

Colorectal ERAS Clinical Pathway updates in Epic@UNC - July 2019

Based on feedback from Clinical Pathway users, the following changes have been made to the Colorectal ERAS Clinical Pathway to improve accuracy, understanding, and user experience. All changes will take place with the July 21, 2019 Epic@UNC update.

Changes can be found in two sections:

Section 1: Changes to Post-Op Order Set

Section 2: Changes to Colorectal ERAS Clinical Pathway

Section 1: Changes to Colorectal ERAS Post-Op Order Set

(note – no changes were requested to the Colorectal ERAS Pre-Op order set)

1) ***Foley removal time was specified for 8am on POD#1.***

This allows surgeons to round in the morning on POD#1 and make adjustments to orders if needed. Orders will include “trial of void” language, defaulted to the hospital’s specified language, which can be personalized by physicians to meet their preferences.

This change provides clearer direction for inpatient nurses. Previously, no time was specified so Foley removal from 0001 to 2359 was considered to be meeting the outcome of Foley Removal on POD #1.

2) ***Ensure Protein Max has been added as an option to the post-op nutrition order set.***

Literature supports high protein diets are beneficial to patients recovering from surgery. This change provides a quick option to provide added protein to patients as they recover.

3) ***For UNC Medical Center only, PCA orders will have an associated IV fluid drip order (LR @ 100 overnight) to support overnight PCA on POD#0.*** This will be discontinued when PCA discontinued.

The initial release of the order set didn’t have the associated IV fluid drip needed to support the PCA pump. This change improves ease of ordering at UNCCMC.

No change to process at Rex, as PCA not used post-operatively.

4) ***Steroid taper panel has been added as an option post-operatively (hydrocortisone IV or prednisone PO taper).***

This is commonly used at UNC Medical Center but was not present in the initial order set. This change makes ordering easier and more consistent for surgeons and residents.

NOTE: While requested, no changes were made to simplify the DVT prophylaxis section as this section is standardized within Epic and governed by an Epic@UNC clinical workgroup who is currently in the process of simplifying this section. Options for DVT prophylaxes not pertinent to the pathway will remain in this section until the Epic work group formalizes their changes.

Section 2: Changes to Colorectal ERAS Clinical Pathway

The following changes were made to the format/structure of the Clinical Pathway in Epic to improve user comprehension and ease of use.

Changes in pathway format and wording to improve usability

- 1) ***In the Perioperative section, the role of the person responsible for documenting that outcome has been added in parentheses after each outcome to signal a stopping point for that clinician.***

The “review outcomes” tab has clear spacing between roles, but previously clinicians in the “document outcomes” tab during the Perioperative step would see all outcomes in that step – including Pre-Op nursing, Anesthesia Intraoperative outcomes, and PACU outcomes. Epic’s formatting did not allow a clear divider line to be placed between sections in the “document outcomes” tab. Instead, each outcome now indicates who should document, making it easier to identify when responsibility shifts to the next clinician (see screenshots below).

Perioperative - Day of Surgery - Step 2

- Enhanced Recovery after Surgery (ERAS) plan reviewed with patient/caregiver preoperatively on day of surgery (**Pre-Op Nurse**) Met Not Met
Suggested: Suggestion based on Patient Education charting for "ERAS Pathway Pre-op"
Not Met
- Patient consumed clear carbohydrate beverage 2-4 hours prior to surgery start (Pre-Op Nurse) Met Not Met
- Patient normothermic preoperatively on day of surgery (Pre-Op Nurse) Met Not Met
- Multimodal pain medication administered as ordered preoperatively on day of surgery (Pre-Op Nurse) Met Not Met
Suggested: Examine MAR for pre-op administration of Celebrex, Acetaminophen, Gabapentin or Pregabalin.
Not Met Outcome is met if two or more are charted.
- Venous thromboembolism (VTE) prophylaxis administered as ordered preoperatively on day of surgery (Pre-Op Nurse) Met Not Met
Suggested: Examine MAR for pre-op administration of Heparin. Outcome is met if charted.
Not Met
- Antibiotic prophylaxis given in accordance with Surgical Care Improvement Project (SCIP) criteria (**AN provider**) Met Not Met
Suggested: Examine Anesthesia Record Report for administration of antibiotic prophylaxis with SCIP criteria. Outcome is met if antibiotic prophylaxis administered within 1 hour of incision start.
Not Met [View Anesthesia Record Report](#)
- Minimize administration of long acting opioids (**AN provider**) Met Not Met
Suggested: Examine Anesthesia Record Report
Not Met Outcome is met with no instance of
[View Anesthesia Record Report](#)
- Multimodal pain medications administered intraoperatively as ordered (AN provider) Met Not Met
Suggested: Examine Anesthesia Record Report
Not Met Examine Anesthesia Record Report for administration of Dexmedetomidine, Ketorolac Intra-C
[View Anesthesia Record Report](#)
- Less than or = 100mcg Fentanyl administered in PACU (PACU Nurse) Met Not Met
Suggested: Examine MAR for PACU administration of Fentanyl. Outcome is met if total is less than or equal to 100 mcg.
Not Met
- Patient normothermic throughout PACU stay (**PACU Nurse**) Met Not Met
Suggested: **Not Met** Warmer Forced Air was not applied in PACU
- IV placed at KVO (PACU Nurse) Met Not Met
- Patient tolerated fluids/solids in the PACU (PACU Nurse) Met Not Met

