FAST-TRACK AND ERAS IN ONCOLOGIC SURGERY: OPTIMIZATION OF OUTCOMES AND ACCELERATED RECOVERY

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Abstract

Enhanced recovery strategies in oncologic surgery have been widely discussed as effective approaches to reduce surgical stress and optimize clinical outcomes. This integrative review analyzed recent evidence regarding Fast-Track and Enhanced Recovery After Surgery (ERAS) protocols, highlighting their similarities and differences. Both models are based on a multimodal approach emphasizing optimized analgesia, early mobilization, reduced preoperative fasting, and multidisciplinary collaboration. The findings consistently demonstrate reduced length of hospital stay, lower postoperative complication rates, and faster functional recovery. However, ERAS presents a higher level of standardization, supported by evidence-based guidelines, continuous auditing, and systematic monitoring of performance indicators, which enhances reproducibility and institutional sustainability. Studies indicate that its implementation does not compromise oncologic safety, preserving survival and recurrence rates while enabling earlier initiation of adjuvant therapy. Emerging evidence also suggests a potential positive impact on long-term outcomes. In contrast, the Fast-Track model is characterized by greater operational flexibility, facilitating its initial adoption, particularly in resource-limited settings. Nevertheless, the absence of a fully structured protocol and systematic auditing may lead to variability in implementation and clinical results. In conclusion, although both models effectively improve perioperative care in oncologic surgery, ERAS demonstrates greater methodological robustness and stronger potential for consolidation as an institutional policy aimed at enhancing quality, safety, and sustainability of cancer surgical care.

Keywords: Adjuvant therapy, Enhanced Recovery After Surgery, Fast-Track, Oncologic surgery, Perioperative care.

INTRODUCTION

Oncologic surgery represents one of the therapeutic pillars in the treatment of solid neoplasms and is frequently associated with major procedures, an exacerbated systemic inflammatory response, intense pain, and a significant risk of postoperative complications. In this context, the search for strategies

capable of reducing surgical morbidity, optimizing functional recovery, and ensuring better oncologic outcomes has driven the incorporation of evidence-based care protocols. Among these strategies, Fast-Track and Enhanced Recovery After Surgery (ERAS) programs stand out, as they propose a multimodal, interdisciplinary, and patient-centered approach focused on reducing surgical stress and accelerating recovery (Ripollés-Melchor et al., 2022).

The concept of Fast-Track surgery emerged with the aim of minimizing the physiological impact of operative trauma through the combination of preoperative, intraoperative, and postoperative interventions, such as nutritional optimization, multimodal analgesia, early mobilization, and reduced fasting time. Subsequently, this model evolved into ERAS protocols, structured in systematized guidelines and widely disseminated by international scientific societies, including specific recommendations for gynecologic oncology (Nelson et al., 2023). These guidelines emphasize the standardization of evidence-based practices, multiprofessional integration, and continuous monitoring of care indicators.

In colorectal oncology, the implementation of ERAS protocols has demonstrated a significant reduction in hospital length of stay, a lower incidence of postoperative complications, and maintenance of oncologic safety. Comparative studies show that patients undergoing colorectal surgery under ERAS protocols experience faster recovery of gastrointestinal function and lower hospital readmission rates, in both open and laparoscopic approaches (Mangone et al., 2024). Systematic reviews reinforce that early hospital discharge, including within 24 hours in selected cases, can be achieved without an increase in adverse events, provided that there is appropriate patient selection and monitoring (Sier et al., 2024). In addition, retrospective analyses indicate that the application of enhanced recovery pathways in stages II and III colorectal cancer does not compromise the timely initiation of adjuvant therapy, thereby favoring continuity of oncologic treatment (Wang et al., 2021).

In the context of esophageal surgery and upper gastrointestinal cancer, ERAS protocols have also shown promising results. Evidence points to a positive impact not only on immediate perioperative

outcomes but also on long-term survival, suggesting that optimized recovery may influence the overall oncologic trajectory (Chen et al., 2025).

