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Why Hospital-to-Home Medication-Safety Programs Work in Some Health Systems but Not Others: A Realist Review of Workforce, Information Continuity, and Patient Capacity, 2017–2024

Michael Osei[1]*, Elena Petrova[2], David Park[3], Maria Papadopoulou[4]

[1]Department of Pharmacy Practice and Transitions of Care, School of Pharmacy, University of Ghana, Accra, Ghana.
[2]Department of Clinical Pharmacy and Health Systems, Faculty of Pharmacy, Sofia University, Sofia, Bulgaria.
[3]Department of Pharmacy Administration and Continuity of Care, College of Pharmacy, Korea University, Seoul, South Korea.
[4]Department of Pharmaceutical Care and Implementation Science, Faculty of Pharmacy, University of Patras, Patras, Greece.

***E-mail** ✉ michael.osei@ug.edu.gh
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ABSTRACT

Medication-related risk after hospital discharge persists despite widespread use of medication reconciliation, pharmacist review, discharge counselling, electronic information transfer, and post-discharge follow-up. Their effects vary substantially across programmes and health systems, suggesting that intervention components alone do not explain whether transitional medication-safety work succeeds. This realist review examined how hospital-to-home programmes generate benefit, attenuation, or failure under differing conditions of workforce capability, information continuity, responsibility transfer, follow-up access, and patient or caregiver capacity. From 142 records or documents identified, 34 duplicates were removed, 108 unique records were screened, 54 underwent detailed assessment, and 34 substantive evidence documents were retained; 26 directly informed programme-theory development or refinement, while a separate methodological source informed realist appraisal. The synthesis found a recurrent process–outcome disconnect: medication discrepancies and prescribing problems could improve without corresponding reductions in adverse drug events, readmission, or other downstream outcomes. Explanations were strongest when medication information was timely and actionable, downstream professionals had the authority and capacity to respond, responsibility for unresolved medication work was explicit, follow-up was reachable, and patients or caregivers could enact the discharge plan. Weakness at any of these interfaces could interrupt otherwise technically successful interventions. Hospital-to-home medication safety is therefore best understood as a conditional health-system accomplishment rather than the automatic consequence of delivering a predefined transitional-care component.

Keywords: Medication safety, Care transitions, Medication reconciliation, Information continuity, Care coordination, Patient capacity

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Introduction

Hospital discharge creates a period in which medication changes made under acute-care conditions must be interpreted, implemented, monitored, and sometimes revised in another care environment. Medication discrepancies, errors, adverse drug reactions, and other medication-related harms remain common after this transition, although reported frequencies vary markedly across study designs and populations [1]. In older adults,

prospective evidence indicates that post-discharge medication-related harm can be clinically serious, potentially preventable, and associated with additional healthcare use [2].

Attempts to reduce this risk have produced a heterogeneous transitional-care literature. A large network meta-analysis found that effects differed according to intervention configuration, outcome, and follow-up interval; greater intervention complexity did not produce a simple monotonic increase in effectiveness [3]. Reviews focused specifically on medication continuity likewise suggest that effective transitions depend on more than completing a medication list or performing a single reconciliation task [4].

This heterogeneity becomes particularly important when process outcomes and patient outcomes diverge. In a cluster-randomized trial, electronic medication reconciliation substantially reduced medication discrepancies but did not significantly reduce adverse drug events, emergency visits, or readmissions [5]. A separate randomized trial of a multifaceted pharmacist intervention for patients prescribed high-risk medications likewise found no significant reduction in its primary adverse medication outcome [6]. These findings do not imply that reconciliation or pharmacist involvement lacks value. They show that delivery of an intervention resource is insufficient to identify the causal process through which benefit would occur.

The present review therefore asks: in which health-system contexts do hospital-to-home medication-safety programmes activate mechanisms that improve continuity and reduce risk, and when do workforce, information, follow-up, responsibility, or patient-capacity constraints prevent those mechanisms from operating? The analysis distinguishes programme resources from mechanisms and treats contradictory or null findings as tests of programme theory rather than as evidence to be smoothed into an average intervention effect.

