

Making Expanded Pharmacist Prescribing Work Requires More Than Legal Permission: Aligning Diagnostic Support, Referral Access, and Follow-Up Capacity with New Clinical Responsibilities

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Abstract

Expanded pharmacist prescribing can shorten routes to treatment, but statutory authority does not itself establish a service able to assess, prescribe, escalate, monitor, and recover from uncertainty safely. This conceptual/policy article develops a Scope–Support Policy–Alignment Framework that separates formal scope from the responsibilities generated by prescribing and from the supports needed to discharge them: diagnostic and information support, referral and escalation access, follow-up and continuity capacity, and enabling governance. Evidence from prescribing implementation, point-of-care testing, collaboration, care transitions, and implementation studies shows that these supports vary independently across services and jurisdictions. Implementation is therefore treated as configurational. A service may be legally enabled yet operationally constrained when diagnostic inputs are unusable, referral routes are nominal, follow-up is unreachable, or organizational resources do not permit responsibility to be completed. Policy evaluation should consequently measure realized prescribing, usable support, completed escalation and follow-up, continuity, and equity alongside formal scope.

Keywords: Pharmacist prescribing, Scope of practice, Diagnostic support, Referral and escalation, Continuity of care, Commissioning

Introduction

Pharmacist prescribing is increasingly used to improve timely access to treatment. A systematic review found potential gains in convenience and reach, while affordability, geography, and access for disadvantaged populations remained uneven [1]. A scoping review of community-pharmacist independent prescribing similarly identified applications across acute and chronic care but no universally transferable model [2].

The policy question is thus not only whether pharmacists may prescribe, but whether authorization can be enacted safely and consistently. A qualitative systematic review of non-medical prescribing in UK primary care showed that implementation depends on preparation, transition into the role, and conditions that sustain practice [3]. Ambulatory evidence likewise shows that authorized pharmacists may prescribe little when infrastructure, interprofessional relationships, or organizational conditions remain unfavorable [4]. This article examines that gap by distinguishing formal scope, clinical responsibility, diagnostic and information support, referral and escalation access, follow-up and continuity capacity, and the governance arrangements connecting them.

Why legal authority is not the same as implementable prescribing capacity

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Authorization changes what a pharmacist is permitted to do; implementation depends on whether permission can be converted into routine clinical action. Oregon pharmacists considering new prescribing authority described readiness, competence, and confidence as important to their intention to prescribe [5]. A subsequent Theory of Planned Behavior study found that attitudes, social expectations, and perceived behavioral control were associated with prescribing intention [6]. These studies concern intention, not completed prescribing, but show that legislation enters a structured practice environment rather than operating as a self-executing intervention.

That environment can change. During the COVID-19 pandemic, Canadian pharmacists reported increased prescribing across several activities, with beliefs about consequences and social influences associated with greater self-reported use [7]. Stakeholders considering pharmacist prescribing in Qatar likewise identified interacting practitioner, organizational, intervention, and wider-system requirements [8]. A modified-Delphi study translated such concerns into implementation prerequisites [9], while a cross-country scoping review identified recurring barriers involving diagnostic competence, resources, funding, infrastructure, and stakeholder support [10].

Implementable prescribing capacity is therefore defined here as the ability to use authorized responsibility with adequate clinical information, a viable route for unresolved problems, and support after the prescription is issued. It is not synonymous with competence or willingness. A capable pharmacist may still face inaccessible records, unavailable testing, an escalation route that does not produce a response, or follow-up that cannot reach the patient. The relevant policy unit is the configuration of authority and support.

Clinical responsibilities created by expanded prescribing
Prescribing transfers more than permission to select or supply a medicine. It creates responsibility for assessing appropriateness, identifying uncertainty, interpreting clinical information, communicating the plan, and recognizing when the decision exceeds the available evidence or appropriate role. Independent pharmacist prescribers have identified diagnostic skill, workload, and clinical complexity as contributors to prescribing-error vulnerability [11]. Research on pharmacists' clinical decision making also shows that decisions reflect interacting capability, opportunity, information, and contextual influences [12].