The incorporation of Fast-Track care in laparoscopic rectal surgery demonstrated a reduction in complications and improvement in functional recovery, without an increase in morbidity (Meillat et al., 2022). Furthermore, systematic reviews indicate that oncologic outcomes and long-term safety remain preserved when ERAS protocols are properly implemented in different types of oncologic surgery (Pang et al., 2021).

In gynecologic oncology, randomized clinical trials show that patients managed under ERAS protocols experience less postoperative pain, shorter hospital stay, and greater satisfaction with the care received (Bourazani et al., 2025). Additional studies confirm the effectiveness of these strategies in reducing complications and improving the perioperative experience (Saleh et al., 2025). Updates to international guidelines reinforce the importance of strict adherence to protocol components, highlighting challenges related to implementation, team training, and monitoring of quality indicators (Nelson et al., 2023).

In head and neck surgery, including complex procedures with free flap reconstruction, ERAS programs have been associated with reduced hospital stay, lower complication rates, and earlier return to adjuvant oncologic therapy (Kiong et al., 2022). Similar results were observed in microsurgical reconstructions, with significant improvement in clinical and functional outcomes (Nieminen et al., 2023; Raj et al., 2025). These findings are particularly relevant, considering that delays in complementary treatment may negatively affect oncologic prognosis.

In urologic surgeries, such as radical prostatectomy, the adoption of care pathways guided by the Fast-Track concept has demonstrated improvement in perioperative rehabilitation indices and reduction in complications (Chen et al., 2024). In pancreatic and hepatopancreatic surgery, ERAS protocols and Fast-Track anesthesia strategies are associated with reduced postoperative morbidity and faster recovery, without an increase in mortality (Harsa et al., 2025; Mercadante et al., 2024). Similar results have been

described in surgeries for peritoneal surface malignancies undergoing cytoreduction with or without HIPEC, reinforcing the applicability of these programs even in highly complex procedures (Robella et al., 2023).

In breast cancer, the application of the Fast-Track concept during the perioperative period of breast-conserving surgery showed a positive impact on quality of care and reduction of complications (Li; Cao, 2025). In patients with colorectal cancer, structured nursing interventions under the Fast-Track model contributed to better clinical recovery in both open and laparoscopic surgeries (He et al., 2022). Meta-analyses demonstrate that nursing practice is determinant for the success of the protocols, directly influencing indicators such as pain, early mobilization, and length of stay (Jia et al., 2023)

In addition to objective clinical outcomes, qualitative investigations reveal that patients undergoing Fast-Track surgery report a greater sense of safety, autonomy, and understanding of the therapeutic process, evidencing the positive subjective impact of this approach (Zou et al., 2024).

Despite the advances evidenced in the international literature, challenges still exist related to heterogeneity in the application of protocols, structural differences among health services, and the need for adaptation to local realities. Recent studies emphasize that the effectiveness of ERAS depends not only on the isolated adoption of specific measures, but on the integrated and consistent implementation of all its components (Scala et al., 2024; Privalov et al., 2025). In this regard, in-depth analyses of the applicability and impacts of Fast-Track and ERAS programs in oncologic surgery are justified, considering the epidemiological relevance of cancer, the care-related costs involved, and the need to promote safe, efficient, and patient-centered care.

Given this context, the present study aims to analyze the scientific evidence regarding the application of Fast-Track and ERAS protocols in oncologic surgery, highlighting their effects on clinical outcomes, postoperative complications, length of stay, resumption of adjuvant therapy, and survival, as well as discussing the challenges and perspectives for their implementation in different care settings.

METHODOLOGY

This is an integrative literature review, a method that enables the comprehensive synthesis of studies with different designs, allowing an understanding of the current state of knowledge regarding Fast-Track and Enhanced Recovery After Surgery (ERAS) protocols in oncologic surgery. The review was conducted according to the stages proposed for integrative reviews: identification of the problem, establishment of eligibility criteria, definition of search strategies, extraction and categorization of data, critical analysis of the included studies, and synthesis of the knowledge produced.