Materials and Methods

Review design and initial programme-theory specification

A realist-review design was used to explain variation in hospital-to-home medication-safety programmes through context–mechanism–outcome configurations. Intervention components such as medication reconciliation, pharmacist review, an electronic medication record, counselling, referral, or follow-up contact were treated as programme resources rather than mechanisms. Mechanisms were defined as responses, reasoning processes, or usable capacities activated in context, including sensemaking, trust, engagement, confidence, perceived legitimacy, and ability to act.

Iterative searching, evidence-unit selection, and report-family handling

Iterative searches covered three documented routes: PubMed/MEDLINE-facing bibliographic records; publisher and Crossref-indexed records; and citation chaining. The evidence window was 2017 through 2024. Across these routes, searching was progressively refined around discharge medication safety, transitional care, medication reconciliation, information continuity, workforce capability, interprofessional coordination, follow-up, and patient or caregiver capacity. Citation chaining was used to identify evidence capable of supporting, refining, or challenging candidate programme theories. Journal quartile was not an eligibility criterion for evidence inclusion.

The search identified 142 records or documents. Thirty-four duplicates were removed before screening, leaving 108 unique records for initial relevance screening. Fifty-four records were excluded at that stage, and the remaining 54 documents all underwent detailed assessment. Twenty were excluded during detailed assessment: 8 for insufficiently relevant hospital-to-home medication-transition content, 5 for insufficient contextual or mechanistic information, 4 as duplicate or secondary programme reports without a distinct causal contribution, and 3 as protocols, editorials, or other non-empirical sources without a usable programme-theory contribution. Thirty-four substantive evidence documents were retained for synthesis. The retained identities were references 1–6 and 8–35; reference 7 was a methodological appraisal source and was not counted among the 34 substantive documents. Twenty-six documents, references 8–33, contributed directly to programme-theory development or refinement; references 1–6 and 34–35 were retained as contextual or triangulating evidence. The primary analytic scope was discharge to home or community. Care-home and long-term-care evidence [7, 8] was retained only as a receiving-setting contrast for programme-theory refinement and transferability, not as a direct estimate of hospital-to-home effectiveness.

The aggregate selection process is shown in **Figure 1**.