Expanded responsibility changes the capability profile that practice must support. Canadian pharmacists working under broader scopes identified learning needs including physical assessment, laboratory interpretation, and complex therapy [13]. Yet education is only one component: pharmacists in English general practice described integration as shaped by role relationships, workflow, and professional dynamics [14]. Service users likewise supported community-pharmacist prescribing conditionally, linking acceptability to clinical purpose, information access, and collaboration with physicians [15].

These responsibilities expose distinct support dependencies. Assessment requires diagnostic inputs; therapeutic decisions require usable medication and clinical information; uncertainty requires escalation; therapy change requires monitoring; and cross-setting care requires continuity. **Table 1** maps those dependencies without assuming that every prescribing service needs the same intensity of support.

Table 1. Clinical responsibilities generated by expanded pharmacist prescribing and their support dependencies

Responsibility created by expanded scope	Clinical work that must be completed	Support dependency	Misalignment signal	Adequate alignment permits
Establish appropriateness	Define the problem, exclusions, red flags, and uncertainty	Diagnostic access, assessment capability, usable clinical information	Decisions proceed despite unresolved uncertainty, or suitable cases are repeatedly diverted because inputs are unavailable	A bounded decision can be made, deferred, or escalated on interpretable grounds
Select or modify therapy	Integrate treatment history, comorbidity, contraindications,	Timely medication/clinical records and decision	Choices depend on incomplete or inaccessible information	Therapeutic choice is proportionate to the responsibility assumed

	interactions, preferences, and goals	support where appropriate		
Recognize limits	Identify problems beyond authorized, evidential, or practical capacity	Defined referral/escalation route and receiving actor	Referral exists but yields delayed, uncertain, or no response	Responsibility can be transferred or shared without abandoning the problem
Coordinate the plan	Communicate rationale, monitoring needs, and contingencies	Interoperable communication and role clarity	Parallel plans or unclear ownership emerge	Other actors can interpret and act on the decision
Monitor response and harm	Reassess effectiveness, adverse effects, adherence, and new results	Reachable follow-up and monitoring	Therapy begins with no reliable reassessment	Treatment can be continued, modified, stopped, or escalated
Preserve continuity	Keep unresolved medication work owned across settings	Handover, follow-through, record continuity, accountable ownership	Information transfers while responsibility dissipates	The prescribing episode remains connected to subsequent care

Diagnostic support

Diagnostic support is a test of whether authorized responsibility is matched by usable clinical inputs. A systematic review of point-of-care testing in community pharmacies found broad potential but variation in analytical quality and service effectiveness [16]. A later meta-analysis likewise showed that point-of-care testing can improve selected treatment decisions while leaving other outcomes unchanged or uncertain [17]. Diagnostic support is therefore functional: information must be sufficiently accurate, timely, interpretable, and relevant to the prescribing decision. Bounded test-and-treat services illustrate that principle. An English community-pharmacy pathway for uncomplicated lower urinary tract infection combined structured assessment, testing, treatment, referral, and safety-netting [18]. In Wales, a sore-throat service linked assessment and testing to protocolized treatment across more than eleven thousand recorded consultations [19]. These examples do not justify unrestricted diagnostic autonomy; they show alignment among a defined clinical problem, specified inputs, eligibility boundaries, and a route away from pharmacist treatment when the case does not fit. Context and information infrastructure also matter. During heightened concern about group A streptococcal infection, use of a pharmacy sore-throat service and antibiotic supply patterns shifted with the surrounding environment [20]. A systematic scoping review of health-information technology frameworks for pharmacist prescribing found no single universal model and highlighted user, organizational, technological, and implementation factors [21]. Record access that is

fragmented, delayed, or poorly integrated may satisfy an administrative requirement without providing usable diagnostic support.

