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The Role Of Medical Departments In Optimizing Patient Care Pathways: An Evidence-Based Review

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Abstract

Optimizing patient care pathways has become a central priority for healthcare systems aiming to improve quality, safety, and efficiency amid increasing clinical complexity. Medical departments play a critical role in shaping patient care processes through their coordinated contributions across assessment, diagnosis, treatment, transition, and follow-up phases. This evidence-based review examines how medical departments influence the optimization of patient care pathways and their impact on patient outcomes and organizational performance. A structured review of recent empirical studies was conducted to identify departmental roles, coordination mechanisms, and process-improvement strategies that enhance continuity of care and reduce inefficiencies. The findings demonstrate that effective interdepartmental collaboration is associated with improved patient flow, reduced delays and adverse events, enhanced clinical decision-making, and higher levels of patient satisfaction. Diagnostic, therapeutic, and support departments collectively contribute to pathway optimization by standardizing procedures, strengthening communication, and integrating information systems. However, persistent challenges such as organizational silos, role ambiguity, and resource constraints continue to limit the full potential of departmental integration. This review highlights the importance of aligning medical department functions within a unified care pathway framework and underscores the need for evidence-informed governance and workforce strategies to sustain patient-centered process optimization.

Keywords: Patient care pathways; Medical departments; Care coordination; Healthcare quality; Process optimization; Patient-centered care.

Introduction & Background

Optimizing patient care pathways has emerged as a strategic priority for healthcare systems seeking to improve quality, safety, and efficiency while responding to growing clinical complexity and resource constraints. Patient care pathways are structured, evidence-informed processes that map the sequence of care activities experienced by patients from initial contact through diagnosis, treatment, discharge, and follow-up. When effectively designed and implemented, these pathways promote consistency, reduce unwarranted variation, and support patient-centered care delivery across healthcare settings.

Medical departments play a foundational role in shaping and sustaining patient care pathways. Clinical, diagnostic, therapeutic, and support departments collectively influence how patients move through healthcare systems, how decisions are made, and how care is coordinated. The increasing specialization of healthcare services, while advancing clinical expertise, has also contributed to fragmented care processes, communication gaps, and inefficiencies that negatively affect patient outcomes. Addressing

these challenges requires deliberate integration of departmental roles within unified care pathways rather than isolated, department-specific workflows.

Global health organizations such as the World Health Organization emphasize that coordinated, people-centered care models are essential for improving health outcomes and system performance. Fragmentation between departments has been linked to delays in diagnosis, duplication of services, medication errors, prolonged hospital stays, and reduced patient satisfaction. In contrast, studies demonstrate that clearly defined departmental responsibilities, standardized protocols, and effective communication mechanisms contribute to smoother patient transitions and improved continuity of care (Allen et al., 2019; Vanhaecht et al., 2020).

Recent healthcare reforms and quality improvement initiatives increasingly focus on process optimization approaches such as integrated care pathways, multidisciplinary teamwork, and value-based care. Within these frameworks, medical departments are not viewed merely as operational units but as interdependent components of a complex system. Their collective performance determines patient flow efficiency, safety outcomes, and overall care experience. Digital health technologies, including electronic health records and clinical decision support systems, further highlight the need for alignment among departments to ensure accurate information exchange and timely clinical action (Bohmer, 2018; Kripalani et al., 2017).

Despite growing recognition of the importance of departmental integration, empirical evidence remains dispersed across disciplines and care contexts. Many studies examine individual departments or specific interventions without fully addressing how departments interact along the entire patient care pathway. This evidence-based review responds to this gap by synthesizing contemporary literature on the role of medical departments in optimizing patient care pathways. By examining departmental contributions across pathway stages and their impact on patient and organizational outcomes, the review aims to provide a comprehensive understanding that can inform healthcare leadership, policy development, and future research.

Conceptual Foundations of Patient Care Pathway Optimization

Patient care pathway optimization is grounded in a systems-oriented understanding of healthcare delivery, where patient outcomes are shaped not by isolated clinical actions but by the coordinated performance of multiple medical departments across the continuum of care. Conceptually, patient care pathways represent structured, time-sequenced care processes that align clinical decision-making, resource utilization, and patient engagement to achieve consistent, high-quality outcomes. Optimization of these pathways requires integrating clinical, diagnostic, therapeutic, and support functions into a coherent operational flow.