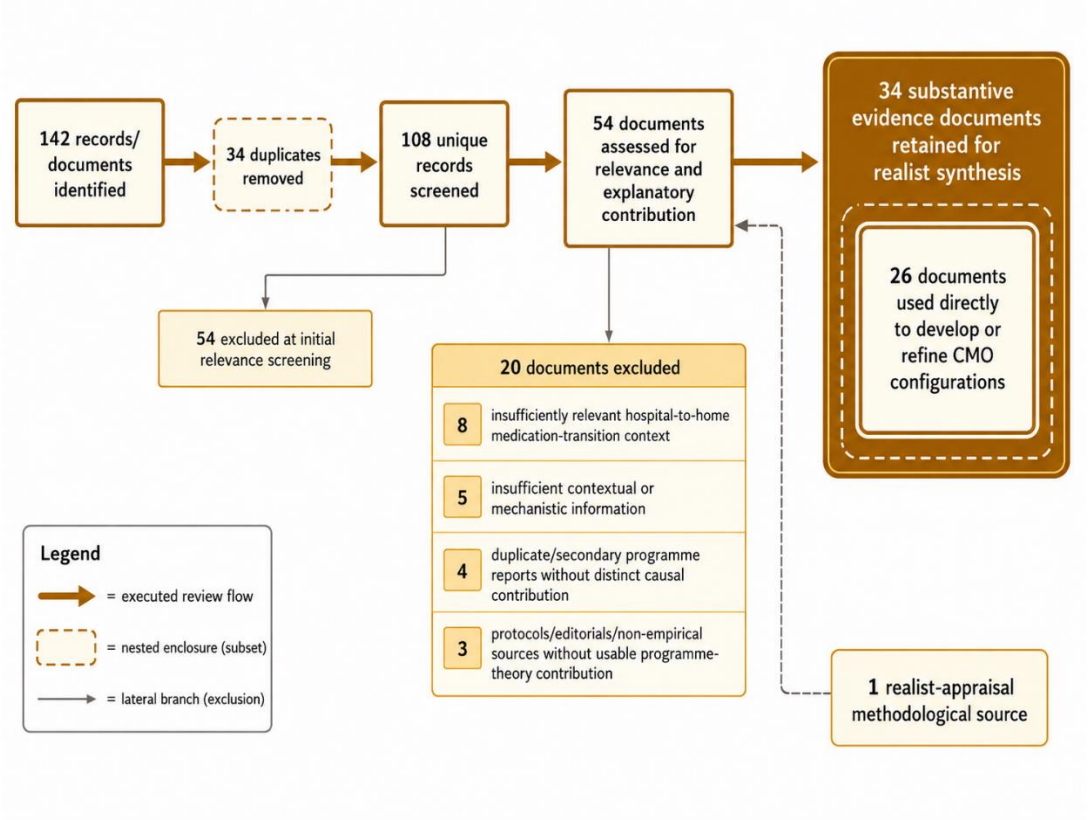

Figure 1. Selection and explanatory use of evidence in the realist review

Relevance, richness, rigour, and extraction of causal fragments

Evidence was appraised according to its relevance to a candidate explanation, the richness with which it described contextual or causal processes, and the rigour of the methods supporting the particular inference for which it was used [9]. Relevance was recorded as direct contribution to context–mechanism–outcome development or refinement, or as contextual/triangulating support. Richness was treated as sufficient for direct theory contribution when a document provided usable detail on context, implementation, mechanism, outcome contrast, or a disconfirming case. Rigour was judged against the inference drawn rather than by study design alone: effect-focused experimental evidence was used principally for outcome contrasts, qualitative and implementation evidence for contextual and mechanistic explanation, and observational evidence for association or service context unless a stronger causal inference was justified. Extraction separated programme resources from contexts, candidate mechanisms, outcomes, implementation constraints, and rival explanations.

For the explicitly observational or retrospective service-effect studies in which the article identifies a causal limitation, the effect inference was judged using ROBINS-I. Park *et al.* [10] and Leykum *et al.* [11] were judged at serious risk of bias for causal effect inference because confounding could not be excluded; Montross *et al.* [12] was judged at serious risk because both confounding and selection could influence the observed service association. These studies were therefore used as associative or contextual evidence rather than causal confirmation. Explanation-level confidence in **Table 2** was assigned from convergence, directness, richness, rigour, and the handling of contradictory cases. Moderate–high confidence required convergence of mechanism-rich and outcome-oriented evidence across more than one design or setting with no unresolved major contradiction; moderate confidence indicated a coherent explanation with fewer direct tests, greater setting specificity, heavier reliance on observational or implementation evidence, or a meaningful limiting case. Document count alone did not determine confidence.

Retroductive synthesis and disconfirming-case testing

Context–mechanism–outcome fragments were compared across interventions and settings. Particular attention was paid to cases in which medication-process measures improved without corresponding clinical benefit, because these cases could discriminate between simple component-based explanations and theories requiring downstream

enactment. Programme theories were refined only when supporting and contradictory evidence could be reconciled without redefining every negative finding as implementation failure.

Results and Discussion

Evidence profile and the process–outcome disconnect in hospital-to-home medication safety

The final synthesis contained 34 substantive evidence documents (references 1–6 and 8–35). Twenty-six documents (references 8–33) contributed directly to context–mechanism–outcome development or refinement, while eight documents (references 1–6 and 34–35) were retained for contextual or triangulating support; the methodological appraisal source [9] was not counted as substantive evidence. Across the evidence base, medication reconciliation produced its most consistent effects at the medication-process level. A systematic review of advanced reconciliation approaches found reductions in medication discrepancies and related errors, whereas evidence for prevention of adverse drug events was less consistent [13]. This distinction was reproduced in individual trials. A randomized Swiss study found that medication reconciliation did not reduce 30-day return to hospital [14]. In a pragmatic trial, pharmacist-led reconciliation markedly reduced clinically important medication errors at discharge while healthcare utilization over the following 30 days remained statistically unchanged [15].