Referral and escalation access

Expanded scope remains bounded by uncertainty and by problems that require another professional or service. Community-pharmacy collaboration is hindered when clinicians have unequal access to information, misunderstand roles, or lack reliable communication processes [22]. A systematic review of interprofessional collaboration in primary care likewise found heterogeneous models and effects [23]. The relevant distinction is between a referral route and referral access. A route exists on paper; access exists when the pharmacist can activate it within a clinically meaningful time and a receiving actor can accept and act on the problem. Outcome evidence supports caution: a meta-analysis of pharmacist–physician collaboration found an overall readmission signal, but the randomized-trial-only estimate was less conclusive and certainty was low [24]. Escalation should therefore be evaluated through completed responsibility transfer and consequential response, not inferred from communication frequency.

Follow-up and continuity capacity

A prescribing episode can be well assessed yet remain unsafe if no one can observe what follows. A scoping review of transfer from secondary to primary care identified pharmacist roles in reconciliation, review, monitoring, referral, and follow-up, while evidence for some downstream outcomes remained limited [25]. A

systematic review of pharmacists integrated in general practice found improvement in some prescribing measures but less certain effects on broader health and economic outcomes [26].

Continuity is therefore persistence of responsibility through time, not repeated contact alone. Clinical-pharmacy guidance commonly addresses medication management, transitions, and communication, yet guideline scope and methodological quality vary [27]. Formal processes cannot establish that follow-up is reachable, monitoring data return to the responsible clinician, or unresolved problems acquire an owner. Here, continuity capacity means recoverability: new information can reconnect the patient and the prescribing decision to clinical action.

Development of the policy-alignment framework

The evidence supports treating implementation as a relation between responsibility created by scope and supports available to discharge it. Research on enhanced pharmacy services shows that successful provision depends on interacting practitioner, organizational, local-demand, and system conditions [28]. Equity evidence adds a distributional constraint: the availability of pharmacists with additional prescribing authorization need not coincide with populations most likely to need improved access [29].

The framework separates three proximal support domains. Diagnostic and information support reduces uncertainty at assessment and therapeutic choice. Referral and escalation access creates a consequential route for problems that cannot be completed within the pharmacist's available scope or evidence. Follow-up and continuity capacity preserves responsibility after the initial decision. Governance and commissioning operate across all three by shaping resourcing, workforce

development, information infrastructure, referral agreements, financing, accountability, and distribution. Implementation conditions are themselves modifiable: a randomized study in Alberta tested practice facilitation as structured support for community-pharmacy medication-management services [30].

Scope-support alignment is defined as a configuration in which practical supports are commensurate with the responsibilities a prescribing service is expected to assume. "Commensurate" is qualitative; the evidence does not justify a universal readiness score. Required support varies with the clinical problem, diagnostic uncertainty, patient complexity, reversibility of treatment decisions, monitoring needs, and dependence on other actors. A tightly protocolized minor-illness service and longitudinal management of complex multimorbidity may both involve pharmacist prescribing while requiring different support architectures.

Alignment must also remain distinct from effectiveness. A well-supported service can still produce little measurable benefit because baseline care is strong, patient demand is low, the intervention is weak, or the chosen outcome is insensitive. A poorly supported service may appear functional because experienced practitioners compensate informally or unresolved work is absorbed elsewhere. The narrower theoretical claim is that when authority expands while necessary support remains inaccessible, unusable, delayed, or unowned, implementation should become more fragile in ways that reflect the missing support.

Formal authority, clinical responsibility, and practical support therefore form an analytical field rather than a linear pathway. **Figure 1** represents that field and marks the boundary between legal authorization and implementable clinical capacity.

From Authorization to Implementation: Scope–Support Alignment for Expanded Pharmacist Prescribing

Legal permission creates responsibility. Usable support enables its implementation.

