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Objectives

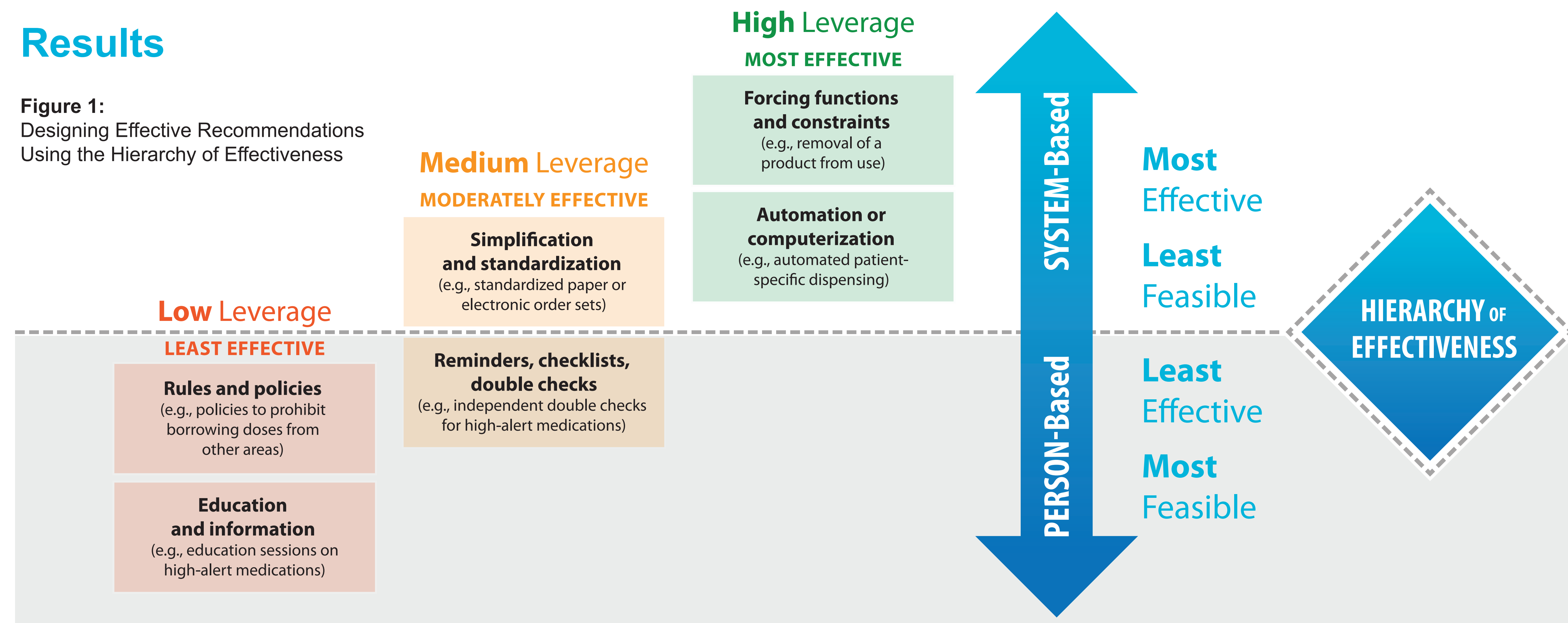
- Medication incidents can result in sub-optimal disease management or expose patients to unnecessary drug therapy, calling attention to the need to adopt strategies to mitigate risks and improve medication safety.
- The objective of this multi-incident analysis was to gain a deeper understanding of the possible contributing factors to incidents associated with patient harm, and to develop recommendations to prevent incident recurrence.

Methodology

- A total of 971 medication incidents associated with patient harm were extracted from the Institute for Safe Medication Practices Canada (ISMP Canada) Community Pharmacy Incident Reporting (CPhIR) Program from 2009 to 2017.
- Following exclusion criteria, we conducted a qualitative, thematic analysis on 909 incidents, and provided recommendation to address patient safety gaps corresponding to harm related incidents.