Adding additional transitional functions did not remove this disconnect. Medication review combined with enhanced information transfer failed to reduce readmission among older adults with polypharmacy in a cluster-randomized trial [16]. Conversely, observational evidence from an acute medical unit associated an embedded ward-pharmacist model with greater intervention activity and favorable service outcomes, including shorter length of stay and lower readmission, although the design cannot establish that pharmacist activity caused those differences [10].

A transfer-of-care service for patients using monitored dosage systems further illustrates why administrative delivery and mechanism activation should remain separate. Most referrals were completed, yet delays occurred and the evaluation did not demonstrate significant reductions in unintentional medication discrepancies or adverse drug events [17]. Collectively, these studies indicate that programme reach, reconciliation completion, discrepancy correction, clinical harm, and utilization are different outcome levels. Movement at one level cannot be assumed to propagate automatically to the next.

The evidence-source configurations producing this contrast are summarized in **Table 1**.

Table 1. Programme configurations in which medication-process improvement did or did not propagate to downstream outcomes

Hospital-to-home programme configuration	Where medication-safety work was concentrated	Information-continuity feature	Workforce enactment feature	Outcome level most clearly affected	Observed cross-level pattern
Electronic medication reconciliation	Medication-list comparison and discrepancy correction	Structured electronic comparison of pre- and post-transition medicines	Clinician review of identified discrepancies	Medication discrepancies	Strong process improvement could occur without detectable reduction in adverse drug events or utilization
Advanced reconciliation programmes	Reconciliation combined with additional technical or professional steps	Enhanced acquisition or comparison of medication information	Pharmacist or multidisciplinary reconciliation activity	Errors and discrepancies	Process outcomes were more consistently responsive than downstream clinical outcomes
Pharmacist-led discharge reconciliation	Detection and correction of clinically important discharge medication errors	Reconciled discharge medication information	Pharmacist identification and correction before transition	Clinically important medication errors	Large error reductions did not necessarily alter short-term healthcare use

Medication review plus enhanced information transfer	Review of regimen combined with communication to downstream care	Additional transfer of reviewed medication information	Hospital-based professional review before transfer	Readmission	Increasing review and transfer intensity alone did not ensure downstream outcome improvement
Embedded ward-pharmacist model	Medication-problem identification within routine inpatient workflow	Direct access to inpatient medication information	Pharmacist integrated into the acute medical unit	Intervention activity, length of stay, readmission	Favorable service-level associations were observed where medication work was organizationally embedded, but causality remained uncertain
Monitored-dosage-system transfer service	Referral from hospital to community medication support	Structured referral to the receiving pharmacy	Completion of downstream transfer-of-care activity	Referral completion and medication-safety outcomes	High administrative completion coexisted with delays and no demonstrated improvement in discrepancy or adverse-event outcomes

The table separates programme delivery, medication-process outcomes, and downstream outcomes; no row should be interpreted as a direct causal ranking of programme types.

Information continuity becomes protective when medication information is timely, interpretable, and actionable

Information continuity was repeatedly disrupted between creation of discharge information and its effective use. In an older-patient study, discharge summaries were frequently absent from primary-care records, and medication lists were not consistently updated after changes made during hospitalization [18]. The finding distinguishes production of discharge documentation from successful receipt and incorporation by the next care setting.

Electronic availability did not eliminate this problem. A randomized trial adding a care-transitions intervention to health information exchange did not significantly reduce subsequent hospitalization, showing that accessible information may remain clinically inert if downstream interpretation and action do not change [19]. Primary-care physicians described high-quality discharge summaries in more operational terms: medication-change rationale, treatment dates, prioritized action items, and explicit follow-up requirements were valued because they support decisions rather than merely document events [20].