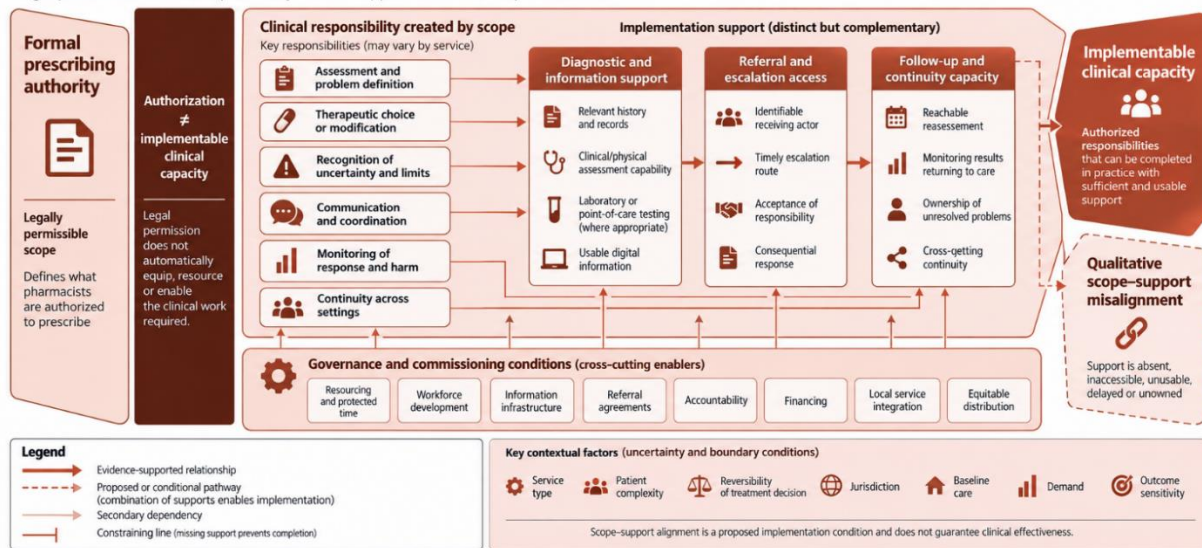


Figure 1. From authorized prescribing scope to implementable clinical capacity: the scope–support alignment field

Configurations of scope–support alignment and misalignment

The policy problem becomes clearer when expanded prescribing is examined as a configuration rather than as a single intervention. The same legal scope may function differently depending on what clinical responsibilities a service actually accepts and which supports are usable at the point of care. Implementation reviews show that pharmacy services are shaped by practitioner capabilities, organizational conditions, resources, and relationships with other parts of the health system [3]. Cross-jurisdictional evidence similarly indicates that prescribing barriers occur in different combinations rather than as one uniform constraint [10].

One configuration is bounded alignment: the prescribing responsibility is deliberately narrow and diagnostic, referral, and follow-up supports are proportionate to that responsibility. Test-and-treat pathways illustrate how assessment, testing, treatment eligibility, referral, and safety-netting can be linked around a defined presentation [18]. A second configuration is authority-rich, support-thin practice, in which formal permission extends further than the information, assessment, or organizational infrastructure available to use it routinely. Low realized prescribing despite authorization is consistent with this possibility, although individual motivation and local demand may also contribute [4].

A third configuration occurs when diagnostic support is stronger than escalation or continuity capacity. Pharmacists may be able to identify a likely problem but remain unable to secure timely onward management when findings exceed the service boundary. Collaboration literature indicates that communication, information access, and interprofessional arrangements can constrain this transition [22]. A fourth configuration is episode-ready but continuity-thin practice: initial assessment and treatment are feasible, yet subsequent monitoring or ownership of unresolved medication issues is weak. Transfer-of-care evidence demonstrates the importance of monitoring, reconciliation, referral, and follow-through while also showing limits in the underlying outcome evidence [25].

A fifth possibility is support-rich but underused authority. Information systems, referral relationships, and organizational support may exist while prescribing remains limited because of confidence, norms, workflow, demand, or professional-role expectations. Studies of prescribing intention and behavior make these alternative explanations plausible [6]. Alignment therefore concerns the relation between the responsibility being assumed and the supports needed to complete it; it does not imply that support availability alone produces high prescribing volume.