The guiding question was structured based on the PICo strategy (Population, Interest, and Context), and was defined as follows: What are the impacts of Fast-Track and ERAS protocols on the clinical and oncologic outcomes of patients undergoing oncologic surgery? The population of interest comprised adult patients undergoing oncologic surgeries; the phenomenon of interest corresponded to the application of Fast-Track or ERAS protocols; and the context encompassed the perioperative period and clinical and oncologic outcomes.

The search was carried out in the PubMed/MEDLINE, Scopus, Web of Science, Embase, and Virtual Health Library (VHL) databases, covering the period from 2021 to 2026. The temporal delimitation was established with the objective of gathering contemporary evidence, considering recent updates to international guidelines and the expansion of ERAS protocol implementation in surgical oncology.

Controlled and uncontrolled descriptors were used, combined with Boolean operators (AND and OR), according to the DeCS (Health Sciences Descriptors) and MeSH (Medical Subject Headings) vocabularies. The main descriptors used were: “Enhanced Recovery After Surgery,” “Fast-Track Surgery,” “Surgical Oncology,” “Neoplasms,” “Perioperative Care,” “Postoperative Complications,” “Length of Stay,” “Oncologic Outcomes,” and “Recovery of Function.” The search strategies were adapted to the specificities of each database, ensuring greater sensitivity and comprehensiveness of the results.

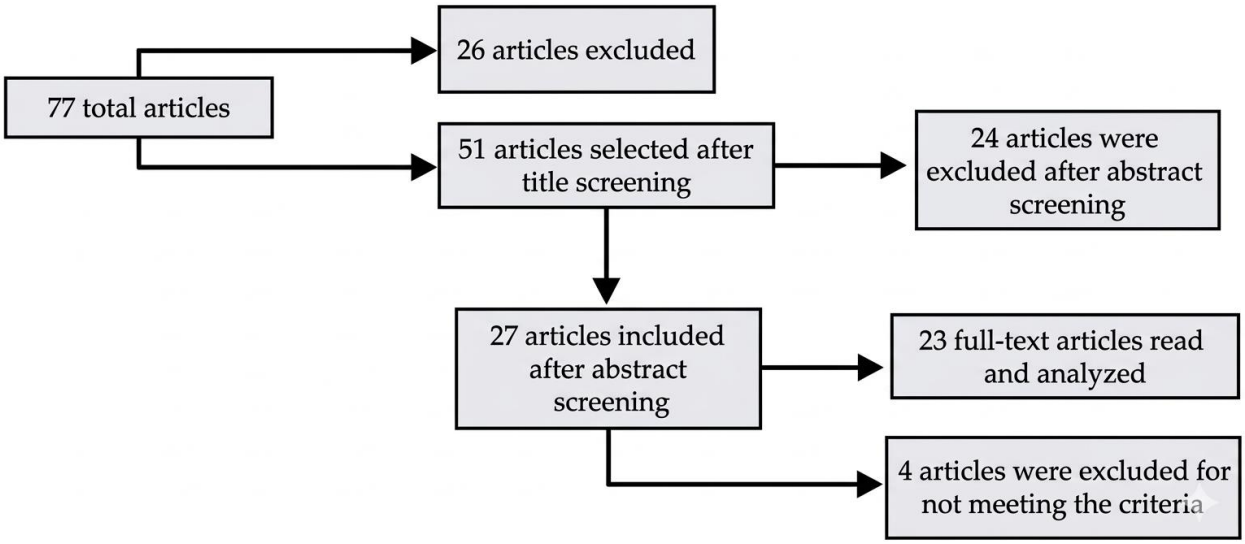
The inclusion criteria comprised: (1) original studies published between 2021 and 2026; (2) articles available in full text; (3) publications in English, Portuguese, or Spanish; (4) research addressing the application of Fast-Track or ERAS protocols in oncologic surgeries; (5) studies presenting clinical, perioperative, or oncologic outcomes, such as length of stay, postoperative complications, resumption of adjuvant therapy, survival, or quality of life. Different methodological designs were considered, including randomized clinical trials, cohort studies, retrospective studies, systematic reviews, and meta-analyses.