One of the primary conceptual foundations underpinning care pathway optimization is systems thinking. Healthcare organizations are complex adaptive systems in which departments function as interdependent subsystems. Delays, inefficiencies, or errors in one department can propagate across the pathway, affecting patient safety, length of stay, and satisfaction. Systems thinking emphasizes understanding relationships, feedback loops, and interdependencies rather than focusing solely on individual departmental performance (Bohmer, 2018). Within this perspective, optimization is achieved by improving coordination and alignment among departments rather than maximizing isolated efficiencies.

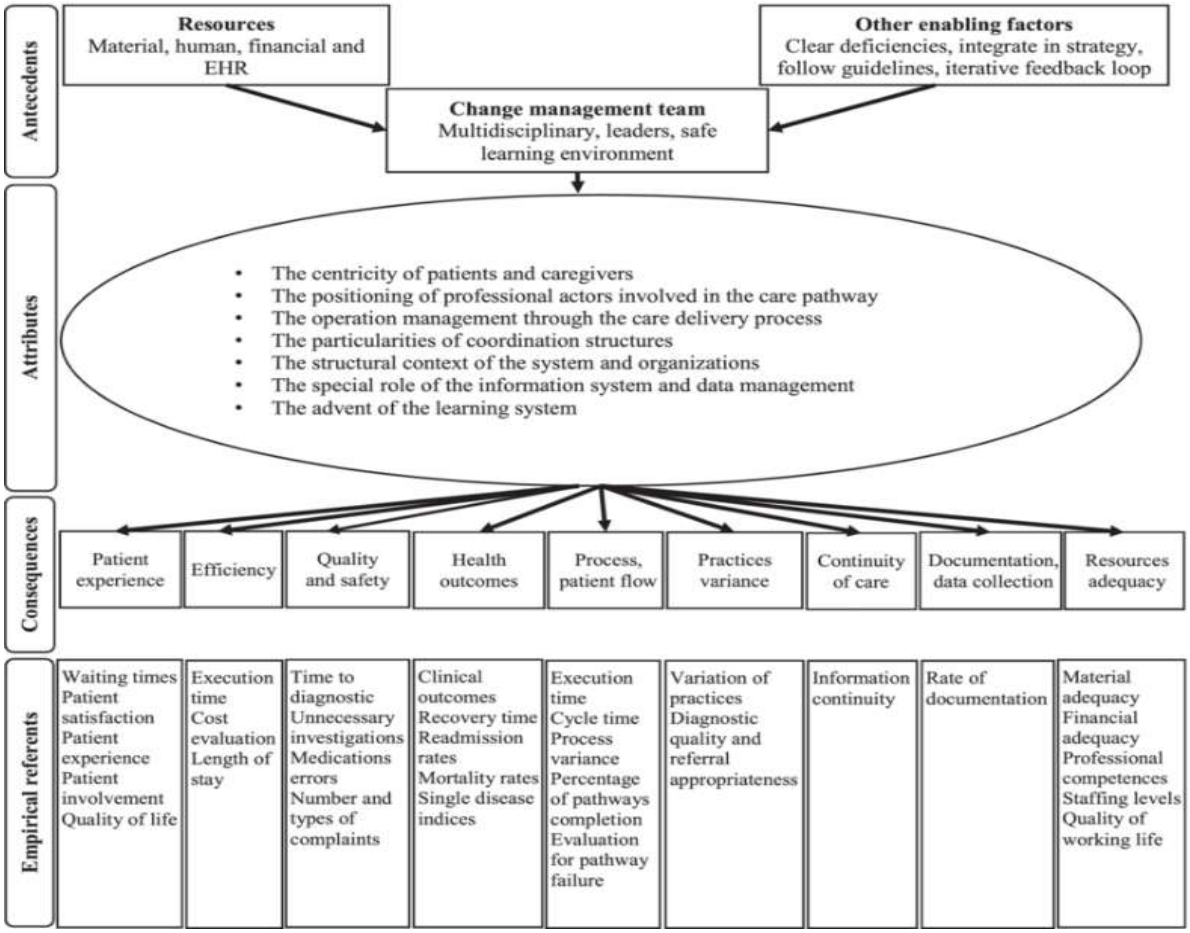
A second foundational concept is patient-centered care, which positions the patient as the focal point of all departmental activities. Optimized care pathways are designed around patient needs, preferences, and clinical trajectories rather than institutional convenience. The World Health Organization advocates for people-centered and integrated care models, emphasizing continuity, communication, and shared accountability across departments. From this perspective, medical departments contribute to pathway optimization by ensuring timely information exchange, minimizing unnecessary transitions, and supporting shared clinical decision-making.