These distinctions create different policy responses. Adding clinical training will not correct a referral route

that lacks a receiving service. Expanding testing will not repair absent follow-up. Increasing statutory scope will not resolve inaccessible records. Conversely, highly protocolized and low-uncertainty services may not

require the same infrastructure as longitudinal prescribing for clinically complex patients. **Table 2** specifies these contrasts as proposed analytical configurations rather than validated service categories.

Table 2. Scope–support configurations and the implementation problems they are expected to produce

Configuration	Relationship between prescribing scope and clinical responsibility	Diagnostic/information support	Referral/escalation access	Follow-up/continuity capacity	Expected implementation signature	Principal policy response
Bounded alignment	Responsibility is deliberately limited to problems that can be assessed and completed within the service design	Proportionate and usable	Defined for exceptions and red flags	Matched to expected monitoring burden	Routine use is feasible within explicit boundaries	Preserve scope clarity and monitor whether boundaries remain appropriate
Authority-rich, support-thin	Legal permission exceeds practical ability to complete the associated clinical work	Incomplete, inaccessible, or insufficient for some decisions	Variable	Variable	Nonuse, selective use, or dependence on informal workarounds	Commission missing support before treating low uptake as a practitioner deficit
Diagnostic-ready, escalation-thin	Assessment can identify uncertainty or a problem requiring another service	Relatively strong	Delayed, inaccessible, or nonconsequential	May be adequate for cases retained in pharmacy	Assessment succeeds but responsibility stalls at the service boundary	Establish accepted escalation routes and accountable receiving arrangements
Episode-ready, continuity-thin	Initial treatment can be completed but subsequent responsibility remains weakly connected	Adequate for the initial decision	Available when immediate escalation is required	Weak, fragmented, or unowned	Prescribing occurs without dependable reassessment or resolution of emerging problems	Commission monitoring, handover, and explicit follow-up ownership
Support-rich, authority-underused	Practical supports exceed the amount of prescribing actually undertaken	Available	Available	Available	Low uptake despite favorable infrastructure	Examine confidence, norms, workflow, demand, incentives, and role legitimacy before further scope expansion

Implementation failure modes

Misalignment becomes policy-relevant when it changes what happens to clinical responsibility. One failure mode is constrained uptake. Pharmacists may use only the portion of their legal scope that can be supported reliably, leaving nominal authority substantially unrealized. Implementation studies documenting infrastructure gaps and low prescribing activity are compatible with this pattern [4]. Constrained uptake can be a rational adaptation to missing support and should not automatically be interpreted as resistance.

A second mode is workaround-dependent prescribing. When clinical information, assessment resources, or organizational processes are unreliable, experienced practitioners may compensate by seeking information

informally, narrowing case selection, or transferring work through personal relationships. Cross-country evidence on prescribing barriers suggests that resource and system limitations can coexist with practitioner-level facilitators [10]. Such compensation may preserve service function locally while concealing the underlying policy deficit.

A third mode is stalled escalation. The pharmacist recognizes that the problem cannot be safely completed within the available service but cannot obtain a timely consequential response elsewhere. Collaboration can improve some outcomes, yet evidence is heterogeneous and stronger study designs have not always shown the same magnitude of benefit [24]. The existence of

interprofessional contact should therefore not be equated with an effective escalation mechanism.

A fourth mode is discontinuous follow-up. Treatment is initiated or changed, but reassessment, monitoring results, or subsequent medication decisions do not reconnect reliably with an accountable clinician. Transition-of-care research shows substantial pharmacist involvement in follow-up activities while also documenting evidence limitations and variable implementation [25]. A fifth mode is unequal implementation reach: areas or populations facing greater

barriers to conventional care may not coincide with the availability of pharmacists able to exercise expanded prescribing authority [29].