The exclusion criteria adopted were: (1) studies published before 2021; (2) duplicate articles in the databases; (3) case reports, letters to the editor, editorials, study protocols, and narrative reviews without explicit methodology; (4) research not specifically addressing oncologic patients; (5) studies dealing exclusively with non-oncologic surgeries; and (6) publications without a clear description of the outcomes evaluated.

The study selection process occurred in three stages: reading of titles, analysis of abstracts, and full-text reading of potentially eligible articles. Screening was conducted carefully, with documentation of the reasons for exclusion at each stage. After the final selection, data extraction was performed using a previously prepared instrument containing information on authors, year of publication, country, type of study, investigated population, type of oncologic surgery, components of the ERAS or Fast-Track protocol used, and the main outcomes evaluated.

Figure 1

Flowchart of study selection



Source: Authors (2026)

Data analysis was conducted in a descriptive and thematic manner, allowing the identification of categories related to the impact of protocols on immediate clinical outcomes (morbidity, pain, length of stay), functional outcomes (early mobilization, gastrointestinal recovery), and oncologic outcomes (initiation of adjuvant therapy, survival, and continuity of treatment). The synthesis of findings was presented narratively, highlighting convergences, divergences, and gaps in the recent literature.

As this was an integrative literature review based on secondary publicly accessible data, submission to a Research Ethics Committee was not required. Nevertheless, ethical principles related to the reliability of information, proper citation of sources, and scientific integrity in the analysis and interpretation of results were respected.

RESULTS AND DISCUSSION

The analysis of studies published between 2021 and 2026 shows that Fast-Track and Enhanced Recovery After Surgery (ERAS) protocols share common foundations such as reduction of surgical stress, multimodal analgesia, early mobilization, and early feeding, but differ in terms of the degree of

systematization, standardization, and monitoring of indicators. In general, Fast-Track presents itself as a conceptual model centered on accelerating recovery, whereas ERAS is configured as a structured program based on formal guidelines and continuous auditing of results

GENERAL OVERVIEW OF THE INCLUDED STUDIES

The studies analyzed covered different oncologic specialties, including colorectal, gynecologic, pancreatic, hepatobiliary, esophageal, urologic, breast, and head and neck surgery. Retrospective studies, comparative cohorts, randomized clinical trials, and systematic reviews predominated.

In colorectal oncology, Mangone et al. (2024) demonstrated, in a comparative study conducted in Italy, that implementation of the ERAS protocol significantly reduced length of stay and postoperative complications in both open and laparoscopic surgeries. Similarly, Wang et al. (2021) showed that patients with stage II and III colorectal cancer undergoing enhanced recovery pathways experienced lower morbidity, without delay in the initiation of adjuvant therapy, reinforcing the oncologic safety of the strategy. In a systematic review, Sier et al. (2024) highlighted that hospital discharge within 24 hours after colon cancer surgery is feasible in selected cases included in ERAS protocols, without an increase in readmission rates. Complementing this perspective, Scala et al. (2024) emphasized that full adherence to protocol components is a determining factor for maintaining oncologic safety and obtaining consistent results.

In esophageal surgery, Chen et al. (2025) identified an association between ERAS application and improved three-year survival after esophagectomy, suggesting that optimized recovery may influence long-term oncologic outcomes. In addition, Meillat et al. (2022) observed a significant reduction in complications in laparoscopic rectal surgery conducted under a Fast-Track program, reinforcing the effectiveness of the multimodal approach in minimizing surgical stress and accelerating functional recovery.