Participatory work involving patients, relatives, physicians, nurses, pharmacists, and general practitioners similarly emphasized timely medication overviews and knowledge sharing across organizational boundaries [21]. A rapid realist review of personal electronic medication records extended this reasoning by identifying trust, interoperability, training, governance, work-system fit, and patient engagement as contexts that condition whether shared medication records become usable resources [22].

These findings support an operational definition of information continuity that is stricter than information transmission. Medication information must reach the next responsible actor in time, contain clinically interpretable reasons and priorities, and be incorporated into a workflow capable of acting on it. A technically complete record that is late, inaccessible, poorly prioritized, distrusted, or detached from responsibility may improve documentary continuity without generating medication-safety action.

Workforce capability and interprofessional sensemaking convert detected problems into completed medication action

Hospital-to-home programmes also varied according to whether the receiving and sending workforce could convert a recognized medication problem into a completed response. Qualitative analysis of the pharmacist discharge care intervention showed that workflow, training, organizational resources, and local implementation conditions shaped whether its intended functions could be delivered [23]. Subsequent multidisciplinary evaluation identified accurate medication histories, resolution of medication-access barriers, coordination through the

electronic record, and professional training as facilitators, while communication gaps and variability in pharmacist skills constrained implementation [24].

A similar distinction appeared in a Welsh programme intended to trigger community-pharmacy Discharge Medicines Reviews. Despite formal availability of the referral pathway, only one participating hospital achieved successful implementation; knowledge, role perception, local processes, champions, and feedback influenced whether referrals became routine practice [25]. Across four transitional-care programmes for older adults, organizational resources, structures, information continuity, and local champions likewise affected implementation [26].

These studies suggest that workforce capacity should not be reduced to staffing numbers or professional presence. An intervention can supply a pharmacist, referral or review opportunity while leaving insufficient authority, time, coordination, or shared interpretation to complete the medication work. Observational evidence from interdisciplinary hospital teams is compatible with this explanation: team sensemaking and relational patterns differed across hospitals, and stronger general sensemaking was associated with lower standardized readmission, although the observational design does not establish causality [11].

A contrasting positive configuration is visible in pharmacist-driven antimicrobial transitions of care. In a stepped-wedge implementation across several hospitals, pharmacists operated within a defined prescribing task and workflow, producing improved discharge antimicrobial optimization and fewer severe antimicrobial adverse effects, while some other clinical outcomes remained unchanged [27]. The result is best treated as task-specific evidence that professional expertise is more likely to generate measurable benefit when the system also provides clear scope, accessible information, authority to intervene, and a route to completed action.

Responsibility transfer and reachable follow-up determine whether unresolved risk can be recovered after discharge

Post-discharge contact creates an opportunity to recover medication problems that were not recognized or resolved before hospital exit, but access to that opportunity is itself conditional. In a retrospective evaluation combining pharmacist and case-management follow-up, pharmacists identified medication therapy problems after discharge, yet the numerical reduction in 30-day readmission was not statistically significant [12]. Follow-up therefore cannot be treated as a mechanism simply because a call occurred. Its explanatory importance lies in whether a patient can be reached, a clinically meaningful problem is recognized, and someone has the authority and capacity to resolve it.

The receiving care environment further determines whether outstanding medication work acquires an owner. A qualitative study of pharmacist-led reconciliation after tertiary-hospital discharge to primary care in Singapore identified communication and workflow conditions that influenced whether post-discharge medication review could be integrated into routine practice [28]. Used as a receiving-setting contrast rather than as direct hospital-to-home effectiveness evidence, a synthesis of medicines-related interventions for care-home residents showed that professional relationships, organizational arrangements, and responsibility across settings shaped how transition interventions were delivered and experienced [7].

These findings distinguish responsibility transfer from simple information transfer. Responsibility transfer occurs only when an identifiable downstream professional or team accepts the outstanding medication task and can complete, monitor, clarify, or escalate it. Where responsibility is diffuse, a technically accurate discharge plan may still fail because no actor is positioned to respond when the regimen proves infeasible, an interaction becomes apparent, or monitoring is overdue.