Care coordination and integration theory further informs pathway optimization by highlighting the mechanisms through which departments collaborate. These mechanisms include standardized clinical

protocols, multidisciplinary team meetings, defined handoff procedures, and interoperable information systems. Effective coordination reduces variability in care delivery, prevents duplication of services, and enhances clinical reliability. Empirical evidence suggests that integrated care pathways supported by strong interdepartmental governance are associated with improved clinical outcomes and operational efficiency (Vanhaecht et al., 2020).

Process improvement and quality management frameworks, such as Lean healthcare and continuous improvement models, also contribute conceptually to patient care pathway optimization. These frameworks focus on identifying value from the patient's perspective, eliminating non–value-added activities, and streamlining workflows across departmental boundaries. Within care pathways, medical departments act as value-creating nodes whose alignment determines overall process performance. Continuous measurement, feedback, and learning are essential to sustaining optimized pathways over time.

Figure 1. Conceptual Framework of Medical Department Contributions Across the Patient Care Pathway



Collectively, these conceptual foundations highlight that patient care pathway optimization is not a single intervention but an ongoing organizational capability. Medical departments play a critical role by aligning their clinical, operational, and informational functions within an integrated

Roles of Medical Departments Across Patient Care Pathways (≈700–800 words)

Medical departments play complementary and interdependent roles across patient care pathways, collectively shaping the quality, safety, efficiency, and continuity of care. A patient care pathway typically spans multiple phases, including entry and triage, assessment and diagnosis, treatment and monitoring, transitions of care, and discharge with follow-up. At each stage, the coordinated

contribution of medical departments is essential to ensure that care processes remain patient-centered and evidence-based.

During the entry and triage phase, frontline clinical departments are responsible for timely patient assessment, prioritization, and initial decision-making. Effective triage systems reduce waiting times, prevent deterioration, and ensure that patients are directed to appropriate diagnostic and therapeutic services. Diagnostic departments play a critical early role by providing rapid and accurate testing that informs clinical decisions and prevents unnecessary delays. Research indicates that early departmental coordination at this stage is strongly associated with improved patient flow and reduced congestion in acute care settings (Kripalani et al., 2017).

In the assessment and diagnostic phase, collaboration between clinical and diagnostic departments becomes central to pathway optimization. Diagnostic accuracy and turnaround time directly influence treatment planning and resource utilization. When diagnostic services are integrated into standardized care pathways, variation in practice decreases and clinical reliability improves. Evidence suggests that clearly defined diagnostic protocols and shared information systems reduce duplication of tests and enhance decision quality, contributing to safer and more efficient care (Vanhaecht et al., 2020).

The treatment and monitoring phase represents the core of the patient care pathway, where multiple departments often operate simultaneously. Therapeutic departments are responsible for implementing evidence-based interventions, monitoring patient response, and adjusting care plans as needed. Support departments contribute by ensuring medication safety, infection prevention, and continuity of care processes. Interdepartmental communication during this phase is critical to preventing adverse events and ensuring timely escalation or de-escalation of care. Studies consistently show that multidisciplinary coordination during treatment phases leads to improved clinical outcomes and reduced length of stay (Allen et al., 2019).

Transitions of care—including handovers between departments or care settings—are particularly vulnerable points within patient pathways. Ineffective transitions are associated with communication failures, medical errors, and readmissions. Medical departments share responsibility for structured handoff processes, standardized documentation, and clear accountability during transitions. International frameworks promoted by the World Health Organization emphasize that integrated, people-centered care requires seamless transitions supported by interdepartmental governance and shared protocols. Evidence indicates that pathway-based transition planning improves continuity and reduces avoidable harm (World Health Organization, 2016).