In the field of gynecologic oncology, Bourazani et al. (2025), in a randomized clinical trial, demonstrated a reduction in postoperative pain, shorter hospital stay, and greater patient satisfaction among those managed under ERAS, evidencing both clinical and experiential benefits. Updating international recommendations, Nelson et al. (2023) emphasized the challenges related to the practical implementation of protocols, highlighting the need for continuous auditing, monitoring of care indicators, and institutional commitment to ensure full adherence to guidelines.

In head and neck surgery, Kiong et al. (2022) observed that the application of ERAS favored earlier return to planned oncologic therapy, positively impacting continuity of treatment and reducing potentially harmful intervals between therapeutic modalities. Similar results were reported by Nieminen et al. (2023) in free flap reconstructions, in which protocol adoption was associated with reduced length of stay and lower complication rates.

In pancreatic surgery, Harsa et al. (2025) reported a significant reduction in postoperative morbidity with the adoption of ERAS protocols, reinforcing their applicability even in highly complex procedures. In parallel, Mercadante et al. (2024) showed that Fast-Track anesthesia contributed to greater intraoperative hemodynamic stability and faster recovery in hepatopancreatic surgeries, highlighting the importance of integrating anesthetic strategies with enhanced recovery protocols.

Table 1

Synthesis of the main clinical outcomes associated with Fast-Track and ERAS

Surgical Specialty	Protocol Evaluated	Main Clinical Outcomes	Impact on Adjuvant Therapy	Main Authors
Colorectal	ERAS	Reduced length of stay; lower complication rate; early gastrointestinal recovery	Timely initiation of chemotherapy	Mangone (2024); Wang (2021); Sier (2024)
Colorectal	Fast-Track	Improved early mobilization; less pain; reduction of mild complications	Limited data	He (2022); Zou (2024)
Gynecologic	ERAS	Reduced postoperative pain; shorter hospital stay; greater satisfaction	Therapeutic continuity preserved	Bourazani (2025); Nelson (2023); Saleh (2025)
Esophageal	ERAS	Lower morbidity; better functional recovery	Association with greater 3-year survival	Chen (2025); Pang (2021)
Head and Neck	ERAS	Reduction of complications; shorter hospital stay	Earlier return to planned therapy	Kiong (2022); Nieminen (2023); Raj (2025)
Pancreatic/Hepatopancreatic	ERAS / Fast-Track	Reduction of morbidity; hemodynamic stability	Oncologic safety maintained	Harsa (2025); Mercadante (2024)
Breast	Fast-Track	Reduction of complications; improvement in quality of care	Not compromised	Li (2025)

Source: Authors (2026)

CONCEPTUAL COMPARISON BETWEEN FAST-TRACK AND ERAS

Although often used synonymously, the terms Fast-Track and ERAS present relevant conceptual distinctions. Fast-Track emerged as a strategy aimed at accelerating postoperative recovery, focusing on isolated or combined interventions, especially those related to analgesia and early mobilization. ERAS, in turn, became consolidated as a structured protocol based on robust scientific evidence and formalized guidelines by international societies.

As argued by Ripollés-Melchor et al. (2022), ERAS represents the systematized evolution of the Fast-Track concept, by incorporating auditing of care indicators, institutional standardization, and an

integrated multidisciplinary approach. From this perspective, ERAS is not restricted to accelerating hospital discharge, but is configured as a structured model for reorganizing perioperative care, guided by scientific evidence and continuous monitoring of results. Thus, its proposal goes beyond reducing length of stay, seeking to promote consistent improvement in clinical and oncologic outcomes in a sustainable and reproducible manner across different care contexts.