These outcomes are conditional. Diagnostic support itself can produce mixed effects across service types [17], and support-rich collaboration can still yield null or uncertain downstream outcomes [24]. **Figure 2** therefore treats failure modes as branching possibilities arising from particular responsibility–support mismatches, with detection points and correction routes that differ according to the missing support.

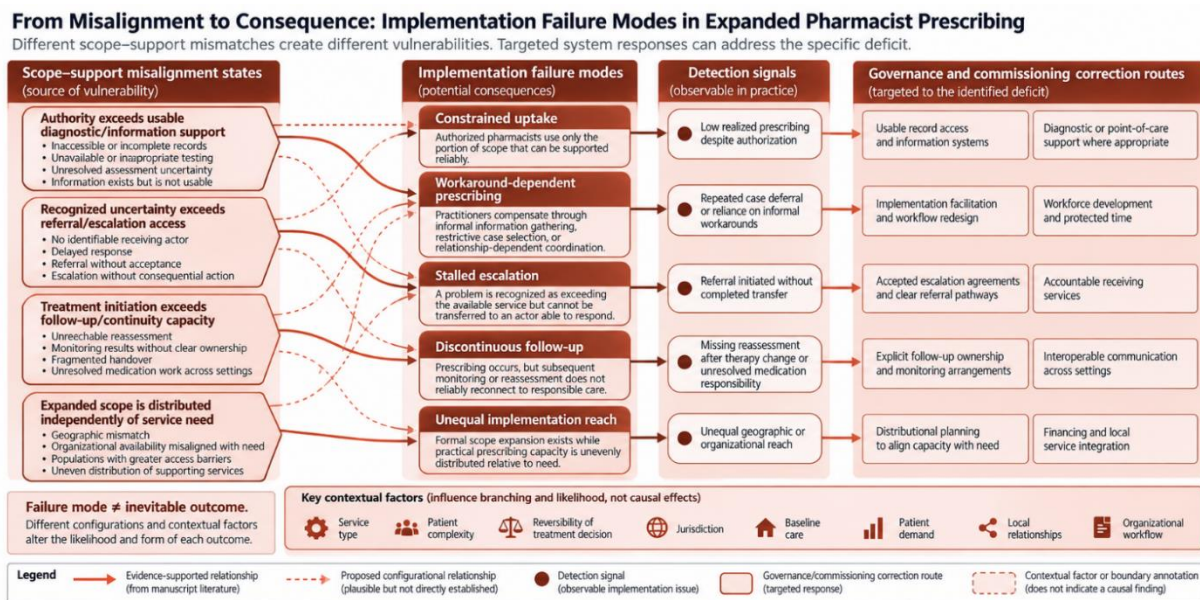


Figure 2. How scope–support misalignment translates into distinct implementation failure modes and correction routes

Governance and commissioning requirements

Governance becomes consequential when it controls whether the support required by prescribing is actually available. Qualitative evidence on enhanced pharmacy services emphasizes local need, practice conditions, practitioner characteristics, and enabling structures [28]. Commissioning should consequently specify the clinical work being transferred and the accompanying support functions, rather than purchasing prescribing activity as an isolated output.

For diagnostic support, this means defining access to relevant records, assessment resources, testing where appropriate, and responsibility for maintaining interoperable information systems. Technology should be treated as a sociotechnical component because its usefulness depends on organizational and user conditions

[21]. For escalation, governance should identify who receives referrals, expected mechanisms of communication, and how unresolved cases remain owned. Collaboration literature indicates that differential information access and role ambiguity can undermine otherwise plausible service arrangements [22].

For follow-up, commissioning should define who reviews results, how patients re-enter care, and how unresolved responsibility crosses organizational boundaries. Transfer-of-care evidence supports the relevance of such functions while remaining cautious about the certainty of downstream effects [25]. Implementation support can also be commissioned directly: practice facilitation has been experimentally used to modify pharmacy service delivery rather than treating implementation capacity as fixed [30].

Distribution must remain part of governance because formal authorization may be present without equitable local availability [29].