Patient and caregiver capacity determines whether discharge plans become medication practice

Medication safety after discharge ultimately depends on what patients and caregivers can understand and enact outside the hospital. Interviews with older adults, informal caregivers, and healthcare professionals showed that medication management after discharge required patient involvement alongside continuing professional coordination and support [29]. Patient capacity is therefore not appropriately interpreted as an individual attribute detached from the care system; the same patient may function differently depending on regimen complexity, accessibility of professional help, caregiver support, and the clarity of the transition plan.

Direct observations of discharge medication counselling further demonstrate that receiving information is not equivalent to participating in medication decisions. Consultations were commonly led by healthcare professionals, while patient participation varied with conversational timing, professional behaviour, questions, cues, and the

presence of relatives [30]. Information that is technically complete can therefore remain unusable if patients cannot identify what changed, why it changed, or what requires attention after discharge.

Experimental evidence shows that the design of communication can alter medication enactment. In caregivers of hospitalized children, a health-literacy-informed intervention incorporating pictograms, teach-back, and show-back reduced medication-dosing errors and improved knowledge compared with standard counselling [31]. The population is not directly interchangeable with older adults or other transition groups, but the result supports a transferable causal proposition: when medication safety depends on self-management, comprehension and demonstrated ability to perform the regimen can be modifiable parts of the transition process.

Technology does not automatically substitute for that capacity. Implementation of an electronic pillbox during care transitions encountered barriers related to portability, data entry, insurance, regulation, rushed discharge processes, and patient acceptance [32]. Digital support can therefore add new dependencies at the same time that it attempts to reduce medication-management burden.

Configurations of success, attenuation, and failure across health systems

The synthesis indicates that hospital-to-home medication-safety programmes operate through configurations rather than isolated components. Setting is one important source of variation. As a transferability contrast, a systematic review of transitional-care interventions for residents of long-term-care facilities found heterogeneous effects and substantial variation in communication, referral, and organizational arrangements [8]. This evidence was used to test whether the proposed mechanisms depended on features of the receiving system, not as a direct estimate of effectiveness for patients returning to private homes. The same nominal intervention can therefore encounter a different causal environment when the receiving setting has continuous nursing oversight, fragmented primary-care access, limited pharmacy integration, or different responsibility structures.

Baseline patient risk also varies. A prediction model for medication-related harm in older adults achieved only moderate discrimination, supporting targeted vigilance while demonstrating that risk cannot be reduced to a deterministic patient score [33]. A broader systematic review similarly reported wide variation in post-discharge medication-related harm across studies and populations [34]. Differences in observed programme performance may consequently reflect both mechanism activation and variation in underlying opportunity for preventable harm.

Resource specification remains important even when resources are not themselves mechanisms. Consensus work on medication discharge planning identified principles concerning medication information, prioritization, communication, and transfer that can make a discharge plan more usable [35]. Their value depends on what subsequently happens to those resources.

Across the evidence, the most credible success configuration is one in which clinically important medication changes are transmitted in an interpretable form, a downstream actor accepts responsibility, the workforce can act on emerging problems, follow-up is reachable, and patients or caregivers can enact the regimen. Attenuation occurs when some of these conditions are present but another weakens the causal chain—for example, accurate reconciliation accompanied by poor follow-up access. Failure becomes more plausible when several conditions are absent, such as delayed information, unclear ownership, limited professional capacity, and an unmanageable treatment burden.

These relationships are synthesized in **Figure 2**.