Table 2

Conceptual and operational differences between Fast-Track and ERAS

Aspect Compared	Fast-Track	ERAS
Conceptual Origin	Initial accelerated recovery model	Structured evolution of Fast-Track
Degree of Standardization	Variable; may be applied partially	High; formal protocol with defined guidelines
Monitoring of Indicators	Not always systematic	Continuous auditing and performance evaluation
Multidisciplinarity	Present, but less structured	Formalized multiprofessional integration
International Guidelines	Absence of consolidated universal guidelines	Updated guidelines by scientific societies
Impact on Oncologic Outcomes	Growing but limited evidence	Robust evidence including survival and resumption of therapy
Institutional Applicability	Gradual and flexible implementation	Requires institutional organization and full adherence

Source: Authors (2026)

IMPACT ON PERIOPERATIVE OUTCOMES

Reduction in length of stay is one of the outcomes most consistently reported in the literature. In colorectal surgery, Mangone et al. (2024) and Sier et al. (2024) showed a significant decrease in hospitalization time with the implementation of ERAS, without a proportional increase in readmission rates. In contrast, studies on Fast-Track, such as that of He et al. (2022), demonstrated improved

functional recovery and reduction of complications in patients undergoing colorectal surgery, but with greater variability in the standardization of interventions and in the systematization of the applied components.

In breast cancer, Li et al. (2025) identified a reduction in complications and improvement in quality of care with the application of the Fast-Track concept in the perioperative period. However, unlike ERAS, such interventions were not always embedded in a formally structured protocol with continuous auditing and systematic monitoring of indicators, which may limit the comparability and reproducibility of results across different institutions.

In highly complex surgeries, such as cytoreduction associated with hyperthermic intraperitoneal chemotherapy (HIPEC), Robella et al. (2023) demonstrated that ERAS is applicable and safe even in extensive procedures, reinforcing its methodological robustness and its capacity to adapt to challenging surgical contexts. The broader applicability of ERAS in complex scenarios suggests greater potential for institutional standardization and consolidation of evidence-based practices when compared with the traditional Fast-Track model, whose implementation tends to be more heterogeneous and dependent on local initiatives.

Table 3

Comparison of perioperative impacts between Fast-Track and ERAS by surgical specialty

Specialty	Findings with Fast-Track	Findings with ERAS	Predominant Level of Evidence
Colorectal	Functional improvement; early mobilization	Consistent reduction in length of stay and complications	Cohorts, systematic reviews
Gynecologic	Limited data	Reduction in pain and length of stay; greater satisfaction	Randomized clinical trial
Esophageal	Initial clinical benefits	Association with medium-term survival	Retrospective cohort
Head and Neck	Limited application	Early return to therapy and lower morbidity	Multicenter studies
Pancreatic	Accelerated anesthetic strategies	Reduction of postoperative complications	Retrospective studies
Breast	Improvement in quality of care	Less frequent application	Observational studies

Source: Authors (2026)

IMPACT ON ONCOLOGIC OUTCOMES AND THERAPEUTIC CONTINUITY

One of the most relevant differentials identified in the recent literature concerns the impact on oncologic outcomes. Pang et al. (2021), in a systematic review, highlighted that ERAS implementation does not compromise long-term oncologic outcomes, preserving survival rates and tumor recurrence rates. These findings reinforce the safety of the strategy from an oncologic perspective, dispelling initial concerns that accelerated recovery might negatively interfere with disease control.

In addition, Kiong et al. (2022) observed that patients managed under ERAS in head and neck surgery returned more rapidly to adjuvant oncologic therapy. This evidence is particularly relevant, considering that delays in complementary treatment may negatively affect prognosis and reduce the overall effectiveness of the multimodal therapeutic strategy.

In esophagectomy, Chen et al. (2025) identified an association between ERAS application and improved three-year survival, suggesting that accelerated recovery may influence inflammatory and immunological mechanisms related to tumor progression, in addition to favoring greater clinical stability in the immediate postoperative period. Although studies on Fast-Track also demonstrate consistent clinical benefits, there is a smaller number of investigations evaluating direct impact on survival and on medium- and long-term oncologic outcomes, which highlights a relevant gap in the comparative literature between the two care models.

PATIENT EXPERIENCE AND MULTIPROFESSIONAL PRACTICE

The subjective dimension of recovery has also been explored in recent literature. Zou et al. (2024) identified, in a qualitative study, that patients undergoing surgery under the Fast-Track model reported a greater sense of autonomy, better understanding of the therapeutic process, and an expanded perception of active participation in their own care.