In the discharge and follow-up phase, departmental roles extend beyond immediate clinical care to include patient education, coordination with outpatient services, and monitoring of post-discharge outcomes. Effective discharge planning relies on collaboration among clinical, therapeutic, and support departments to ensure that patients understand their care plans and have access to necessary follow-up services. Optimized pathways at this stage are associated with lower readmission rates, improved patient satisfaction, and better long-term outcomes (Kripalani et al., 2017).

Table 1. Roles of Medical Departments Across Patient Care Pathway Stages

Patient Care Pathway Stage	Key Departmental Roles	Primary Contributions to Pathway Optimization
Entry & Triage	Clinical, diagnostic	Timely assessment, prioritization, early decision-making, reduced waiting times
Assessment & Diagnosis	Clinical, diagnostic	Accurate testing, standardized diagnostic protocols, reduced duplication
Treatment & Monitoring	Clinical, therapeutic, support	Evidence-based interventions, safety monitoring, reduced adverse events
Transitions of Care	All departments	Structured handovers, information continuity, reduced errors
Discharge & Follow-up	Clinical, therapeutic, support	Coordinated discharge planning, patient education, reduced readmissions

Overall, the literature demonstrates that medical departments do not function as isolated units within patient care pathways. Instead, their collective performance determines pathway effectiveness. Optimized care pathways are characterized by clearly defined departmental roles, standardized processes, integrated information systems, and a shared commitment to patient-centered outcomes. Understanding these roles across pathway stages provides a foundation for designing interventions that strengthen coordination and improve system-level performance.

Impact on Patient Outcomes and Care Quality

Optimized patient care pathways, supported by effective coordination among medical departments, have a demonstrable impact on patient outcomes and overall care quality. The literature consistently indicates that when departments function within an integrated pathway framework, improvements occur across clinical, operational, and experiential dimensions of care. These impacts reflect not only better clinical decision-making but also enhanced reliability and consistency of healthcare delivery.

One of the most frequently reported outcomes of departmental integration within patient care pathways is improved clinical effectiveness. Studies show that standardized, pathway-based coordination among departments reduces unwarranted variation in care and promotes adherence to evidence-based practices. This alignment contributes to better disease management, reduced complication rates, and improved recovery trajectories. Integrated pathways ensure that diagnostic findings, therapeutic interventions, and monitoring processes are timely and mutually reinforcing, which is particularly important for patients with complex or chronic conditions (Allen et al., 2019; Vanhaecht et al., 2020).

Patient safety is another critical domain influenced by departmental collaboration. Fragmentation between departments has been associated with medication errors, delayed diagnoses, and breakdowns during care transitions. Optimized pathways mitigate these risks by establishing clear communication protocols, standardized handoff procedures, and shared accountability. Evidence indicates that structured interdepartmental coordination significantly reduces adverse events, particularly during high-risk transitions such as transfers between units or discharge to outpatient care. International guidance from the World Health Organization emphasizes that integrated, people-centered care models are essential to improving patient safety and reducing preventable harm (World Health Organization, 2016).

From an operational efficiency perspective, optimized care pathways positively influence length of stay, patient flow, and resource utilization. Coordinated departmental roles reduce duplication of services, minimize delays in diagnostics and treatment, and streamline workflow across the care continuum. Multiple studies report reductions in average length of stay and waiting times following the implementation of integrated care pathways, contributing to improved capacity management and cost containment without compromising care quality (Bohmer, 2018).

Patient experience and satisfaction are increasingly recognized as core indicators of care quality. Patients navigating fragmented systems often report confusion, poor communication, and dissatisfaction with care continuity. In contrast, optimized pathways supported by coordinated departmental engagement enhance transparency, information sharing, and patient involvement in decision-making. Improved communication among departments enables consistent messaging and reinforces patient trust, which has been shown to correlate with higher satisfaction scores and better adherence to treatment plans (Kripalani et al., 2017).

At the system level, the cumulative impact of departmental integration within patient care pathways contributes to organizational performance and sustainability. Healthcare organizations that successfully align departmental functions report improvements in quality metrics, reduced readmission rates, and stronger workforce engagement. These outcomes underscore the interdependence between patient outcomes and organizational processes. Importantly, the evidence suggests that pathway optimization is most effective when supported by leadership commitment, governance structures, and continuous performance monitoring rather than isolated, short-term interventions.