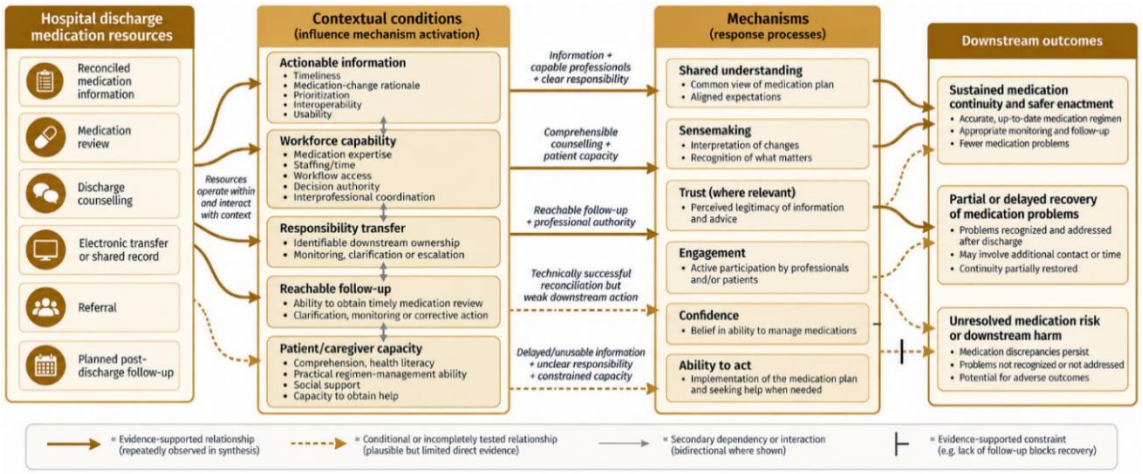

Figure 2. Context-dependent routes from discharge medication work to continuity, recovery, or unresolved risk

Table 2. Context–mechanism–outcome configurations explaining divergent hospital-to-home medication-safety performance

Context configuration	Programme resource made available	Mechanism plausibly activated	Outcome pattern	Contradictory or limiting case	Confidence in explanation
Timely, prioritized medication information reaches a professional able to act	Reconciliation, discharge summary, electronic transfer	Shared understanding and ability to act	Medication changes are incorporated into ongoing care	Electronic availability without downstream outcome improvement	Moderate–high
Pharmacist expertise is embedded in workflow with clear scope and authority	Medication review or prescribing optimization	Professional sensemaking and completed corrective action	Greater likelihood that identified problems are resolved	Multifaceted pharmacist programmes with null clinical outcomes	Moderate
A downstream team explicitly accepts unresolved medication work	Referral or transition handoff	Ownership and coordinated action	Monitoring, clarification, or escalation is more likely to occur	Referral pathways that remain nominal or inconsistently enacted	Moderate
Post-discharge review can be reached when a problem emerges	Follow-up contact or accessible medication service	Recovery and corrective action	Some unresolved problems are detected after hospital exit	Follow-up may identify problems without changing readmission	Moderate
Patient/caregiver understanding and practical capacity match regimen demands	Counselling, written plan, teach-back, technology support	Confidence, engagement, correct enactment	Safer medication administration and earlier recognition of problems	Technology or counselling can fail when workload, comprehension, or acceptance is poor	Moderate–high
Several contextual supports are weak simultaneously	Any individual transition component	Mechanisms incompletely activated or blocked	Technical completion without sustained continuity; residual risk remains	Some highly embedded task-specific programmes still succeed despite complexity	Moderate

Note: Confidence descriptors are qualitative judgements about explanatory coherence across the realist evidence, not statistical certainty ratings. Moderate–high indicates convergent support across more than one evidence type or setting, including mechanism-rich evidence and a compatible limiting case; moderate indicates a coherent explanation with fewer direct tests, greater setting specificity, heavier reliance on observational or implementation evidence, or a meaningful contradictory case.

The review proposes explanations for why apparently similar hospital-to-home medication-safety programmes can yield different results. The most consistent pattern is that technical completion and causal completion are different achievements. Reconciliation can correct a medication list without ensuring that the corrected information is understood or acted on. A pharmacist can identify a problem without having authority or a viable

route to resolve it. A referral can be sent without transferring responsibility. Counselling can be delivered without producing usable understanding. A follow-up service can exist while remaining unreachable when medication problems emerge.

This interpretation also explains why programme intensity is an unreliable proxy for effectiveness. Comparative transitional-care evidence did not show a simple relationship between greater complexity and better outcomes, while several multifaceted programmes produced null clinical results. Conversely, narrower interventions have sometimes succeeded where their target, professional authority, information inputs, and workflow were tightly aligned. The causal question is therefore which resources become usable under which conditions, rather than how many components a programme contains.

