

Evaluating Compliance with Epidurals at LVH–Cedar Crest and LVH–Muhlenberg Under the Enhanced Recovery After Surgery Protocol in Patients Undergoing Colorectal Procedures.

Neil Patel
USF MCOM-LVHN Campus, Neil.Patel@lvhn.org

Follow this and additional works at: <https://scholarlyworks.lvhn.org/select-program>



Part of the [Medical Education Commons](#)

Let us know how access to this document benefits you

Published In/Presented At

Patel, N. (2017, March). *Evaluating Compliance with Epidurals at LVH–Cedar Crest and LVH–Muhlenberg Under the Enhanced Recovery After Surgery Protocol in Patients Undergoing Colorectal Procedures*. Poster Presented at: 2017 SELECT Capstone Posters and Presentations Day. Kasych Family Pavilion, Lehigh Valley Health Network, Allentown, PA.

This Poster is brought to you for free and open access by LVHN Scholarly Works. It has been accepted for inclusion in LVHN Scholarly Works by an authorized administrator. For more information, please contact LibraryServices@lvhn.org.

Evaluating Compliance with Epidurals at LVH–Cedar Crest and LVH–Muhlenberg Under the Enhanced Recovery After Surgery Protocol in Patients Undergoing Colorectal Procedures

Neil Patel

Lehigh Valley Health Network, Allentown, PA

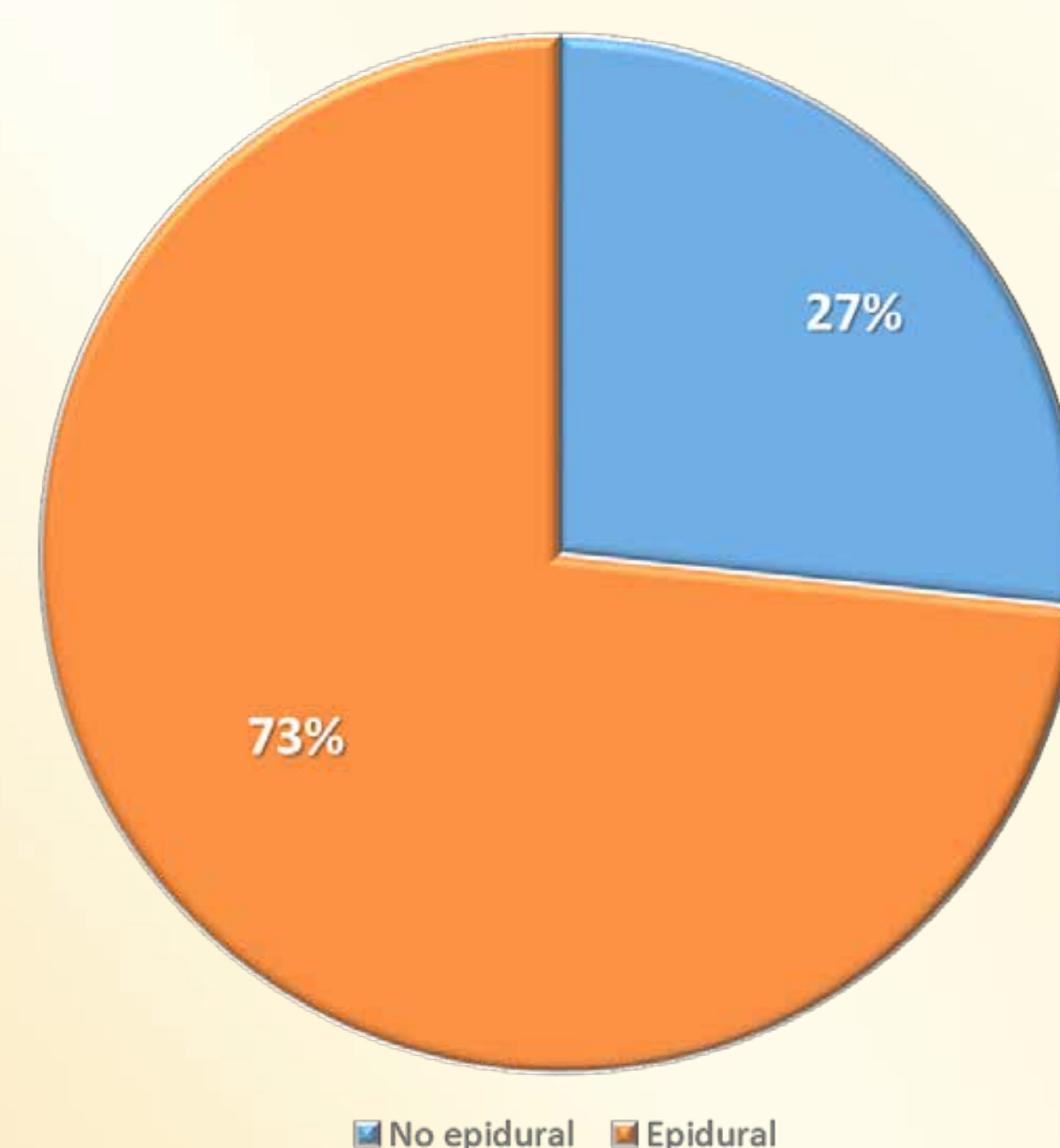
Background

- In recent years, evidence supporting the use of clinical pathways to improve post-operative recovery have had a significant impact on surgical care.
- Appropriate pain-control, oral feeding, fluid optimization, and early mobilization lead to improved outcomes.¹
- Epidural use is known to reduce pulmonary complications, reduce opioid use, decrease the incidence of deep venous thrombosis, improve bowel function, and provide effective pain relief compared with opioid pain control post-operatively.²⁻⁶
- The use of epidurals has also been found to improve overall survival in patients undergoing colon cancer surgery.⁷
- High compliance with ERAS protocols significantly improve short term outcomes in patients in comparison to lower compliance.^{8,9}
- The aim of this study is to evaluate compliance with epidural use under the ERAS protocol at LVHN-CC and LVHN-M in patients undergoing colorectal procedures.