- 2) ***In Perioperative Step, the documentation owner of SCD outcome has been changed from the Pre-op nurse to the Anesthesia provider.***

Common workflow is for the pre-op nurse to leave SCDs on the patient's bed as they are wheeled into the OR, where they are placed on the patient intraoperatively. Since the pre-op nurse can't verify if SCDs are applied, and the intraoperative nurse does not have any other documentation responsibility in the Pathway, the Anesthesia provider will document whether the SCDs were applied during the case.

- 3) ***In Perioperative Step, the criteria for "minimization of opioids" has been changed to "Outcome MET if < or = to 100mcg Fentanyl administered in PACU"***

Common Fentanyl doses in the PACU often reach exactly 100mcg, so it was previously unclear whether the patient met the outcome if the dose administered was exactly 100mcg. This minor change makes this outcome easier to assess.

- 4) ***For POD #0/1/2/3/4/5, wording of nausea outcome changed to "patient nausea under control without the use of anti-emetic medications"***

Previously, the wording for this outcome was confusing. This change makes it easier to assess this nausea outcome.

- 5) ***For POD #0 and POD#1 "minimize opioids" outcomes, wording has been changed to "Outcome MET if patient receives no PRN IV opioids (if present, PCA is considered a scheduled medication)"***

This wording aims to clarify the presence of a PCA pump on POD#0/1 for patients at the UNC Medical Center.

Pathway usability tips based on suggestions from clinicians:

- 1) ***Reducing the size of the Document Outcome screen***

When documenting outcomes in the pathway, the first time a user opens the pathway, the pathway frame will expand to allow more viewable space. Many users don't need this much space, and can minimize the frame to normal size by clicking the double ended arrow in the upper right hand corner of this frame. The next time the document outcomes tab is opened, Epic will remember and open this tab up in the smaller frame.

- 2) ***Blank text box after clicking "Mark as reviewed"***

When a clinical pathway is opened, it first shows the Review Pathway tab. Many clinicians were confused about the blank box that pops up when you click "mark as reviewed". This blank free text box offers a user an option to enter a comment for that outcome, much as if you entered a comment when reviewing a

patient's allergies. At this time, there is no obligation to enter comments in these boxes, but please feel free to use if you feel this communication would be helpful to your colleagues.

Known Clinical Pathway limitations we are unable to change at the moment:

1) ***On POD #0, it's not intuitive to update the step end time to 23:59***

At the moment, Clinical Pathways functionality does not allow a step to end automatically at midnight, so in the meantime the end time needs to be updated manually. Several other hospitals and health systems using Clinical Pathways have also encountered this issue, and we have submitted an enhancement request to Epic for future updates. This has been a significant limitation to date, and thank you for your patience as we work with Epic to improve this issue.

2) ***Unable to pre-select the "Clinical Pathway" category when entering a variance.***

At the moment, Clinical Pathways does not allow a category of variance reasons to be pre-selected. This has been sent to Epic as an enhancement request for future updates. If a clinician takes the step of selecting the Clinical Pathway category, there are only a handful of options from which to choose.

3) ***After documenting outcomes, the stop light in the "review pathway" tab doesn't immediately refresh.***

At the moment, clinicians will need to hit F5 to refresh this screen. This is a known limitation with Clinical Pathways and has been submitted to Epic as an enhancement request.