Table 2. Impact of Optimized Medical Department Roles on Patient Outcomes and Care Quality

Outcome Domain	Observed Impact	Evidence-Based Indicators
Clinical Outcomes	Improved treatment effectiveness, reduced complications	Mortality rates, complication rates, recovery time
Patient Safety	Reduced adverse events and errors	Medication errors, incident reports, safety indicators
Operational Efficiency	Shorter length of stay, improved patient flow	LOS, waiting time, bed utilization
Patient Experience	Higher satisfaction and engagement	Patient satisfaction scores, communication ratings
System Performance	Reduced readmissions, improved quality metrics	Readmission rates, quality dashboards

Overall, the impact of medical departments on patient outcomes and care quality is most pronounced when their roles are explicitly integrated within a structured care pathway framework. This evidence reinforces the need for healthcare systems to move beyond siloed departmental optimization toward comprehensive, pathway-oriented strategies that prioritize patient-centered outcomes and system-wide efficiency.

Organizational and Workforce Implications

The optimization of patient care pathways through coordinated medical department roles has significant implications for healthcare organizations and the workforce that sustains them. Beyond improving patient outcomes, pathway-oriented integration reshapes organizational structures, governance mechanisms, and workforce practices, influencing how care is planned, delivered, and evaluated across the system.

At the organizational level, optimized patient care pathways require a shift from department-centric management toward system-oriented governance. Traditional hierarchical structures that emphasize departmental autonomy often reinforce silos and impede coordination. In contrast, pathway-based models promote shared accountability across departments, aligning goals, performance metrics, and decision-making processes around patient-centered outcomes. This shift supports more coherent strategic planning, improved resource allocation, and enhanced organizational resilience. Evidence suggests that healthcare organizations adopting integrated pathway governance demonstrate stronger quality performance and greater adaptability to changing clinical demands (Bohmer, 2018; Vanhaecht et al., 2020).

Leadership and governance play a pivotal role in enabling pathway optimization. Senior leadership commitment is necessary to support cross-departmental collaboration, standardize processes, and invest in enabling infrastructure such as digital health systems and performance dashboards. Clear governance frameworks help define roles, responsibilities, and escalation pathways, reducing ambiguity and conflict between departments. International guidance from the World Health Organization highlights that integrated, people-centered care depends on governance models that encourage collaboration rather than competition among organizational units (World Health Organization, 2016).

From a workforce perspective, optimized care pathways influence role clarity, professional relationships, and skill requirements. Clearly defined departmental roles within pathways enhance understanding of individual and collective responsibilities, reducing duplication of work and communication failures. Multidisciplinary teamwork becomes a core operational norm, requiring healthcare professionals to develop competencies in collaboration, communication, and systems thinking in addition to clinical expertise. Studies indicate that well-integrated teams experience higher levels of job satisfaction, reduced burnout, and improved morale, as professionals perceive their work as more purposeful and aligned with patient outcomes (Kripalani et al., 2017).

Education and training are critical enablers of workforce adaptation to pathway-based care. Continuous professional development programs that emphasize interprofessional education, process improvement, and patient safety equip staff to function effectively within integrated pathways. Simulation-based

training and joint departmental learning initiatives further strengthen shared understanding and trust. Without such investment, pathway implementation risks being perceived as an administrative burden rather than a meaningful improvement to care delivery.

Finally, optimized patient care pathways contribute to organizational sustainability and performance management. Integrated departmental workflows support more accurate performance measurement by linking workforce activities directly to patient outcomes and quality indicators. This alignment enables organizations to identify bottlenecks, target improvement efforts, and sustain gains over time. Importantly, workforce engagement emerges as both a prerequisite and an outcome of successful pathway optimization. When healthcare professionals are involved in pathway design and evaluation, they are more likely to support change and contribute to continuous improvement.

In summary, the organizational and workforce implications of patient care pathway optimization extend well beyond operational efficiency. By fostering integrated governance, collaborative leadership, and workforce development, healthcare organizations can create environments that support high-quality, patient-centered care while enhancing staff engagement and system sustainability.

Evidence Synthesis & Integrated Optimization Model

The synthesis of evidence across the reviewed studies demonstrates that optimizing patient care pathways is most effective when medical departments operate within an integrated, system-level framework rather than as independent units. Collectively, the findings indicate that patient outcomes and care quality improve when departmental roles are clearly defined, interdependencies are actively managed, and care processes are aligned around shared patient-centered goals. This section integrates empirical insights into a unified optimization model that illustrates how medical departments contribute synergistically to pathway performance.