These findings show that accelerated recovery is not limited to objective indicators, such as length of stay or complication rates, but also impacts psychosocial aspects relevant to the experience of the oncologic patient.

However, as highlighted by Nelson et al. (2023), the effectiveness of ERAS is directly conditioned on structured multiprofessional integration, involving anesthesiologists, surgeons, nurses, physiotherapists, nutritionists, and other members of the care team. In this sense, consolidation of the protocol depends not only on the adoption of isolated interventions, but also on institutional coordination, standardization of practices, and continuous monitoring of indicators. Corroborating this perspective, Jia et al. (2023), in a meta-analysis, reinforced the central role of nursing in adherence to protocols and in improving care indicators, highlighting that the systematized performance of these professionals directly influences outcomes such as pain control, early mobilization, and reduction of length of stay.

Table 4

Multiprofessional contributions in Fast-Track and ERAS protocols

Professional Category	Interventions in Fast-Track	Interventions in ERAS	Impact on Outcomes
Surgeon	Minimally invasive technique; reduction of drains	Surgical planning integrated with the protocol	Less surgical trauma
Anesthesiologist	Multimodal analgesia; reduction of opioids	Goal-directed hemodynamic control; prevention of nausea	Reduction of complications and pain
Nursing	Early mobilization; patient education	Systematic monitoring of indicators; protocol adherence	Reduced length of stay; greater satisfaction
Physiotherapy	Encouragement of early ambulation	Structured rehabilitation protocols	Accelerated functional recovery
Nutrition	Early feeding according to tolerance	Evidence-based nutritional strategies; immunonutrition	Evidence-based nutritional strategies; immunonutrition
Hospital Management	Operational support	Auditing, monitoring, and continuous improvement	Sustainability and standardization of care

Source: Authors (2026)

COMPARATIVE SYNTHESIS AND CLINICAL IMPLICATIONS

The comparative analysis between the Fast-Track and ERAS models demonstrates that, although they share similar physiological and care-related foundations, their impacts differ substantially in terms of standardization, consistency of results, and institutional sustainability. Fast-Track is characterized by greater operational flexibility, allowing the progressive adoption of isolated interventions, such as multimodal analgesia, early mobilization, and early feeding. This characteristic favors its initial implementation in services with structural limitations or restricted resources. However, this same flexibility may result in heterogeneity in the application of measures, compromising the uniformity of

clinical results. As highlighted by Ripollés-Melchor et al. (2022), the absence of systematic auditing and formally structured protocols may limit the precise measurement of the gains obtained with the Fast-Track model and hinder its consolidation as an institutional policy.

In contrast, ERAS presents itself as a conceptual and operational evolution of Fast-Track, incorporating evidence-based guidelines, clearly defined care goals, and continuous monitoring of performance indicators. This structuring favors greater reproducibility of results and effective integration among the different professional categories involved in perioperative care. According to Nelson et al. (2023), the consolidation of specific guidelines for oncology reinforces the need for strict adherence to protocol components, highlighting that the effectiveness of ERAS depends on the global rather than fragmented implementation of the proposed interventions, otherwise its clinical and organizational benefits may be compromised.

From a clinical standpoint, both models demonstrate a consistent reduction in length of stay and postoperative complications. However, recent studies suggest that ERAS has a more robust impact on continuity of oncologic treatment, especially on the early resumption of adjuvant therapy. Kiong et al. (2022) showed that patients undergoing ERAS protocols returned more rapidly to planned oncologic therapy, a determining factor for prognosis in various types of cancer. Similarly, Wang et al. (2021) observed that the application of enhanced recovery pathways in colorectal cancer did not compromise the timely initiation of adjuvant chemotherapy, reinforcing the oncologic safety of the protocol and its compatibility with multimodal therapeutic strategies.