Results

Figure 1: Designing Effective Recommendations Using the Hierarchy of Effectiveness



Conclusion

- Independent double checks are an effective strategy for preventing incidents associated with high-risk processes.
- Clear communication within the circle of care is necessary for safe and effective patient-centered care.
- Technology can serve as clinical decision support for healthcare practitioners in mitigating preventable adverse drug reactions.
- We hope our findings from this multi-incident analysis can provide a platform for reflection and shared learning.

References: Available upon request

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ISMP Canada
Institute for Safe Medication Practices Canada
www.ismp-canada.org

CMIRPS
Canadian Medication Incident Reporting and Prevention System
www.ismp-canada.org/cmirms/

CPhIR
Community Pharmacy Incident Reporting Program
www.cphir.ca

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Disclosures: Authors of this poster have the following to disclose concerning possible personal or financial relationships with commercial entities that may have a direct or indirect interest in the subject matter of this presentation:

- Adrian Boucher – Nothing to disclose
- Sonya Dhanjal – Nothing to disclose
- Certina Ho – Nothing to disclose

Table 1: Theme 1 – High-risk Processes in the Pharmacy

METHADONE MAINTENANCE THERAPY

Incident Example: A patient was mistakenly given another patient's dose of methadone. The dose given was significantly higher than the patient's normal dose. Both patients had similar names and the incident was discovered when the second patient arrived for his dose, but it could not be found.

Contributing Factors:

- Pre-pouring of daily methadone doses.
- Similar patient names and/or doses.

COMPLIANCE PACKS

Incident Example: A patient was prescribed hydrochlorothiazide and her blister packs were repackaged to include the medication. When the following month's blister packs were made, hydrochlorothiazide was omitted. The patient experienced higher than normal blood pressure as a result.

Contributing Factors:

- Change of drug regimens in the middle of a pack.
- Frequent changes in medication regimens.
- Preparing of packs weeks in advance of pick-up.

COMPOUNDING

Incident Example: A patient reported that the menthol and hydrocortisone cream compound she had received caused burning, which did not happen previously. The technician who prepared it did not get another staff member to double check the amount measured and initial for it. The compound was re-made and the patient reported no burning.

Contributing Factors:

- Lack of standardized compounding process.
- Look-a-like, sound-a-like medications.
- Inadequate training of personnel.