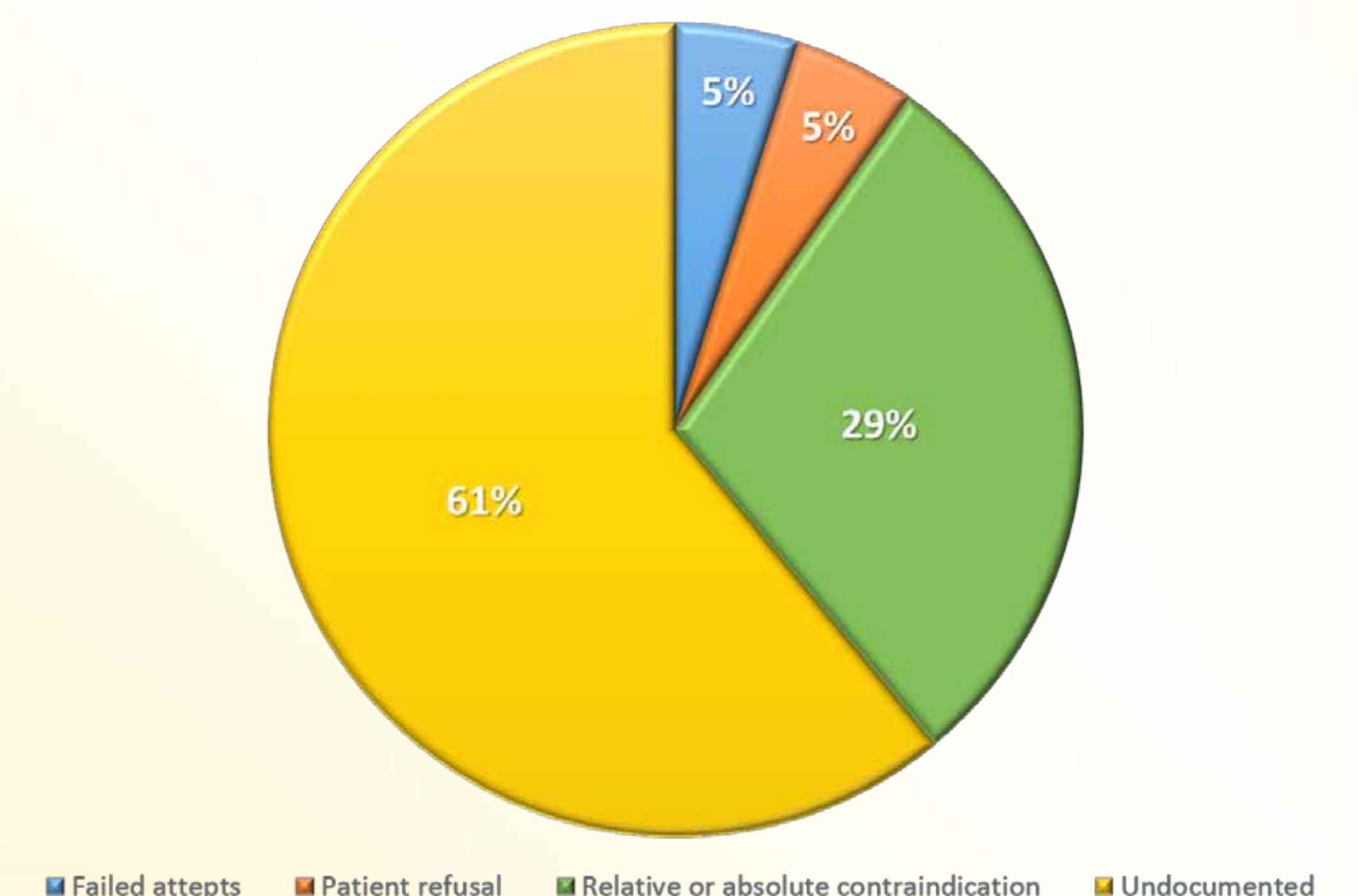
Results

- 41 of 154 patients (26.6%) included in the evaluation did not receive epidurals.
- Epidurals under the ERAS protocol are largely not placed due to four main reasons:
 - 2 failed attempts (4.9%)
 - 2 patient refusal (4.9%)
 - 12 relative or absolute contraindication (29.3%)
 - 25 undocumented reasons (58.5%)

Epidural Use for ERAS Colorectal Patients



Reasons for No Epidural



Problem Statement

- What are the factors that influence the decision-making to not place epidurals in patients undergoing colorectal procedures under the ERAS protocol at LVH–Cedar Crest and LVH–Muhlenberg?

Methodology

- A retrospective chart review was performed for patients that had colorectal procedures performed under the ERAS protocol at LVH–Cedar Crest and LVH–Muhlenberg between June 2015-June 2016.



Conclusions and Future Implications

- The use of epidurals in colorectal surgery have been evidenced to improve outcomes for patients.
- Evidence supports its use in major abdominal surgery and its use is recommended by multiple Enhanced Recovery guidelines.
- Additionally, higher compliance with ERAS protocols also improves short term outcomes for patients.
- The study revealed that the major reason for not placing epidurals is largely undocumented at LVHN, which suggests an opportunity for improvement.