Important rival explanations remain. Clinical endpoints may be insensitive to medication-process improvement, follow-up may be too short, intervention effects may be diluted by strong usual care, and observational positive findings may reflect selection or secular change. Some null findings may represent genuine absence of benefit rather than failed mechanism activation. Realist explanation should not become a device for explaining away every negative trial.

Transfer to a new health system should consequently be evaluated against the conditions on which each programme theory depends. **Table 3** summarizes the principal contextual dimensions that determine whether a configuration can plausibly travel.

Table 3. Health-system conditions governing transfer of hospital-to-home medication-safety programme theories

Transfer dimension	Conditions supporting transfer	Conditions likely to attenuate transfer	Question for implementation in a new system
Workforce capability	Medication expertise, protected time, role clarity, authority to act, interprofessional access	Staffing constraints, fragmented roles, limited escalation authority	Who can convert a detected medication problem into completed action?
Digital and information infrastructure	Timely interoperable records, clear medication-change rationale, prioritized follow-up information	Delayed transmission, inaccessible systems, duplicated or poorly prioritized documentation	Does the receiving actor obtain information that is usable for a decision?
Primary-care and community access	Identifiable receiving clinician/pharmacist, timely appointments, responsive communication channels	Long waits, unclear ownership, weak hospital–community linkage	Who accepts responsibility after hospital discharge, and how quickly can they respond?
Follow-up recovery capacity	Reachable medication review, monitoring, clarification and escalation	Patients cannot be contacted; services cannot resolve identified problems	What happens when a medication problem becomes evident after the patient leaves hospital?
Patient/caregiver capacity	Understandable regimen, manageable treatment workload, caregiver support where needed, accessible help	Cognitive, literacy, practical or social demands exceed available support	Can the discharge regimen actually be enacted under home conditions?
Baseline medication-risk profile	Targeting matched to vulnerability and treatment complexity	Uniform service intensity despite large differences in baseline risk	Which patients require additional transition resources, and how uncertain is that classification?

The synthesis generates testable implications. If timely, rationale-rich medication information consistently fails to improve enactment even when a capable receiving team accepts responsibility and follow-up is accessible, information actionability would have a weaker causal role than proposed. Likewise, if systems with markedly constrained medication-safety workforce capacity perform as well without compensatory role redesign or automation, workforce capability would become a less persuasive contextual explanation. These tests are preferable to treating the configuration map as a universal model.

The evidence base has limitations. Included programmes differ in population, outcome definition, intervention intensity, receiving system, and follow-up period. Much of the mechanism-rich evidence is qualitative or implementation-oriented, so it can explain plausible causal processes more directly than it can quantify their average effects. The review focuses on hospital-to-home medication safety; the care-home and long-term-care sources [7, 8] were used only to test transferability of receiving-setting mechanisms and were not treated as direct estimates of hospital-to-home effectiveness. Differences in receiving settings limit transfer of explanations across hospital-to-home, hospital-to-long-term-care, and specialist-to-specialist transitions. Finally, the programme theories require prospective testing in systems with deliberately contrasting workforce, information, access, and patient-capacity conditions.

Conclusion

Hospital-to-home medication-safety programmes appear to work when their resources become usable within a supporting health system. Accurate medication information must be timely and actionable; professionals must have the capability and authority to respond; responsibility for unresolved medication work must be accepted; follow-up must remain reachable; and patients or caregivers must be able to enact the regimen. Weakness at these interfaces can interrupt the path from technically successful reconciliation or review to safer medication use at home.

The synthesis supports a context-dependent interpretation of programme performance. Differences between health systems are not adequately explained by whether they possess a pharmacist, reconciliation process, electronic record, referral pathway, counselling session, or follow-up call. The proposed explanations concern whether those resources activate understanding, ownership, coordinated action, recovery, and feasible medication enactment under the circumstances in which patients actually move from hospital to home.

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