Surgery
UNIVERSITY OF TORONTO

Implementation Toolkit

for the
ERAS for all
Clinical Practice Guideline

Best Practice in Surgery

What is Enhanced Recovery after Surgery (ERAS)?

Enhanced Recovery after Surgery (ERAS) refers to a bundle of interventions which when implemented together decrease perioperative stress and postoperative pain, and decrease postoperative complications, accelerate recovery leading to early discharge. Implementing an ERAS guideline requires open communication and collaboration amongst all healthcare professionals caring for surgical patients as the recommendations span the patients' entire surgical journey.

Importance of ERAS

There is increasing evidence that unless pre-, intra- as well as post-operative care is based on best evidence, optimal outcomes cannot be achieved. Care of these surgical patients involves a team of health care professionals and occurs over a continuum. The care of these patients starts in the surgeon's office and continues in the preadmission unit, operating room, post anaesthetic care unit, surgery ward and finally in their home following discharge. The perioperative multidisciplinary team (surgeons, anesthesiologists, nurses, physiotherapists and dieticians) must work collaboratively to ensure that care is coordinated as the patient transitions through the multiple points of care. Internationally, ERAS programs have been shown to be quite effective in improving patient outcomes and satisfaction and decreasing length of stay.

How does ERAS align with provincial initiatives?

ERAS aligns with the Excellent Care for All Strategy and other Ministry of Health and Long Term Care (MOHLTC) priorities emphasizing high quality care and efficient use of resources. Hospital funding reform initiatives link funding to quality and efficiency through Quality-Based Funding. Significant proportions of this funding will be allocated through payment for Quality Based Procedures (QBP).

What is the Best Practice in Surgery?

The Best Practice in Surgery is a University of Toronto, Department of Surgery quality initiative led by surgeons representing all Surgical Divisions as well as representatives from the Department of Anesthesia, Otolaryngology, Ophthamology and Gynaecology. The goal of Best Practice in Surgery is to optimize patient care at the University of Toronto teaching hospitals by developing quality initiatives including the development and implementation of guidelines based on best evidence on topics pertinent to surgery.

How was this program created?

In 2008, the Best Practice in Surgery (then known as Best Practice in General Surgery or BPIGS) group undertook the development and implementation of a University of Toronto Enhanced Recovery after Surgery (ERAS) guideline for colorectal surgical patients. As part of the development of the Implementation of an Enhanced Recovery After Surgery (iERAS) program, we conducted a meta-analysis of all ERAS related interventions, conducted an audit of current

practice, conducted interviews with surgeons, anesthesiologists, nurses and residents to better understand barriers and enablers to implementation; and lastly, we held multiple workshops with key stakeholders to come to consensus on the guideline recommendations and implementation strategies. To date, the iERAS program has been successfully implemented in over 30 centres across Canada.

Based on the success of the iERAS program for elective colorectal surgical procedures, the guideline has evolved to include ERAS recommendations that are applicable to most surgical procedures. The revised guideline was developed based on a review of all ERAS guidelines for all surgical procedures as well as specific searches for each recommendation as it pertains to al surgical procedures. The recommendations were developed by the Best Practice in Surgery Committee in collaboration with the Department of Anesthesia at the University of Toronto.

Purpose of this toolkit

The purpose of this toolkit is to assist you and your hospital in implementing an Enhanced Recovery after Surgery guideline using a multifaceted knowledge translation (KT) strategy. This KT strategy may be tailored to your site and should be used as a guide. This toolkit was developed based on lessons learned over two years of implementation, as well as information provided by key stakeholders at both academic and non-academic centres. The aim of this toolkit is to mitigate many known barriers by providing strategies that have been shown to be effective in implementation ERAS.

In this toolkit, you will find:

- **A readiness assessment** that is meant to be used by your centre to help increase awareness of actions that need to be taken to ensure successful implementation and as a first step to engage all stakeholders in the implementation process.
- **An outline of the implementation process** that is meant to help your team plan out the steps that may need to be undertaken to ensure successful implementation
- **Detailed descriptions of implementation strategies** that have proven to be successful in implementing ERAS in hospitals across Ontario

Readiness Assessment

The purpose of the readiness assessment is to help you and your hospital start implementing ERAS. The purpose of the checklist is to ensure that that you have the necessary human, financial, and other resources necessary for implementation. Please complete the following readiness assessment in consultation with key staff members, who may be asked to support and champion this project within your institution.