References:

1. Kehlet H, and Jorgen BD. Anesthesia, Surgery, and Challenges in Postoperative Recovery. The Lancet. 2003; 362: 1921-1928. [http://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(03\)14966-5/fulltext](http://www.thelancet.com/journals/lancet/article/PIIS0140-6736(03)14966-5/fulltext). Accessed June 25, 2016.
2. Rigg J, Jamrozik K, Myles P, et al. Epidural anaesthesia and analgesia and outcome of major surgery: a randomised trial. The Lancet. 2002; 359: 1276-1282. <http://www.sciencedirect.com.ezproxy.hsc.usf.edu/science/article/pii/S0140673602082661>. Accessed October 29, 2016.
3. Khan S, Khokhar H, Nasr ARH, et al. Effect of epidural analgesia on bowel function in laparoscopic colorectal surgery: a systematic review and meta analysis. Surgical Endoscopy. 2013; 27: 2581-2591. <http://link.springer.com.ezproxy.hsc.usf.edu/article/10.1007%2Fs00464-013-2794-x>. Accessed November 20, 2016.
4. Weraawatganon T, Charuluxananan S. Patient controlled intravenous opioid analgesia versus continuous epidural analgesia for pain after intra-abdominal surgery. Cochrane Database of Systematic Reviews. 2005; 1. <http://onlinelibrary.wiley.com.ezproxy.hsc.usf.edu/doi/10.1002/14651858.CD004088.pub2/epdf>. Accessed November 20, 2016.
5. Jorgensen H, Wetterslev J, Moench S, et al. Epidural local anesthetics versus opioid-based analgesic regimens for postoperative gastrointestinal paralysis, PONV and pain after abdominal surgery (Review). Cochrane Database of Systematic Reviews. 2001;1. <http://onlinelibrary.wiley.com.ezproxy.hsc.usf.edu/doi/10.1002/14651858.CD001893/epdf/standard>. Accessed December 3, 2016.
6. Vlug SM, Jan W, Markus WH, et al. Laparoscopy in Combination with Fast Track Multimodal Management Is the Best Perioperative Surgery Strategy in Patients Undergoing Colonic Surgery. Annals of Surgery. 2011; 254 (6): 868-875. <http://journals.lww.com/annalsofsurgery/pages/articleviewer.aspx?year=2011&issue=12000&article=00007&type=abstract>. Accessed June 26, 2016.
7. Vogelaar FJ, Abegg R, van der Linden JC, et al. Epidural analgesia associated with better survival in colon cancer. International Journal of Colorectal Disease. 2015; 30: 1103-1107. <http://link.springer.com.ezproxy.hsc.usf.edu/article/10.1007%2Fs00384-015-2224-8>. Accessed October 29, 2016.
8. Currie A, Burch J, Jenkins J, et al. The Impact of Enhanced Recovery Protocol Compliance on Elective Colorectal Cancer Resection. Annals of Surgery. 2015; 261: 1153-1159. http://ovidsp.tx.ovid.com.ezproxy.hsc.usf.edu/sp-3.23.1b/ovidweb.cgi?WebLinkFrameset=1&S=EDOIFPNAGEDDPHCNCHKOFDCPHBMAA00&returnUrl=ovidweb.cgi%3f%26Full%2bText%3dL%257cS.sh.22.23%257c0%257c00000658-201506000-00020%26S%3dEDOIFPNAGEDDPHCNCHKOFDCPHBMAA00&directlink=http%3a%2f%2fovidsp.tx.ovid.com%2fovtftpdfs%2fFPDNDNCD0FPCGE00%2ffs047%2fovtft%2ffive%2fgv031%2f00000658%2f00000658-201506000-00020.pdf&filename=The+Impact+of+Enhanced+Recovery+Protocol+Compliance+on+Elective+Colorectal+Cancer+Resection%3a+Results+From+an+International+Registry.&pdfkey=FPDNDNCD0FPCGE00&pdf_index=/fs047/ovft/live/gv031/00000658/00000658-201506000-00020. Accessed October 29, 2016.
9. Cakir H, van Stijn MFM, Lopes Cardozo AMF, et al. Adherence to Enhanced Recovery After Surgery and length of stay after colonic resection. Colorectal Disease. 2012; 15: 1019-1025. <http://onlinelibrary.wiley.com.ezproxy.hsc.usf.edu/doi/10.1111/codi.12200/full>. Accessed November 20, 2016.

© 2017 Lehigh Valley Health Network