without changes).
☐	Ability to add new medications into the eBPMH based on other (non-electronic) sources of information.
☐	Ability to update the eBPMH at any time during the hospitalization.
☐	Ability to document the quality of the eBPMH (from a list of choices) in the opinion of the history-taker and for that information to be clearly visible to any other provider who pulls up the medication list.
☐	Ability to document the sources of information used to create the eBPMH from a list of coded choices and for that information to be clearly visible to any other provider who pulls up the list.
☐	Ability to update the eBPMH at any time during the hospitalization.
☐	Audit trail to document changes to the eBPMH made during the course of hospitalization, including when and by whom (person and role).
7. Facilitation of eBPMH Sign-off	☐
☐	Sign-off that the eBPMH is ready for comparison to the admission orders (reconciliation).
☐	Ability to document verification of BPMH by a second clinician

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8. Facilitation of admission orders based on the eBPMH	☐
☐	Document the planned action on admission for each eBPMH medication: continue without changes, continue with changes, substituted for a different medication, temporarily hold, discontinue.
☐	Ability for continued medications to link to the admission order entry process.
9. Facilitation of reconciliation at admission	☐
☐	Ability to compare and flag differences between eBPMH and admission orders.
☐	Document intentional reasons for changes from the eBPMH to admission orders.
☐	Modify admission orders as needed to resolve unintentional discrepancies.
☐	Ability to document verification of admission orders by a second clinician.
10. Facilitation of medication ordering at intra-hospital transfer	☐
☐	Compare eBPMH to current (pre-transfer) inpatient medications (e.g., differences in medications, dose route frequency of formulation highlighted).
☐	The ability to order medications from eBPMH or the current pre-transfer medication list as transfer orders (with or without further modification).
☐	Ability to add new medications to transfer orders (i.e., not on either list)
11. Facilitation of medication reconciliation at intra-hospital transfer	☐
☐	Compare and flag differences among eBPMH, pre-transfer medications and transfer orders.
☐	Document intentional reasons for changes made to transfer orders.
☐	Modify transfer orders as needed to resolve unintentional discrepancies.
☐	Ability to document verification of orders by a second clinician.
12. Facilitation of medication ordering at hospital discharge	☐
☐	Compare eBPMH to current (pre-discharge) inpatient medications (e.g., differences in medications, dose, route, frequency of formulation highlighted).
☐	The ability to order medications from eBPMH or the current pre-discharge medication list as discharge orders (with or without further modification).
☐	Ability to add new medications to discharge orders.(i.e., not on either list)
☐	Ability to run decision support on entire discharge medication regimen (e.g., for duplicate therapy)
☐	Ability to transmit electronic prescription or print and sign prescriptions at discharge (from final verified medication orders)

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13. Tools to facilitate patient/caregiver education	☐
☐	Ability to print a final discharge medication list in patient-friendly language that clearly indicates (with pictures if possible) the indications of each medication, time(s) of day to take it, number of pills/sprays, etc. with each administration, and common side effects to watch for.
☐	Ability to clearly display the differences between pre-admission and discharge medication regimens, including which medications are new, which have had changes in dose/frequency/route/formulation, which are to be continued without changes and which preadmission medications should be stopped.
☐	Ability to add standardized medication educational materials (e.g. 5 Questions to Ask About Your medications) and for high-alert medications (e.g. anticoagulants, insulin etc.)
14. Tools to facilitate communication with post-discharge providers	☐
☐	Clear documentation in the discharge paperwork of the discharge medication regimen, including a clear explanation of changes compared with the preadmission medication regimen and reasons for all changes.
☐	Ability to transmit this information electronically to post-discharge providers (e.g., to their community pharmacy, ambulatory EMR**,** sub-acute facility/Long-term care facility EMR**,** via online portal to hospital's information systems, or through health information exchange program).
15. Tools to facilitate compliance with medication reconciliation process	☐
☐	Ability to track timing of BPMH documentation relative to time of admission
☐	Provide alerts, reminders and/or hard stops if eBPMH or reconciliation has not been completed in a timely manner.
☐	Ability to stop the discharge process unless eBPMH has been verified and every medication in the BPMH and current inpatient regimen have been reconciled with the discharge medication regimen.
☐	Ability to generate real-time reports of all patients with discharge orders completed and in need of reconciliation.
16. Tools to identify high-risk patients	☐
☐	Automatically identify and generate a report of patients at high-risk for medication problems (e.g., based on the number and/or classes of medication in the eBPMH in admission or discharge orders, and/or based on the number of changes from pre-admission to discharge medications) so that further action can be taken.
17. Facilitation of reconciliation at hospital discharge	☐
☐	Compare and flag differences among eBPMH, pre-discharge medication list and discharge orders.
☐	Document reasons for intentional changes made to discharge orders (e.g., compared with the eBPMH).
☐	Modify discharge orders as needed to resolve unintentional discrepancies.
☐	Ability to document verification of discharge orders by a second clinician.