Moreover, there is emerging evidence of a possible influence of ERAS on long-term outcomes, including survival. Chen et al. (2025) identified an association between protocol application and improved three-year survival after esophagectomy, suggesting that modulation of the inflammatory response and reduction of surgical stress may affect biological mechanisms related to tumor progression. Although studies on Fast-Track also demonstrate relevant clinical benefits, the volume of evidence

correlating this model with medium- and long-term oncologic outcomes remains more limited when compared with the body of evidence available for ERAS.

Another distinctive aspect concerns institutional governance and organizational culture. Privalov et al. (2025) emphasize that the effectiveness of accelerated recovery programs is directly related to full adherence to protocols and the standardization of care practices. In this context, ERAS favors the consolidation of a culture of continuous quality improvement by incorporating systematic audits, performance indicators, and periodic evaluation cycles. Fast-Track, although effective and clinically beneficial, tends to depend more on the individual initiative of teams and local experience, and may show greater variability in implementation and, consequently, in the results obtained.

Therefore, the comparative synthesis indicates that Fast-Track remains relevant as a viable and adaptable strategy, especially in contexts of initial implementation of accelerated recovery protocols. However, ERAS demonstrates greater methodological robustness, greater multiprofessional integration, and more consistent impact both on immediate clinical outcomes and on the oncologic therapeutic trajectory. The structured adoption of ERAS, associated with continuous team training and systematic monitoring of results, is configured as a promising strategy for the overall optimization of oncologic surgical care, promoting not only faster recovery, but also greater safety and potential long-term prognostic benefit.

CONCLUSION

The consolidation of strategies aimed at accelerated recovery in the context of oncologic surgery represents a significant advance in the qualification of perioperative care, with a direct impact on the safety, efficiency, and humanization of care. Analysis of the evidence demonstrates that Fast-Track and Enhanced Recovery After Surgery (ERAS) protocols constitute effective approaches to reducing surgical stress, optimizing pain control, and promoting faster functional recovery. By integrating evidence-based

interventions and coordinated multiprofessional practice, these models contribute to a safer surgical experience centered on the oncologic patient.

With regard to immediate clinical outcomes, both protocols are associated with reduced length of stay, lower incidence of postoperative complications, and early resumption of functional activities. However, ERAS stands out for its formalized and systematized structure, supported by consolidated guidelines and continuous auditing mechanisms, which favors greater standardization and reproducibility of results. This methodological organization broadens the consistency of the observed benefits and strengthens its applicability across different oncologic surgical specialties.

In the sphere of oncologic outcomes, the evidence indicates that the structured implementation of ERAS does not compromise therapeutic safety, preserving continuity of treatment and favoring the timely initiation of adjuvant therapy. This aspect assumes strategic relevance, since delays in complementary treatment may interfere with prognosis and survival. Although the Fast-Track model also demonstrates expressive benefits in functional recovery and reduction of complications, studies indicate that ERAS presents a greater volume of evidence related to the maintenance of the oncologic therapeutic trajectory and to possible positive impacts in the medium and long term.

Additionally, the effectiveness of these protocols depends on multiprofessional integration and institutional commitment. The articulation among surgeons, anesthesiologists, nurses, physiotherapists, nutritionists, and hospital managers demonstrates that accelerated recovery is not limited to isolated interventions, but represents an organizational restructuring of perioperative care. Nonetheless, challenges persist related to heterogeneity in implementation, structural differences among health services, and the need for adaptation to local realities, especially in contexts with limited resources.

Given this scenario, the development of prospective multicenter studies is recommended to directly compare Fast-Track and ERAS in different types of neoplasms, encompassing not only perioperative outcomes, but also inflammatory markers, time to initiation of adjuvant therapy, quality of life, cost-effectiveness analysis, and overall survival in the medium and long term. Investigations with

this design may strengthen the scientific basis for the consolidation of institutional and public policies aimed at the systematized implementation of enhanced recovery protocols in oncologic surgery.

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