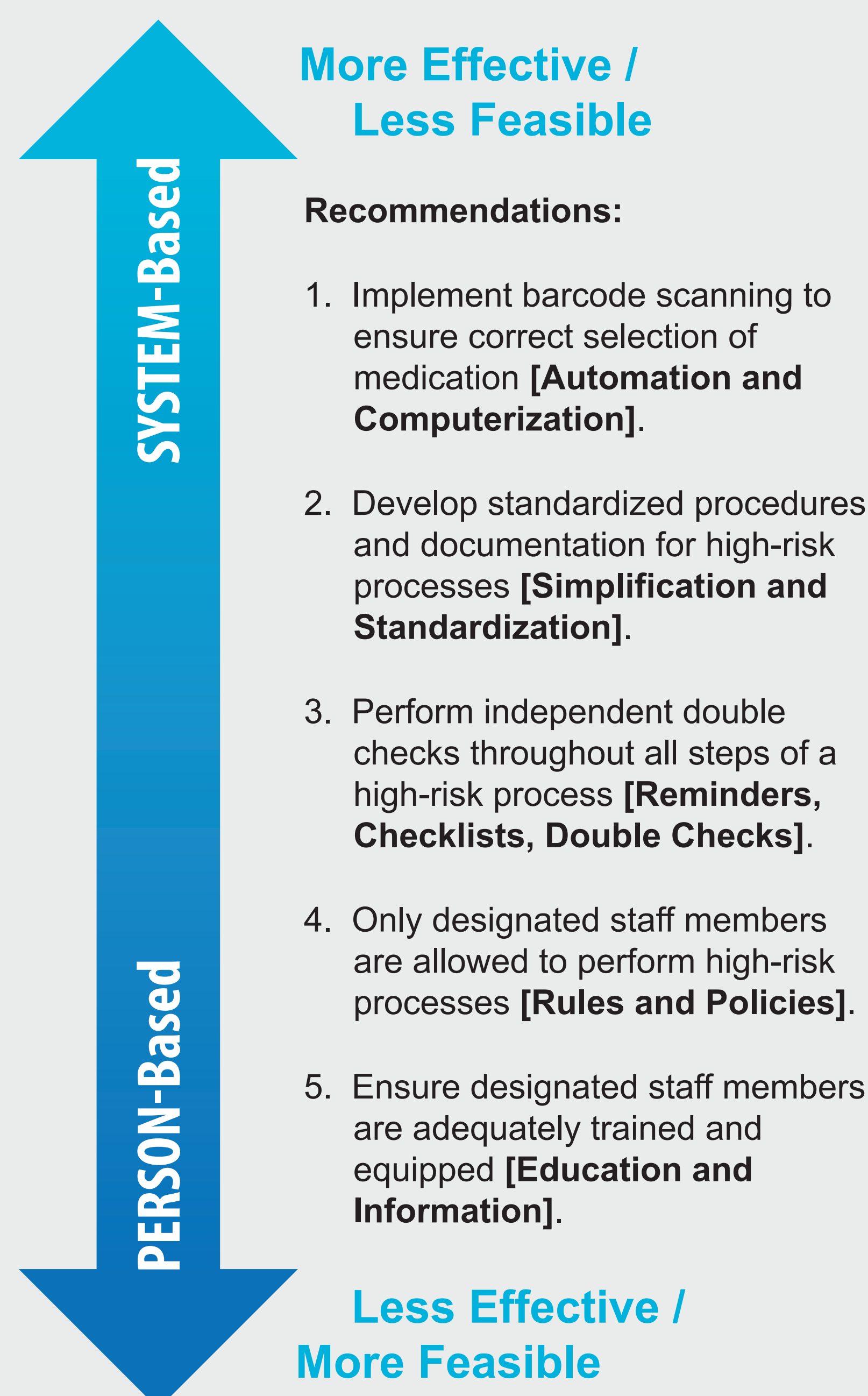


Table 2: Theme 2 – Communication Gaps

PATIENT-PROVIDER ENGAGEMENT

Incident Example: A patient experiencing cough was given a new prescription for valsartan to replace ramipril. The patient discontinued metoprolol instead of ramipril and brought the metoprolol back for destruction. The incident was discovered when the patient called for a refill of his ramipril.

Contributing Factors:

- Complicated medication directions.
- Inadequate check of patient understanding.

INTERPROFESSIONAL COLLABORATION

Incident Example: The nursing home contacted the pharmacy for a refill of a patient's prescription for Arthrotec® (diclofenac/misoprostol). There was no record of Arthrotec® on the patient file, but there was a prescription for diclofenac. It was discovered that, in addition to receiving diclofenac, the patient was taking a sample of Arthrotec® that he received from the doctor.

Contributing Factors:

- Limited sharing of medical information between providers.
- Lack of an up-to-date medication list.