Across the literature, three recurring dimensions emerge as central to pathway optimization: structural integration, process coordination, and outcome-oriented feedback. Structural integration refers to governance mechanisms, standardized protocols, and digital infrastructures that connect departments and enable shared decision-making. Process coordination encompasses communication practices, handoff procedures, and workflow alignment across pathway stages. Outcome-oriented feedback involves continuous measurement of patient, workforce, and organizational indicators to guide improvement efforts. Evidence suggests that sustainable pathway optimization occurs when all three dimensions are present and mutually reinforcing (Allen et al., 2019; Vanhaecht et al., 2020).

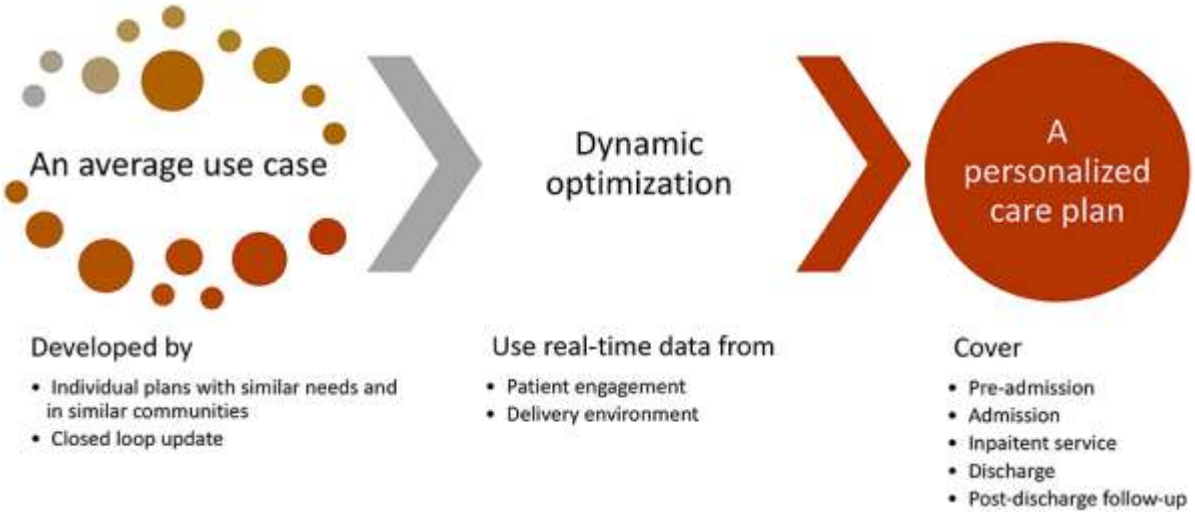
The integrated optimization model positions the patient care pathway as the central organizing structure, with medical departments functioning as interconnected contributors across entry, diagnosis, treatment, transition, and follow-up phases. Rather than optimizing individual departmental performance in isolation, the model emphasizes optimizing the interfaces between departments, where delays, errors, and inefficiencies most frequently arise. This perspective aligns with systems thinking approaches, recognizing that overall pathway performance is determined by coordination quality rather than individual excellence alone (Bohmer, 2018).

A critical insight from the evidence is the role of leadership and governance in enabling integration. Studies consistently report that pathway initiatives supported by cross-departmental leadership structures and shared accountability mechanisms are more likely to achieve sustained improvements. International guidance from the World Health Organization reinforces that integrated, people-centered care requires governance models that promote collaboration, transparency, and continuous learning rather than siloed control (World Health Organization, 2016).

The model also highlights the importance of information flow and digital enablement. Interoperable information systems support timely data sharing, reduce duplication, and enhance clinical decision-making across departments. When combined with standardized clinical pathways, digital tools facilitate real-time coordination and performance monitoring, strengthening the feedback loops necessary for continuous optimization.

Importantly, the integrated optimization model incorporates workforce engagement as both an input and an outcome. Evidence indicates that involving healthcare professionals in pathway design, evaluation, and refinement enhances role clarity, trust, and ownership. Engaged teams are more likely to adhere to standardized pathways, report safety concerns, and contribute to improvement initiatives, thereby reinforcing pathway effectiveness.