Human resources

Required Resource	Description	Resource secured?
Surgeon Champion(s)	▪ Provides support and leadership, particularly to other surgeons ▪ Works closely with other champions and local stakeholders ▪ Time commitment: ~ 5 hours per month **Name of surgeon champion(s):** _____	❑ Yes ❑ No
Anaesthesia Champion(s)	▪ Provides support and leadership, particularly to other Anesthesiologists ▪ Works closely with other champions and local stakeholders ▪ Time commitment: ~ 5 hours per month **Name of anesthesia champion(s):** _____	❑ Yes ❑ No
Nurse Champion(s)	▪ Provides support and leadership, particularly to nurses from all departments ▪ Works closely with other champions and local stakeholders ▪ Assists with the collection of ERAS data; works closely with the surgical clinical reviewer ▪ Time commitment: ~ 8 hours per month **Name of nurse champion(s):** _____	❑ Yes ❑ No

Educational materials and tools

Required Resource	Description	Resource secured?
Education for perioperative team	▪ Each champion, separately and/or as a group, should educate and inform the perioperative team on the ERAS guideline recommendations and supporting evidence	❑ Yes ❑ No
Development of clinical pathways	▪ Consider development of clinical pathways to highlight the patients' transitions in care and to ensure consistency in care	❑ Yes ❑ No
Development of posters, reminders etc	▪ Consider developing or printing posters and reminders for both patients and staff	❑ Yes ❑ No

Administrative support and buy-in

Required Resource	Description	Resource secured?
Standardization of pre and post-operative order sets	▪ Hospital is willing to revise pre- and post-operative sets to be aligned with ERAS recommendations ▪ Dedicated person to lead the development of ERAS standardized order sets (suggest nurse champion)	❑ Yes ❑ No
Patient Education	▪ Hospital is willing to consider replacing/revising current patient education materials to include ERAS content	❑ Yes ❑ No
Implementation of key components, such as patient mobilization, diet changes and fluid management	▪ Hospital is willing to allocate resources to assist patients to sit up in bed on the day of surgery and walk on subsequent days (could be a nurse or volunteer) ▪ Hospital is willing to provide "Patient Controlled Diets" through nutrition services starting on postoperative day 1 ▪ Hospital is willing to implement intraoperative guided fluid management, including potential use of fluid monitors	❑ Yes ❑ No ❑ Yes ❑ No ❑ Yes ❑ No

Key stakeholders

It is essential to have buy-in from administration, and other key stakeholders. Please indicate the key stakeholders who are supportive and interested in implementing ERAS

Position Title	Name	Supportive & Interested in Project
Chief Nursing Executive or VP of Nursing		❑ Yes ❑ No
Division Head of Anesthesia		❑ Yes ❑ No
Chief of Surgery or Division Head		❑ Yes ❑ No
Pharmacy champion		❑ Yes ❑ No
Physiotherapy champion		❑ Yes ❑ No
Nutrition/ Dietary champion		❑ Yes ❑ No
Quality Improvement Professional or Patient Safety Manager		❑ Yes ❑ No

Implementation Process

Implementation of an ERAS guideline is an iterative and complex undertaking. A multi prong strategy is required to achieve optimal outcomes. Based on our experience, we recommend the following strategies although they may need to be tailored locally.

Step 1: Identify Champions

Identify at least one Surgeon, Anesthesia and Nurse Champion. Ideally, each surgical specialty and corresponding hospital unit should have its own ERAS champion.

Step 2: Get support from administration and other stakeholders

The Champions should communicate with administration about the program to ensure that they have the support required for implementation. See the readiness assessment checklist for suggested members of administration to contact.

Step 3: Stakeholder engagement, agreement and buy-in

Once administration has signed on, it is important to get buy in from all members of the perioperative team who will be affected by the changes presented in the ERAS guideline. It is important to discuss the ERAS recommendations and ensure that there is agreement and local consensus. All departments should receive information and education on the ERAS guideline and all stakeholders should feel part of the implementation process. Multidisciplinary grand rounds are an excellent way to educate all members of the perioperative team and provide a forum for different departments to learn about and discuss the program together. Rounds for each department may also be helpful.

Step 4: Develop local implementation strategies

As a group, the Champions should discuss which implementation strategies may be most beneficial for their staff and develop a local implementation plan. This may include rounds and in-services, active and passive dissemination of guidelines, development of strategies for disseminating and collecting the patient education booklet, and creating local care pathways and other tools such as posters. As well, during this stage, order sets should be modified to reflect the ERAS guideline recommendations and other processes should be put in place, such as identifying ERAS patients.

Step 5: Collect data and process for feedback

It is important to collect data. Collecting baseline data is essential to be able to assess progress. Thus, it is suggested to start collecting ERAS data as soon as possible. You may use any method to collect and analyze the data including NSQIP, ERAS Society database or even an excel spreadsheet.

Step 6: Identify a start date

It is important to determine a start date so that the healthcare professionals are aware of when implementation will start. A good start date is when the standardized orders have been modified.

Step 7: Monitor implementation

Once ERAS has launched, it is important to maintain interest and active implementation of the recommendations. Having regularly scheduled meetings with the Champions is essential to regularly review data, address gaps in care and develop strategies to overcome them. As well, it is important to provide continuous re-education for the staff as well as provide regular updates on the progress and lessons learned.