Policy evaluation indicators

Evaluation should distinguish legal expansion from realized capacity. A first indicator family concerns use of authorized scope: whether prescribing occurs, for which clinical problems, and under what service conditions. Low use cannot be interpreted alone because it may reflect insufficient support, limited demand, appropriate case exclusion, or practitioner-level factors [5].

A second family concerns diagnostic support actually usable at the decision point. Measures may include availability of relevant information, completion of required assessment, or access to appropriately governed testing. Test-and-treat evaluations demonstrate that assessment and diagnostic processes can be observed directly within service pathways [19].

A third family concerns completed referral and escalation, not referrals merely initiated. A fourth concerns follow-up and continuity: whether reassessment occurs when required, monitoring information returns to care, and unresolved medication questions retain an accountable owner. A fifth concerns equity of implementable capacity, including whether authorized prescribers and supporting services are available where access need is greatest [29].

Patient and service outcomes remain important, but they should not be attributed automatically to statutory expansion. Collaboration research shows that apparently favorable overall findings may weaken when analyses are restricted to stronger designs [24]. Evaluation should therefore test the sequence from authority to usable support, completed clinical responsibility, and outcomes instead of using legal scope as a proxy for implementation success.

Results and Discussion

Expanded pharmacist prescribing sits between two incomplete explanations. A purely legal account expects wider scope to increase service capability once permission is granted. A practitioner-centered account places implementation mainly in competence, confidence, motivation, or professional acceptance. The available literature supports parts of both. Training needs, behavioral influences, and clinical decision-making capabilities matter [7]. Implementation studies

also show that organization, infrastructure, collaboration, and service context materially shape practice [28].

The policy-alignment contribution is to locate these explanations within the clinical responsibility being transferred. Competence cannot make an inaccessible record available, and a referral agreement cannot substitute for diagnostic judgment. Equally, extensive support cannot ensure effective prescribing when practitioners lack appropriate capability or when patients do not use the service. Individual and system explanations are therefore complementary competitors whose relative importance should be tested across configurations.

Several boundaries limit the argument. It is strongest when prescribing generates meaningful diagnostic uncertainty, dependence on another service, or longitudinal monitoring. It weakens for narrow, highly protocolized tasks whose information, escalation, and follow-up requirements are already contained within the service. Diagnostic expansion itself is no guarantee of better outcomes because point-of-care interventions have produced mixed effects across clinical applications [17]. Excessive support requirements may also increase burden and undermine the access advantages that scope expansion was intended to provide.

The framework is likewise a policy synthesis, not a validated causal model or readiness instrument. The proposed configurations require empirical testing across jurisdictions and service types. Useful comparative studies would measure formal authority, responsibility profile, usable diagnostic support, completed escalation, follow-up ownership, realized prescribing, and outcomes separately. Such designs could test whether the same legal scope behaves differently when one support function changes while the others remain stable.

The principal implication is practical: implementation problems should be diagnosed at the level at which responsibility fails to be completed. Low prescribing may call for education, workflow redesign, or demand development; it may instead indicate missing information or a rational response to unavailable escalation. The correction should follow the identified deficit. This avoids treating every shortfall as a case for more training, broader authority, or more restrictive scope.

Conclusion

Expanded pharmacist prescribing becomes implementable when the responsibilities created by legal authority can be completed with usable diagnostic information, consequential referral and escalation access, and sufficient follow-up and continuity capacity. The required configuration varies with the clinical problem and service context. Where support is already embedded and uncertainty is bounded, relatively broad implementation may be feasible with limited additional infrastructure. Where prescribing creates unresolved diagnostic, coordination, or longitudinal obligations, statutory expansion can outpace the system that must carry those obligations.

The resulting policy claim is conditional. Legal permission can enable access, but it becomes practical clinical capacity only when the support needed to discharge the associated responsibility is available where and when the prescribing decision occurs. Scope expansion should consequently be designed, commissioned, and evaluated together with the clinical infrastructure on which that responsibility depends.

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