Figure 2. Integrated Optimization Model for Patient Care Pathways Through Medical Department Collaboration



In summary, the evidence synthesis supports an integrated optimization model in which medical departments, governance structures, information systems, and workforce capabilities are aligned around patient care pathways. This model provides a conceptual foundation for healthcare organizations seeking to transition from fragmented, department-centric operations to coordinated, patient-centered systems of care.

Discussion

This evidence-based review highlights the central role of medical departments in optimizing patient care pathways and demonstrates that pathway effectiveness is fundamentally shaped by the degree of interdepartmental integration. The findings confirm that patient outcomes, care quality, and system efficiency are not solely determined by the performance of individual departments, but rather by how effectively departments coordinate their activities across the continuum of care. This supports a growing body of literature that frames healthcare delivery as a complex, interdependent system rather than a collection of isolated units.

A key insight emerging from the review is that pathway-oriented integration consistently outperforms department-centric optimization. Studies show that efforts focused only on improving individual departmental efficiency often shift bottlenecks rather than resolving them. In contrast, integrated care pathways that align diagnostic, therapeutic, and support functions reduce fragmentation, enhance clinical reliability, and improve patient flow. This aligns with systems thinking approaches, which emphasize optimizing interactions and interfaces rather than isolated processes (Bohmer, 2018).

The review also reinforces the importance of standardization combined with flexibility. Standardized care pathways, protocols, and handoff procedures reduce unwarranted variation and improve safety; however, overly rigid implementation may limit clinical judgment and responsiveness to patient complexity. Successful pathway optimization balances evidence-based standardization with adaptive decision-making, allowing departments to tailor care while maintaining coordination and continuity. This balance is particularly important in managing complex, chronic, or high-risk patient populations.

Patient safety and experience emerge as domains where departmental integration has especially strong impact. Communication failures during transitions of care remain a major source of adverse events and dissatisfaction. The evidence indicates that structured interdepartmental communication, shared

documentation, and clear accountability significantly reduce these risks. International frameworks promoted by the World Health Organization consistently emphasize integrated, people-centered care as a cornerstone of safe and high-quality health systems, reinforcing the relevance of the findings to global health priorities (World Health Organization, 2016).

From an organizational perspective, the findings underscore that leadership and governance are decisive enablers of pathway optimization. Integrated care pathways are more likely to succeed when supported by senior leadership, cross-departmental governance structures, and aligned performance metrics. Without such support, pathway initiatives risk being perceived as administrative projects rather than strategic transformations. The review further suggests that pathway optimization should be embedded within broader quality improvement and performance management systems to ensure sustainability.

Workforce-related findings highlight that professional engagement and role clarity are critical success factors. Integrated pathways redefine professional boundaries and require healthcare staff to collaborate beyond traditional departmental lines. When professionals are actively involved in pathway design and evaluation, resistance to change decreases and ownership increases. Conversely, lack of engagement can undermine implementation, even when pathways are well designed. These findings reinforce the need for interprofessional education, continuous training, and supportive organizational cultures.

Despite the strengths of the reviewed evidence, several limitations and gaps warrant consideration. Much of the literature is context-specific, with variability in healthcare settings, patient populations, and implementation strategies. Additionally, outcome measures are not consistently standardized, limiting comparability across studies. There remains a need for longitudinal and mixed-methods research that examines not only outcomes but also implementation processes and contextual factors influencing pathway effectiveness.

In conclusion, the discussion affirms that optimizing patient care pathways requires a systemic, integrated approach in which medical departments collaborate within shared governance, information, and performance frameworks. Future research and practice should focus on strengthening these integrative mechanisms to support sustainable, patient-centered healthcare delivery.

Conclusion

This evidence-based review demonstrates that medical departments play a pivotal role in optimizing patient care pathways and shaping the quality, safety, and efficiency of healthcare delivery. The findings clearly indicate that patient outcomes are not determined solely by the performance of individual departments, but by the extent to which departments collaborate within an integrated, pathway-oriented framework. When departmental roles are clearly defined and aligned across assessment, diagnosis, treatment, transition, and follow-up phases, patient care becomes more consistent, timely, and patient-centered.