Implementation Strategies

Communities of Practice

Communities of practice have been described as "groups of people who share a concern, a set of problems or a passion for a topic and who deepen their knowledge and expertise in this area by interacting on an ongoing basis." They tend to include individuals with different knowledge sets and opinions who work together to set priorities and implement change. They encourage a systems viewpoint, integrate different perspectives and promote individual competence as well as team learning and building.

As part of implementing ERAS, we suggest that you also a develop a local community of practice that involves everyone who is responsible for the care of surgical patients. This may include: surgeons, ward nurses, anaesthesiologists, residents, pre-admission staff, physiotherapists, nutritionists, discharge planners, patient safety professionals and others. We suggest that these groups meet on a regular basis to discuss progress, share best practice and develop new strategies to address barriers to implementation. At the beginning of implementation, it is best to meet twice a month to discuss the status of implementation and discuss potential road black that may arise. Once ERAS has been launched, it is suggested to meet once a month as a group.

Departmental ERAS Champions

Champions and/or Opinion Leaders are people within your organization who will lead or 'champion' this initiative. They will be well-known and well-respected individuals who will assist members of their division in implementation. You will have at least one Surgeon Champion, Anaesthesia Champion, and Nurse Champion at your site. It is essential that one of the Champions, or another local designate be assigned as the local ERAS point person to liaise with the ERAS community of practice. We suggest that the nurse champion be the ERAS point person. The following are the descriptions of these roles:

Nurse Champion

- Generally, this individual will be a nurse educator
- It may be beneficial to have all surgical nurse educators in your hospital to champion the implementation to their staff

Educate and train nurses (and other staff, including clinical assistants/allied health professionals)

- Lead the implementation of key components of the guideline which are specific to nursing which includes educating staff, creating local tools and resources such as care pathways, reminder cards, posters etc
- Provide continuous education on ERAS recommendations and adapt educational and promotional materials provided by the Best Practice in Surgery

Liaise with Champions

- Assist in organizing multidisciplinary rounds at your hospital
- Liaise with Surgeons, Anaesthetists, Residents, Pain Service Professionals and Allied Health Professionals responsible for the care of these patients

Assist with data collection

- Provide assistance to the surgical clinical reviewer to collect ERAS data fields where necessary

Surgeon Champion

- It may be beneficial to have a surgeon champion representing each surgical division implementing ERAS

Educate and train surgeons and surgical residents

- Lead the implementation of key components of the guideline which are specific to surgeons
- Provide continuous education on ERAS recommendations
- Review data and lead the team to develop strategies to improve care in areas where the data show gaps in care

Liaise with Champions

- Work with all members of the perioperative team to ensure the recommendations are being followed
- Liaise with Nurses, Anaesthetists, Residents, Pain Service Professionals and Allied Health Professionals responsible for the care of these patients
- Assist in organizing multidisciplinary rounds

Anaesthesia Champion

Educate and train anaesthesiologists and anaesthesia residents

- Lead the implementation of key components of the guideline which are specific to anaesthesia
- Work with other anaesthetists and anaesthesia residents to ensure the recommendations are being followed
- Provide continuous education on ERAS recommendations

Liaise with Champions

- Liaise with Surgeons, Residents, Pain Service Professionals, Nurses and Allied Health Professionals responsible for the care of these patients

Audit Practice and Provide Feedback

Audit and feedback is a widely used strategy to improve health care practices. It is defined as "any summary of clinical performance of health care over a specified period of time given in a written, electronic or verbal format". Audit and feedback is an important element of the implementation of ERAS. Collecting data to reflect compliance as well as outcomes (e.g. adverse events, readmission rates, length of stay) can be fed back to staff to assist with increasing compliance with ERAS recommendations and changing behaviours.

Prior to implementing ERAS, it is essential to collect baseline data. Collecting information on elective colorectal patients who were treated according to standard care is important to be able to show progress. Thus, it is suggested to start collecting the ERAS data fields as soon as possible.

Standardized Order Sets

Modifying existing order sets to include guideline recommendations is another tool for improving compliance with guideline recommendations. This has been particularly effective in ensuring the appropriate use of VTE prophylaxis where compliance has been shown to increase from low levels to nearly 100% compliance. As well, standardized pre- and post-operative orders have been shown to be effective in improving compliance with various perioperative interventions. Each hospital will be responsible for changing and/or developing standardized orders to reflect the ERAS recommendations.

It is essential that all hospital documents are modified to reflect the ERAS guideline recommendations. Having standardized orders increases the likelihood for compliance as it often acts as a reminder for the healthcare teams.

Example of changes to post-operative orders

Diet

- Clear fluids given with 24 hours of surgery
- Regular diet given within 48 hours of surgery

Activity

- Mobilize patient within first 24 hours
- Mobilize patient BID starting on POD1 until discharge

Patient Education Materials

The activity log includes daily activity logs for the patient to complete each day they are in hospital. These logs are beneficial for both you and the patient. From your perspective, these logs are used to assist with collecting data and to provide feedback to staff. From the patients and families perspective, the daily logs allow them to keep track of their progress and be reminded of what is expected of them on a daily basis.