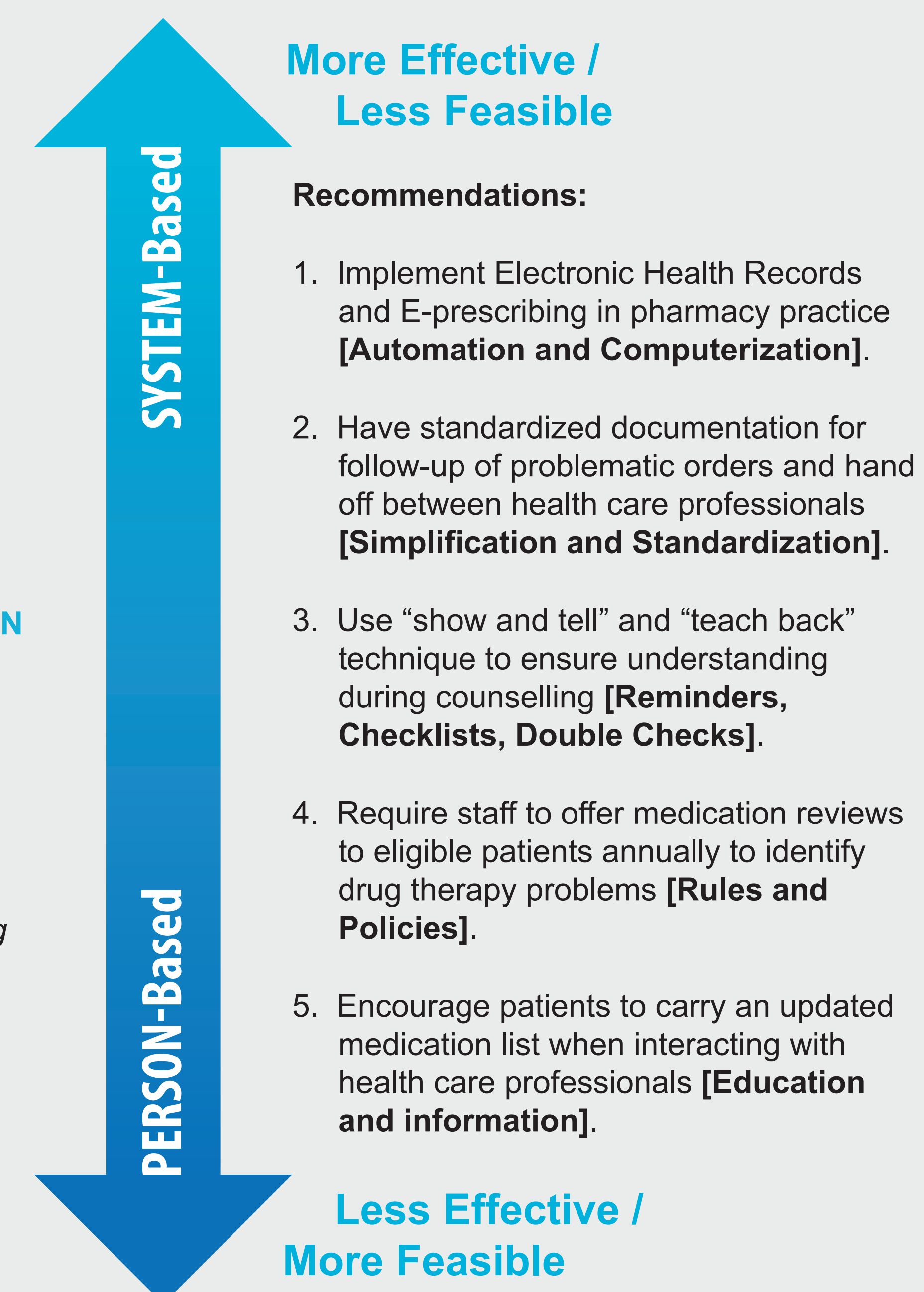


Table 3: Theme 3 – Preventable Adverse Drug Reactions

DRUG-DRUG INTERACTION

Incident Example: A patient was started on lithium carbonate and was prescribed metronidazole 7 days later without cautioning about the interaction. The patient called the pharmacy reporting side effects consistent with overdose.

Contributing Factors:

- Knowledge deficit of the practitioner.
- Too many insignificant alerts resulting in "alert fatigue".
- Inadequate alert to indicate drug-interactions.

DOCUMENTED DRUG ALLERGY

Incident Example: A patient complained of tight throat over several days. He/she went to emergency and was diagnosed with an allergic reaction to moxifloxacin. The pharmacist had missed the allergy caution when dispensing.

Contributing Factors:

- Inadequate alert to indicate drug allergy.
- Bypassing entry of allergy information.
- Free-form entry of allergies.