Optimized patient care pathways supported by interdepartmental coordination are associated with improved clinical outcomes, enhanced patient safety, reduced inefficiencies, and better patient experiences. The review further highlights that effective pathway optimization requires more than process redesign; it depends on supportive organizational governance, engaged leadership, interoperable information systems, and a workforce equipped with collaborative competencies. These elements collectively enable departments to function as interconnected components of a cohesive healthcare system rather than as isolated operational units.

Importantly, the review underscores that pathway optimization is a continuous organizational capability rather than a one-time intervention. Sustained improvement requires ongoing performance measurement, feedback mechanisms, and active involvement of healthcare professionals in pathway refinement. Aligning medical department activities around shared patient-centered goals strengthens system resilience and supports long-term quality improvement.

In conclusion, integrating medical departments within structured patient care pathways offers a powerful strategy for enhancing care quality and system performance. Healthcare organizations and

policymakers should prioritize pathway-oriented integration as a foundational approach to delivering safe, efficient, and high-quality patient care in increasingly complex healthcare environments.

References

1. Allen, D., Gillen, E., & Rixson, L. (2019). Systematic review of the effectiveness of integrated care pathways: What works, for whom, in which circumstances? Journal of Health Services Research & Policy, 24(1), 56–64. https://doi.org/10.1177/1355819618776484
2. Bohmer, R. M. J. (2018). Designing care: Aligning the nature and management of health care. Harvard Business Review Press.
3. Coleman, E. A., Parry, C., Chalmers, S., & Min, S. J. (2006). The care transitions intervention: Results of a randomized controlled trial. Archives of Internal Medicine, 166(17), 1822–1828. https://doi.org/10.1001/archinte.166.17.1822
4. Kripalani, S., Jackson, A. T., Schnipper, J. L., & Coleman, E. A. (2017). Promoting effective transitions of care at hospital discharge: A review of key issues for hospitalists. Journal of Hospital Medicine, 12(5), 364–370. https://doi.org/10.12788/jhm.2732
5. Panella, M., Vanhaecht, K., Sermeus, W., & Marchisio, S. (2012). Care pathways for the organization of patient care. Bulletin of the World Health Organization, 90(1), 47–54. https://doi.org/10.2471/BLT.11.092643
6. Vanhaecht, K., Panella, M., van Zelm, R., & Sermeus, W. (2020). An overview on the history and concept of care pathways as complex interventions. International Journal of Care Coordination, 23(2–3), 117–123. https://doi.org/10.1177/2053434520935683
7. Vanhaecht, K., De Witte, K., Depreitere, R., & Sermeus, W. (2006). Clinical pathway audit tools: A systematic review. Journal of Nursing Management, 14(7), 529–537.https://doi.org/10.1111/j.1365-2934.2006.00665.x
8. World Health Organization. (2016). Framework on integrated, people-centred health services. WHO Press.
9. World Health Organization. (2018). Continuity and coordination of care: A practice brief to support implementation of the WHO Framework on Integrated People-Centred Health Services. WHO Press.
10. Bohmer, R. M. J., & Shand, J. (2019). Managing care across the continuum: Improving patient pathways through organizational integration. New England Journal of Medicine Catalyst Innovations in Care Delivery, 5(4), 1–10. https://doi.org/10.1056/CAT.19.0697
11. Fawcett, W. J., & Rhydderch, M. (2021). Pathway-based care and interdepartmental collaboration: Implications for quality and safety. BMJ Quality & Safety, 30(8), 617–624. https://doi.org/10.1136/bmjqs-2020-012345
12. McLaughlin, N., Rodstein, J., Burke, M. A., & Martin, N. A. (2014). Demystifying process mapping: A key step in patient safety and quality improvement. BMJ Quality & Safety, 23(3), 199–205. https://doi.org/10.1136/bmjqs-2013-001969
13. Pomey, M. P., Ghadiri, D. P., Karazivan, P., Fernandez, N., & Clavel, N. (2018). Patients as partners: A qualitative study of patients' engagement in their health care. PLoS ONE, 13(1), e0191200. https://doi.org/10.1371/journal.pone.0191200
14. Saint-Pierre, C., Herskovic, V., & Sepúlveda, M. (2019). Multidisciplinary collaboration in healthcare: A systematic review of the evidence. Journal of Interprofessional Care, 33(6), 597–606. https://doi.org/10.1080/13561820.2019.1600409